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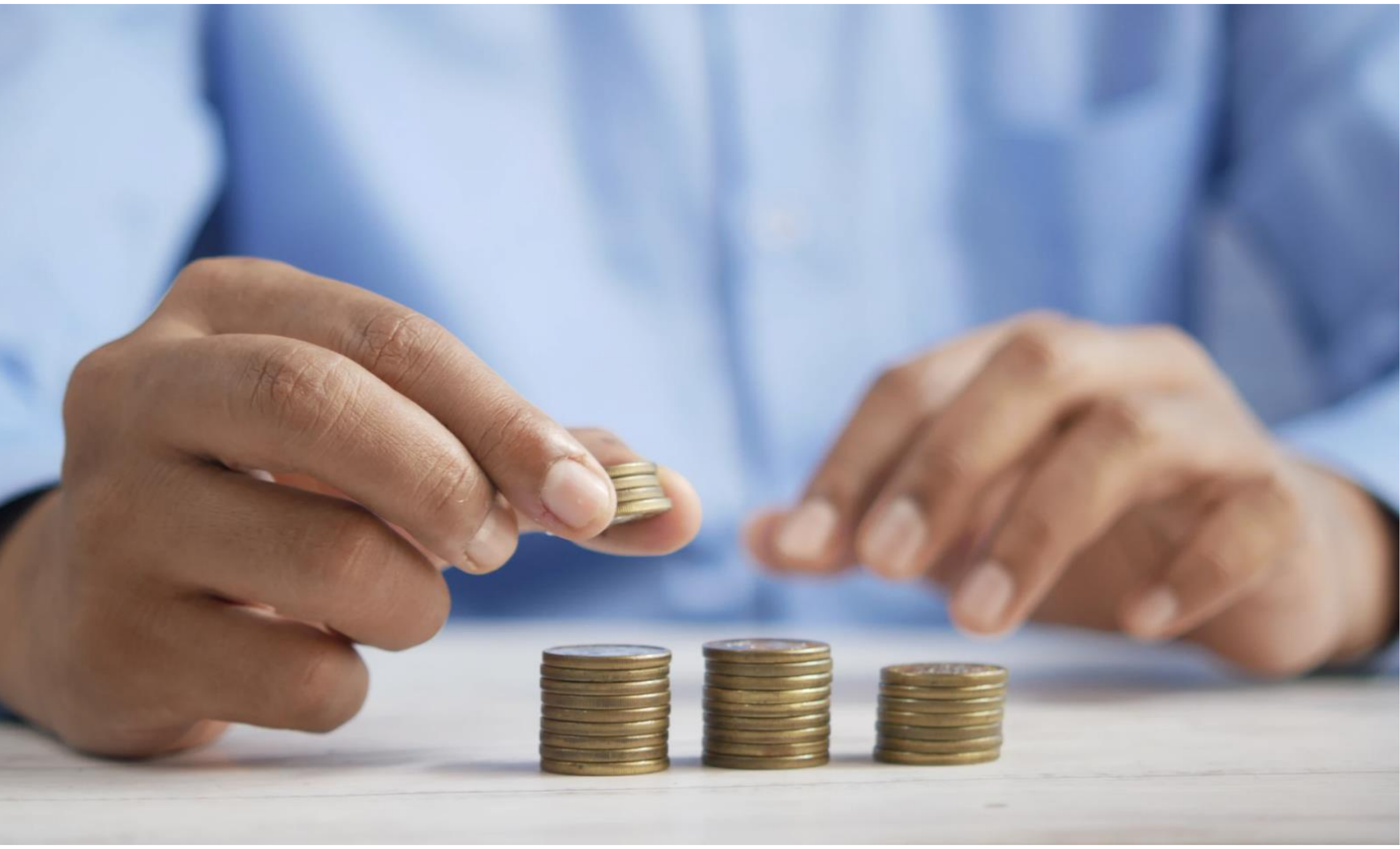

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Bibliometric Analysis of Peer to Peer Lending Fintech Trends

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Abstract
This study aims to determine the development map of research related to "peer-to-peer lending." This research was conducted in December 2021-January 2022 by searching the Scopus database. The researcher uses the keywords "fintech," "peer-to-peer lending," crowdfunding" through Scopus and also Sci-hub to get some documents that are not free. In this study, bibliometric analysis uses software called VOSviewer to analyze the results. Based on the search results, the researchers obtained 27 scientific work search results which were then exported in CSV format and processed using VOSviewer. Based on the results of the analysis, this study shows that the keywords (co-occurrence) are divided into 4 clusters with a total of 29 topics. Through network visualization, It is shown that the relationship between nodes (edges) is shown by a line between nodes. The more lines of relationship between nodes, the closer the relationship between documents. Meanwhile, the density visualization shows that if the color visualized is yellow then the topic has been studied a lot and if it is green then the topic is still rarely studied.

Keywords: Peer to Peer lending, Fintech, Bibliometric, VOSviewer

1. Introduction

The rapidly growing digital era or better known as the industrial revolution 4.0 has brought flexible mass production technology (Kagermann et al., 2013). Innovation in finance is something new to reduce costs, reduce risk or provide better products/services/instruments and better meet the demands of the financial system (Awrey, 2013). Technology has encouraged trade to grow, even helps MSMEs in running their business, supports state financial inclusion, and always innovates from year to year to develop significantly (Leng et al., 2018).

Financial technology or fintech has developed rapidly over the last decade (Chen, 2018). Fintech or often known as financial technology is defined as technology-enabled finance, an innovation that can present new business models, applications, processes, or products related to financial markets and institutions as well as the provision of financial services (Giudici et al., 2019). One of the fintech innovations includes in the field of financing, such as supply chain finance, crowdfunding, peer to peer lending which can indeed make it easier for customers to use financial services, especially in the form of loans (Tao et al., 2017). Peer to Peer lending or P2P, the most widespread form of crowdfunding, and also similar to banks where peer to peer lending can provide loans to customers (Saiedi et al., 2020). P2P lending is a means to obtain loans without having to go through a financial institution and can also be a way to get better terms than in the regular banking system (Ruiqiong & Junwen, 2019).

Research studies related to peer-to-peer lending are dominated by studies on P2P lending performance (Martínez-Climent et al., 2018; Nigmonov et al., 2021), fintech regulation (Han, 2021; Hidajat, 2020; Nasir et al., 2021), fintech crowdfunding (Darmansyah et al., 2020; Lu et al., 2021), equity crowdfunding (Cumming et al., 2021), digital finance (Bollaert et al., 2021; Lunyakov & Lunyakova, 2018), fintech user satisfaction (Dospinescu et al., 2021), P2P lending market (Wang et al., 2021), lending technology (Bartoli et al., 2013). There is research that has also penetrated into studies on the use of fintech such as peer-to-peer lending in the small and medium business sector (Abbasi et al., 2021; Ahelegbey et al., 2019; Suryanto et al., 2020; Xiang et al., 2021), peer-to-peer lending platform funding (Dorfleitner et al., 2016; Stern et al., 2017), credit scoring (Bastani et al., 2019; Duarte et al., 2012).

This study describes various theories in the field of study related to research on fintech peer-to-peer lending. To get a map of research progress, the data is exported in CSV format. The exported data is then processed and analyzed using the VOSviewer application program to find out the bibliometric map of "Fintech Peer to Peer Lending Trends."

2. Research Methodology

The Scopus search engine was used between December 2021 and January 2022 to identify literature on fintech peer to peer lending. Scopus is one of the largest databases of peer-reviewed literature, such as scientific journals, books, and conference proceedings (Yvonne, 2020). This analysis only focuses on international journals which were excavated using the Scopus search engine and also sci-hub to get some documents that are not free. But broadly speaking, this research refers to journals indexed in Scopus. In this study, the search was limited to obtaining articles that were most suitable for peer-to-peer lending. The articles obtained were published from 2018-2021.

The initial search identified publications related to peer-to-peer lending fintech research in the title, abstract or keywords: "fintech*" AND "peer to peer lending*" AND "crowdfunding*." Based on the search results, the articles obtained were 27 documents which were then exported in CSV format and processed using VOSviewer. The use of the VOSviewer device to create a visualization of the metadata that has been obtained is then processed based on the algorithms contained in the device. The terms that appear can be obtained from the key words written by the researcher in the article.

3. Data Extraction

At the end of each search, the results obtained are filtered and stored into a different marked list via Scopus used to visualize the results, categorize and rank the results. Use of VOSviewer as an application that can visualize data to create and view network maps based on the data that has been collected and used to import and clean the extracted data.

4. Analysis

Many characteristics are used to categorize and review published publications. Researchers first evaluate the discipline of study and the current state of affairs regarding citation metrics, top publications, countries or regions, research fields, and detect patterns to generate fintech research ideas related to peer to peer lending. To find published literature and links on the network, a bibliometric review was performed using the VOSviewer.

Many study trends in various fields such as information technology, fiscal, monetary, and even fintech are researched using bibliometric analysis. So that the literature related to its implementation can also be examined using a similar analysis. Network maps are also designed to examine publication connectivity through similar keywords, content shared in article titles and abstracts (co-occurrence), or co-citation frequency assessments.

5. Discussion result

5.1. Productivity of Authors and Affiliates

From the search results through the Scopus database, regarding fintech peer-to-peer lending, from 2018 to 2021, there are 27 research documents. Regarding countries that publish articles about fintech peer-to-peer lending, as many as 6 articles were written from authors affiliated with the United States. Some of the other writers came from China and Indonesia each (5 articles), England (4 articles), Russia and Australia each (3 articles), Spain and France each (2 articles), Romania, South Korea, Japan, Denmark, Luxembourg, Sweden, Brazil, Malaysia, Egypt, and Vietnam 1 article each.

Table 1: Names of countries that publish articles on “Fintech Peer to Peer Lending”

Documents by country or territory	
Country/Territory	**Documents**
United States	6
China	5
Indonesia	5
United Kingdom	4
Russian Federation	3
Australia	3
Spain	2
France	2
Romania	1
South Korea	1
Japan	1
Denmark	1
Luxembourg	1
Sweden	1
Brazil	1
Malaysia	1
Egypt	1
Vietnam	1

5.2. Map of Fintech Peer to Peer Lending

Of the 27 documents obtained from searching using the Scopus database, these documents were exported into CSV format, then inputted and bibliometric analysis was performed by creating network, overlay, and density visualizations using VOSviewer. The bibliometric network consists of nodes and edges. The nodes represented by circles can be publications, journals, researchers, or keywords; while the edge indicates the relationship between the pair of nodes. In addition, the edge not only indicates the existence of a relationship between two nodes but also shows the strength of the relationship in the form of distance. The closer the distance from one node to another, the higher the relationship between the nodes.

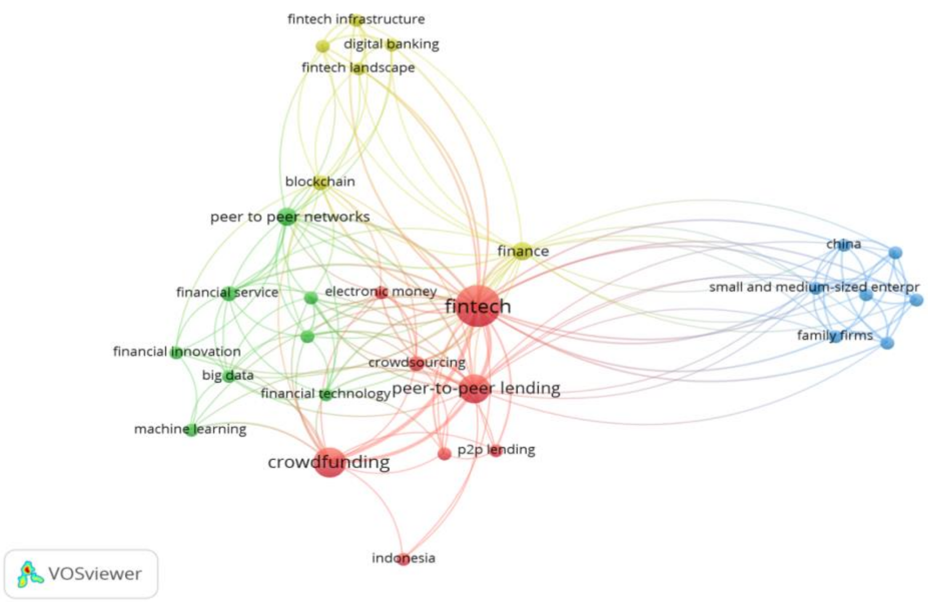

Figure 1: Network visualization of 27 documents published in 2018-2021 by title and abstract

In the visualization shown in Figure 1, each circle represents a keyword or term that appears frequently, which is obtained from the title and abstract of the article. The size of the circle indicates the number of publications related to the term, both in the title and in the abstract. Figure 1 shows that "Peer to Peer Lending Fintech Trends," divided into 4 clusters:

Table 2: Cluster Division and Items

Cluster 1 (8 items)	*crowdfunding, crowdsourcing, electronic money, equity crowdfunding, fintech, indonesia, p2p lending, peer-to-peer lending*
Cluster 2 (8 items)	*big data, financial industry, financial innovation, financial service, financial technology, machine learning, peer to peer networks, technological development*
Cluster 3 (7 items)	*china, engineering, family firms, small and medium sized, small and medium-sized entrepreneur, state owned enterprise, state-owned enterprises*
Cluster 4 (6 items)	*blokchain, digital banking, finance, fintech business models, fintech infrastructure, fintech landscape*

From the analysis results on the imported metadata into VOSviewer, an overlay visualization can be obtained. In this visualization, the color of a node represents the keyword and also the year the article was published containing that keyword. The darker the color on the node, the longer the topic will be discussed in a research. The visualization in Figure 2 below shows that topics related to fintech infrastructure, digital banking, the purple fintech landscape, were the topics discussed in 2018. The topics include finance, fintech, crowdfunding, financial innovation to peer-to-peer lending, namely nodes that are blue, green, and yellow, which is a topic that will be widely researched or discussed between the 5th month of 2018 and 2021.

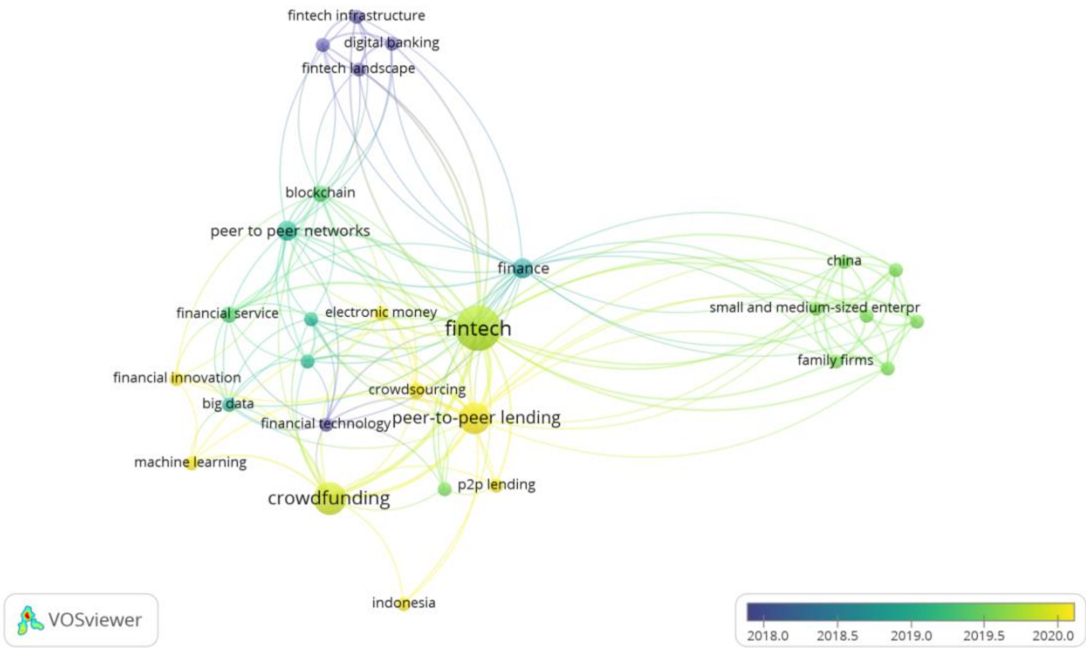

Figure 2: Overlay visualization of 27 documents published in 2018-2021

From Figure 2, the level of saturation indicated by the number of keywords that often appear can be indicated by the yellow color around the fintech label, crowdfunding. These areas are topics that have been extensively researched. Meanwhile, the topics covered in green such as: peer-to-peer lending, p2p lending, blockchain, peer-to-peer networks and more can be seen in Figure 3. These topics are those that have not been studied much. So there is still an opportunity to do research on the same topic and it is still quite broad.

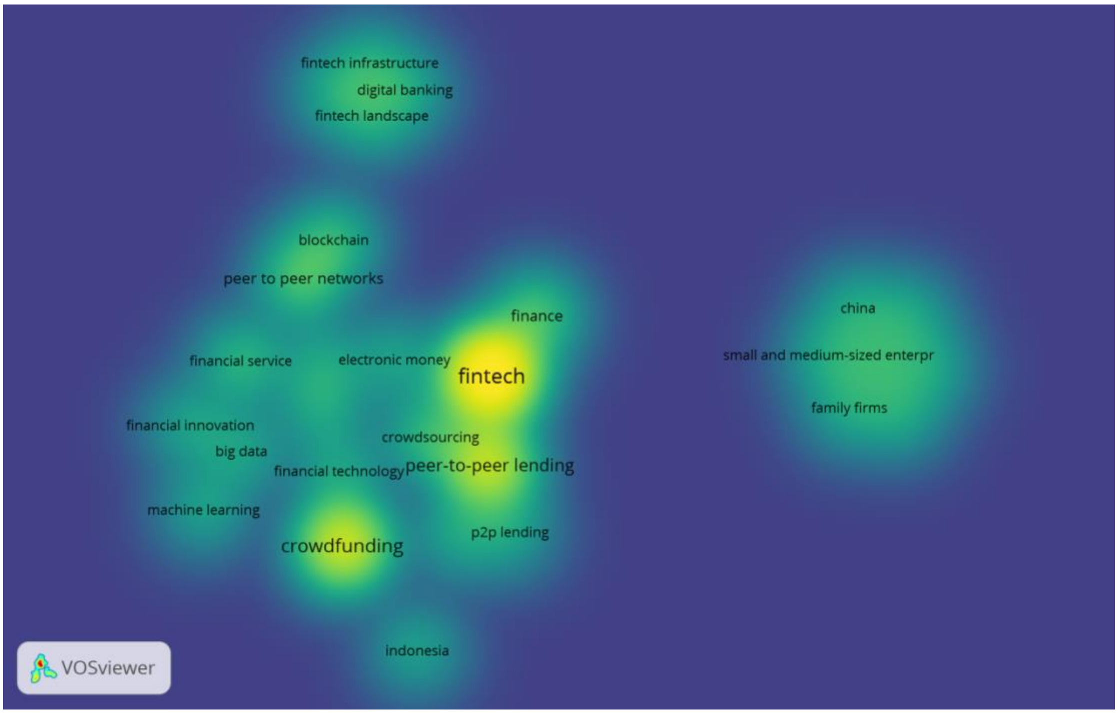

Figure 3: Density visualization of 27 documents published in 2018-2021

From the acquisition of visualizations based on titles and abstracts, researchers also performed visualizations based on *co-occurrence* with keyword choice as the unit of analysis. In this analysis, the researcher uses the full counting calculation method, intending to see the keywords that appear most often in 2018 to 2021. The results of the search obtained 83 keywords. The minimum number of keywords for the publication of each document is 2 keywords. From this analysis, 4 clusters were obtained with nodes in red, yellow, green, and blue (Figure 1).

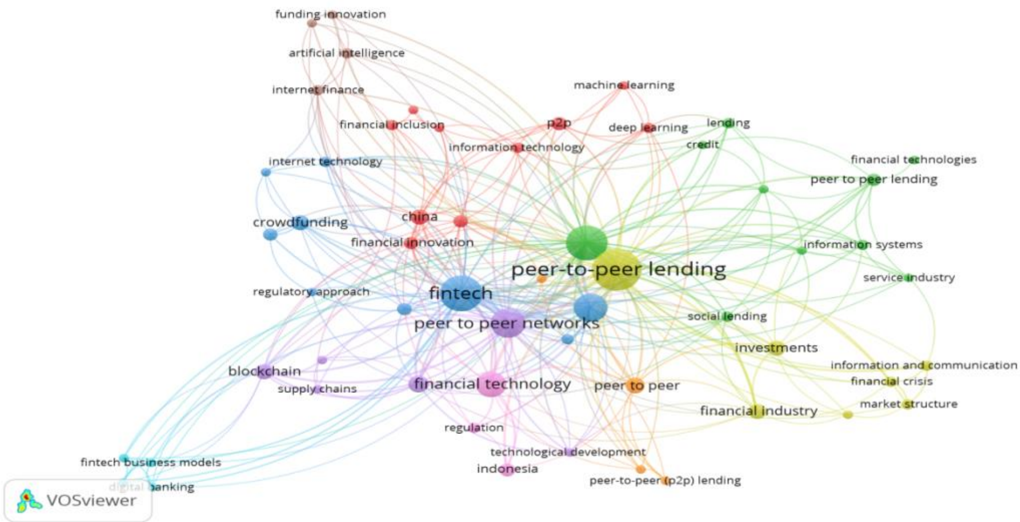

Figure 4: Visualization based on keywords

As for the visualization results shown in Figure 4, the keyword peer-to-peer lending is the largest node in size, which indicates that the keyword peer-to-peer lending is a keyword that is often used. Furthermore, keywords that are often used with a fairly large node size include fintech, peer-to-peer networks, financial technology, and crowdfunding.

6. Conclusion

This research has elaborated the mapping and clustering of research themes on fintech peer-to-peer lending from 27 documents obtained through the Scopus database published in 2018 to 2021. The United States is the country with the most publications of 6 documents, while many countries such as Romania, Korea South, Japan, Denmark, Luxembourg, Sweden, Brazil, Malaysia, Egypt, and Vietnam became the countries with the least number of publications, namely 1 document. This study provides insight into research related to fintech peer-to-peer lending in various international journals. In this study, it is focused on the co-occurence aspect or with keywords so as to allow further research that can be done by other researchers to look at other aspects, for example related to citation, bibliographic coupling,

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Macroeconomic Factors and Current Account Deficit in Indonesia

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Abstract
This study aims at investigating the relationship between macroeconomic factors and Indonesia's current account deficit (CAD). This study employed time series data with up to 42 observations from 1980 to 2021. The vector error correction model (VECM) was implemented for data analysis because it can dynamically describe the short and long-term impacts of macroeconomic variables on the CAD. It is considered that macroeconomic variables that have the potential to determine the CAD are fiscal balance (FB), growth of GDP (GRGDP), inflation (INF), a real effective exchange rate (LNREER), terms of trade (TOT), and trade openness (TRADOP). The findings show that FB has no effect on the current account in the short and long-term. Meanwhile, lag 1 GRGDP, lag 1 INF, and lag 1 LNREER has a positive effect on the current account. On the other hand, TRADOP has a negative effect on the current account at lag 1 and TOT has a long-term positive effect. This study suggests that the government should optimize and synchronize economic policies and efforts to improve the current account performance.

Keywords: Fiscal Balance, Growth of GDP, Inflation Real Effective Exchange Rate, Terms of Trade, Trade Openness, Vector Error Correction Model

1. Introduction

Since the 2008-2009 financial crisis, followed by 2010-2013 European debt crisis and the COVID-19 pandemic in March 2020, several countries, including Indonesia, have experienced external imbalances. The current account position, which reflects a country's ability to export and import goods and services, can be used to identify external imbalance indicators.

The government has consistently emphasized the sustainability of the current account as it is often used as a barometer to measure a country's ability to support international transactions. In addition, a current account is also an indicator that influences market participants' sentiment. High and continuous external imbalances (particularly account deficits) must be monitored closely because they may cause a country's exchange rate to decline (currency crisis), jeopardizing economic stability and exacerbating the burden of repaying foreign debts denominated in foreign currencies.

Indonesia frequently experiences budget and current account deficit (CAD) issues in terms of international trade. Indonesia's current account position fluctuated between surplus and deficit from 1980 to 2021. From 1980 to 1997, Indonesia's current account was in deficit but had been experiencing a surplus from 1998 to 2001. However, Indonesia experienced CAD during the 2012-2020 period. The imbalance was caused by the crisis in trading partner countries. It reduced the demand for Indonesian exports and resulted in weak export commodity prices, which increased CAD.

Due to the European debt crisis, Indonesia's export to Europe decreased from 11.77% in 2010 to 10.20% in 2013. During the 2010-2020 period, the lowest export to Europe was 10.06% in 2019. On the other hand, the domestic economy remains heavily reliant on imported goods, particularly raw materials. During the 2012-2020 period, the highest CAD occurred in 2013, reaching 3.19% of GDP. In 2014, CAD decreased by around 1% from the previous period, which was 3.09%.

The fiscal budget deficit is the cause of CAD in the trade of goods and services. This is similar with the conventional approach's twin deficit hypothesis. It states that fiscal deficit increase will also increase or burden the CAD (Salvatore, 2006). Studies on the FB factor have been conducted by several researchers (Altayligil & Çetrez, 2020; Bollano, 2015; Eita, 2019; Elhendawy, 2014; Garg & Prabheesh, 2017; Lin & Kueh, 2019; Neaime, 2015). These studies confirm the conventional approach's twin deficit hypothesis, showing that fiscal balance has a positive effect on the current account. Meanwhile, (Gossé & Serranito, 2014) found that fiscal balance does not affect the current account. The study supports the twin deficit Ricardian equivalence theory, which suggests that budget deficit and CAD have no relationship (Salvatore, 2006). According to the Mundell-Fleming approach, acceleration of budget deficit will increase CAD via saving, interest rates, capital inflows, and exchange rate variables (Salvatore, 2006).

Many researchers from various countries have been drawn to investigate the factors that influence the current account and current deficit. It was found that these factors include FB, private sector credit, oil prices, unemployment rate, consumer price index, exports and imports of goods and services, energy imports, trade openness, foreign direct investment, exchange rates, foreign direct investment (FDI), interest rates, and others.

Several studies also investigate macroeconomic factors, while others examine institutional and financial factors. Previous studies that linked macroeconomic variables to current account imbalances were conducted by (Bollano, 2015; Comunale, 2015; Cota et al., 2017; Das, 2016; Eita, 2019; Eita et al., 2018; Elhendawy, 2014; Gehringer, 2012; Gruber & Kamin, 2007; Gudmundsson & Zoega, 2014; Kim & Lee, 2008; Lin & Kueh, 2019; Neaime, 2015; Nyongesa & Mohamed, 2013; Oshota & Badejo, 2015; Yang, 2011). Meanwhile, according to (Altayligil & Çetrez, 2020; Chinn & Ito, 2007; Marzinotto, 2020; Putri, 2021; Schmitz & Hagen, 2011), current account determinants can be concluded by incorporating macroeconomic, institutional, and financial factors.

Referring to (Altayligil & Çetrez, 2020), the macroeconomic variables that can be used to determine current account imbalances include FB, GRGDP, INF, LNREER, TOT, and TRADOP. An increase in GRGDP will encourage goods exports to increase and it will increase the current account (narrowing the CAD). According to (Das, 2016), GRGDP has a positive effect on current account balances. The study divided the countries into three groups (developed, emerging, and developing economies) and a positive effect was found in emerging countries. The finding is similar to (Ugwu et al., 2021) and(Yurdakul & Cevher, 2015). (Altayligil & Çetrez, 2020) also found a positive sign of GRGDP in industrialized countries and a negative effect in high-income countries.

Inflation is another factor that can affect the current account as low inflationary pressure indicates macroeconomic stability and encourages capital inflows, which can increase the exchange rate. It is also explained that the appreciation of the domestic currency exchange rate reduces the value of exports by increasing the price of exported goods abroad, resulting in a decrease or widening of the CAD. On the other hand, (Altayligil & Çetrez, 2020) discovered that inflation positively influenced the current account, particularly in developing countries.

Meanwhile, inflation has a negative effect on the industrialized countries' current accounts. It was also revealed that inflationary factors negatively influenced on the current account (Caliskan & Dilek, 2015).

According to the Mundell-Flemming approach's conventional hypothesis, the exchange rate factor can influence current account. Real effective exchange rate increase or an appreciation of the exchange rate reduces the value of exports and causes a trade balance deficit, increasing or decreasing the CAD. Several studies also found that the real effective exchange rate negatively influenced on the current (Altayligil & Çetrez, 2020; Das, 2016; Gossé & Serranito, 2014) and a study found the opposite (Yurdakul & Cevher, 2015). Meanwhile, (Garg & Prabheesh, 2017) found that a real effective exchange rate has no impact on the current account, whereas, in the short run, it has a negative effect.

Another current account determinant is a term of trade (TOT) whose increase will influence the value of exports so that the current account will also increase. TOT's positive effect on current accounts was discovered by (Altayligil & Çetrez, 2020). On the other hand, (Hicham, 2019) revealed that TOT has no effect on current accounts in the full, high, middle, and low-income countries groups.

It was also found that the increase in trade openness will also increase export and import activities. Trade openness is defined conceptually as the removal of barriers to international trade through the elimination or reduction of tariffs and the increase of quotas. According to (Altayligil & Çetrez, 2020), trade openness has a negative effect on the current account. On the other hand, (Das, 2016; Romelli et al., 2018; Yurdakul & Cevher, 2015) concluded that the degree of economic openness positively influenced the trade balance and current account.

It can be inferred that there are result differences between the previously mentioned studies regarding the effect of macroeconomic variables on a current account. Hence, this study was conducted to confirm the effect of macroeconomic variables on a current account. Unlike (Lin & Kueh, 2019) who investigated ASEAN-6, the sample of this study is limited to a case study in Indonesia with 42 observations from 1980 to 2021 using a dynamic vector error correction model (VECM).

The goal of this study is to investigate the influence of fiscal balance (FB), growth of GDP (GRGDP), inflation (INF), a real effective exchange rate (LNREER), term of trade (TOT), and trade openness (TRADOP) on a current account. In this case, two study hypotheses were formulated. First, it is assumed that FB, GRGDP, INF, LNREER, and TOT have a positive effect on CAD. Second, it is hypothesized that TRADOP has a negative effect on CAD. By understanding the relationship and the influence of the CAD determinants, it is hoped that the government will coordinate policies and efforts to reduce CAD.

2. Method

This study employs quantitative methods. The data were time series from 1980 to 2021, with a total of 42 observations. The data were obtained from the Central Bureau of Statistics (BPS, *Badan Pusat Statistik*), World Bank (World Development Indicators), and International Financial Statistics. Next, the data in this study were analyzed employing EViews version 10 software.

Based on the hypotheses, the research model's specifications are as follows:
CA = f (FB, GRGDP, INF, LNREER, TOT, TRADOP)
Variables information and measurements are defined as follows:

Table 1: Variables and Measurement

Variable	Measurement
Current account deficit (CAD)	Current account balance, % of GDP
Fiscal balance (FB)	Fiscal balance, % of GDP
Growth of GDP (GR_GDP)	GDP growth (annual %)
Inflation (INF)	Inflation, consumer prices (annual %)

Real effective exchange rate (LNREER)	Natural real effective exchange rate logarithm $$REER = ER\ x \frac{INF\ DN}{INF\ LN\ (USA)}$$ Explanation: ER = exchange rate INF IDN = domestic inflation (Indonesia) INF USA = imported inflation (USA)
Term of trade (TOT)	The ratio of the price of exportable goods to the price of importable goods is represented by the terms of trade (TOT). $$TOT = \frac{PX}{PM} x100\%$$ Explanation: PX = export price index PM = import price index
Trade openness (TRADOP)	$$TRADOP = \frac{X + M}{GDP} x100\%$$ Explanation: X (% of GDP) = export (percentage of GDP) M (% of GDP) = import (percentage of GDP)

The time series vector error correction model (VECM) was used in this study. VECM was adopted to examine the long-term and short-term relationships between the independent and the dependent variables. The model was a restricted form of vector autoregression (VAR) because the data was cointegrated rather than stationary. Before VECM was employed, several procedures were conducted including testing the data stationarity, determining the optimal lag, and performing a cointegration test. It is explained that if the data is not stationary, the process is continued by developing a VECM model that will be tested for feasibility (Gujarati, 2009).

The following are the stages of a VECM analysis:
1. Stationarity test
2. Optimal lag determination test
3. Vector autoregression (VAR) stability test
4. Cointegration test
5. VECM test

2.1. Stationarity Test

The data stationarity test uses a unit root test to analyze the data unit roots. Non-stationary data is defined as having unit roots in the variable. Furthermore, the unit root test can be used to determine the order of integration to know the number of differentiation tests to be taken to make the data stationary. The Augmented Dickey-Fuller test (DF) test is one of several unit root test methods that are widely used.

The following is the stationarity test hypothesis:
H_0: $\delta = 0$ (unit root was found or Yt time series data is not stationary)
H_1: $\delta \neq 0$ (unit root was not found or Yt time series data is stationary)
If the p-value is higher than 5%, H_0 is accepted or the data is not stationary. On the other hand, if the p-value is lower than 5%, H_0 is rejected or the data is stationary. In this step, Augmented Dickey-Fuller (ADF) test was conducted using EViews software.

2.2. Optimal Lag Determination

Optimal lag determination is a method for concluding the lag length in a study before conducting the cointegration, Granger causality, VAR, and VECM tests. The determination of optimal lag is a critical step in the VAR model because the goal of the model is to see the behavior and relationship of each variable in the system. The Akaike information criterion (AIC) is one of the most common methods for determining lag length, with the lowest AIC value obtained from the VAR estimation results with various lags indicating the best lag length to use. To achieve better results or avoid autocorrelation, the optimal number of lags must be chosen.

2.3. Vector Autoregression (VAR) Stability Test

The stability of the VAR must first be tested before progressing with further analysis. The VAR Stability test is performed by calculating the polynomial function's roots. If all of the roots of the polynomial function have an absolute value (modulus) less than one, the VAR model is said to be stable.

2.4. Cointegration Test

To continue the analysis of non-stationary time series data, the cointegration test is conducted. The cointegration test is based on the fact that some time series data can deviate from the average in the short term and they cannot deviate from the equilibrium in the long term (comovement or cointegration). For a longer period, the data is approaching a state of equilibrium in the long term and if several variables are moving together in the long term in the same order, the variables in the model can be considered to be cointegrated.

According to the economic interpretation, cointegration concerns with a long-run equilibrium where economic system intersects over time. If there is a shock in an economic system, there are forces that encourage the economy to recover to its equilibrium state in the long term.

There are several cointegration test approaches, such as Engel and Granger (1987), Johansen and Juselius (1990), and Johansen (1991). However, the Johansen approach is the cointegration test approach that is frequently used in the VECM method. The following are the hypotheses of Johansen's cointegration test:
H_0: $r = r^* < k$ (no cointegration relationship)
H_1: $r = k$ (cointegration relationship exist)

Analyzing the Trace statistics and the Max-Eigen statistics values and comparing them to each of the critical values can be done to determine the result. If the critical value at 1%, 5%, or 10% is higher than the Trace statistics or the Max-Eigen statistics values, the null hypothesis is accepted. On the other hand, the null hypothesis is rejected if the critical value at 1%, 5%, or 10% is lower than the Trace statistics and the Max-Eigen statistic values. In this study, the null hypothesis was not accepted, indicating that the equation under consideration has a cointegration relationship. Another method for analyzing the result is by examining the probability of each statistic. The null hypothesis is rejected if both values are lower than the critical value (1%, 5%, or 10%). If the Johansen approach test result shows that there is a cointegration relationship in the variable equation, VECM can be used to determine the long-term and short-term relationship. However, if the Johansen approach test result shows that there is no cointegration relationship in the variable equation, the method used is unrestricted vector auto-regression (Unrestricted VAR) rather than VECM.

2.5. Vector Error Correction Model (VECM) Test

The short and long-term connection between the independent and the dependent variables will be determined by the VECM test results. In this case, a t-test can be used to determine the significance of an effect by comparing $t_{statistic}$ to t_{table}. If $t_{statistic}$ is higher than t_{table}, it implies that the independent variable significantly influences the dependent variable. On the other hand, the model's feasibility can be tested by comparing p-values. If the p-value is higher than 0.05, the null hypothesis is accepted. It means that there is no residual autocorrelation or that the optimal lag has met the model's feasibility. The result of the long-term causality relationship analysis between the independent and the dependent variables of the VECM can be seen in the error correction term (ECT) coefficient, which is based on the sign and the results of the coefficient significance test using the ordinary least square (OLS) method.

3. Results

The results of the data stationarity test are shown in table 2.

Table 2: Stationarity Test Result

Data	P-Value	The Stationarity
CAD	0.0000***	1st Difference
FB	0.0000***	1st Difference
GRGDP	0.0000***	1st Difference
INF	0.0000***	1st Difference
LN REER	0.0000***	1st Difference
TOT	0.0000***	1st Difference
TRADOP	0.0000***	1st Difference

Source: processed data

Notes: CA= Current Account to GDP, FB=Fiscal Balance to GDP, GRGDP=Growth of Gross Domestic Product, , INF = Inflation,
LNREER= Log. Natural Reel Effective Exchange Rate (USD/Rupiah), , TOT= Terms of Trade , TRADOP= Trade Openess
The sign*, **, and *** indicate significance at the level of 10%, 5%, and 1%, respectively

The stationarity test shows that all variables are stationary in the first difference and significant at the 1% level. The next stage is to determine the optimal lag and the results can be seen in Table 3.

Table 3: Optimal Lag Result

Lag	LogL	LR	FPE	AIC	SC	HQ
1	-600.7304	NA	1725417.	34.19634	36.30796*	34.94764*
2	-546.2470	68.82118*	1618536.	33.90774	38.13099	35.41034
3	-479.7650	59.48393	1323668.*	32.98763*	39.32250	35.24153

Source: processed data

At the 5% level, the lag length was calculated using sequential modified LR statistics, final prediction error (FPE), Schwarz information criterion (SC), Akaike information criterion (AIC), and Hannan-Quin information criterion (HQ). The optimal lag was determined by choosing the most sequential modified LR test statistics or the fewest FPE values, AIC, SC, and HQ. Because there are three significant criteria, the maximum lag length used in this study is the third lag. Optimal lag length test results can be seen in Table 3. The results of the VAR stability are presented in Table 4.

Table 4: VAR Stability Test Result

Root	Modulus
-0.324145 - 0.760605i	0.826795
-0.324145 + 0.760605i	0.826795
0.112069 - 0.723817i	0.732442
0.112069 + 0.723817i	0.732442
-0.154846 - 0.671492i	0.689114
-0.154846 + 0.671492i	0.689114
0.364800 - 0.473700i	0.597888
0.364800 + 0.473700i	0.597888
-0.596008	0.596008
-0.406207 - 0.432947i	0.593672

-0.406207 + 0.432947i	0.593672
-0.170204 - 0.471232i	0.501028
-0.170204 + 0.471232i	0.501028
0.298903	0.298903

Source: processed data

VAR satisfies the stability condition.

These findings show that VAR is in a stable state because its modulus value is lower than one. Furthermore, Table 5 below is the result of the cointegration test.

Table 5: Cointegration Test Result

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.957963	256.3639	111.7805	0.0000
At most 1 *	0.657274	135.9338	83.93712	0.0000
At most 2 *	0.573932	95.24251	60.06141	0.0000
At most 3 *	0.419836	62.82258	40.17493	0.0001
At most 4 *	0.367893	42.13372	24.27596	0.0001
At most 5 *	0.282594	24.70324	12.32090	0.0003
At most 6 *	0.272376	12.08291	4.129906	0.0006

Trace test indicates 7 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Based on the Johansen cointegration using trace test, seven cointegration equations were found. It is because the trace statistics value was higher than the critical value of 5% or the p-value was lower than 0.05, implying that the alternative hypothesis is accepted, as shown in Table 5.

From the Johansen cointegration test result, it was revealed that the equation contains a cointegration relationship and that the variable is stationary at the 2nd difference. This result allowed the VECM method to be taken to determine long-term and short-term relationships. Table 6 presents the VECM variables calculation results.

Table 6: VECM Estimation Results

Short-term		
Variabel	Coefficient	t-Statistic
CointEq1	-0.735817	-3.805838
D(CA(-1),2)	0.229612	0.545963
D(CA(-2),2)	-0.013758	-0.035793
D(FB(-1),2)	-0.287023	-0.704347
D(FB(-2),2	-0.304841	-1.441852
D(GRGDP(-1),2)	0.631570	2.291789**
D(GDP(-2),2)	-0.019265	-0.104422
D(INF(-1),2)	0.368417	2.356548**
D(INF(-2),2)	0.065746	0.781968
D(LNREER(-1),2)	0.288516	2.435119**
D(LNREER(-2),2)	0.068239	0.666421
D(TOT(-1),2)	0.043284	0.586728
D(TOT(-2),2)	-0.015062	-0.273607
D(TRADOP(-1),2)	-0.200119	-2.447813**
D(TRADOP(-2),2)	-0.026264	-0.400576

Long-term		
Variabel	Coefficient	t-statistik
FB(-1)	-0.371370	-1.95775
GDP(-1)	1.242490	10.5944**
INF(-1)	0.962750	16.4420**
REER(-1)	0.298053	3.35641**
TOT(-1)	0.050563	2.15285**
TRADOP(-1)	-0.531006	-16.9587**

Source: processed data

* Signifikan pada level 5% (critical value 1-tailed = 1.70329)

As presented in Table 6, four variables significantly affected the current account in the short-term, namely GRGDP at lag 1, INF at lag 1, LNREER at lag 1, and TRADOP at lag 1. However, it was found that the current account was unaffected by FB and TOT. Furthermore, except for FB, it was revealed that GRGDP, INF, LNREER, TRADOP, and TOT affected current accounts in the long run, particularly in lag 1.

4. Discussion

Table 6 presents four variables that have a significant effect on the CAD in the short term, including the error correction term (ECT). It was revealed that the four variables are significant at the 5% (1-tailed) level, with t_{table} of 1.70329. GRDP at lag 1, INF at lag 1, LNREER rate at lag 1, and TRADOP at lag 1 are the four variables. CAD is unaffected by FB or TOT. Furthermore, the significant error correction parameter demonstrates the existence of a mechanism for shifting from short-term to long-term balance. ECT value of 0.735817 indicates that short-term balance fluctuations will be corrected towards long-term equilibrium, with approximately 73.58% of the adjustment process occurring in the first year and the remaining 26.42% occurring in the following year. In the long-term, five variables have a significant effect on the CAD, which are GRGDP at lag 1, INF at lag 1, LNREER at lag 1, TOT at lag 1, and TRADOP at lag 1.

FB does not affect the CAD, both in the short-term and long-term. This finding does not support the conventional approach of the twin deficit hypothesis predicting that an increase in the government's deficit (budget) will increase the CAD. On the contrary, this finding supports the Ricardian equivalence hypothesis (REH) stating that CAD has no relationship with a budget deficit (Salvatore, 2006). This method demonstrates that the shifting of taxes and budget deficit does not affect real interest rates, investment, or current account balance. Due to the future tax burdens, reducing or cutting current taxes or increasing government spending will not affect the current consumption and investment. As a result, savings will grow to cover the increased future taxes. This finding also supports Gossé & Serranito (2014) who found that FB does not affect the current account.

GRGDP at lag 1 has a positive impact on the CAD both in the short and long-term. This finding also supports Altayligil & Çetrez (2020), Das (2016), Ugwu et al. (2021), Yurdakul & Cevher (2015). This positive effect indicates that economic growth based on energy and raw material imports will increase CAD.

It was found that INF at lag 1 positively influenced CAD, both in the short and long-term. This finding supports Altayligil & Çetrez (2020), especially in developing countries and full samples. High inflation will reduce competitiveness in foreign markets because the prices of export products are relatively more expensive so the value of exports will decrease and have an effect on increasing the CAD.

LNREER at lag 1 has a positive effect on the current account, both in the short and long-term. As a result, this finding supports Yurdakul & Cevher (2015). An increase in the real effective exchange rate indicates currency appreciation that can widen the trade balance deficit by increasing the value of imports while decreasing the value of exports, thus increasing the CAD. Similarly, a decrease in the real effective exchange rate indicates a depreciation of the currency that can narrow the trade balance deficit by increasing the value of exports and decreasing the value of imports, reducing CAD.

TOT at lag 1 does not affect CAD in the short-term. This finding also supports Hicham (2019). However, TOT has a long-term positive effect on CAD, which supports Altayligil & Çetrez (2020) who found that an increase in terms of trade increases CAD. If the export price rises concerning the import price, the term of trade value exceeds 100%. These results imply that that a country earns more in export than it spends on imports. On the other hand, a higher TOT will encourage more imports, particularly energy and raw materials. The high reliance on imported goods will exacerbate CAD.

This study also revealed that TRADOP has a negative long and short-term effect on the CAD, which supports Altayligil & Çetrez (2020). Trade openness reflects a reduction in policies that obstruct international trade, typically through lower tariffs or higher quotas. Trade openness also makes it easier for people to migrate internationally, and capital moves more freely between countries. According to the findings, trade openness has a negative effect on the CAD. This can be caused by a greater outflow of capital than the inflow of capital, causing the domestic currency to depreciate and the price of export goods to fall while the price of imported goods rises. This condition can potentially improve the trade balance and reduce the CAD.

Based on the discussion above, the following are the conclusions of the study:

1. High and continuous external imbalances (particularly account deficits) must be monitored closely because they may cause a country's exchange rate to decline (currency crisis), jeopardizing economic stability and exacerbating the burden of repaying foreign debts denominated in foreign currencies.
2. Fiscal Balance (a budget deficit) does not affect the current account deficit (CAD) in the short and long term. Tax reductions will not increase disposable income because the tax cuts are only temporary. Consequently, the current change in taxes does not affect current consumption and thus has no impact on aggregate demand. In addition, the decrease in government saving due to the tax reduction will be compensated by an increase in private saving by the same amount so that national saving is not affected. As a result, interest rates remain unchanged and there is no flow of capital. Consequently, there will be no effect on the current account deficit.
3. The positive influence of economic growth on increasing CAD in the short-term and long-term implies that economic growth will encourage increased imports. Imported-goods-based economic growth will exacerbate the current account deficit, which implies the significance of import substitution. Therefore, more domestic raw materials must be used in manufacturing activities.
4. Inflation has a short and long-term positive effect on CAD. This demonstrates that high inflation reduces competitiveness in foreign markets because the price of export products becomes relatively expensive. As a result, it will lower the value of exports and increase CAD. In this case, a tight monetary policy is important to control inflation. Furthermore, it is critical to maintain the supply of goods and strictly control the distribution of goods.
5. Real effective exchange rate positively influenced CAD on both terms. This exemplifies that an increase in the real effective exchange rate tends to make export goods more expensive and thus increase CAD. Therefore, it is critical to optimize the policy mix strategy to maintain exchange rate stability. For example, Bank Indonesia can intervene on the spot by selling foreign currency, strengthen international policies by expanding cooperation with central banks and other partner country authorities, and facilitate the implementation of investment and trade promotions in collaboration with relevant agencies.
6. Term of trade positively influenced CAD on the long-term. An increase in trade terms indicates a greater ability to pay for imported goods. On the other hand, increased trade terms will also encourage more imports. If export income is low, high reliance on imported goods will exacerbate CAD. As a result, it is critical to increase the quantity of high-value-added exports relative to commodity exports, which frequently experience price fluctuations in foreign markets.
7. Trade openness has a negative effect on CAD in the short and long-term. This can be caused by a greater capital outflow than capital inflow, causing the domestic currency to depreciate and the price of export goods to fall while the price of imported goods rises. These conditions can boost the trade balance and help to reduce CAD.

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The Development of the Cracker MSME Cluster in Garut Regency, Indonesia

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Abstract
Garut Regency is developing the UMKM cluster to support the Indonesian government's program to improve the UMKM industry. This study describes developing a cracker MSME cluster framework in Garut Regency. The qualitative method was carried out through an interview with the head of the cracker center community in Garut Regency. The data were then analyzed using a reduction technique which was then tested for validity through triangulation. The results showed that the infrastructure, the location of the cracker center, the lack of consumer convenience, the low capital financing, and the competitiveness of product marketing had a moderate level of competence, which indicated that the existing entrepreneurial competencies were quite good for their business. This research implies that it can be considered in developing the cracker UMKM cluster, making it the first cluster in Garut Regency.

Keywords: Cluster Industry, Small-Medium Enterprises, Cluster Development, Entrepreneurial Competencies

1. Introduction

1.1 Research Background

The number of MSMEs in Indonesia in 2023 will reach more than 67 million units, of which 98.67% are small businesses, and the rest are medium enterprises. The Indonesian government fosters MSMEs through the cooperatives and MSME Offices in each Province or Regency/ City. As a vital component of the national economy, genuine efforts are needed to build larger economies of scale through consolidation and integration among micro-enterprises. Therefore, the correct consolidation pattern is needed to create synergies for developing micro-enterprises. Through the concept of clustering, it will be easier and more efficient for business actors to obtain empowerment and information to increase the scale of the business production capacity (Raghuvanshi & Garg, 2022). In addition, within the framework of strengthening micro-enterprise institutions, assistance is needed so that the business cluster becomes "upgrading." That is also supported by digitalization which makes business processes more efficient, secure, sophisticated, and fast (Alamanda et al., 2019).

The research results by Timothy (2022) showed that the classic problem faced is low productivity. This situation is caused by internal problems faced by MSMEs, namely:

1. the low quality of MSME human resources in management, organization, mastery of technology, and marketing;
2. weak entrepreneurship of MSME actors; and
3. limited access of MSMEs to capital, technology, market information, and other factors of production.

Meanwhile, the external problems commonly faced by MSMEs include the significant transaction costs due to the unsupportive business climate and the scarcity of raw materials.

Government policies in the future need to be made more conducive to the growth and development of MSMEs. The government needs to increase its role in empowering MSMEs, developing mutually beneficial business partnerships between prominent and small entrepreneurs, and improving the quality of their human resources. So the effort to develop the MSME cluster is a stabilizer and dynamist of the economy because MSMEs have better performance in the workforce, increase productivity, and can keep up with the prospects of big business (Raghuvanshi & Garg, 2022).

1.2 Research Problem

The cracker center in Garut Regency faces many obstacles; besides the need to ensure the availability of raw materials, and other supporting materials, other problems are as follows. Inadequate road infrastructure and demanding access to accommodation reduce consumer comfort; the lack of additional capital financing during production has resulted in many cracker craftsmen making loans to moneylenders; then, the limited product marketing due to competition from other cheaper regional products and the rise of counterfeit products. This study aims to identify the internal problems faced in developing the cracker UMKM cluster in Garut Regency based on these problems.

1.3 Literature Review

1.3.1 Cluster Industry Development in Indonesia

The concept of a cluster was first introduced by Porter (1998) by introducing the concept of industrial cluster in his book "The Competitive Advantage of Nation" as a policy to increase the competitiveness of the United States of America. Clusters are groups of interrelated industrial businesses, and clusters have two key elements, namely: (1) companies in the cluster must be interconnected and (2) located in a place that is close to each other that is easily recognized as an industrial area.

Competitiveness between MSME sectors is influenced mainly by intangible resources (Castillo et al., 2019), which are difficult to imitate by competitors, demand conditions followed by company strategy, structure and competition, and related institutions. These intangible resources include intellectual resources (knowledge packages, human capital, and information) (Castillo et al., 2019). According to Ghouri et al. (2021), a well-competitive downstream industry contributes to the traditional four main competitive priority dimensions: cost, flexibility, quality, and delivery.

Clusters have become common in developing countries and various business sectors (Castillo et al., 2019). Traditional and natural resource-based industries are the most abundant in Asian countries (Yilanci et al., 2021). Historically, these clusters engaged in activities traditionally intended for local use. Clusters are widespread in many South and East Asian countries (Kowalski & Mackiewicz, 2021). Utami et al. (2022) show that active agribusiness clusters have a strategic role in the long-term transformation process in the economy in the food sector.

The MSME cluster is a particular form of industrial organization and entity that has attracted the attention of researchers from various perspectives (Aldianto et al., 2020). MSMEs, which generally produce traditional products and are located in specific geographic concentrations, have been well cared for in developed and developing countries (Ghouri et al., 2021). The MSME business cluster development approach has been recognized globally for its role in driving economic progress and maintaining competitive advantage (Ramesh et al., 2022) during the global competition.

The Porter model cluster approach is a development of the industrial district or industrial area developed by Alfred Marshall in 1920 (Porter, 1998). Unlike Marshall, which only focuses on similar companies, Porter's cluster model does not limit it to just one industry but is broader (Desrochers & Sautet, 2004). The industry concentration in a specific location can impact cost savings for cluster companies (localization economies). These savings can come from the increased availability of specialized input suppliers and services; the addition of a trained and specialized workforce; public infrastructure investments made for specific industry needs; financial markets that are closely linked to the industry; and the increasing trend of transfer of information and technology between companies (Alamanda et al., 2019).

Various views on cluster development in small businesses are still being debated (Tambunan & Supratikno, 2004). Many analyzes related to general factors and their influence on cluster development have been carried out, but studies have not provided a definite model for implementing cluster success (Shakib, 2020). Castillo et al. (2019) assert that although there is a consensus that clustering is necessary, tools and approaches are insufficient to study cluster performance. Outputs, indicators, and approaches to measuring cluster performance do not exist in the literature. Dhewanto et al. (2013) also state that although many examples of successful clusters have been formed, the framework or formula for cluster success is not yet available.

Like in other developing countries, the development of MSME clusters in Indonesia faces various obstacles. Tambunan & Supratikno (2004) states that the failure to develop MSME clusters in Indonesia is due to the non-optimal handling of one or more critical success factors of cluster development. One or more factors are essential for the successful development of the MSME cluster. Unconsidered cluster-to-market links were one of the main reasons for failure.

Rothenberg et al. (2016) state that the development of MSME clusters in Indonesia has unclear policy directions, the practice of clustering rural industries only shows trial and error opportunistic behavior rather than a well-organized business environment. Most government intervention is focused on the establishment and marketing stage of industrialization, leaving the middle stage of industrial structure formation and business cooperation into market competition. As a result, these emerging local clusters are overshadowed by government politics and rhetoric instead of being sustained by a conducive business environment. At the same time, government policies play an essential role in the success of cluster development. The rational function of clusters requires not only the wishes and actions of members for consumers and rivals but, above all, a clear state policy on this issue, without which risks can grow substantially, and positive aspects may remain unused (Vlaisavljevic et al., 2020). The development and success of a cluster depend on the proper development of achievable objectives for a particular industry, defined geographic area, or strategically important activity identified and supported by the government. Even cluster studies produce different results in different sectors. Vlaisavljevic et al. (2020) mention that cluster development in different industries requires a different approach.

The formation of clusters will improve relations between cluster members and encourage them to undertake several collaborative and collective projects to increase competitiveness. The relationship is powerful and encourages the process of information sharing, technology transfer, and co-production (Green et al., 2017). As happens in any traditional cluster, developments in the cluster lead to building a knowledge base. It happens because of the abundance and diffusion of local wisdom knowledge among units close together. Any changes introduced by any unit are easily spread to other units in a short time and show cooperation between various companies (Mehra, 2012). Integrating and collaborating with various stakeholders involved in the cluster is the core of the formation of industrial clusters. This is confirmed by Tambunan & Supratikno (2004), which states that the prerequisite for successful cluster development is the cluster's potential to access growing markets. So it is necessary to consider the factors related to market integration in developing MSMEs in Indonesia.

Referring to this opinion, MSMEs who are members of the cluster should be able to integrate and collaborate to increase competitiveness. However, several studies are not in line with this statement. He & Ouyang (2011) stated that there is cooperation and competition between cluster members in the process of integration. Cluster-based integration of SMEs is when local industry clusters in the same area form a complete or almost complete value chain cluster. Nwosu (2017) argues that collaboration and formal networks enable firms to achieve economies of scale and complement each other with diverse competencies, skills, and technologies.

1.3.2 Entrepreneurial Competencies

According to Hsieh et al. (2019), an entrepreneur has a particular soul and ability to create and innovate. Someone who has creative and innovative abilities can create something different, can start a business, can create something new, can find opportunities, dares to take risks, and can develop ideas and gather resources (Tantawy et al., 2021). Because entrepreneurs are synonymous with entrepreneurs and act as owners and managers, entrepreneurs are the ones who capitalize, regulate, supervise, enjoy and take risks. As mentioned above, to become an entrepreneur, one must first have basic capital in the form of an idea or mission and a clear vision, a strong will, sufficient capital, money and time, and enough energy and thoughts. These capitals are insufficient if they are not equipped with some abilities or competencies (Ataei et al., 2020).

Meredith & Howard (1997) stated that an entrepreneur must have the following competencies: discipline, high commitment, honesty, creative, innovation, and always work with achievement. The successes and failures of entrepreneurs are identified based on their attitudes and behavior in everyday life. Gedik et al. (2015) found that characteristics or elements of entrepreneurship are achievement, motivation, independence, creativity, risk-taking (moderate), tenacity, future orientation, communication and reflection, leadership, locus of control, instrumental behavior, respect for money, while Rosado-Cubero et al. (2022) added the ability to innovate as characters needed by a modern entrepreneur.

2. Method

The Method section describes in detail how the study was conducted, including conceptual and operational definitions of the variables used in the study, Different types of studies will rely on different methodologies; however, a complete description of the methods used enables the reader to evaluate the appropriateness of your methods and the reliability and the validity of your results, It also permits experienced investigators to replicate the study, If your manuscript is an update of an ongoing or earlier study and the method has been published in detail elsewhere, you may refer the reader to that source and simply give a brief synopsis of the method in this section.

This study uses a qualitative approach to the type of survey. In-depth interviews were conducted with key informants, namely the head of the Garut cracker UMKM cluster association. The sampling technique used the purposive sampling method, followed by the snowball sampling method. Informants submitted by one resource person and another must have the following characteristics:

1. Cracker craftsmen are included in the MSME criteria by applicable regulations.
2. As one of the cracker center MSMEs registered in Garut Regency
3. Have a license for registering MSMEs according to regulations
4. Still producing and having a workforce.

Three informants meet these characteristics, namely O1, a chairman of the MSME cracker community in Garut Regency, O2, and O3, who are cracker craftsmen. After determining the research method, the researcher arranges the research instrument. The instrument in this study was in the form of an interview guide. Questionnaire used a structured type, where each informant was given a grid of questions as follows:

1. Internal Factors (Problems)

MSME internal factors are factors that influence the company's marketing strategy that comes from within the company itself, which consists of:
   a. Industrial infrastructure that supports the continuity of the production process.
   b. Production financing and company capital in carrying out production activities.
   c. Marketing companies in marketing their products so that consumers buy them.

2. External Factors (Carrying Capacity)

The company's external factors are factors that affect the company's marketing strategy originating from outside the company, which consist of:
   a. Consumer convenience can affect product purchase orders.
   b. The company can accept requests for the number of products by the strength of financing and capital.
   c. Competition among companies with similar products affects product pricing and quality.

The results of the interviews were then analyzed using data reduction techniques, namely sharpening and classifying, directing, removing unnecessary, and organizing data so that conclusions could be drawn and verified. The data is then presented in narrative text and other forms. After the data is concluded, the validity test is carried out using data triangulation. Triangulation involves several researchers in collecting and analyzing data and using various theoretical perspectives in the research.

3. Results and Discussion

In identifying and evaluating marketing opportunities, there were three questions: what did the interviewees do when they saw a good marketing opportunity, their frequency of asking for input from other parties, and the frequency of sharing and discussing product marketing experiences with other parties. The analysis in this aspect is as follows:

When they see a good marketing opportunity, O1, O2 and O3 are at a moderate level, aware of new marketing system trends, and take immediate action when they realize an opportunity. The triangulation results have shown the consistency of entrepreneurial competencies in O1, O2, and O3. O1 took the opportunity to open a new branch which would become the center. O2 always takes the opportunity to meet customer needs for cracker in the form of craker industry. In addition to self-help, O3 took the opportunity to take advantage of programs held by the government.

As quoted from the following interview with O3:
"*Sometimes there is a program from the government, but when it is not there anymore, we prepare ourselves; it is like a self-help system, that is the point*."

When asking for input from others, O1, O2, and O3 were at a moderate level. In contrast, the resource persons were interested in asking for input from others that could be used to take business opportunities. When asked what the intensity was, O1 stated that he asked for input 2-3 times a month, unlike O3, once a month. O2 does it regularly once a week via email, hotline, and social media on his device, which can be in the form of suggestions, criticisms, or orders.

Likewise, with sharing experiences, O1, O2, and O3 are at a moderate level and like to share their business experiences with others. O1, O2, and O3 usually share in the business community they follow. O2 often participates in seminars in government programs. As quoted from the following interview with O2:
"*So far, I have often participated in seminars and workshops from government programs to add to my relationship with learning*."

It is different with O3, whose age is already middle-aged, so O3 regularly shares according to the gathering time of the Garut cracker UMKM cluster industry community. As quoted from the following interview with O1:
"*If I just get together in Garut cracker UMKM cluster, if there is training from the government, come, if not, just stay here while monitoring the employees*."

At the identity and solving problems stage, two parts are asked of the resource person, namely what the resource person does to solve the problem and what the resource person does in overcoming several conflict conditions.
In solving problems, O1, O2, and O3 are at a moderate level, where they can prepare solutions related to the problems at hand. O1, O2, and O3 are to find out if a problem occurs and also develop practical solutions related to the problem at hand. As quoted from the following interview with O3:
"*We believe that every problem has a solution, no matter how serious the problem, there must be a solution ... and there must be a solution, armed with training and workshops to seminars organized by the government*."

In overcoming several conflict conditions, O1 and O3 are at a high level, where if several problems occur at one time, they immediately prioritize problem-solving and prepare the required solutions. In contrast, O2 shows a low level. Because the results of the 02 triangulation show a level that is not consistent with O1 and O3, it is necessary to find out the cause of the difference. O1 and O2 can provide solutions for the common good. Tantawy et al. (2021) define an entrepreneur as someone with a unique, inspiring, or creative instinct and mindset. For example, O2 realized that if his team was not cooperative, it could affect productivity, which could hinder the achievement of company goals. So O2 will always try to motivate his team members. As quoted from the following interview with O3:
"*Anyway, we have to know the problem; we have to know the condition of partners and employees so that the problem can be solved together*."

In the decision-making stage, three parts are asked of the resource persons, namely the resource person's understanding of the problem and conflict situation, how the resource person considers it adequate to solve the problem, and what the resource person does to anticipate a problem.

In understanding a problem or conflict situation, O1, O2, and O3 are at a moderate level, where the resource person can provide practical solutions to the problems at hand; problem-solving still depends on the complexity of the problems at hand and generally makes a target for solving a problem. The solution takes a short time to complete for easy constraints, while for more complex problems, the resource person will need more time to solve it. As quoted from the following interview with O1:
"*For example, from human resources, what is his mistake and why do we need to study it first, we check it before asking directly, the name is also human, there must be obstacles, some are very personal*."

Ineffective ways to solve a problem, O1, O2, and O3 are at a moderate level, namely, choosing standard methods to solve a problem. The triangulation results have shown a level of consistency. The triangulation results have shown a consistent level of entrepreneurial competencies in O1, O2, and O3. O1 and O2 prefer to rely on intuition when making decisions on a problem, but if needed, O1 and O2 also like to look for new information that can support decision-making. At the same time, O3 prefers to discuss with related parties before finally deciding on a problem. O1 prefers to do reprimands to solve problems that occur. As quoted from the following interview with O1:
"*The most effective way has consequences for a deterrent and disciplinary effect*."

In anticipating problems, O1, O2, and O3 are at a moderate level, where they tend to wait for the problem to come first and then look for a solution. The triangulation results have shown the consistency of entrepreneurial competencies in O1, O2, and O3.

Each of O2 and O3 already understands the impact of their decisions, but the solutions they offer are still short-term to solve the current problem. As quoted from the following interview with O3:
"*Based on experience, if there is a problem, if there is a problem, check it first before taking action, then check the truth and then take action*."

O1 prefers to prevent before problems come. O2 understands the impact of the decisions taken and also prepares solutions for possible impacts. However, the nature of O2's anticipation cannot yet be categorized as high because the anticipation is meant only to play it safe. As quoted from the following interview with O2:

"*So, finally, we have monitoring in terms of operations and production, if at the motorcycle dealer there is quality control, so there are parties who handle quality control*."

At the communication stage, four parts are asked of the resource person, namely the ability to interpret information, communication style when dealing with people in various situations, whether the speaker is a talkative type or a suitable listener type, and how to convey information to others.

In interpreting information, O1 and O3 are at a high level because they can understand the information that has just been received, or they are looking for additional information to enrich their understanding. They also tend to use their language when passing on the information to others, while O2 is at a moderate level.

Because the results of the O2 triangulation show levels that are not consistent with O1 and O3, it is necessary to find out the cause of the difference. Even though he managed to understand the info, O2 still chose the same language style when passing information on to others. In addition, O2 also did not confirm the team regarding their understanding of the information that had been submitted. Ajzen (1991: 196) states that beliefs such as past experiences or secondary information, such as factors that can increase or reduce the degree of difficulty in behavior, can affect a person's intentions and actions in behavior.

Regarding communication style when dealing with people in various situations, O1, O2, and O3 are at a moderate level. Namely, the resource person adapts the language style to the needs of many parties. The triangulation results have shown the consistency of entrepreneurial competencies in O1, O2, and O3. The resource person will pay attention to who the interlocutor is and use the language style that the other person most easily understands.
"*For example, if I have input or criticism, it can be directly or indirectly, such as via cellphone or social media, you can, through direct chat, you can also do it*."

Regarding conveying information to others, O1 and O2 were moderate. O1 and O2 passed on the information using their language style and clarified the team's understanding of the information presented. O3 is at a low level because the results of the O3 triangulation showed varying levels with O1 and O2, it was necessary to determine the cause of the difference. O3 did not clarify the team's understanding of the information submitted. Meanwhile, the research of Mustafa et al. (2016: 162, 164) states that a proactive personality is closely related to a person's intention to become an entrepreneur. However, in this case, O3, generally less proactive, is an entrepreneur. So it can be concluded that the case of O3 is an exception.
At the innovative thinking stage, the informants ask for four parts:

1. interest in doing different ways of doing work.
2. discussion activities about new ideas.
3. attitudes toward trying new approaches to solving a job or problem.
4. attitudes towards new approaches and technologies.

For interest in different ways of doing work, O1, O2 and O3 are at a moderate level, i.e., effectively applying the new way. O1, O2 and O3 like to find new ways to make their work more accessible. As quoted from the following interview with O2:
"*In innovative thinking, we must consider overall aspects such as finance, marketing, resources, and operations, all of which must have followed the technology; otherwise, we will be left behind*."

In discussing new ideas, O1, O2 and O3 are at a moderate level, open to accepting new ideas from other parties. The triangulation results have shown the consistency of entrepreneurial competencies in O1, O2 and O3. As quoted from the following interview with O2:
"*Personally, for example, if someone gives input, giving an idea, we are open to it. Instead, we thank you for being helped*."

In trying new approaches to solving problems, O1, O2 and O3 are at a moderate level, open to accepting new ideas from other parties. As quoted from the following interview with O3:

"*In the cracker industry, it is clear that there must be innovation and bright ideas to keep up with the times, so we are very open if anyone contributes ideas and input*."

In responding to new technologies, O1, O2 and O3 are at a moderate level, namely finding out about technology related to business. As quoted from the following interview with O2:
"*Following technological developments, we have tried to follow the development of examples in the marketing sector, we have gone online. The financial system has also been upgraded to online using internet banking to increase consumer confidence; tracking shipments can also be done via the internet to increase consumer confidence whenever there is a problem. God willing, we will deal with it immediately*."

4. Conclusion and Recommendation

4.1 Conclusion

The results show that of the five entrepreneurial competence steps studied, the Garut Regency cracker center entrepreneurs have a moderate level of competence, which indicates that the existing entrepreneurial competencies are good enough for their business. In identifying and evaluating marketing opportunity competencies, when they see a good marketing opportunity, O1, O2 and O3 are at a moderate level, where they are aware of the new marketing system trend and take immediate action when they realize an opportunity. The triangulation results have shown the consistency of entrepreneurial competencies in O1, O2 and O3. The medium level indicates that the business actors of cracker MSME cluster can market based on the trend of the new marketing system.

In the competence of identifying and solving problems, the medium level indicates that the business actors of Garut cracker MSME cluster can prepare solutions related to the problems at hand and make priority solutions if several problems occur at one time. In decision-making competence, the medium level indicates that the business actors of Garut cracker MSME cluster can provide practical solutions to the problems at hand. Make decisions depending on the complexity of the problem, make a target for solving a problem, use standard methods in solving problems, and still wait for problems to come and then look for solutions.

In communication competence, the medium level indicates that the business actors of Garut cracker MSME cluster can understand the information quickly. They have just been received or look for additional information to enrich their understanding of the information, adjust the language style to the needs of many parties, and pass on information to other parties using their language style. In innovative thinking competence, the medium level indicates that the business actors of Garut cracker MSME cluster are effectively implementing new methods. They are open to accepting new ideas from other parties, interested in trying new approaches that are considered adequate, and interested in discovering new technologies that are considered adequate and can support the success of work or business.

Regarding the internal problems of MSMEs, no complex problems have been found outside the scope of the research variables, which means that MSMEs can still overcome existing problems. From the education level factor of MSME workers are adequate and able to support MSME activities, workers in MSMEs Garut cracker MSME cluster have very high motivation. That can be due to encouragement both from within and outside.

4.2 Recommendation

At this stage, suggestions are expressed based on the analysis of research results, which show that the identification of problems and the development of the Garut cracker MSME cluster with the entrepreneurial competencies that currently exists is good enough to run the business of the Garut cracker MSME cluster, is at medium level. The medium level indicates that there is room for the development of entrepreneurial competencies, in order to be able to produce a high level of entrepreneurial competencies.

This research is still being carried out on developing the Garut cracker MSME cluster. Further research can be carried out at other centers to obtain comparisons and compare how MSMEs were formed through their experiences. This comparison can provide a more general picture and can be generalized to the same phenomenon in Indonesia.

The education and skills of employees owned by entrepreneurs are critical and the principal capital, so they need to be improved continuously and sustainably through training and skills activities held by MSMEs or the government through the relevant office. Related parties such as the government are expected to provide and develop programs that can improve aspects of entrepreneurship, human resources, and innovation to improve the performance of MSMEs in Garut cracker MSME cluster. One of the things needed is human resource competency training. Seeing the potential of the people of Garut, it is hoped that the city government or related parties will provide the support that is not in the form of advice because it is not very influential. It is hoped that in the future, the government program can provide direction on the right technology to use, as well as provide training in the use of that technology.

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The Impact of the Exchange Rate on the Trade Balance in Vietnam During the Period 2005-2021 and Some Policy Implications

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Abstract
The article studies the impact of the exchange rate on the trade balance in Vietnam during the period 2005-2021. The relationship between the exchange rate and the trade balance has been mentioned in many theories and empirical studies in different countries and during different periods. To explain the impact of the exchange rate on the trade balance of Vietnam, the research team collected data on import and export turnover, real exchange rate, and net export value during the period 2005 - 2021. The team used EViews 8 software to analyze time series data and to build a linear regression model to consider the relationship between the real exchange rate and net exports during the research period. The model results show that when the real exchange rate increases by 1%, the net export value increases by 37570.76 million USD. This shows that the real exchange rate in Vietnam during the research period has a positive relationship with the balance of trade. The study also shows that when the value of export turnover increases by 1%, the net export value increases by USD 84738.12 million, and when the value of import turnover increases by 1%, the net export decreases by 83429.05 million USD. This shows that Vietnam's trade balance in the research period is affected by the real exchange rate and the value of import and export turnover. From the research results, the team suggests policies to promote exports, improve the trade balance, stabilize Vietnam's macro-economy, and support economic growth and development.

Keywords: Exchange Rate, Exchange Rate Policy, The Trade Balance, Vietnam

1. Introduction

Export and exchange rate policy are two important factors contributing to the economic development of each country in the process of international economic integration, including Vietnam. The exchange rate policy affects import and export activities; trade balance in each period of the economy. Vietnam's exports have grown impressively during the period 2005-2021, helping the country earn a large amount of foreign currency, serving the import of equipment, machinery, and technology in the world in the process of industrialization. Vietnam's trade balance had fluctuations in the research period; From 2005 to 2011, the trade balance was negative (trade deficit); During the period 2012-2014, the trade balance was positive (trade surplus), but the net export value was not high; In 2015, the trade balance turned into a deficit; During the period 2016-2021, the trade balance achieved a continuous surplus, reaching an impressive level in 2020 despite facing many difficulties due to the impact of the Covid-19 pandemic. In this research, the authors review the impact of the real exchange rate ER (VND/USD) on the trade balance of Vietnam during the period 2005-2021. The research results are the basis for conclusions about the role of exchange rate policy on the trade balance, stabilizing the macro-economy, and promoting economic growth. In order to solve the objectives of the study, the research team has collected data on the value of imports and exports; Nominal exchange rate and real exchange rate; Trade balance; Data has been collected annually from the period 2005 - 2021 and has been analyzed through Excel, EViews 8 software.

2. Research Overview

Empirical studies have shown the impact of the exchange rate on the trade balance. Thanh, P.T (2018) studied the impact of the exchange rate (E) on Vietnam's trade balance and pointed out the advantages and disadvantages of devaluation on the trade balance. Thom, D.T.X (2018) evaluated the impact of the exchange rate (E) on Vietnam's trade balance over time series in the short and long term by using an Autoregressive Distributed Lag model (ARDL), which shows that, in the short term, there is no relationship between the exchange rate and the trade balance, but in the long term the exchange rate has impact on the trade balance. Research by Hoan, P.T & Hao, N.D (2007), using the cointegration method on data from the first quarter of 1995 to the fourth quarter of 2005, has shown that the real exchange rate (ER) has a rather significant impact on Vietnam's trade balance in the long term: a 1% real depreciation of the local currency will increase the trade balance by 0.7%. The study by Anh, N.P (2021) using the ARDL model, showed the impact of the multilateral real exchange rate on the Vietnamese trade balance, instead of just using the bilateral real exchange rate as in other studies. Anh, D.T.H (2012) considered studying the impact of the real exchange rate on export and import activities of Vietnam during the period 1992 - 2012; Nga, N.T.V (2021) calculated the specific value of the multilateral real exchange rate fluctuation by AutoRegressive Conditional Heteroskedasticity model (ARCH), thereby concluding the impact of the real exchange rate on Vietnam's trade balance during the period 2000-2019. Besides, some studies denied that an increase in the exchange rate (E) is always beneficial to the trade balance. Upadhyaya & Dhakal (1997) examined the impact of local currency devaluation on the trade balance of eight developing economies (Colombia, Cyprus, Greece, Guatemala, Mexico, Morocco, Singapore, and Thailand). The study results only find the trade balance improvement effect in the case of Mexico. Tihomir (2004), using the ARDL cointegration method, has shown the relationship between the exchange rate and the Croatian trade balance in the short and long term. Devaluation of local currency by 1% in the short term makes the trade balance worse off by 2.0-3.3%, but in the long term, it improves the trade balance by 0.9-1.3%. In a research on the Serbian economy, Pavle & Mirjana (2010), using the error correction model (ECM), also shown that devaluation causes the trade balance to worsen in the short run and improve in the long run. Trinh, P.T.T (2014) studied the impact of the real exchange rate on the trade balance in the short and long term using ARDL and ECM models and found out that the real exchange rate has a positive impact on the trade balance in the long term.

3. Research Methodology

To examine the impact of the exchange rate on Vietnam's trade balance during the period 2005 - 2021, the research team used desk research methods and descriptive statistics, inductive interpretation, and descriptive statistical methods. In addition, the research team also used quantitative analysis to build a linear regression model to assess the impact of the real exchange rate on the trade balance of Vietnam from the period 2005-2021.

Desk research method: The research team reviewed the literature and synthesizes economic theories on the impact of exchange rates on the trade balance and considered a number of relevant empirical studies on the impact of exchange rates on the trade balance.

Data collection method: The data will be aggregated and analyzed from the General Statistics Office (GSO) of Vietnam, Annual Report over the years of the State Bank of Vietnam, Ministry of Finance (MOF), and

International Finance (IFS-IMF). Collected data will be aggregated and processed using Excel software to consider the impact of exchange rates on the trade balance during the period 2005 - 2021.

Data processing and analysis method: The research team uses a linear regression model to evaluate the impact of the real exchange rate on the trade balance of Vietnam from the period 2005-2021. The built model has the form*:*

NX= C(1)*LER + C(2)*LX + C(3)*LIM + C(4) + e

With: ER: Real exchange rate (VND/USD); LER is logarized by ER
X: Export value; LX is logarized by X
IM: Import value; LIM is logarized by IM
NX: Net export value (NX = X – IM)
With e as a random noise

The procedure is taken as follows:

Step 1: Use EViews 8 software to run the model with collected secondary data.

Step 2: Check the statistical significance of the regression coefficients with the explanatory variables and the statistical significance of the regression model with significance level α=0.05.

A regression coefficient is statistically significant if:
- Prob < α=0.05
- Prob(F-statistic) < α=0.05

Step 3: Check the explainability of the model through the coefficients R–squared and Adjusted R–squared

A model is explanatory (fit) if:
- R–squared > 0.6
- Adjusted R–squared > 0.6

Step 4: Check the model's defects with α=0.05.

A model is considered valid (*can be used for analysis*) when the regression coefficients in the model are statistically significant, and the R–squared, Adjusted R–squared should not have autocorrelation and heteroskedasticity. At the same time, the residuals of the model should follow the standard normal distribution.

In the study, the authors used tools on EViews 8 to check for these defects. Specifically:

- Breusch-Godfrey test to check autocorrelation. The model does not have an autocorrelation defect at some level p if Prob (F-statistic) and Prob (Obs *R-squared) > α=0.05.
- Breusch-Pagan-Godfrey to test heteroskedasticity. The model is not subject to heteroskedasticity if Prob (F-statistic) and Prob (Obs*Chi-squared) > α=0.05.
- Jarque - Bera to check if the residuals of the model follow the standard normal distribution. The residuals of the model are normally distributed if Prob (Jarque - Bera) > 0.05.

When the above conditions are satisfied, the model results are estimated and analyzed.

4. Theoretical Basis for the Impact of Exchange Rate on the Trade Balance

Exchange rate. An exchange rate is the price of one currency expressed in terms of another. The nominal exchange rate is the price of 1 unit of a country's currency in terms of another country's currency. The real exchange rate is the relative price of two countries' goods. The real exchange rate indicates the rate at which the goods of one country are exchanged for the goods of another. (Tung, H.T, Duong, L.X, 2019)

The trade balance is a part of the current account of the balance of payments. It represents the difference between the value of a country's exports and the value of a country's imports during a given period. (Tung, H.T, Duong, L.X, 2019)

Impact of net export value on the trade balance

Net export value (NX) reflects the difference between the value of exports (X) and the value of imports (IM), which reflects the state of the trade balance.

NX = X – IM

With:

NX > 0 the trade balance surplus
NX < 0 the trade balance deficit
NX = 0 the trade balance equal

Net exports (NX) are a function of the real exchange rate (ER). The relationship between the exchange rate and net exports can be expressed as follows:

NX = NX (ER)

According to *international trade theory*, when the real exchange rate (ER) rises (local currency depreciates), domestic goods will become relatively cheap (all other things are constant), thereby increasing the competitiveness of the country's exports, thus improving the balance of trade. On the other hand, an increase in the exchange rate has the effect of encouraging exports because for the same amount of foreign currency earned from exports, more domestic currency can be exchanged. In the short term, an increase in the E effect will stimulate an increase in export volume and a decrease in imports. But it is also important to consider *the long-term impact: Firstly,* when the cost of producing exported goods increases due to the increase in raw material price effect, the cost increase effect may occur later due to the effect of raw material stockpiling; *Secondly,* when the local currency depreciates, it can stimulate exports in the short term, but according to the law of averaging profits in the economy, there will be a shift in market structure from production to serve the domestic market to export-oriented production. This increases the competitiveness of both inputs and outputs for export production; *Thirdly,* after the domestic currency depreciates, inflation tends to increase. When inflation increases, the real wages of workers decrease, this forces domestic enterprises to increase nominal wages, which increases the production costs of exporting enterprises.

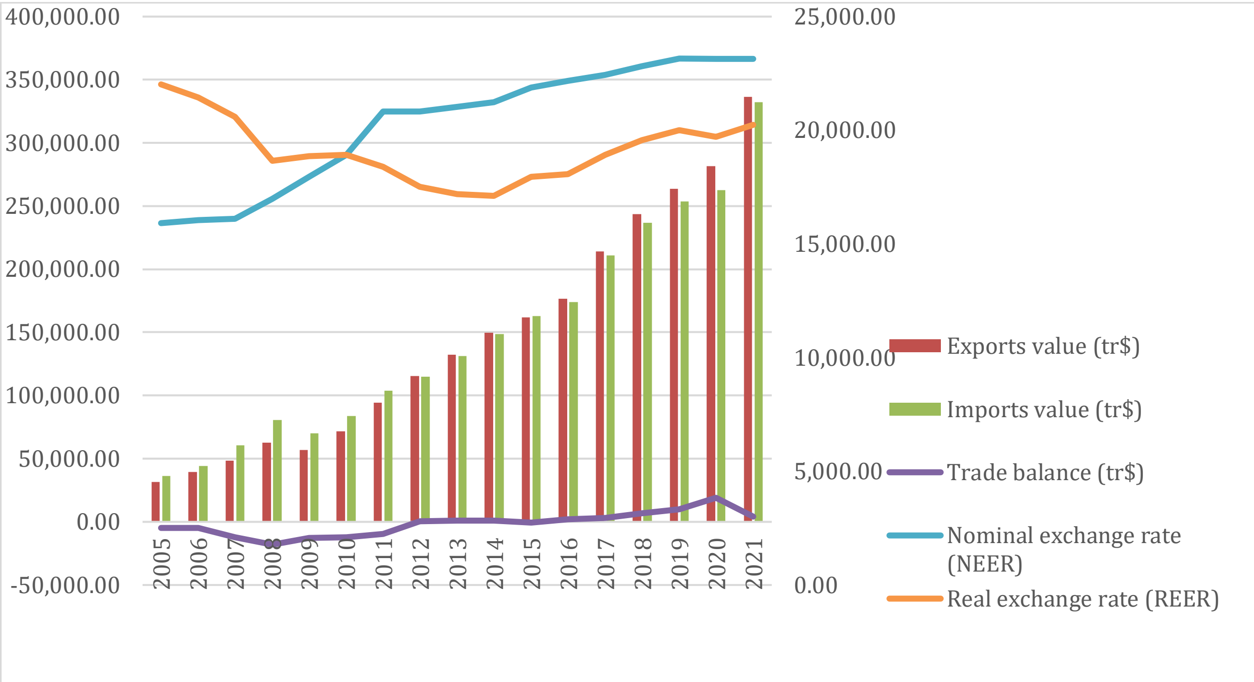
Meanwhile, according to *Marshall Lerner condition*, whether the trade balance improves or deteriorates depends on the dominance of the volume effect or the price effect: *(i) If the price effect is dominant,* after devaluation, the increase in export volume and the decrease in import volume are not enough to compensate for the decrease in the value of exports in foreign currency and the increase in the value of imports. As a result, the trade balance deteriorated; (*ii) If the price and volume effect are equal*, after devaluation, the export volume increased, and the import volume decreased just enough to compensate for the decrease in the value of exports in foreign currency and the increase in the value of imports in terms of the domestic currency. As a result, the equilibrium of the trade balance is maintained. *(iii) If the volume effect is dominant,* after devaluation, the export volume increases, and the decrease in import volume is more than enough to compensate for the price effect. As a result, the trade balance improves. Based on the elasticity approach, *the J-curve theory*, introduced by Magee (1973), investigated the impact of a country's currency devaluation on the trade balance over time. The dynamic response of the trade balance represents a short-term decline and a long-term recovery forming a J-shaped curve. Besides, according to Keynes's consumption approach: devaluation of the domestic currency, which causes consumers to switch to domestic goods, promotes output more strongly than domestic consumption, and the trade balance of commerce is improved. In addition, it is also necessary to see that the exchange rate with net exports has a two-way relationship, the exchange rate has an impact on the price, volume, and cost of inputs to produce exports; conversely, when a country's exports increase, the amount of foreign currency it earns (*all other things are constant*) will affect the exchange rate. Suppose if Vietnam's exports to the US increase, then the supply of USD and the demand for VND increase in the foreign exchange market and the exchange rate E decreases, the VND tends to appreciate again.

5. Exchange Rate and Trade Balance of Vietnam During the Period 2005-2021

5.1. The period 2005-2011

During the period 2005 - 2007, the nominal exchange rate (NEER) increased slightly. Import and export turnover in this period increased quite evenly, in which exports increased on average by more than 23%. The movement of the nominal exchange rate (NEER) tended to increased strongly during the period 2008 - 2011. However, with the reversal of investment capital flows and the fluctuation of inflation in 2008 and the impact of the global economic recession in 2009, the real exchange rate (REER) in this period fluctuated complicatedly. In 2008, the trade deficit reached 18 billion USD. In 2009, the real exchange rate increased but the export turnover was low, the export decrease was 8.8% compared to 2008. *(Figure 1)*

Figure 1: Nominal exchange rate (NEER), the real exchange rate (REER), import-export value, and the trade balance of Vietnam during the period 2005 – 2021



Source: International Financial Statistic (IFS)

5.2. The period 2012-2015

The period 2012-2014 shows a slight upward trend of the nominal exchange rate (NEER), however, the real exchange rate (REER) has a slight downward trend, except in 2015, the real exchange rate (REER) increased 4% more than in 2014 *(Figure 1).* Import and export values have increased gradually over the years. Exports are larger than imports, the trade balance is in surplus. 2012 is the first year that marks a surplus in the trade balance in the study period. After 3 years from 2012 to 2014, the trade balance was surplus, in 2015, the trade balance reversed to a deficit of 764 million USD, the main reason can be mentioned because the exchange rate fluctuated in August 2015 before the Fed raised interest rates and when the renminbi (CNY) depreciated.

5.3. The period 2016-2021

The government regulated the exchange rate according to the managed floating mechanism. The nominal exchange rate (NEER) and the real exchange rate (REER) moved in the same direction, increases along with the increased value of import and export; Except in 2019 and 2020, the nominal exchange rate tended to increase while the real exchange rate tended to decrease. However, this period shows that the trade balance has achieved a continuous surplus, the total import and export value is high and tended to increase compared to the previous year.

In the two years 2020 and 2021, Vietnam's economy was seriously affected by the Covid-19 pandemic, but this was the period when Vietnam achieved a new record in terms of import and export turnover. The total import-export value of the whole country in 2020 reached 545.36 billion USD, more than 5.4% compared to 2019. The country's trade balance at the end of 2020 reached a surplus-value of 19, 95 billion USD, the highest level in 5 consecutive years of trade surplus since 2016 (General Department of Customs 2020). Entering 2021, the trade balance still maintained a surplus of 4 billion USD, and import and export turnover maintained a high growth rate.

6. The Impact of Exchange Rate on Trade Balance: View from Quantitative Analysis

6.1. Data series

To examined the relationship between real exchange rate and trade balance, the research team carried out data collecting on the real exchange rate (ER), import-export value (X, IM), and net exports value (NX). Data collected annually from 2005 to 2021, the total of observations are 17.

In the model, X, IM, and ER are logarithmized and coded LX, LIM, and LER. The collected and logarithmized data, using EViews 8 software, the study team has a statistic description in Table 1

Table 1: Descriptive statistics of variables

	NX	LX	LIM	LER	IM	ER
Mean	-1639.06	11.66154	11.72037	9.856267	147536.3	19126.2
Median	357	11.79417	11.78494	9.848594	131260	18931.71
Maximum	19064.12	12.72561	12.71364	9.999659	332250	22018.95
Minimum	-18029	10.36489	10.50254	9.747763	36408	17115.9
Std. Dev.	9422.61	0.734995	0.649022	0.073328	86517.45	1417.691
Skewness	0.204322	-0.2572	-0.29094	0.300919	0.569693	0.429054
Kurtosis	2.744949	1.830249	2.076795	2.283243	2.304447	2.398202
Jarque-Bera	0.164363	1.156661	0.843547	0.620463	1.262245	0.778112
Probability	0.921105	0.560834	0.655883	0.733277	0.531994	0.677696
Sum	-27864.1	198.2462	199.2462	167.5565	2508118	325145.4
Sum Sq. Dev.	1.42E+09	8.643491	6.739676	0.086031	1.20E+11	32157557
Observations	17	17	17	17	17	17

Source: The model testing result

6.2. Testing the impact of the exchange rate on the trade balance of Vietnam during the period 2005-2021

The econometric model is used to explain the impact of the exchange rate on the trade balance in Vietnam during the period 2005-2021, the data is collected annually, and logarized. The results are shown in Table 2.

Table 2: The impact of the exchange rate on the trade balance of Vietnam during the period 2005-2021

Dependent Variable: NX
Method: Least Squares
Date: 08/21/22 Time: 16:40
Sample: 2005 2021
Included observations: 17

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LER	37570.76	10298.08	3.648327	0.0029
LX	84738.12	11602.38	7.303512	0.0000
LIM	-83429.05	13131.85	-6.353183	0.0000
C	-382304.5	107681.4	-3.550329	0.0036

R-squared	0.925574	Mean dependent var	-1639.063
Adjusted R-squared	0.908399	S.D. dependent var	9422.610
S.E. of regression	2851.812	Akaike info criterion	18.95162
Sum squared resid	1.06E+08	Schwarz criterion	19.14767
Log likelihood	-157.0888	Hannan-Quinn criter.	18.97111
F-statistic	53.89032	Durbin-Watson stat	2.182292
Prob(F-statistic)	0.000000		

Source: The model testing result

Testing model fit

The results in Table 2 show that the regression coefficients are all statistically significant because Prob (LER) = 0.0029 < 0.05; Prob (LX) = 0.0000 < 0.05; Prob (LIM)=0.0000 < 0.05. The regression model is fit because Prob (F-statistic) = 0.000000 < 0.05; The coefficient of determination R-squared = 0.925574 > 0.6; Adjusted R–squared =0.908399 > 0.6. The model is fit.

Table 3: Breusch- Godfrey Serial Correlation LM Test (lags = 2)

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.758587	Prob. F(2,11)	0.4913
Obs*R-squared	2.060525	Prob. Chi-Square(2)	0.3569

Source: The model testing result

According to table 3, Prob. F(2.11) = 0,4913 > 0,05; Prob. Chi-Square(2) = 0,3569 > 0,05. The model does not have autocorrelation defects.

Table 4: Heteroskedasticity Test (white)

Heteroskedasticity Test: White

F-statistic	1.510861	Prob. F(6,10)	0.2687
Obs*R-squared	8.083214	Prob. Chi-Square(6)	0.2321
Scaled explained SS	10.66168	Prob. Chi-Square(6)	0.0994

Source: The model testing result

The result of Table 4 shows that Prob. F(6,10)=0.2687 > 0.05; Prob. Chi-Square(6) = 0.2321 > 0.05; Prob. Chi-Square(6) = 0.0994 > 0.05. The model has no variable variance.

Regression model and analysis of the model's results

The results of data analysis using EViews 8 in Table 2 show the impact of the exchange rate on the trade balance of Vietnam during the period 2005-2021 with annual re

NX = 37570,76*LER + 84738,12*LX – 83429,05*LIM – 382304,5

The results of the regression model present:

The trade balance is affected by the real exchange rate. Specifically, the coefficient C(1) = 37570.76 > 0, thereby showing that holding all other factors constant, when the real exchange rate increases, the value of net exports (NX) increases. When the real exchange rate increased by 1%, NX increased by 37570.76 million USD. Thus, the real exchange rate is proportional to the trade balance, which is consistent with economic theory and the results of some empirical studies mentioned previously by the research team and with the specific case. Vietnam's economy during the period 2005-2021.

Besides, the trade balance is also affected by exports and imports. According to Table 2, the coefficient C(2)= 84738.12 > 0. The results show that an increase in exports (X) causes an increase in net exports (NX). When the export turnover increased by 1%, the net export value increased by 84738.12 million USD. The coefficient C(3)= - 83429.05 < 0 shows that imports (IM) increase net exports (NX) decrease and vice versa. When the import turnover increased by 1%, the net export value decreased by 83429.05 million USD. This is consistent with the theory of the impact of import and export turnover on the trade balance.

The significance of the coefficient R- squared = 0.925574 shows that the regression model explains 92,5574% of the fluctuations in the trade balance.

The model results support the view that an appreciation of the real exchange rate has a positive effect on net export value. The model also shows that the trade balance is affected by import and export turnover in the research period.

7. Some Policy Implications

Through analyzing and assessing the impact of the exchange rate on the trade balance in the period 2005-2021, the research team suggests some implications for Vietnam's exchange rate policy in the context of international economic integration in order to improve the country's economy, trade balance and macroeconomic stability as follows:

First, the exchange rate should continue to be managed flexibly. Vietnam has converted to a managed floating exchange rate system; therefore, it is necessary to gradually increase the degree of floating and the development of the foreign exchange market. In the context of international integration, exchange rate management needs to be done more flexibly. Pegging to a basket of currencies helps to keep the exchange rate stable and ensures policy flexibility. Due to the large openness of Vietnam's economy, anchoring in a basket of currencies helps Vietnam avoid adverse shocks from the world currency and commodity markets.

Second, the government needs to closely coordinate with relevant ministries and sectors in adjusting fiscal and monetary policies and developing the market for derivatives to help prevent exchange rate risks. Narrowing the gap between real and nominal exchange rates, limiting the operation of the "black market" foreign exchange market.

Third, the government needs to strictly handle acts of foreign currency speculation. Actively coordinate with police agencies in anti-smuggling, detecting and dealing with illegal business and foreign currency exchange…

Fourth, according to the State's current regulated floating exchange rate policy, exchange rate movements are also referenced to macroeconomic and monetary balances. This implies that the imbalance in The State budget will affect the exchange rate of VND in the market. Therefore, it is necessary to limit the exchange rate's impacts on the State budget.

Fifth, it is necessary to strengthen the international competitiveness of Vietnam's exports. The Government needs to innovate the export-oriented export growth model in depth, based on exploiting competitive advantages to improve export productivity, quality, and efficiency. Reducing the proportion of imported inputs in the value of exported goods, and at the same time, supporting export enterprises to improve their competitiveness in import and export activities to promote Vietnam's trade balance in the upcoming years.

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Utilizing LNG as a Cheap and Environmentally Friendly Energy Source (Regasification) in West Java

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Abstract
The increase in population and economic development requires more energy support that grows every year. To meet energy needs in Indonesia, especially in Java, it is necessary to find cheap and environmentally friendly energy sources other than oil and coal, by utilizing LNG (*Liquid Natural Gas*). This study aims to determine the business feasibility of developing an LNG terminal as a cheap and environmentally friendly energy source (regasification) in West Java. The approach used in this research is analytical descriptive, data collection through interviews and discussions with stakeholders selected from the retail LNG terminal which includes owners, potential investors, potential customers and competitors. The data analysis used economic feasibility NPV (Net present value), IRR (Internal Rate Of Return), PBP (payback period) and PI (Profitability Index). The results of the analysis show that the construction of the LNG terminal is feasible with the net present value of the project amounting to USD 9,883,927 with a discount of 11%. This result displays a positive NPV value which means that the invested funds are able to generate positive cash flows thus the NPV value is positive. IRR Project value is 12.48% and IRR Equity is 19.42% which is greater than bank interest. The payback period for this LNG project is 6 years with a profitability index (PI) of 1.3. A PI value of 1.3 which is greater than 1 means that the proposed investment project is declared feasible (accepted). It also indicates the *present value of cash inflows* generated by the investment project is greater than the *present value of cash out flows*. Given the urgent need for alternative energy, the construction of an LNG terminal must be carried out immediately; therefore, it needs affirmative policy support from the government.

Keywords: Business Plan, Economic Feasibility, Environmentally Friendly Energy, LNG

1. Introduction

In 2019, proven reserves of oil were 3.6 billion barrels; natural gas was 100.3 TCF and coal reserves were 32.27 billion tons. If it is assumed that no new reserves are discovered, based on the 2019 R/P (*Reserve/Production*) ratio, then oil will run out in 12 years, natural gas in 37 years, and coal in 70 years. These reserves will even run out faster than the estimated year due to the increasing trend of fossil energy production (Adiarso,et.al, 2020). In the last few decades, humans have begun to think about obtaining new energy sources as a substitute for energy sources that are widely known and used, such as oil and coal because the availability of these energy sources in nature is decreasing, and has been proven to cause pollution to the environment. This is highly undesirable as it will cause increasing natural damage.

Various efforts have been made to obtain alternative energy sources that can meet energy needs in large quantities, in the long term, and are environmentally friendly. One source of energy that is currently gaining interest is natural gas. Natural gas as well as petroleum is a mixture of hydrocarbon compounds formed from piles of organic fossils that have been in the layers of the earth's bowels since millions of years ago. The difference with petroleum, natural gas contains more light hydrocarbon compounds, especially CH4 (methane) and can be found either together with petroleum (associated gas) or separately from petroleum (non-associated gas) (Łaciak et al., 2019).
To solve the problem of storage and transportation to consumers, natural gas liquefaction is considered to be the best way. By this method, natural gas can be stored 1/600 times less than its volume in the gaseous state. In principle, this technology includes the liquefaction of natural gas using refrigerant. This liquefied natural gas is called *liquefied natural gas* (LNG) (Ikealumba & Wu, 2014). LNG is liquefied natural gas with the main element being methane (CH4). In general, this natural gas is used as fuel for housing and industry, and can also be used as raw material for the petrochemical industry (Łaciak et al., 2019).

LNG (liquid natural gas) is liquefied natural gas fuel. Since large quantities of natural gas are produced in areas far from energy users, in order to economically bring the gas to user centers, it needs to be liquefied into LNG. The advantage of LNG is that it can be transported by ships with a distance of thousands of kilometers at a low cost, low pressure and a temperature of -162 degrees Celsius. After arriving near the LNG user center, LNG is stored in special tanks and gasified before being used as fuel.

The need for natural gas for electricity in Indonesia is not always fulfilled. PLN faces problems with the adequacy of gas supply in several small and large scale plants as well as the need for households (Adiarso et al., 2020). Java is an energy user of 70% of the national needs, while West Java is around 40% of the national needs but does not enjoy the use of energy derived from LNG which is exported abroad. Java is the centre of economic and industrial activity in Indonesia as here is the capital city of the government centre, namely DKI Jakarta which is also full of commerce. Other islands such as Sumatra, Borneo and Sulawesi which have developing areas in both the industrial, commercial and residential sectors and industrial activities also require very large amounts of energy. Unfortunately, the energy demand in Java itself is very high, absorbing about 50% of the total energy consumption in Indonesia (Hilmawan et al.,, 2021).

Java has a population of no less than 110 million people with around 360 thousand industries spread from the East to the West of Java. This condition is very potential as a source of foreign exchange for the improvement of the national economy. The energy demand level in Java is 70% which reaches 4 GWh and 5,149 MMSCFD. Natural Gas, including LPG, is a solid consumer of energy and this will continue to increase from year to year. As for every growth in the industrial sector, commercial and even residential, it is always associated with an increase in energy demand (Hilmawan et al.,, 2021 and Adiarso et al.,2020). The demand for natural gas in Java in 2025 is estimated to reach 12,009 MMSCFD. Meanwhile, the ability to supply natural gas in the island, in 2025, is only 4,493 MMSCFD. Therefore, to meet the demand for gas in Java, it must take natural gas sources outside Java (Hilmawan et al., 2021).

The distribution of LNG must also be supported by the existence of a regasification terminal which functions to convert LNG back into natural gas. That is the reason, besides the construction of transmission from South Sumatra to West Java (SSWJ) being a top priority, the construction of an LNG receiving terminal is also a potential alternative considering that the volume of LNG is approximately 600 times the volume of natural gas (Wardana et al., 2020). In this way, LNG can be supplied to Java through a receiving terminal which is relatively close to the transmission/distribution pipeline network or industrial area. Currently LNG cannot be used for substitution due to the unavailability of LNG infrastructure in Java. Considering that there is still sufficient LNG available in Indonesia and West Java is a large energy user, the construction of LNG infrastructure for retail sales for industry is very promising for the provision of more competitive and cleaner energy in the form of a regasification terminal.

Therefore, the research problem of this study is how is the business feasibility of using LNG as a cheap and environmentally friendly energy source (regasification) in West Java? While the purpose of this research is to determine the business feasibility of the business feasibility of using LNG as a cheap and environmentally friendly energy source (regasification) in West Java.

2. Literature Review

According to MCGerty (1989) and Purnomo et al.,(2002), a business plan is a document provided by an entrepreneur that is adjusted to the views of his professional adviser which contains details about the past, present and future trends of a company. Meanwhile, according to Hisrich and Peters (in Ardiarso, 2020), a business plan is a written document prepared by an entrepreneur that describes all relevant elements, both internal and external, regarding the company to start a business.

LNG itself has a character close to that of diesel. The use of LNG is highly suitable to apply in heavy equipment or heavy duty trucks compared to Compressed Natural Gas (CNG).

To assess the feasibility of a business plan, a feasibility study is carried out. The purpose of a business feasibility study according to Suliyanto (2021) is to assess whether the investment is feasible or not to run. According to Riadi (2019) Pauceanu,A.M (2016), there are 5 aspects that must be considered in conducting the study, namely legal aspects, market and marketing aspects, operations aspects, human resources aspects and financial aspects. The business concept of a retail LNG terminal is the construction of an LNG storage terminal to carry out gasification before being used as fuel by marketing the product not to retail or end consumers, but to companies. This LNG terminal provides products at affordable prices but still of high quality. Through the framework above, it is explained that to realize the business concept of developing a retail LNG terminal, a feasibility study is carried out with reference to the business aspects which include legal, marketing, operations, human resources, to financial.

3. Research Methodology

This study applies a descriptive analytical research design. In this case, the analysis is carried out to determine the feasibility of the LNG terminal for the needs of the West Java area. The informants of this research are all people who are stakeholders of the retail LNG terminal, such as owners, potential investors, potential customers and competitors. Data collection methods used are interviews and questionnaires to selected respondents from relevant stakeholders. The data analysis method uses business planning analysis based on business feasibility aspects, namely legal, marketing, operations, HR, to financial aspects with NPV (Net Present Value), IRR (Internal Rate of Return), PBP (Payback Period) and PI (Profitability Index) indicators.

4. Results and Discussion

4.1. Market and Marketing Aspects

In order to support the use of gas for industry, the government through Presidential Regulation Number 40 of 2016 establishes a policy of adjusting gas prices to encourage accelerated economic growth and increase the competitiveness of the national industry. The government is very serious about implementing this policy, especially for certain industries such as fertilizer, ceramics and so on by setting a gas price of USD 6 per MMBTU. Meanwhile, the government also provides support to the energy industry by providing incentives. This is regulated in the Minister of Energy and Mineral Resources Regulation Number 8 of 2020 which states that business entities that distribute natural gas to natural gas users can be given proportional incentives. Other efforts are supported by the Minister of Energy and Mineral Resources Number 19 of 2021, which cuts bureaucracy and provides legal certainty in doing business for business entities, as well as providing reliable supply of natural gas consumers and providing business opportunities for natural gas infrastructure to business entities or investors.

The use of gas in fulfilling the needs of domestic industry continues to increase from year to year. In 2021, the industrial sector was recorded as the largest consumer by absorbing 1,597.44 Billion British Thermal Unit Days (BBTUD) or 28.22% of the total utilization of national gas production. Traditionally, there are three major groups that become benchmarks or references for LNG prices. For the European market, it refers to the National Balancing Point (NBP) – namely the price index on the UK Future market. In the Asia Pacific market it is indexed with crude oil which is dominated by the Japan Korea Marker – JKM for spot. While in the United States market, it refers to the pipeline gas price index of Henry Hub.

In spot or retail gas contracts, such patterns are no longer found. Even though the volume of LNG traded on the spot is very large, the spot price is sensitive to aspects that are not fundamental, such as the plan to build an LNG facility. This is because in general 1 barrel of crude oil is equivalent to 6 – 7 MBTU of gas. Taking into account the costs of LNG processing, transportation elements, insurance and gas regasification per MBTU at the receiving terminal, the LNG price is 11 – 14% of crude oil, in normal cases it is a reasonable equilibrium price proxy so it is much cheaper when compared to oil On the other hand, there is still no gas terminal in Java, especially West Java. The demand for gas, which is not only for industry but the largest consumer, for example in fertilizer factories, was recorded at 705.03 BBTUD or 12.45% followed by the electricity sector at 681.50 BBTUD or 12.04%, and domestic LNG at 504.51 BBTUD or 8 ,91%. Therefore, the LNG terminal business opportunity can be profitable.

Socio-culturally, the industrial use of gas is common. However, it is necessary to have an affordable gas allocation for retail so that it is also able to provide direct benefits to the community. The current price of LNG gas is considered more profitable than the use of LPG. This is because in terms of price, LNG is cheaper. This condition will be able to affect the welfare of people's lives where the expenditure from the community for the purchase of LPG will be reduced by using LNG.

LNG is natural gas that has been processed to remove impurities and heavy hydrocarbons and which is then condensed into water at atmospheric pressure by cooling it to about -160° Celsius. LNG is transported by vehicles and placed in specially designed tanks. LNG is approximately 1/640 of natural gas at standard temperature and pressure, making it more economical to transport over long distances where pipelines are not readily available. When moving natural gas by pipeline is considered to be impracticable or uneconomical, it can be transported by LNG vehicles where most types of tanks are membrane or "moss."

LNG offers energy density that is equal to petrol and diesel fuels which produce less pollution. Unfortunately, the relatively high cost of production and the need for storage in expensive cryogenic tanks prevent its use in commercial applications. In general, the release of CO2 into the air in LNG consumption is lower when compared to LPG and oil as follows:

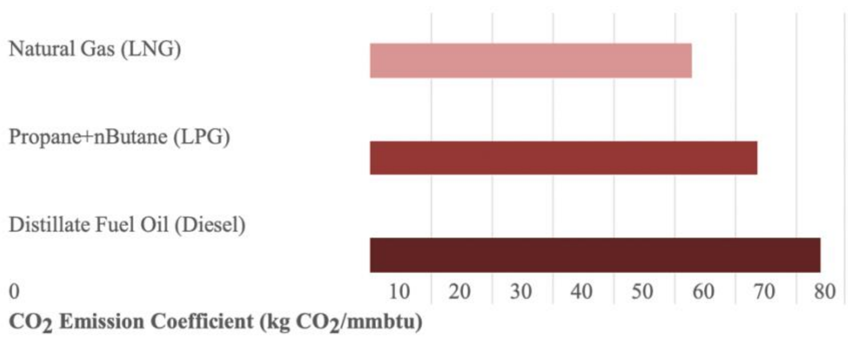

Figure 1: Comparison of the release of CO2 into the air in LNG, LPG and Oil

Source: eia, 2021

LNG has the lowest CO2 emission coefficient compared to LPG and oil. This is also confirmed by the comparison of greenhouse gas emissions as follows:

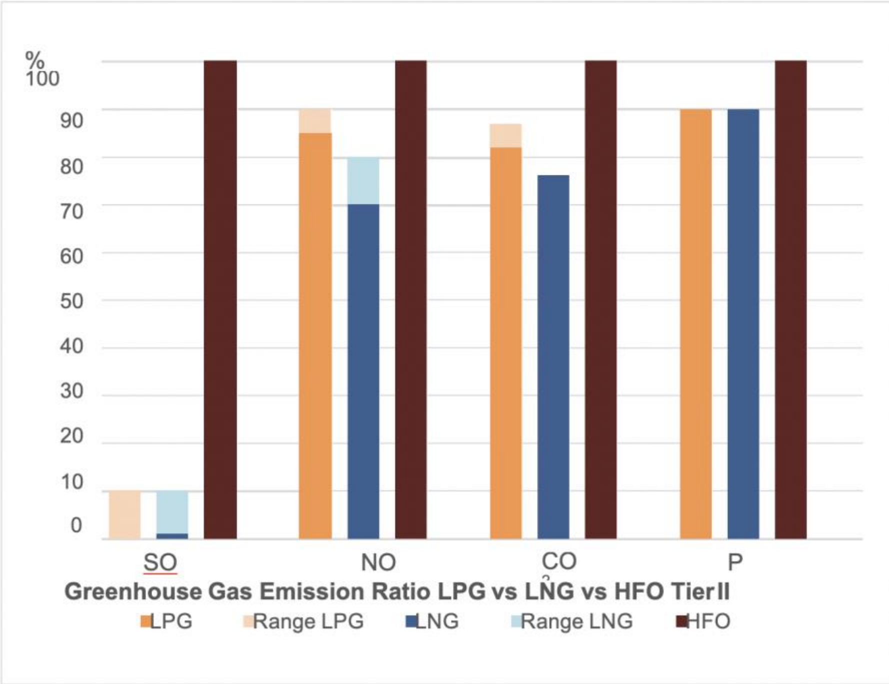

Figure 2: Comparison of the release of CO2 into the air in LNG, LPG and Oil for Industry

Source: MAN Energy Solutions

Greenhouse gas emissions for industry in terms of SOx, NOx, CO2 and PM from LNG are much lower when compared to petroleum and LPG. In addition, the greenhouse gas emissions for cargo ships in terms of SOx, NOx, CO2 and PM from LNG are also lower when compared to petroleum and LPG.

Currently, Indonesia's LNG production is around 2,000 BBTU/day, the majority of which is processed from the Bontang and Tangguh Papua refineries with relatively balanced proportions. Bontang LNG export contracts to Japan will expire in the next 5 years. The future of the Bontang LNG plant is highly dependent on gas supplies from the ENI and Pertamina Mahakam fields, as well as the ability to penetrate the export market. In the future, there will be a project being developed, namely Abadi Masela. The Abadi gas field contains huge gas reserves of 18.5 TCF and condensate of 225 million barrels. The field is projected to start production by the end of 2027, with a capacity of 10.5 million metric tons per year (9.5 mtpa LNG, and 150 mmscfd gas.

In spot or retail gas contracts, such patterns do not exist. Even though the volume of LNG traded on the spot is very large, spot prices are sensitive to things that are not fundamental, such as the plan to build an LNG facility (FID – Final Investment Decision), gas bunkering capacity, weather, political tensions and others. This will provide a high risk of uncertainty to business people. More than 100 billion cubic meters of new LNG capacity will enter the market between 2018 and 2023 due to the narrow market share. Coupled with the diversification of energy sources, including the flow of piped gas and LNG from Russia to the Asian region lead producing countries to fiercely compete to take advantage of this narrow gap. Australia, Qatar, Senegal and Canada entered this competition by offering more flexible commercial terms. This is because the barrier to business is low as it only relies on supplies from suppliers and capital for the construction of new refineries or terminals, so there is a threat to the company.

Based on the comparison with other fuels, there is a saving of IDR 1,021/liter compared to industrial diesel or 12.02% and there is also a potential savings of IDR 1,944/kg or 16.90% compared to LPG. LNG substitution can save more than 10% of the costs incurred for LPG and industrial diesel fuel. Taking into account the costs of

LNG processing, transportation elements, insurance and gas regasification per mbtu at the receiving terminal, the LNG price is 11 – 14% of crude oil, in the normal case is a reasonable equilibrium price proxy. This is in contrast to LPG, where the price of LPG is US$ 20-US$ 23 per mmbtu so that the price of LNG is still 50% cheaper than LPG.

Based on this, economically the price of LNG is still cheaper when compared to oil and LPG. However, infrastructure causes problems, such as the LNG terminal in Java and inter-island transport ships for distribution which have not been able to reach all potential consumers. This encourages the need for investment in the opening of an LNG terminal in Java.

4.2. Market Segmenting, Targeting and Positioning

Table 1: Substitution Potential for Solar in West Java

No	Province	In Kilo Liter	Eq'v MMBTU	Eq'v Ton LNG	Eq'vTon/D LNG	Eq'v mmscfd
1	DKI Jakarta	733,670	26,837,636	509,804	1,457	73
2	Banten	777,638	28,445,987	540,356	1,544	77
3	West Java	2,023,947	74,035,993	1,406,379	4,018	201
	Total	**3,535,255**	**129,319,617**	**2,456,540**	**7,019**	**351**

Diesel consumption in West Java is 3,535,255 kilo litres or equivalent to 2,456,540 tons of LNG. Meanwhile, LP consumption in West Java is 3,000,000 tons of LPG equivalents to 2,663,602 LNG. Based on the data in tables 4.2 and 4.3, it can be seen that there is a large market share in the use of LNG in West Java which can be served by the operation of the LNG terminal. According to the data, there is a potential of 30% of diesel and LPG users who can be converted into LNG users.

The data shows that there is a need for around 717.4 tons of LNG per day for industrial needs in West Java with the largest demand being from PT Citra Nusantara Gemilang which is a medium-level natural gas distributor. Currently the company has 37 downstream customers, including 12 food factories, 6 textile factories, 3 automobile production plants, 5 wood-related factories, 2 steel processing plants, and a pharmaceutical factory, 4 hotels, 3 central kitchens and 1 hospital. Another potential consumer is PT Harmoni Lintas Bhumi which uses LPG and diesel and has plans to build LNG as a Central Gas Source which will then be distributed to LNG gas pipelines in the industrial complex. The company will use LNG to convert the use of LPG and Diesel in shopping centres and malls into LNG users.

The next is PT Indah Prakasa Sentosa which is a super block real estate, hotels, restaurants, catering services, laundry companies, and other LPG & Diesel Retail customers. The company will turn it into an LNG user. The company in this case positions itself as the only LNG distributor by providing infrastructure in the form of terminals that can provide services for industrial scale consumers and retail consumers in the western part of Java.

4.3. Legal Aspect

The legality of the construction of the LNG terminal has been obtained from the main license, namely the Investment Coordinating Board Letter No. 1740/1/IP/PMA/2014 dated June 13, 2014, Approval of Establishment of Limited Liability Company, Company registration and domicile letter, Submission of Investment Activity Report (LKPM)) and Permanent Business Permit (IUT). For taxation, a Taxpayer Identification Number (NPWP) has been made, a Taxable Entrepreneur Confirmation Letter, a Permit to Employ Foreign Workers, the BPJS Employment Program and the BPJS Health Program as well as the Ratification of

Collective Labor Agreements (PKB/Company Regulations). In terms of project location and construction, PT. BJP (Sister Company – KG) as the owner of the land has given the right to use an area of approximately 30 hectares to PT. Nusantara Gas Services (NGS) based on the Decree of the Regent of Serang number 17.1/SK.IL-I/NF/DTRBP/2012.

The location legality has been obtained by Decree of the Regent of Serang number 593/Kep.770-Huk.BPTPM/2015 dated 5 November 2015, which requires an extension after its expiration in 2018 as well as a construction legality by the EPC contractor. From the environment, environmental permission have been obtained by Decree of the Head of the Investment Coordinating Board and Integrated Services of Banten Province Number 570/15/ILH.BKPMPT/VII/2016 dated 1 July 2016. Temporary LNG Storage License obtained from the Capital Coordinating Board dated 18 May 2016 number 245/A.8/MIGAS/2016. For port needs, a Port Permission (Special Oil and Gas Port for Own Use) has been obtained by Decree of the Director General of Sea Transportation number BX.326/PP008 dated 30 September 2016. For shipping, an MOU of LNG Vessel Lease Agreement with PCL Tanker has been signed PTE. LTD. on 15 February 2021. Ships with a capacity of 30,000 m3 are planned for use.

4.4. Operation Aspect

The choice of business site is in Bojonegara, Serang Banten. The land is located in the village of Argawana, Puloampel, Serang, Banten, with an area of ± 86 Ha HGB belonging to the KG, with a water front of ± 600 m and a draft of 7 – 8 m. The location is on the edge of the East Cilegon exit toll road to PLTU Suralaya and the area around the industrial environment and ± 7 km from the east exit of the Cilegon Jakarta-Merak Toll Road. Main Permits have been completed: Location Permit, AMDAL, Port (TUKS), Temporary LNG Storage Permit, NGS Business Legal Permit.

The master plan layout of the LNG terminal has ports for unloading from LNG carriers, piping, LNG storage tanks, processing or gasification facilities, ORV & HP pumps, BOG recovery units and LNG truck stations. LNG is unloaded from the ship on a jetty to be loaded into the LNG Tank via cryogenic pipelines. From this LNG storage tank, LNG will be filled directly to the LNG Truck station or reprocessed using ORV & HP pumps and BOG recovery units for the gasification process which is then sent via pipelines in the form of gas to consumers. The LNG processing facility is in the area (BM-6) which is used to produce LNG of 30mmscfd LNG every day. The ability to produce 47 mmscfd or 934 tons per day, can meet most of the LNG needs in West Java.

The LNG terminal will select several natural gas suppliers with quality and capacity that can meet the target and also SOPs to be able to receive orders continuously. Currently, the sole supplier for LNG needs is PT Pertamina, where Pertamina's role is to market state-owned LNG, both for export and domestically. Pertamina's main source of LNG comes from the Bontang LNG plant. In addition to the Bontang LNG plant, LNG is also produced at the Tangguh Papua LNG plant where the government appoints British Petroleum for marketing.

4.5. Human Resource Aspect

In running the LNG Terminal business, the owner of the company is responsible for managing company finances, managing employee recruitment, designing strategies for the company and also providing direction to employees so that they can work optimally as well as supervising the production process. The LNG terminal requires 3 stages of human resource preparation which includes the preparation of human resources for the pre-project, preparation of human resources for the construction phase and preparation of human resources for the operational phase of the LNG terminal.

4.6. Financial Aspect

LNG supply comes from Bontang with a molecular price of LNG of USD 6.6/mmbtu where the slope is 11% and the ICP is USD 60/bbl. The shipping fee is USD 1.2/mmbtu with a terminal fee of USD 3.3/mmbtu. These results indicate that the current LNG price at the terminal is USD 11.1/mmbtu. The capacity of LNG that can be produced is 47 mmscfd or 934 tons of LNG per day. Sales will be made using a 60% cash and 40% credit system with a payment period of 30 days. The minimum annual cash is around USD 52,050,000 for the purchase of molecules and OPEX for 3 months as well as for payment of bank interest and principal for 6 months. Depreciation of infrastructure is within a period of 10 business years. The financing component of the LNG project is a bank loan of USD 128,272,000 with a loan rate of 7%, a term of 9 years and a grace period of 2 years. Meanwhile, equity comes from USD 32,068,000. So the total value of CAPEX is USD 160,340,000.

Revenue for seven years from year 3 to year 10 is projected to be USD198.19 million with expenditures from purchasing products from suppliers in the form of LNG element of USD 117.84 million, while expenses from shipping are USD 21.43 million. Depreciation of the product amounted to USD 16.03 million. Taking into account the component, the company's gross profit is estimated at USD 42.89 million so that with the expenses for administration and general sales, the operating profit is USD 30.5 million in the third year, the largest projected operating profit is in the fifth year, which is USD 31.55 million and the lowest was in the 10th year, namely operating profit of USD 29.74 million. Consideration of expenses for interest and agent fees as well as the existence of taxes shows that the use of LNG as a cheap and environmentally friendly energy source is projected to be able to generate profits since the third year of USD 16.54 million, and the profit continues to grow in the following years until the 10th year to USD 23.20 million.

Utilization of LNG as a cheap and environmentally friendly energy source has positive cash flow since year 3 and this positive cash flow increases in the following year and the highest is projected in year 10, which is USD 90.97 million in one year. Net cash flow from operating activities has grown since the third year where this growth starts from the third year, which is USD 30.63 million and is projected to be USD 45.78 million in the 10th year. Investment cash flows are only available in the first and second years considering the two the first year was infrastructure development with a total investment for capital expenditure of USD 160.34 million.

For investment cash flows, it can be seen that in the first two years there were cash inflows originating from funding for equity participation of USD 32.07 million and investment loans of USD 119.15 million. Meanwhile, cash outflows for funding are based on principal payments in the third to 9th years, amounting to USD 128.27 million, while dividends will be distributed from the sixth to the tenth year with a total amount of USD 70 million.

4.7. Company Financial Feasibility Analysis

The financing component of the LNG project is a bank loan of USD 128,272,000 with a loan rate of 7%, a term of 9 years and a grace period of 2 years. Meanwhile, equity comes from USD 32,068,000 so that the total value of CAPEX is USD 160,340,000. The net present value of the project is USD 9,883,927 with a discount of 11%. These results indicate a positive NPV value which means that the invested funds are able to generate positive cash flows so that the NPV value is positive.

The IRR Project value of 12.48% and the IRR Equity of 19.42% are the interest rate that makes NPV = 0, as it equates the present value of the investment with the present value of net cash receipts. With an IRR rate that is greater than bank interest, this business is feasible to run. Based on these results, it can be stated financially that the business of utilizing LNG as a cheap and environmentally friendly energy source can be carried out. The payback period for this LNG project is 6 years with a profitability index (PI) of 1.3. A PI value of 1.3 which is greater than 1 means that the proposed investment project is declared feasible (accepted), meaning that the present *value of cash inflows* generated by the investment project is greater than the current *value of cash out flows*.

5. Conclusion

Based on the results of the business feasibility analysis of using LNG as a cheap and environmentally friendly energy source (regasification) in West Java with the plan to build an LNG terminal in Bojonegara, Serang, Banten, the conclusion obtained is that LNG has a large market with a need of around 717.4 tons of LNG per day for industrial needs in West Java with the largest demand being PT Citra Nusantara Gemilang which is a medium level natural gas distributor, and currently has 37 downstream customers, including 12 food factories, 6 textile factories, 3 car production plants, 5 wood related factories, 2 steel processing plants, and a pharmaceutical factory, 4 hotels, 3 central kitchens and 1 hospital. On the other hand, there is a saving of IDR 1,021/liter compared to industrial diesel or 12.02% and there is also a potential savings of IDR 1,944/kg or 16.90% compared to LPG. LNG substitution can save more than 10% of the costs incurred for LPG and industrial diesel fuel. In terms of the environment, greenhouse gas emissions for industry in terms of SOx, NOx, CO2 and PM from LNG are much lower than petroleum and lower than LPG. LNG also has the lowest CO2 emission coefficient when compared to LPG and oil.

The choice of business site is in Bojonegara, Serang Banten because it has a water front width of ± 600m and a draft of 7-8 m, located on the edge of the Cilegon Timur exit toll road to PLTU Suralaya and the area around the industrial environment, ± 7 Km from the east exit toll Cilegon Jakarta Toll -Merak and has major permits such as Location Permit, AMDAL, Port (TUKS), Temporary LNG Storage Permit, NGS Business Legal Permit. This LNG terminal is planned to have a production capacity of 47 mmscfd or 934 tons per day.

Based on the revenue projection, it can be seen that the revenue for seven years from year 3 to year 10 is predicted to be USD198.19 million. Utilization of LNG as a cheap and environmentally friendly energy source is projected to be able to generate profits from the third year of USD 16.54 million, and this profit continues to grow in the following years until the 10th year to USD 23.20 million. The results of this study indicate that the LNG terminal is feasible to run with the net present value of the project amounting to USD 9,883,927 with a discount of 11%. This result shows a positive NPV value which means that the invested funds are able to generate positive cash flows so that the NPV value is positive. IRR Project value is 12.48% and IRR Equity is 19.42% which is greater than bank interest. The payback period for this LNG project is 6 years with a profitability index (PI) of 1.3. A PI value of 1.3 which is greater than 1 means that the proposed investment project is declared feasible (accepted), meaning that the present *value of cash inflows* generated by the investment project is greater than the present *value of cash out flows*.

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Fair and Equal Exploitation of Transboundary Natural Hydrocarbon Based on International Law and Standards

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Abstract

Cross-border shared resources have always been one of the legal and economic issues, since they are highly important to governments. Because of the inherent characteristic of governments and their willingness to exercise their sovereignty over the land, resources, and protection of these common cross-border resources, have always been challenging and a subject of disagreement between stakeholder countries, in the legal, economic, and political. These challenges become more serious when it comes to valuable and strategically shared cross-border resources such as oil, and gas. The case in this study is located on the common border between Iran and Iraq, which is the confluence of a valuable oil resources. This region is recognized as Azadegan and Majnoon oil fields. The importance of exploring this area is because it is regarded as one of the largest cross-border oil resource interconnections in the world in a single area. The existence of a huge and common underground oil reservoir, which is very valuable, is the reason for the conflict of interests between the two governments of Iran and Iraq. However, this conflict of interests has not only been created for governments, but it has interfered with the economic interests of international and multinational companies and the rights of present and future generations of human beings (collective/group rights). The escalation of this conflict of interest occurs when governments face shared oil resources onshore or offshore, which may jeopardize the rights of human generations and the environment due to political and economic competition.

Keywords: Cross-Border Shared, Fair and Equal Exploitation, Sovereignty, Transboundary Natural Resources

1. Introduction

With the emergence of new structures of government, new players in the international arena have emerged through the creation of new international organizations and the adoption of laws and new international principles. Such as making the new status of international and multinational corporations In the arena of international trade with governments, and the creation of a new position for the concepts and rights of present and future generations of human beings (Collective/Group Rights) has emerged as a new player in the international arena through the resolution of the 1972 Stockholm Declaration of the United Nations Conference on the Human Environment, the 1992 Rio Declaration on Environment and Development as Third-generation human rights. Among them are players (Governments, International oil companies, and the rights of human generations) who have Global

Interdependence, as well as challenges and Conflicts of rights and interests. The escalation of this conflict of interest occurs when governments face shared oil resources onshore or offshore, which may jeopardize the rights of human generations and the environment due to political and economic competition. Many conflicts of interest and rights in the right of exploitation and extraction from resources offshore are resolved in accordance with the Convention on the Law of the Sea. But there is still no universal international law on the right to exploitation and extraction from common onshore oil fields. The best solution to reach a logical agreement and contract between two neighboring states that have shared cross-border resources is to pay attention to the type of Common exploitation and operation called by the author of this research, "fair and equal exploitation of transboundary natural hydrocarbons according to international laws and standards." As well as adherence to the concept of global interdependence and respect for common and collective rights in these resources by governments. Shared cross-border resources are one of the most important causes of challenges for legal, political, economic, and military sciences. Another factor creating challenges in cross-border oil resources is the intrinsic special features of governments, their willingness to exercise their sovereignty over the land and strategically shared cross-border, and their legal duty to protect these resources. The case in this study is located on the common border between Iran and Iraq, where the confluence of valuable oil resources is recognized as Azadegan oil field and Majnoon oil field. The importance of exploration in this region is because of the huge oil layers; as one of the most significant connections of cross-border oil resources in the world, it is located in a single region between two neighboring countries. Fair and equal use and standard extraction of common fluid resources for neighboring countries based on international law documents are achieved by examining the technical factors and the location of transboundary oil reservoirs. The dominance of natural fluid resources as valuable fluids on earth has always been the basis for forming international disputes and challenges from the beginning of new human civilization to the present day. Countries need to expand and maintain their sovereignty over natural resources to survive and thrive economically and socially in their home countries, whether these resources are within their inside borders or located in the area of shared cross-border. In some cases, this expansion of the scope of sovereignty by states leads to the formation of legal, political, and even military challenges. One of the most important areas of logic in the Middle East is rich in oil and gas resources.

The objectives of this study are:
-Examining the legal nature and applicable rules of international law on fluid, natural resources of petroleum;
-Examining the position and Technical Specifications of transboundary natural fluid resources between several countries and the challenges ahead, including politics, economic and legal challenges ;
-Investigating the effects of unilateral and multilateral behavior in the withdrawal of fluid, natural resources by governments and the impact of these behaviors on the environment.

Therefore, for fair and equal use of common fluid resources based on international law documents, it is necessary to know the factors affecting the amount of extraction from oil fields and the factors affecting the relationship between the governments that own the reservoirs.

2. Cross-Border Oil Resources

Geographically, Iran and Iraq have 1629 km of shared border. Iran and Iraq have 12 shared oil fields along their shared border, including Naft Shahr field next to the Naft khaneh oil field, Dehloran field beside Abu Ghraib field, and Paydar field next to the Falake field, Azadegan field alongside Majnoon field, and Yadavaran field next to Sanbad field. Azadegan field in the southwest of Iran is located 80 km away from the west of Ahvaz, near Susangerd, and by the Iran-Iraq border (AOGC, 2019).

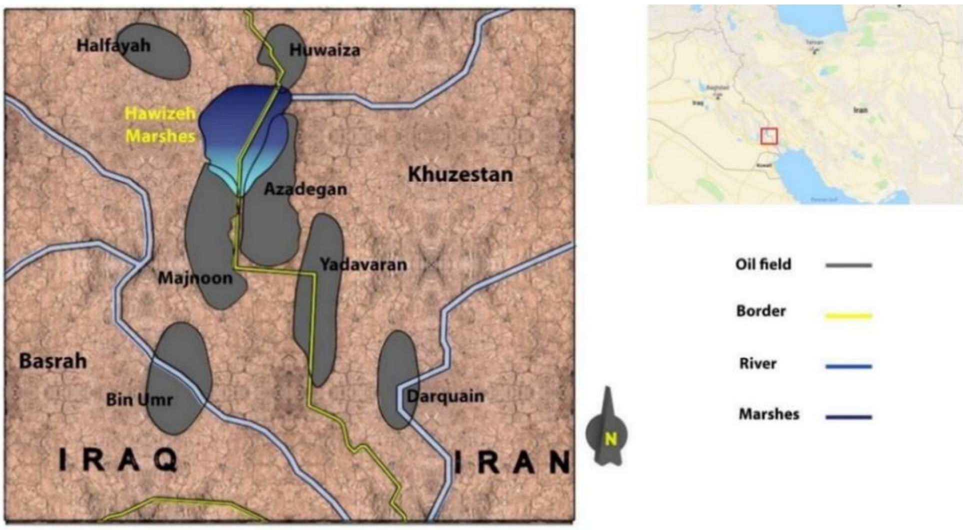

Figure 1: Political border between Iran and Iraq (Du et al. 2015)

3. Investigating the Factors and Technical Specifications Affecting Increasing Production of Oil and Gas in Shared Cross-Border Fields

The world oil exploration process is declining, and many of its oil reserves are at the bottom of its production model. The importance of correcting and improving the harvest increase methods is that in many oil reserves around the world, about two-thirds of the oil reservoirs remain unused and cannot be extracted by conventional methods. Countries use various techniques to increase harvesting, such as directional drilling techniques or the injection of particular materials into the oil field reservoirs. The International Energy Agency (IEA) predicts that energy demand will increase by 1.4% until 2040, while oil and natural gas provide about half of their demand. The use of Enhanced Oil Recovery (EOR) techniques is expected to increase significantly worldwide to maximize economic recovery from existing oil and gas fields (Figure 2) (MarketWatch, 2019).

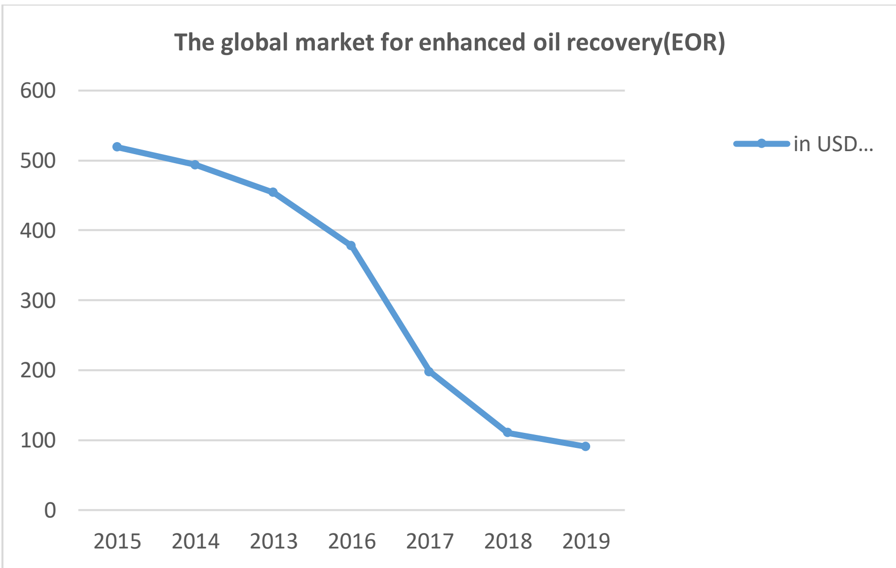

Figure 2: the global market for enhanced oil recovery (EOR) (Bloomberg, 2019; Radiantinsights, 2015)

The recovery coefficient is the ratio of the final recovery to the total in situ oil of the field. In other words, it is the percentage of primary in situ oil that can be extracted by primary, secondary, and tertiary recovery methods. The initial recovery coefficient is a percentage of its reserves extracted by natural pressure. The secondary recovery coefficient includes increasing the number of wells drilled, directional and inclined drilling, and improving on-site equipment to extract more oil from reservoirs, water and gas injection, etc. However, it can be held that what is generally understood as secondary recovery is a part of the reservoir production during its production life that is created as a result of the process of injection of water or gas. Secondary recovery methods are called (IOR), and tertiary methods are referred to as (EOR) (Matin and Jafari 2016). Oil-producing countries have intense competition for early investment information and reservoir recognition in a cross-border shared oil field. In this competition, the winner provides a country that performs oil and gas extraction operations through reservoir recognition and better understands the affecting factors on the border flow of fluid through engineering design, more advanced technologies, and more investment. One of the technical, economic, and legal challenges in harvesting the cross-border shared oil field is balance maintenance in harvesting these shared oil fields considering the Principle of Equitable Utilization and the challenge of oil and gas flow migration. Considering a few points are essential:

3.1. The Impact of Distance and Number of Wells between Two Countries from Neighboring Country Borders

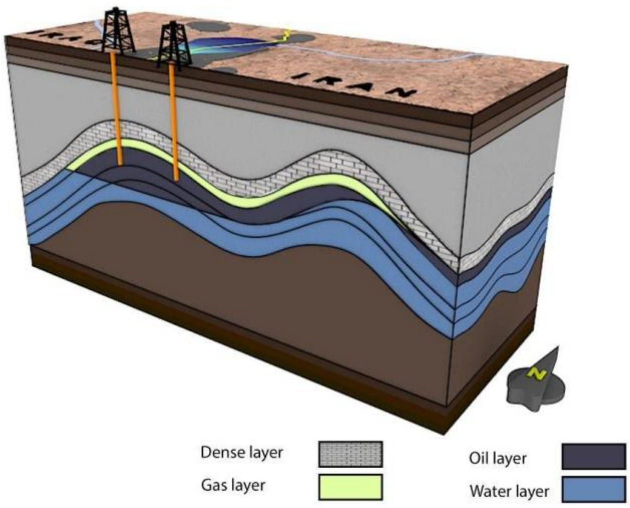

Figure 3: Geological structure of oil wells between two neighboring countries (Iraj Abdollahie et al., 2015)

The location of the wells on a cross-border shared oil field has a direct effect on its production. The location of production wells and their directionality impact the flow of fluid across the borders of the stakeholder countries. The closer the wells are to the boundary; the more possibility would be for fluid to flow from the other side to its boundary (Figure 3). In these circumstances, countries would prefer to produce non-stop and at the highest production rate from the shared reservoir to direct cross-border fluid flow toward themselves. It should be noted that the pressure drop movement in the reservoir is a kind of wave motion. This pressure wave in the reservoir is known as the wave's superposition rule. Accordingly, when two beneficiary countries begin to produce oil and gas on both sides of the border equally, the fluid in the boundary regions would have the same potential on both sides and flows equally toward the two neighbors. Eventually, fluid flow from one country to another would be zero (Shokrolahzadeh-Behbahani, Zeinali-Hasanvand, and Ahmadi 2015). When oil migrates to the neighboring country from the cross-border shared reservoirs below the political boundaries of a stakeholder country, this country will suffer from two aspects; firstly, concerning the loss of its share of hydrocarbon resources, and secondly, due to the well's pressure drop .As a result, the countries concerned in the cross-border shared reservoir attempt to drill and produce from wells in an area of the reservoir with more appropriate permeability and less porosity because a more substantial compressive wave is sent to the boundary, and this wave moves more rapidly to another side of the reservoir to maximize the productivity of the reservoir's pressure drop in addition to transferring fluid from the border towards themselves (Shokrolahzadeh-Behbahani, Zeinali-Hasanvand, and Ahmadi 2015). Governments usually impose legal restrictions on the prevention of drilling and construction of wells over certain distances to avoid conflicts of rights and challenges that result from exploitation concessions to contractors operating in the vicinity of common oil fields (Campbell Nicholas J 1956). On this basis, it can be pointed out in the United Kingdom Regulations that it is "*forbid without the Minister's consent, the location of the any well about 125 meters from a license boundary line*" (United Kingdom, 1966; Worris, 1968).

The concept of "*the more wells, the more oil*" (Morris 1968) has many fans, countries, or concessionaires trying to make more money by building many teas. Some countries build multiple wells to compensate for lagging production compared to neighboring countries. Especially where there was competition for maximal harvests, such as in the joint oil and gas field. This might cause the reservoir pressure to drop and the oil and gas fluid migration.

3.2. Impact of Using Directional and Horizontal Drilling Technology on Harvesting

In a vertical well, the pressure drops of the well begin at a central point, while in a directional or horizontal well, the pressure drop is dispersed along a line. This pressure drop line can be parallel with or perpendicular to the country border (Shokrolahzadeh-Behbahani, Zeinali-Hasanvand, and Ahmadi 2015).

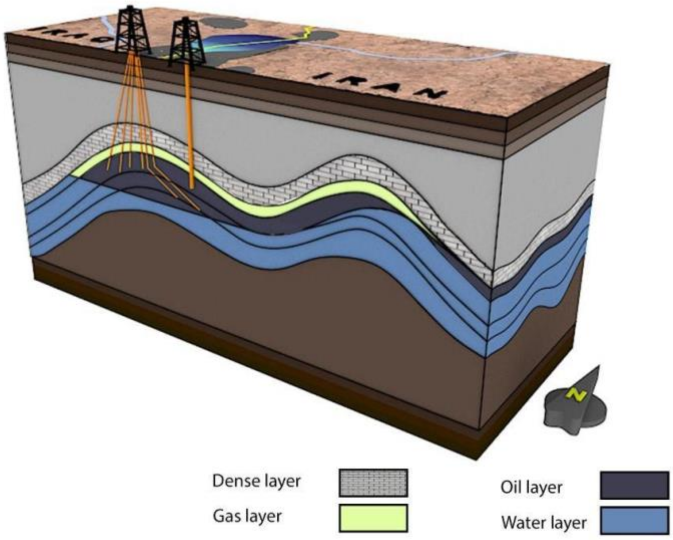

Figure 4: Directional and horizontal drilling (Iraj Abdollahie et al., 2015)

Directional and horizontal drilling is a technology and technique that allows easier access to shallow directional and horizontal wells. Countries utilize nanotechnology and Nano-composite in drilling rigs for drilling an oil well, directional drilling, and angular drilling to increase harvesting oil reservoirs. Bendable Flexible Pipe technology and drill bits in drilling oil reservoirs allow faster and easier access to many oil and gas reserves (Figure 4). Most of southern Iraq's new oil and gas wells use directional and horizontal drilling technology. Given that Iraq has many fields and the oil recovery coefficient varies in each field; however, generally, the average oil recovery rate in Iraq is 34%. The recovery coefficient of 22 oil fields out of 28 producing oil fields in Iraq is between 15 and 42 %, while its total average is above 30%. The methods of increasing the Iraq recovery coefficient are mainly (EOR) and (IOR) water injection. The average growth of Iraq's extractable reserves increased to 60% (1.6-fold) between 2001 and 1981 (Matin and Jafari 2016).

- *Legal Challenges of Directional Drilling at Cross-Border Oil Fields*

One of the features of oil and gas extraction through directional drilling is that it is possible to enter neighboring and beneficiary countries in a cross-border shared source through the underground, which provokes legal challenges and violations of countries' rights as follows:

1- Violation of the principle of territorial integrity by illegal extraction beyond the borders of countries, mainly through directional drilling(Bastida et al. 2006).

2. The states' unilateral and directional drilling in the cross-border shared field violates the obligation of non-material damage to the other government. (Bastida et al. 2006)

3- According to Art 3 of Resolution 3281 of the Charter of Economic Rights and the Duties of states, unilateral drilling of cross-border shared resources violates the obligation to exchange information and consult with another

government on matters relating to shared resources, which is a commitment based on the resolutions of the (UNGA).
4- Unilateral and directional drilling of cross-border shared resources might create and spread hostilities between governments, which is also a violation of the purposes of the UN Charter and international norms.
5- Beneficiaries would enjoy mutual and equitable rights regarding the extraction of cross-border shared oil resources(Onorato 1977), and governments would violate the mutual and equitable right use by directional and unilateral drilling.
6- The exploitation of a shared cross-border resource only happens by mutual agreement between all the States concerned, while directional drilling permits access to the border part of the neighboring state concerned underground, which practically violates the reciprocal agreement.
7- Directional drilling in cross-border oil fields might violate the principle of leitmotiv (Tanaka, 2011).
8- Directional drilling at shared oil fields by one of the beneficiaries would violate the Principle of Equitable and Reasonable Utilization.

3.3. The Impact of Using the Oil or Gas Injection Technology of Oil or Gas Injection into the Oil Field

The first projects were carried out in the 1930s using hydrocarbon gas injection techniques at Oklahoma City and the Cunningham Pool fields in the United States (Muskat 1949). Water, gas, carbon dioxide, chemical Alkaline Surfactant Polymer (ASP), injection into the field as well as microbial techniques Enhanced microbial oil recovery (MEOR) are other advanced techniques and technologies to increase oil harvesting and improve oil recovery (Mirei and Ali Akbar Dehghan 2014).

Fluid flow control is one of the most critical factors in extracting hydrocarbon fluids (Adelzadeh 2004). In this case, the frontal infiltration front of injected fluid must move as smoothly as possible to fit within the formation. To improve this process, the researchers have successfully produced non-permeable surface agents to enhance flow rates in extraction and production operations (Khoshmardan, Huormozi, and Mohammadian 2014). According to experts, most of Iran's large oil reserves are now in the second half of their lives and need gas injection. The purpose of gas injection into the oil reservoirs is to increase the oil recovery coefficient of the reservoirs and build the capacity to convert in situ oil into extractable oil from the reservoirs (Matin and Jafari 2016).

3.4. The Legal Challenges of Water Injection, Gas Injection, and into the Oil Field

Fluid flow control also generates hydrocarbon migration across the field. The basis for this method is that during the migration process, the light crude oil element first migrates, and its heavy content remains in the reservoir. This method would likely cause a country to invade and encroach on a neighboring country's subsurface/underground oil reservoirs at shared oil fields, and hence conflicts of interest would occur .Besides, unilateral drilling and the use of techniques, which cause migration of fluid across the field, would result in more economic coalition and capital loss for non-beneficiary counterparts who don’t use this method due to competitive drilling through pressure drop of the field on the neighboring side which reduces production volume and also oil and gas field life in the long term and the neighboring beneficiary country is forced to invest more in increasing field pressure to increase production volume to compensate for this loss and backlog. If two countries use the system in a shared development system for shared common cross-border reservoirs, their extraction costs would be reduced, achieving the maximum production rates (Lagoni 1979). The competitive and unilateral drilling by governments also creates severe physical damage to the shared oil and gas field (Bastida, et al., 2016).

4. The Necessity of Using Shared Exploitation Method or Development Integration, Exploitation, and Production in Natural Cross-Border Resources

One of the critical issues in determining the legality and ownership of natural resources, especially mineral resources, is the determination of their location. Accordingly, there are two categories:

4.1. Solid Natural and Mineral Resources

To determine the sovereignty and ownership of solid natural resources, because they are within a particular region and boundary, they can easily be assessed and determined in terms of their ownership, and the fundamental principle of territorial sovereignty is applied to them (Lagoni 1979).

4.2. Fluid Natural and Mineral Resources (Oil and Gas)

There are three theories for harvesting fluid cross-border natural resources.
The first theory: The "Rule of Capture," states that the first person starting to extract has the right to exploit the entire resource.

The definition of the rule of capture is:
"The right to drill for and produce oil and gas from a particular tract of land even though doing so would drain the hydrocarbon concerned from beneath the land of another party (Muskat 1949).
One of the disadvantages of exploiting the shared cross-border oil resources independently, based on the rule of capture, is that it leads to competitive drilling and probable over-harvesting, ultimately damaging it and imposing additional economic costs in production to the beneficiaries. This view is based on the idea of using the "*Prior Appropriation Rule."*

In other words, the nature of the right to extract from the cross-border shared oil fluid resources is "An Affirmative, Vested Interest in Situ" (Lagoni 1979).

The second theory: Applying the rule of sovereignty over the subsoil based on the view of Juraj Andrassy, who states that this rule should be applied in the absence of a shared international agreement for cooperation and division of production of a shared cross-border field (Andrassy 1951).

The third theory: Shared exploitation of cross-border fields
The co-development and integration methods include two methods, the first is co-development, and the second is integration. Its purpose is to prevent competitive drilling and prevent its harm .Proponents of this theory argue that competitive drilling is contrary to international law.

Integration is another way of exploiting shared cross-border oil resources. Accordingly, an agreement is made between the stakeholder parties to the shared cross-border fields to determine the manner of allocating the benefits and costs associated with exploiting the cross-border shared field, and a single exploiting company is determined as the operator of the whole shared oil fields by the agreement of the stakeholder parties .The first method has become a common practice in some legal systems, and the latter method is also more popular due to securing the interests of both parties and preventing damage to the oil field in joint fields. Except in cases where two or more countries conflict or their preference is essentially based on a unilateral extraction, in other cases, governments enter into bilateral or multilateral agreements by using one of the oil contracts models.

5. Investigating the Conflicts of Interest of States Concerned in Cross-Border Shared Natural Resources

The Conflicts of Interest of States Concerned in Cross-Border Shared Natural Resources are including:

5.1. Political issues

By looking at the structure of a cross-border natural resource, particularly the shared oil reservoir, it is easy to find out that the reservoir surface/underground has one or more pieces that can be described as a cylinder filled with oil, gas, and condensate. This reservoir can be within two or more countries' territorial or maritime water territories on both political territorial and marine boundaries. Therefore, there is always more than one state claiming ownership of these shared fields. one of the reasons for conflict between neighboring countries is the pressure to find and exploit cross-border petroleum reserves located in disputed areas and the lack of united management to perform extraction operations in the shared field and absence of cooperation and coordination between neighboring countries (Bastida et al. 2006), for instance, the Iraq-Kuwait war (the 1991 Gulf War) (The Associated Press 2005) is an excellent example of in this case (Szekely, Utton, and Carmen Pedrazzini 1991).

Therefore, it can be stated that the level of political relations of the partners would affect the possibility and ease of cooperation in the management of the shared fields. If the two countries had close political relations, there would be less sensitivity to negotiation and agreement; subsequently, the circumstance would be easier to increase the cooperation between the two countries to develop the field.

5.2. Investment Issues

Some of the advantages of increased cooperation in the exploitation of common cross-border resources are establishing political peace on the common borders of neighboring countries and establishing a stable and strong economic relationship between those countries. These advantages of increased cooperation between countries prevent disputes between neighboring countries and lead to economic stability for countries and economic zones on the borders of two or more countries.

Among the benefits of increasing cooperation between countries are eliminating lengthy border disputes between countries, increasing the economic profits of countries, and creating more stability on the borders of two or more neighboring countries. Therefore, each beneficiary country considers its long-term economic benefits to be achieved by providing a peaceful environment on the border with its neighbors. In the integrated and shared development of cross-border natural resources, costs such as gathering the required information, clearing the cross-border shared resources if needed, and developing and exploiting the field would also be significantly reduced (Ghanbari 2011). Integration and development, co-production and exploitation of cross-border shared resources are the most important ways to invest in resources that require governments' cooperation and are the best ways to extract water, oil, and gas resources. The economic and investment reasons that cause the countries to select shared integration, development, production, and operation are:
1- Countries have a strong desire to exploit the cross-border shared resources of the region at the earliest time.
2- Countries have realized that alternative approaches, such as border delimitation, are likely to lead to a significant delay in operation and potentially have a severe negative impact on bilateral relations (Bastida et al. 2006).
3- Countries have recognized that existing agreements can be useful for codifying new agreements and new shared cooperation (Art. 6(1)) (United Nations 1958).

Implementation of the optimal operation pattern requires access to information and performing operations on the oil reservoir's ground terrain. In shared repositories, this access would not be possible without the cooperation and coordination of partners or integrated management of reservoirs.

5.3. Legal Issues

The legal issues affecting the decision about shared fields depend on legal factors such as international law as well as the domestic legal system and countries' views on the sovereignty and ownership of natural resources and shared fields (ownership of public or private natural resources).

5.3.1. International Law

To better understand the rules of international law, this section will examine the rules of shared natural resources onshore and then the rules of shared natural resources at sea.

5.3.1.1. A Brief Overview of the Rules of International Law in the Shared Natural Resources of Onshore

Understanding and executing the principles and rules of an international oil law regarding the common natural

resources of the sea is always a challenge for governments onshore and offshore or deep underground. Because every country is thinking of maximizing the use of these resources, the consequence of this approach of governments is the cause conflict and disagreement between governments in the use of these resources. Secondly, it is to cause damage to the environment. Fluid and natural resources have been classified into three categories:
1-Surface water reserves (watercourses);
2-Aquifer;
3-Natural oil and gas resources

Resources of oil and gas fluids and underground water (aquifers) have many similarities and differences: One of the similarities is the potential for migration of gas and oil resources, which is a common feature of underground water. Therefore, each of these sources follows a different legal regime. The International Law Commission (ILC) has made great efforts to establish integrated rules for shared onshore resources. However, the governments have several views on whether underground water aquifers with underground oil and gas resources onshore can follow a unit legal regime.

The commission has tried to prepare and establish legal systems, rules, and regulations for natural resources in three categories: surface water (watercourse) resources, transboundary aquifers, and oil and gas resources. But, we can generally say that these principles are applied to these resources according to all the differences of opinion of the governments, including the principles of fair and equal utilization and reasonable manner, and non-harm in the exploitation of these common natural resources and creating and applying formal norms such as the general obligation to cooperate, and regular exchange of data and information (Wronski v. Sun Oil Company, 22 Ill.89 Mich. App. 11, 279 N.W.2d 564 (Ct. App. 1979) 1979).

It is important to note that, according to the International Law Commission, some countries believe that the natural resources of transboundary oil and gas are similar to aquifers in terms of fluidity and migration. Therefore, the provisions adopted by the International Law Commission in 19 Arts would apply to oil and gas resources. Thus, in the opinion of these countries, regarding oil and gas resources, each country's exploitation and extraction should be done fairly and reasonably and based on the relevant characteristics and factors.

Common features of underground water, oil, and gas resources include physical properties (migration and fluids) in both of them. Second is human societies' need and demand for access to water resources and oil and gas.

Third, the principle of permanent sovereignty of governments over natural resources is usable of underground water, oil, and gas sources. Therefore, considering the above characteristics, it can be concluded that the principle of fair and harmless use in the exploitation of water, oil, and gas resources underground can be extended following the principles of international law.

According to this premise, if an oil and gas reservoir is shared between two or more countries, the first way should be to use the principle of fair and harmless use to the countries adjacent to the reservoir. Because this principle was created and generalized on the assumption that it was not the origin of common reserves, but its crossing and flow should be shared between several countries. This has led to the acquisition of internationally acquired rights to these reserves. However, in oil and gas fields where the reservoir is shared, the same commonality in the origin of creation can lead to the creation and formation of international acquired law for the country that owns the reservoir. Of course, it should be noted that the issue of oil and gas reserves has not yet been addressed in customary international law. Therefore, according to the provisions of Arts 155 and 160 of the Convention on the Law of the Sea, states with a shared field must also act fairly on a non-discriminatory basis to distribute the resources and other economic benefits of their activities in the common area through any appropriate mechanism. In other words, sharing and exploitation must be fair and non-discriminatory. Of course, as mentioned in the exploitation of other natural resources, this harvesting of resources must be done in a way that without damage to the field and also execution of international standards (Wronski v. Sun Oil Company, 22 Ill.89 Mich. App. 11, 279 N.W.2d 564 (Ct. App. 1979) 1979). Therefore, the possibility of exploiting and enforcing recognized rights for the neighboring government is not ruled out or accompanied by difficulties. In support of this view, Art 142 of the Convention on the Law of the Sea states that the exploitation of shared resources in the territorial sea and the high seas must not prejudice the legitimate interests of the coastal state. As set out in Art 3 of United Nations General Assembly Resolution 3281 (xxix), the Charter of Economic Rights and Duties of States exploits natural resources shared between two or more countries. Each country must cooperate based on the information system and prior consultation to achieve the maximum use of such resources without harming the legitimate interests of the other parties (UNGA, 1962). Also, in the discussion of the common heritage of humanity, this kind of interpretation of natural resources has been specified. States have asserted in the Convention on the Law of the Sea, under Art 137, that resources and reserves outside the territorial sea and the (EEZ) and continental shelf of states are not sovereign of any country and belong to all humanity.

Art 140 of the Convention on the Law of the Sea sets out fair rules for the sharing and allocation of resources from areas in which all human beings have a right and are parts of the common heritage of humankind. Accordingly, it can be stated that assuming that all humanity is jointly entitled to and benefiting from natural resources, the rules of fairness have prevailed in the sharing of its benefits and revenues; thus, in the first case, assuming that a small number of human beings, through their governments, are entitled to reserves and resources, they must observe and adhere to the rule of fair operation in the exploitation and allocation of resources. When there is a reservoir or reservoirs of oil and gas at the intersection of the two countries, to use the shared reservoir more efficiently and less costly, they can set up a unitization or unification agreement in some cases. If concluded between two states, such an agreement is called an international unification agreement. According to the above, unitization is the joint and coordinated operation of exploration and extraction in an oil or gas reservoir by the rightful owners in separate parts under which such a joint reservoir or reservoirs are located. As the international community has not yet succeeded in establishing uniform rules and procedures for the exploitation of the shared natural resources of oil and gas on land, it is possible to extend and use the rules of the Convention on the Law of the Sea and other international customs for cases on shared oil and gas resources on land or onshore.

5.3.1.2. A Brief Overview of the Rules of International Law in the Shared Natural Resources of Offshore

The principle of national sovereignty over the territorial land guarantees the right to exploit the shared oil reserves within the country's borders for each country. The first question to be considered from international law is the international legal system. The countries concerned should cooperate either in the shared hydrocarbon resources and international standards and principles controlling them. International solutions should be sought to prevent political hydrocarbons tensions in the area where there are shared cross-border resources, such as the oil zone of Azadegan and Majnoon oil fields. The 1982 UN Convention on the Law of the Sea (UNCLOS) Convention on the Law Sea has provided a way to exploit cross-boundary oil resources by establishing rules on (EEZ) and the continental shelf (Ong, 1989).

The (UNGA) also adopted various resolutions, such as the Charter of the Rights economic Responsibilities of Governments (3281), the Environmental Cooperation Resolution on Common Natural Resources (3219), and the (UNGA) Res on the Guidelines for the UN Environmental Program for Joint Natural Resources (186/34), the (UNGA) Res on the Declaration of the UN Conference on Human and Global Environment (2994), has emphasized the cooperation principle of concerned governments for the exploitation of shared cross-border natural resources and avoidance of environmental damage overexploitation of cross-border resources. However, there is no rules or guidelines in international rules and custom to prevent unilateral shared oil and natural resources harvest or to require the establishment of regional or international agreements. However, the 1982 Convention on the Law of the Sea has urged the governments to take temporary measures or good faith to cooperate for reaching an agreement on marine delimitation concerning resources under the seabed and, in the absence of a bilateral agreement, and request all the parties to refrain from any unilateral action which could disrupt the final settlement process. In the absence of a treaty between states, resolutions, binding obligations, and international customs, the general principles of law accepted by civilized nations can be the source of arbitration. Currently, in the absence of agreement between governments, the common rule for exploiting shared fields is the “Rule of Capture.” This rule, which has been applied to international and internal nation’s law from an internal civilized nation’s law and has international legitimacy, considers underground oil and gas just as wild animals that go into anybody's land; the landlord would find ownership over that animal. *(“He who owns the soil also owns the skies above and the depths below”)* (United Carbon Co. v. Campbellsville Gas Co., 230 Ky. 275, 18 S.W.2d 1110 (Ky. Ct. App. 1929);

Roughton, 2008). Therefore, ownership of oil is obtained from the extraction and practical possession regardless of how much oil is located on which side of the border, and either side would be the owner of the captured amount of oil. Hence, if the border of the neighboring country does not exceed during drilling, the court's vote would probably be based on the Rule of Capture and would ignore the issue of fluid immigration. Accordingly, the English case Acton v. Blundell noted that the court cited the rule of capture in the case of a dispute over groundwater rights. The court stated that the mine owner had no responsibility for the drying up of water and damages to a miller well and the migration of water that belonged to the mill and the well owner. There was a preclusion of tortious liability (Weems, 2012; Roughton, 2008). The Pennsylvania Supreme Court (1889) has interpreted in its ruling the right to own immigrated underground hydrocarbons:

"If an adjoining, or even a distant owner, drills his own land and taps your gas so that it comes into his well and under his control, it is no longer yours, but his." (Becker-Weinberg and IMPRS, 2014).

Both courts seem to argue that the border of the neighboring country/person has not exceeded during drilling and harvesting from wells. However, it should be noted that this lack of exceedingly probably does not include directional drilling techniques and deliberate change of reservoir pressure that cause deliberate fluids migration. One of the fundamental concepts of the international law system in the context of cross-border hydrologic and hydrocarbon resources is the emphasis on sovereign equality, consent, and good faith. Based on these concepts, countries can design the base of their relations on cross-border resources (Cristina, 1938). Accordingly, the Cameron / Nigerian Court1998 (ICJ), in its ruling, noted the parties' consent (agreement) and good faith in the petroleum activities in the oil resources:

"..."...Overall, it follows from the jurisprudence that, although the existence of an express or tacit agreement between the parties on the siting of their respective oil concessions might indicate a consensus on hic maritime areas to which...In the present case, there is no agreement between the Parties/regarding oil concessions..." (ICJ, 1998; Roughton, 2008).

It is important to note that governments reduce their full sovereignty when they receive similar concessions in that cross-border shared resource from other beneficiary governments. Governments are willing to enter into negotiations based on the “Mutual Exchange of Privileges." When a regional or international bilateral or multilateral relationship is formed between governments, their legal systems adopt the principle of reciprocity based on the principles of international law. Examples of the need for agreement between countries and the mutual exchange of privileges are Art 4 of the UK-Norway Continental Shelf Agreement in 1965:

"... The Contracting Parties, in consultation with the licensees, if any, seek to reach an agreement as to the manner in which the structure or field shall be most effectively exploited, and the manner in which the proceeds deriving therefrom shall be apportioned..." (Bankes, 2014).

It can be argued that the concept of the principle of conflict in shared resources is based on limited territorial sovereignty and a legal regime based on the principles of equitable (United Nations Economic Commission for Europe, 1947), and reasonable use and the due diligence obligation (UN, 1997). The Sustainable Development Goals 2030 (SDGs) emphasize the role of sovereignty in the form of the international system and state:

“Every state has, and shall freely exercise, full permanent sovereignty over all its wealth, natural resources, and economic activity” (Art. 18) (Lipinski, 2017).

The reciprocity of cross-border issues and disputes over the shared resources between two or more countries is central (Art 2) (United Nations, 1945); it is considered a legal default and underlying condition of cooperation in shared resources (Leb, 2013). The use of the principle of reciprocity has two specific characteristics and consequences in the case of shared resources. This principle is widespread because it is referable and sable by all governments. It is also a debilitating principle because governments try to limit their claims by recognizing that other states refer to them. These two characteristics, being widespread and accessible to all governments and being debilitating, which limits claims, ensure that claims are made reasonably internationally, leading to customary international law. Accordingly, claims-making countries must accept that their claims are generalized to other countries in the same situation. In this case, it is ensured that countries only claim cases subject to generalization (Snyder, 2004). According to the principle of reciprocity, if a country makes claims of sovereignty over a shared source, it must accept that this requires acceptance of absolute territorial sovereignty or absolute territorial integrity; that is to say, other beneficiaries might also make similar claims. One of the best solutions for cross-border resources, hydrocarbons, is to apply the principle of limited territorial sovereignty. One of the benefits of this principle for the beneficiary countries, in the common source, is the creation of equal rights and respect for other beneficiaries' rights to claim.(McCaffrey 1996) This principle is also accepted as customary international law.

The formation of bilateral or multilateral agreements on the exploitation (and integration agreements on the development, production, and exploitation) of shared cross-border resources depends on countries concluding that all stakeholders in common cross-border resources have equal rights. This collective understanding of equal rights guarantees equality in the rights of other partners and members.

It is important to note that since there is no developed law of international law governing the development and exploitation of cross-border fluid, natural resources, the program of "by analogy," relating to de facto cooperation rules for natural resources with similar physical properties with a fluid such as water, can be used for other fluid sources such as oil and gas (Onorato, 1977). On the other hand, in the event of disagreement between the interested countries, IOCs or the neighboring country shall be free to make maximum production across its borderline on the common oil reservoir, despite neighboring countries' policies (Bundy, 1995).

5.3.1.3. Factors Affecting the Fair and Equal Use of Shared Fluid Resources based on International Law Documents

Factors affecting the fair and equal use of shared fluid resources based on international law documents include:

-Geographical Boundaries and Shape of the Reservoir

One of the most important and initial criteria and characteristics that can play an important role in determining a fair extraction share is the geographical boundaries and form of a shared oil and gas fluid reservoir located within the countries' sovereign borders.

For instance, today, petroleum engineers can use three-dimensional and four-dimensional seismic technologies to estimate the length, width, height, and brief shape of the reservoir to calculate its actual reserves. Therefore, adding the coordinates of the countries' borders to the calculations and simulations would not be out of reach to know the limits of a country's reserves.

-Exploitation as Needs

Under Art 63 of the Convention on the Law of the Sea, countries that are adjacent to each other and have a common economic monopoly are strongly advised to agree on the exploitation of living resources in a renewable sense to preserve these reserves. Therefore, regarding non-renewable (non-biotic) common reserves, such as oil and gas, by exploiting them, there is no alternative to these resources. In first and foremost way, neighboring governments must agree on developing and using these resources to observe the principle of good neighborliness and the approach of unconventional and non-technical destruction and preserve it for future generations of human beings. Therefore, without a doubt, these rulings would apply to this group of natural resources. It is worth noting that the Convention on the Law of the Sea has made this provision more objective by explaining the following conditions:
1. Dependence or lack of economic dependence on the exploitation of natural resources described;
2. Geographical conditions;
3. Economic conditions;
4. The needs of the general public Exploitation of the above resources.

-Observing the Principle of Non-Harmful (Sustainable) Use of Natural Resources

In accordance with the general principles recognized in international law in the field of the environment by the Rio and Stockholm Declarations, Each State undertakes to use its natural resources and the environment of its territory in such a way that such measures, even if they are in their territory, do not cause harm to another state or to an institution which is not under the control of any state.

Nowadays, the principle of non-harmful (sustainable) use of land along with the principle of prevention and precautionary measures is necessary to protect the environment. On this basis, several international instruments have been approved. These principles have become commonplace in international law due to governments' use of these international instruments, especially the emphasis of arbitrators on the application of these principles.

Under Arts 193 and 194 of the Convention on the Law of the Sea, member states have the right to use their natural resources in accordance with their environmental policies and in accordance with their duty to protect and preserve the marine environment. According to the Protocol on Marine Pollution from Exploration and Extraction from the Continental Plateau, which is annexed to this Convention, there are complete regulations to prevent accidents and limit pollution caused by the discharge of harmful substances at sea during exploration and the exploitation of offshore resources. Under this Protocol, the Contracting States shall require that all necessary measures be taken; One of these measures is selecting the best available technology and economically justifiable by the operating companies. Each Contracting State shall also take appropriate measures to ensure that the installation is approved for safety. The equipment and tools used, mainly explosives and other safety equipment, are in good working order and tested periodically.

-Observance of Interests and Intergenerational Justice

The Rio Declaration stipulates in principle three that the right to development must be exercised to equally meet the needs of the present and future generations in development and the preservation of the environment. In this regard, and according to the Stockholm Declaration, Resolution 2158 adopted in 1966 specifically emphasizes the exploitation of non-renewable resources must be planned for the development of the country and the interests of current and future generations (UN General Assembly, 1966). The New Delhi Declaration of April 2006, in the second paragraph of the first principle, obliges governments to manage their natural or territorial resources prudently and sustainably. Of course, management of natural or territorial resources prudently and sustainably must be accompanied by the development of nations and paying particular attention to the rights of indigenous people, the protection and sustainable use of natural resources, and the protection of the environment, including ecosystems. The proclamation adds that governments must also consider the wishes and needs of future generations and oblige all stakeholders or other sectors to prohibit the excessive use of natural resources (Dabiri and Pirhashemi, 2009).

-Maximizing the Economic Value of the Reservoir

IOCs have the policy of maximum production in a minimum of time as one of their main hidden goals. Therefore, they do their best to achieve this important goal. However, this action is contrary to the principles of production protection from the fields, causes severe damage to the reservoirs, and even contradicts the principles of maximizing the economic value of the reservoirs. Therefore, another feature that can be considered for the fair operation of common fields is maximizing the economic value of reservoirs, which would implicitly guarantee the conservation production and the overall non-destruction of the reservoir. According to experts, maximizing the economic value of the fields would be conceivable when the maximum withdrawal and depletion of reserves occur. This is also assumed that the operation is conservative and gradual and not sudden and with a severe pressure drop in the reservoir and is accompanied by maximizing the withdrawal coefficient from the reservoirs to improve the reservoir's life by implementing methods such as Secondary Recovery. Regarding the methods to increase the recovery factor, we can mention gas injection into oil reservoirs or water injection into reservoirs. The safe withdrawal of reservoirs delays the IOCs in achieving profits and benefits as soon as possible, and the implementation of methods to increase the recovery factor also imposes costs on the contractor, especially without being able to reap the benefits of this increase in production capacity during its contract with the host state (Tavakol Habibzadeh and Reza Agha Tehrani 2016).

5.3.2. Domestic Law and the Terms of the Oil Contracts

According to estimates by two countries of Iran and Iraq on the shared oil fields (Azadegan and Majnoon), Iraq estimated the in-situ oil of this field as 25 billion barrels (Offshore-Technology, 2019), and Iran estimated the in-situ oil of this field as 5.6 billion barrels in the northern Azadegan (Petroleum Engineering and Development Company(PEDEC) 2019) and 25.6 billion barrels in the southern Azadegan part (Offshore-Technology, 2019; NaftEMA, 2016). According to these estimates, the concerned governments have signed a contract with foreign companies and investors in this area, based on their special contractual patterns. The first major issue in domestic law and patterns of oil and gas contracts is the ownership right of shared fields or products of these fields that depend on the legal system of countries. Some countries like the United States have adopted private ownership of resources and products, but some countries such as China, Iran, and some Arabian countries have well-known ownership of natural resources and products of public ownership. This directly impacts the negotiation stage and determination of the type of contract prevailing for shared fields .Differences in countries' legal bases and domestic laws can create legal hurdles and problems in choosing the right contract model. A part of the negotiations with the host government and IOCs is devoted to cooperation in joint oil fields and sovereignty and international relations; on this account, it is important to be familiar with the domestic laws of the HC. Accordingly, the extent of the contractor's authority in the field is determined. In case of differences in the legal systems and the type and extent of ownership of the oil field, one of the neighboring countries might give the contractor more powers in practice; however, conversely, the contractor would be given fewer powers by the second HC because of the legal system and domestic laws of the HC. This would ultimately result in differences in the contractor's mastery over the contract, the length of the contract period, and the number of profits earned by the contractor .Regarding the importance of this issue, a (JDA) between Thailand and Malaysia (1979-1990), based on which a Joint Development Zone was signed between the two countries in the Thailand Gulf in 1979 based on the Memorandum of Understanding MOU. This agreement MOU has established a powerful Joint Authority with common terms in shares and power for fifty years. This (JDZ) has all the rights and responsibilities for both countries to discover and exploit non-living coastal and underground resources. It was challenging to practice the terms of the MOU agreement to establish a finance oil regime based on (JDZ)-that is why Malaysia acted and managed based on a Production Sharing Contracts PSC, while Thailand used a tax and concession system .Resolving this issue and other problems led to a significant delay in the subsequent agreement on the establishment of the Malaysia-Thailand Joint, which was eventually signed in 1990 (David Ong, 1991). Based on the evaluation of this agreement, it is possible to understand the importance of the legal systems and the contractual regime governing each country, especially the countries that share cross-border natural resources.

5.3.2.1. Iran Laws about Shared Fields

Sharing joint oil resources with partners is not referred to in Iran's laws, and it always emphasizes state ownership of oil and gas and specifies that agreement with partner countries must be in a way that preserves the state ownership of these reserves (Parliament of Iran, 2011). The President's announcement to the Ministry of Petroleum in the Twelfth Government emphasized "the measures necessary to fully exploit all the shared fields" as the Ministry's specialized priorities. Although upstream laws and documents of oil and gas do not explicitly state how to exploit joint fields with partners, the protective exploitation and oil and gas production increase of joint fields have always been emphasized from domestic law's point of view, there are no obstacles to cooperate with neighboring countries to exploit shared resources. Therefore, this approach can be used if Iran's interests cooperate with neighboring countries to exploit the shared fields .In the third paragraph, section T of Art (3) of the Law on Duties and Authorities of the Ministry of Oil was approved in 2012. The legislature has prescribed various types of oil contracts, including partnership contracts (such as participation in production, profit participation, and participation in investment) and different types of SCs as well as any new contracts that might be drafted in the future, following two conditions of non-transfer of ownership of the reservoirs oil and gas and protective production regulations. Paragraph 19 of Art (52) of the Constitution of the National Iranian Oil Company approved in 2016 also defined investigation, exploration, extraction, and development of the protected exploitation of oil resources and its storage and trading within the framework of the Board of Directors approvals and contracts signed with the Ministry of Oil, as National Iranian Oil responsibilities. Also, an increase in protected oil production capacity proportional to existing reserves and the country's enjoyment of economic, security, and political strength have been emphasized in the general policies of the oil and gas sector (Parliament of Iran, 2006). Furthermore, one of the quantitative goals in the Fifth Five-Year Development Plan was to "increase the amount of oil and gas production from shared resources" with neighboring countries considered in the Sixth Development Plan, and several strategies have been modified (Parliament of Iran, 2017; Parliament of Iran, 2011).

5.3.2.2. Iraq Laws about Shared Fields

According to Art (111) of the Iraq Constitution, ownership of oil and gas resources is considered public property and belongs to all Iraqis in all regions and provinces (Iraqi parliament, 2005; Hosseini, 2014). Paragraph 1 of Art (112) of the Iraq Constitution also states that the federal government, accompanied by the producing provinces and regional governments, jointly manages the oil and gas extracted from oil and gas resources providing that they distribute their income fairly and proportional to the distribution of population throughout the country (Art 112 (1)) (Iraqi Parliament, 2005). Paragraph 2 of the same Art also states that the strategic policies necessary for developing oil and gas wealth are the responsibility of the Iraq federal government in cooperation with the region's governors and provinces producing the oil and gas. These policies should be based on new marketing principles and investment promotion indices to maximize Iraq's national interest (Art 112 (2)) (Iraqi Parliament, 2005). Moreover, in Art (16) of Iraqi business laws called integration, it is stated that:

“The field of exploration which is partially within one contract and partially in another contract should be jointly developed and exploited according to the Integration Contract .... In case the stakeholders fail to agree on how to integrate, the Federal Government's Oil and Gas Council can decide ...”

6. Investigating the Views of the Exploitation of Cross-Border Shared Natural Resources

There are two dominant theories in the exploitation of shared cross-border oil resources. First, the theory of absolute sovereignty states that the world of the state is not restricted by any of the sources of international law, such as the general or specific treaty or custom. Accordingly, governments can exploit their resources even if some products are extracted from neighboring countries. This view might lead to an international peace violation and environmental damage. The second theory emphasizes the shared exploitation of cross-border resources and that these resources are the shared property of beneficiaries, and their exploitation must necessarily be based on the cooperation of governments. One of the best solutions for cross-border natural resources under the national sovereignty of two or more independent governments is establishing a legal mechanism (single management). In this legal model, after exploring the reservoir in oil and gas resources and delimitation of water resources, the parties emphasize the principle of cross-border natural resource integrated management and determine its technical and legal requirements through an agreement. Accordingly, one or more specialist companies carry out all operations of developing and expanding the cross-border natural resources or the joint oil reservoir. In case the responsibility for development is assigned to several companies from countries owning cross-border natural resources ,these companies should develop the reservoirs through a specific process and in close collaboration with each other. In case this task is assigned to one company, that company is required to proceed with the single reservoir development as a representative of the beneficiary countries.

Therefore, choosing the contractors to develop and extract the reservoir depends directly on the political and technical convergence of the countries with their own reservoirs (Weaver, F., & Asmus, 2006). Other solutions are the joint petroleum development agreement, which refers to the agreement between the two countries to develop as well as each country's joint contribution specific area of bed and basement of the continental shelf or an Especial Economic Zone (EEZ) from which both countries enjoy under international law (Smith, 1989). The following solution is the (JDZ) agreement, which creates a definite, non-discriminatory timeframe for determining the next constraint for the two countries; however, it can be a permanent solution instead of a delimited and determined border. A (JDZ) might be considered part of the boundary solution even where the boundary is specified (Stormont, 1995). Nevertheless, Countries whose borders have been delimited tend to agree to unitization.

Table 1: Comparison of the method of unitization and Joint Development Agreement Common cross-border natural hydrocarbon source (Meybodi, et al., 2019)

Comparison of The Method Of Unitization And Joint Development Agreement Common Cross-Border Natural Hydrocarbon Source			
Joint Development Agreement		**Unitization**	
Disadvantages and weaknesses	**Advantages**	**Disadvantages and weaknesses**	**Advantages**
The need to consider the claim of ownership/ Sovereignty of the parties to the common region.	The exploitation of oil and gas resources available in the common region that is disputed between two or more countries.	The need to define the border between the two countries.	Avoid spending extra costs to produce from a common field.
The need for a strong political will in the beneficiary countries for joint development.	No need to specify the exact boundaries between countries.	Probability of unequal bargaining power of the parties to determine the share of benefits and costs of the field.	Optimal and efficient oil and gas extraction and prevention of tank damage.
The need for good political relations between the interested countries.	Preservation of the sovereignty of each country over the common area field.	The need for a high-level political agreement between the stakeholders in the common field.	Exchange of information related to the common field between the parties.
The level of need of each beneficiary country for hydrocarbon resources in the disputed field.	Helping reduce or eliminate differences between countries concerning the resources available in the common field.	Changes in reservoir/field conditions during the period of operation about the time of concluding the initial unitization contract and the need to review the contract's provisions after a certain period.	Avoiding competition between the parties in the operation of the common field to gain more benefits.

A unitization method is appropriate and suitable for developing common fields that have delimited specific boundaries, as in the case of Iran and Iraq in this study. However, in the case of developing common fields with neighbors whose borders with countries have not been determined, a joint development strategy can be adopted if agreed upon.

7. Conclusion

The Middle East region is the geopolitical center of hydrocarbons (oil and gas). It is necessary to answer this question which asks what shared responsibility means, countries create a rule or rules for a cross-border shared natural resource or stabilize the life and creation of that resource, whether that resource is in the territorial or non-territorial confines of that country, or that resource attachment to the soil and its territorial boundaries or its critical components have crossed over or originated from that country, that resource is considered as a shared resource and creates a cross-border responsibility for all the countries concerned .The level of responsibility of each country should be assessed on the extent to which each country has access to and impact on the elements, constituent, or continuative and preserving elements of that source life, and according to the extent of economic potential and the technology of each country. These elements can be considered constant, fluid and variable, permanent or occasional, seasonal, and periodically but repeatable. These resources can be identified underground or above ground, in rivers, seas, oceans, or in the air .According to this theory, related countries with a shared interest in cross-border natural resources must establish a common cross-border regime to manage and control this shared resource. This cross-border shared regime would have a shared commission or a region management committee, with a source of controversy. According to this theory, all governments involved in this issue (Iraq and Iran in the case) are responsible for the consequences of their decisions on the environment, human rights, current, and future generations, indigenous rights, and sustainable development .A region or a shared natural resource with a cross-boundary regime identifies the extent of each country's sovereignty based on the extent to which that resource is within the country's territory or the influence of factors that create and maintain that resource; however, the right to control that source is not left to the individual states and is assigned to the shared regime and the shared cross-border commission .Establishing a shared regime or the shared cross-border commission for natural fluid resources such as oil and gas and the appropriate environmental impacts can also contribute to countries' economic growth with common borders on these resources. This common economic relationship will also lead to positive political development and reduce regional conflicts and challenges. Another positive effect of establishing a joint regime and a joint cross-border commission is that it prevents unhealthy competition for maximum extraction from a common oil reservoir without regard to reservoir protection principles, which will increase the oil field's life. As was found in this study, paying attention to the technical and situational conditions of the reservoir and harvesting techniques in fair and equal use of common fluid resources based on international law documents directly impacts economic, political, and environmental conditions in the use of shared reservoirs. Neighboring countries can be imagined to share each country in a cross-border oil reservoir by examining the technical condition of an oil reservoir and choosing the extraction methods based on the volume and amount of oil in the reservoir. Also, countries can reasonably expect extraction from a common transboundary reservoir based on the data obtained from each reservoir. However, reservoir pressure changes extraction techniques or the amount of investment in a field can directly impact the harvest of each beneficiary country. Countries can contribute to a fairer share of the field's production and help protect the environment and extend the life of the field with (JDA), or unitization methods are chosen in common harvesting fields.

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Validating the Effects of Disruptive Technologies using Operational Breakeven Theory, Relative Solvency Ratio, and Altman's Z-score on selected firms in Nigeria and India

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Abstract
Disruptive technologies (DT) have featured prominently in almost every human activity since the advent of computerization. The likely effects of DT on economic processes and human professions have and continue to generate fears and debates which spurred this investigation. To break away from the traditional approach the operational breakeven theory and the discriminant analysis techniques of Altman's Z-score, and Enyi's Relative Solvency Ratio were used to examine the relationship between firms' market-induced-survival-ratio (MISR) and the disruptive technology gains index (DTGI) of seventy-three firms drawn from Nigeria and India. Descriptive and inferential statistics were used to analyze the data generated. The results showed that a sizeable number of firms has profited from the introduction of disruptive technologies with MISR and DTGI returning a 10% significant relationship while others are still struggling to measure up to the requirements of disruptive technologies in their chosen economic fields. The implication of this is that businesses must brace up and embrace digital transformation if they must stay afloat in this era of disruptive technologies. This study recommends a revolutionary approach to digital transformation in view of the fast pace of global integration while managers and business owners should adopt more pragmatic approach in appraising the operations and finances of a firm for effective results and timely responses to potential business challenges.

Keywords: Disruptive Technologies, Operational Breakeven, Altman's Z-score, Enyi's RSR, Going Concern, Market Induced Survival Ratio, Disruptive Technology Gains Index

1. Introduction

Ever since the first industrial revolution in England between 1760 and 1840, the world has never remained the same again. The first industrial revolution opened the process of transition from manual production methods to machines, chemical and iron production processes, the use of steam and hydropower, the development of machine tools, and the rise of the mechanized factory system (Council of Europe, 1980). This undoubtedly led to an unprecedented rise in the rate of population growth and the consequent increase in demands for consumer goods of which textiles were dominant and became the first industry to use modern production methods (Landes, 1969). It was also of importance to note that many of the technological and architectural innovations were of British origin (Horn, Rosenband, & Smith, 2010) (Wrigley, 2018).

1.1 Digital Transformation and Disruptive Technology

Schwab (2016)[1] pointed out that the second industrial revolution built on the foundation of the first revolution to introduce electric power which improved mass production tremendously, while the third revolution used electronics and information technology to automate production (Schwab, 2016). This invariably gave rise to the use of machines in the form of robots[2] to control the functioning of other machines in the production process. Schwab (2016) further opined that the world has entered the fourth industrial revolution – the digital revolution which is characterized by a fusion of technologies that is blurring the lines between physical, digital, and biological spheres (Schwab, 2016).

Schwab (2016) adduced three reasons why today's transformations represent not merely a prolongation of the third industrial revolution which include: velocity or the unprecedented speed of the current breakthroughs, the scope of its exponential rather than linear evolution, and the impact of the system which has disruptive effect in every industry across the globe. "And the breadth depth of these changes heralds the transformation of entire systems of production, management, and governance" (Schwab, 2016). The transformation and revision of systems of production, marketing, management, and governance owing to new innovations in technology became known as disruptions and the innovations behind them are tagged ***disruptive technologies***. Tim Smith defined disruptive technology as "an innovation that significantly alters the way that consumers, industries, or businesses operate. A disruptive technology sweeps away the systems or habits it replaces because it has attributes that are recognizably superior" (Smith, 2020).

2. Literature Review

That the digital transformation is here with humanity is no longer in contention, but what is still unclear about it is the magnitude and time frame. To start with, we need to identify the present contents of the digital transformation which have come to be identified as disruptive technologies because of the disruptive effects they exert on the subsisting methods of business organizational operation processes at the point of their entry. Schwab (2016) identified some disruptive technologies to include cloud computing, artificial intelligence, blockchain technology, and 5G connectivity enabling faster internet connectivity with all the overwhelming attendant possibilities in the form of smart cities, digital assistants, smart hospitals, self-driving cars, and a plethora of other innovative possibilities.

Cloud computing can be viewed from the perspective of the ability of systems to customize options in line with business and IT requirements. It builds upon current IT trends like data center consolidation and server virtualization. "Cloud computing moves Web-based applications to the Internet inexorably tying user connectivity and productivity to networking equipment" (Oltsik, 2010). Benefits include – endless network access, simple incremental growth, economy in the use of resources, improved system reliability, and rapid elasticity (Farpoint Group, 2011). Artificial intelligence (AI) systems are powerful computer-based equipment like robots that can provide extremely accurate outputs that can replace and, in some cases, supersede human efforts (ICAEW ITFaculty, 2018). Artificial intelligence devices include autopilot in airplanes, self-driving cars, smart lawyer, and many other business digital assistants. As posited by ICAEW ITFaculty (2021) blockchain technology is an accounting creation. Their view reads:

> Blockchain is a foundational change in how financial records are created, kept, and updated. Rather than having one single owner, blockchain records are distributed among all their users. The genius of the blockchain approach is in using a complex system of consensus and verification to ensure that, even with no central owner and with time lags between all the users,

[1] Klaus Schwab is the Founder and Executive Chairman of the World Economic Forum
[2] The use of robots and automated machines was the first step in the journey towards the creation of artificial intelligence.

nevertheless a single, agreed-upon version of the truth propagates to all users as part of a permanent record. This creates a kind of 'universal entry bookkeeping,' where a single entry is shared identically and permanently with every participant (ICAEW ITFaculty, 2018).

2.1 Why firms must embrace digital transformation

In the words of Gurumurthy, Nanda, and Schasky (2021) "the shift from digital as an enabler of strategy to digital as the lynchpin of competitive strategy comes at a time when the mere possession of advanced digital technology is becoming table stakes" (Gugumurthy, Nanda, & Schasky, 2021). They introduced the term "digital maturity" and suggested that digitally mature organizations will exhibit greater innovation capacity than less digitized ones. They alluded to the discovery of hitherto unknown digital capabilities during the pandemic, to affirm multiple research reports which predicted a near-term surge in enterprise digital transformation spending. Particularly, they revealed that Gartner's 2020 CEO Survey found that more than 80% of organizations planned to boost their investments in digital transformation, than in other aspects of their business. They further expressed their belief that investment in enterprise digital transformation will grow at an annual compounded rate of 15.5% between 2020 and 2023, with total investment over that period reaching US$6.8 trillion (Gugumurthy, Nanda, & Schasky, 2021).

The issue of business crisis will be minimized as investments in digital transformation can lay the foundation for long-term resilience to future crisis in business organizations. Schools, hospitals, businesses, and governments must tune up on technological innovations to keep up with the rapid pace of digital transformation to keep their operations afloat. In addition, the 5G connectivity will radically transform the way we work and live with faster internet leading to more efficiency in all industries. Digital transformation will provide more jobs and learning opportunities while creating a more diverse and logically agile global workforce, economic opportunities, and job security. Particularly, 5G connectivity will usher in new innovative technologies like autonomous vehicles, autonomous shops, energy-efficient cities, and smart agricultural systems (Hegarty, 2021).

2.2 Challenges of digital transformation

Digital transformation arrived with lots of unpleasant surprises and challenges among which include business losses and redundant skills. According to the findings of Gurumurthy et al. (2021), about 67% of commercial respondents to their survey believed that organizations that do not digitize in the next five years will be "doomed". (Gugumurthy, Nanda, & Schasky, 2021). They also cited a 2019 Deloitte study which revealed that 81% of digitalized companies cited innovation as a strength, as against only 10% of non-digitalized firms.

Redundancy of skills will bring with it the additional costs and time required to upskill or reskill. This is so since the global COVID-19 pandemic has forced many to adopt new work methods of working and running businesses from homes (Hegarty, 2021). Cyber-attacks will present a more daunting challenge as the digital transformation gains ground. As of October 28, 2021, a total of seventy-two breaches, 3.683 billion record leaks, and 1,912 cyber-attack events were recorded in the ten months of 2021 alone (Hackmageddon, 2021). This is not expected to abate in the coming seasons; nevertheless, the actions of hackers cannot deter the global resolve for digital transformation as cyber security expertise is known to increase on daily basis in direct response to preventing future attacks.

2.3 Need for sophistication in data analysis and control information

Given the overwhelming degree of sophistication in technology and entrepreneurship innovation engendered and continuously envisaged in the new dispensation of digital transformation, it became imperative to reassess the existing operations and financial control data analysis tools. When the need to efficiently measure the effects of digital transformation is juxtaposed on the endless possibilities of the fourth industrial revolution, such questions as – what tools do we include in our firms' dynamic data analysis dashboards? What becomes of the existing firms' management parameters such as the concept of going concern, liquidity, and overall firm survival? – all become too apparent.

Going concern is an age-long governance framework in corporate finance. It is a belief based on the outcome of the financials of an organization that the firm will continue to exist beyond the current accounting period (Musvoto & Gouws, 2011). However, there have been divergent opinions on what constitutes the basis for going concern in an organization and how to measure it (Haron, Hartadi, Ansari, & Ismail, 2009), Many attempts have been made at estimating the going concern index, but the different methods employed depict the divergent purposes for which the measurement is intended. In this study, we have applied the method prescribed by Entrepreneur (2013) based on striking a balance between total assets and total liabilities minus equity (Entrepreneur, 2013). This valuation method is also in line with the breakup value prescribed by the Business Development Bank of Canada (BDC, n.d.).

Owing to the various criticisms against the unified approach to going concern measurement and the obvious limitations emanating from the use of only a firm's intrinsic attributes, this study attempted to strengthen the index by considering the market value of the firm's shares/stocks. The new resulting measurement described fully under the methodology section became known as the ***market-induced survival ratio*** (MISR). MISR, being a combination of a firm's intrinsic and market-based attributes can be regarded as a more reliable going concern measurement – the main reason for choosing it as our outcome variable in this study. Another ratio introduced for this study is the disruptive technology gains index (DTGI). It is a measure of the effects of disruptive technologies on the activities and financial performance of a firm. The value is obtained by isolating the noted differences in firms' activities represented by the pre/post DT implementation turnovers and the financial performance attributable to changes in the operational pattern of firms resulting from the introduction of disruptive technologies.

The traditional financial control data analysis tools have been seen to become ineffective and moribund as organizations become larger in size and areas of geographical operations (Enyi, 2018). Current ratios, stock-turnover rates, and a host of other traditional financial ratios have been found to be grossly deficient in guiding managers on the fiscal health status of a firm as firms' operations are now dependent on data-driven decisions. This was first observed by Altman (1968) which led to the introduction of a discriminant analysis model using the Z-score measurement which combined the parameters of internal financial control data with the external market-based rating of a firm (Altman, 1968). The Altman's Z-score gradually overcame the obstacle of myriads of peer review criticisms to become a reference point in alternative control data mechanisms. Specifically, the advent of digital transformation and the stiff competitions that accompany it have made it mandatory for organizations to increasingly enhance traditional control information dashboards with dynamic storytelling tools powered by artificial intelligence (AI) and machine learning (ML) (Gartner Finance, 2021).

A credible attempt to overcome the main criticisms[3] of the Altman's Z-score was made by Enyi (2008) which introduced a firm-based discriminant analysis tool known as the relative solvency ratio (RSR) (Enyi, 2008). This model was developed based on the theory of a firm's operational breakeven which states that a firm reaches its ***operational breakeven point*** where cumulative contribution margin on recovered production outputs equal the total cumulative production, marketing, and administrative costs and losses of the learning period (Enyi, 2005). The theory assumes a learning period for every entrepreneurial process. A study on selected textile firms in India by Pai and Dam (2017) affirmed that the RSR works effectively and performs well in identifying default and predicting prior period distress. The study went further to suggest that the current ratio has a limitation of giving a spurious overall view of a firm's liquidity as the research result indicated that the current ratio showed a contradictory picture of solvency whereas both CRISIL[4] and Enyi's RSR pointed to default/distress (Pai & Dam, 2017). An Indian Ph.D. research findings posited that both the Altman's Z-score and the Enyi's RSR have their area of comparative advantage in application, for instance, while RSR produced a high predictive accuracy of 100% for distressed firms and 85% to 100% for safe firms, Z=score achieved 88% accuracy for distressed firms and 80% to 94% accuracy for safe firms (Pai, 2019). Two other studies in Uzbekistan tend to suggest that using the Altman's Z-score and Enyi's RSR for the measurement and prediction of insolvency and fiscal health of banks

[3] Criticisms bordering on the inexplicable use of certain coefficients as multipliers and the introduction of market-based ratio which bears no relationship with the internal functioning of a firm,
[4] CRISIL is an Indian firm rating and global analysis company. It is a subsidiary of the US S&P Global engaging in research, risk analysis, and policy advisory services.

and manufacturing enterprises achieves better operational and liquidity control (Abdullaeva, 2017), (Khasanova, 2018), (Meliboeva, 2021).

Outside financial control, the digital transformation has made every other aspect of entrepreneurial control to depend on instantaneous analysis of intrinsic and extrinsic business data. This is the reason businesses do not only need to digitalize but to do so with the appropriate strategy. In the words of Gurumurthy et al. (2021) "Companies will need to be digital to play—but they will need the right strategy to win" (Gugumurthy, Nanda, & Schasky, 2021). The supply chain being an important link in any business enterprise must be strengthened to enable the firm to achieve seamless uninterrupted operations. "Therefore, businesses should invest in technologies that allow them to connect with suppliers and make use of real-time data that can enable the whole supply chain to operate more efficiently based on better-informed decisions" (Davies & Appt, 2020).

2.4 Research objectives

The purpose of this research paper is to highlight the benefits and disruptive effects of digital transformation on global business enterprises which form the major boulder of the global economy. It was also designed to highlight mankind's vulnerability to the effects of disruptive technologies and to fashion out the best approach towards managing them for the benefit and continued advancement of humanity.

2.5 Research hypotheses

This study was guided by the need to address and find contextual validations to the underlisted research hypotheses:
$H_0 1$ – That the going concern index (GCI) as defined in this study is not a significant measure of a firm's longevity.
$H_0 2$ – That the current ratio cannot significantly support firms' solvency management and data-driven decision process in a disruptive technologies' environment.
$H_0 3$ – That the Altman's Z-score cannot significantly support firms' solvency management and data-driven decision process in a disruptive technologies' environment.
$H_0 4$ – That the Enyi's relative solvency ratio (RSR) cannot significantly support firms' solvency management and data-driven decision process in a disruptive technologies' environment.
$H_0 5$ – That the disruptive technologies gains index (DTGI) cannot significantly capture the effects of digital transformation in a firm.
$H_0 6$ – That the operational breakeven point (OBEP) is not a significant measure of a firm's operational competence.
$H_0 7$ – That the mark-up strategy of the firms studied cannot significantly sustain their going concern and long-term survival.

3. Methodology

This study was conducted on a selected group of seventy-three companies listed on public exchanges in India and Nigeria. The group made up of 49 Indian and 23 Nigerian firms comprised of companies in every sphere of economic activity ranging from banking, ICT, oil-and-gas to aviation. The study was based on a discriminant analysis of the five years financial statements of the selected firms up to 2019 using the going concern index (GCI), current ratio (C. Ratio), Altman's Z-score, Enyi's Relative Solvency Ratio (RSR), the disruptive technology gains index (DTGI), the operational breakeven point (OBEP), and the firm's achieved mark-up rate (m). The resulting values were regressed against the market-induced survival ratio (MISR) for each company using a GLM multiple regression model to test for fitness and variances.

To measure the value of the MISR and other listed discriminant analysis variables, the study adopted the use of the following formulas:
Going Concern Index (GCI) = $\frac{Total\ Assets}{Total\ Debts}$
Current Ratio (C. Ratio) = $\frac{Current\ Assets}{Current\ Liabilities}$

3.1 Discriminant analysis – Altman's Z-score

Altman's Z-score = 1.2 WC/TA + 1.4 RE/TA + 3.3 EBIT/TA + 0.6 MV /BV +1.0 Sales/TA (Altman, 1968).
Where,

Z score = financial condition of the company (strong, moderate, and weak)
WC/TA = working capital/total asset
RE/TA = retained earnings/total asset
EBIT/TA = earnings before interest and tax /total asset
MV/BV = market value of share/book value of debt
Sales/TA = sales/total asset

Altman (1968) interprets Z-score, as strong when it is > 2.99, or moderate when it is between 1.811-2.98, and weak when it is below 1,811.

3.2 Discriminant analysis – Enyi's RSR

Enyi's RSR = $\frac{104p(a-l)}{t(t-p)}$
Where,

RSR = Relative Solvency Ratio
p = Profit before tax
t = Turnover (total earnings)
a = Current assets
l = Current liabilities

The cutoff value for RSR measurement is 1.0. Meaning that any firm with RSR less than 1.0 is technically insolvent, while those with values above 1.0 are in good fiscal health (Enyi, 2018).

3.3 Disruptive Technology Gains Index (DTGI)

The disruptive technologies gains index (DTGI) is a measure introduced within this study to gauge the effect of disruptive technologies on the operations and financial performance of a firm. It is measured by isolating increase/decrease in a firm's activities, turnover, and/or financial performance attributable to changes in the operational pattern because of the introduction of any identified disruptive technology such as cloud computing, blockchain engagement, digital or internet marketing, 3D printing, and many more. The method of measurement is to find the difference between the pre-introduction capital turnover ratio (CTR) and the post-introduction CTR and divide the result with the pre-introduction CTR, then take the result to a percentage. This measure in its truest sense indicates how the activity has changed since the introduction of the disruptive technology.

But, since turnover does not always indicate profitability, it is also necessary to gauge how efficiently the use of the disruptive has impacted the firm's financial performance. This is done by finding the difference between the pre-introduction return on capital employed (ROCE) and the post-introduction ROCE. The result is derived the same way as previously stated. To find the firm's effective DTGI, we find the geometric mean of the CTR, and ROCE based values as follows:

DTGI = $\sqrt{\frac{(C1-C0)(R1-R0)}{C0.R0}}$ x 100

Where,

DTGI = disruptive technologies gains index
C_0 = pre-introduction CTR
C_1 = post-introduction CTR
R_0 = pre-introduction ROCE
R_1 = post-introduction ROCE

The mark-up rate (m) for each firm as defined in Enyi (2008) is the difference between the total income (turnover plus other income) and the total cost of operations divided by that total cost of operations in an accounting period. It is the same as the profit before tax divided by the difference between the cost of operations and profit before tax. That is:

$m = \frac{p}{t-p}$ (Enyi, 2018)

where,

m = mark-up rate

with ***p***, and ***t*** as previously defined

The operational breakeven point (OBEP) is the point of operational homeostasis or equilibrium in an organization that guarantees the most efficient use of the organizational resources. It is a point where the technical, managerial, and marketing functions of the firm have grown to efficiently and effectively manage the resources of the organization to attain the objectives of the firm without wastages (Enyi, 2008).

$OBEP = \frac{1+m}{2m}$ (which is further refined below)

$OBEP = \frac{t}{2p}$

Where,

OBEP = Operational breakeven point

with ***m***, ***p***, and ***t*** as previously defined

The GLM regression model developed for this study is as follows:

$$MISR = \beta_0 + \beta_1 GCI + \beta_2 Crat + \beta_3 Zsco + \beta_4 RSR + \beta_5 DTGI + \beta_6 OBEP + \beta_7 m + \varepsilon$$

4. Findings and Discussions

4.1 Descriptive statistics results

Table 1 contains the summary descriptive statistics for all the variables used in the study. The figures revealed that the companies studied achieved a high average market induced survival rate (MISR), a reasonable going concern, and disruptive technologies gain indices as follows:

The mean MISR of 261.08 indicates that all the firms studied are publicly listed companies and that majority of them are enjoying a good market rating. While the most active of the firms enjoy a survival rate of 3,670.08, the least active achieved only a marginal survival rate of 0.52 indicating a dormant or moribund enterprise. The going concern index (GCI) revealed that all the firms studied have good chances of surviving beyond the current accounting period with a mean GCI of 1.61 and the least of 1.05. On the other hand, the current ratio (C. Ratio) indicates that while some of the firms are technically insolvent or have liquidity issues, the average firm was unable to reach the standard general current ratio requirement of 2:1 for current assets to current liabilities, respectively. The disruptive technology gains index (DTGI) shows that most of the firms which have embraced the use of one form of disruptive technology, or another achieved a mean gain index of 6.86 while those still struggling with the introduction made as little as 0.02 overall impact. Significantly, one of the ***digitally maturing*** firms studied in India achieved the highest impact of 36.39 DTGI.

The mean operational breakeven point (OBEP) of 18.61 cycles means that most of the firms studied still grapple with problems of inefficient management of people, machines, and market integration; however, the minimum OBEP of 0.6 indicates that one or more of the companies studied attained operational equilibrium at the lowest possible level. The mark-up rate figures showed that most of the companies studied achieved a mean rate of operational costs recovery of 25% while one or more of the firms made operational losses by returning a 0% mark-up rate. The standard deviation figures for GCI = 0.697, C. Ratio = 1.284, and m = 0.665, pointed to the close dispersion of the values around their means.

When the discriminant analyses values of the Altman's Z-score and Enyi's RSR were converted to the interpretative values of **strong**, **moderate**, and **weak** fiscal health values, both models return a *mean* status of **moderate fiscal health** (Z-score = 1.88; RSR = 0.51); whilst the dispersions around the mean are close with *standard deviations* = 0.908 and 0.465 for Z-score and RSR respectively indicating the closeness and normality of the data distribution. To understand these results better, we provide the interpretative values of the two models hereunder:
Altman's Z-score: Z ≥ 2.99 = **Strong**; Z < 2.99 ≥ 1.811 = **Moderate**; Z < 1.811 = **Weak**
Enyi's RSR: RSR ≥ 1 = **Strong**; RSR ≥ 0.25 < 1 = **Moderate**; RSR < 0.25 = **Weak** or Distressed firm**.**

4.2 Inferential statistics results

The GLM test results in tables 2 and 3 produced a robust model which addressed the seven research hypotheses, revealed much about the relationship between firms' market-induced survival ratio (MISR) and the seven other research variables employed in this study. The model generated by data analysis is as follows:
MISR = 234.04 – 35.06gci +36.31crat – 6.6zsco – 2.17rsr + 11.07dtgi – 2.49obep + 206.28m + ε

First, the test of ANOVA in table 1 revealed no similarity between the means of variables used in the study with MISR F (7, 65) = 0.76, p = .6198, and *Adj.* R^2 = -0.0235. Secondly, the Ramsey RESET test showed clearly that there are no significant deviations from the predictive powers of included variables on the MISR outcome variable. This assures that all variables used are important and useful in the determination of the market-induced survival ratio (MISR) of the firms studied [F (3, 62) = 0.83, p = 0.4844]. However, the Breusch-Pagan test for heteroskedasticity on the data spread-out was significant [χ^2 (1) = 16.14, p = 0.0001] but this does not significantly alter the linearity and predictive quality of the model generated.

The GCI value which bears an inverse relationship with the MISR was not significant (*GCI* = -35.0583, t = -0.0245, p = 3.3769) because it ignores the market value or market expectation of the firm as it merely measures the ability of the firm to pay its debts with all available assets. This is particularly so because, though, the GCI was able to measure the going concern of a firm in the short run, it cannot adequately represent the foreseeable position of the firm in a medium or long-term period. The same is true of the current ratio which was also not significant (*crat* = 36.3135, t = 0.059, p = 1.4049) because of its limited application in identifying short-term solvency problems. The Altman's Z-score was surprisingly not significant as it bears inverse relationship with the MISR (*Z-sc* = -6.593, t = -0.3387, p = 0.2448). This insignificant inverse relationship is an indication that the Altman's Z-score is an important but weak measure of MISR even when market valuation is one of its cardinal measurement parameters. The import of the non-significance of the results for GCI, current ratio, and the Altman's Z-score is that ***we do not reject*** hypotheses $\mathbf{H_01}$, $\mathbf{H_02}$, and $\mathbf{H_03}$. Meaning that the going concern index (GCI) as defined in this study is not an adequate measure of a firm's longevity just as the current ratio cannot effectively support firms' solvency management and data-driven decision process in a disruptive technologies' environment. Likewise, the Altman's Z-score cannot significantly support firms' solvency management and data-driven decision process in a disruptive technologies' environment.

The Enyi's RSR and the operational breakeven points (OBEP) are significant at 5% but are both inversely related to the MISR (RSR = -2.1707, t = -4.8729, p = 0.017 | *OBEP* = -2.4848, t = -5.0725, p = 0.0163). The reason for the significant relationship of these two with MISR may not deviate from the fact that they measure the intrinsic and internal strengths of firms which are woven around the integration of human capacity, managerial competence, technology, and market penetration ability which the introduction of disruptive technologies has come to consolidate. The RSR and OBEP negative relationship with MISR was because it has been established that a firm's profitability is inversely related to its operational breakeven point - meaning that the lower the operational breakeven point, the higher the profitability of the firm. The operational breakeven point is the building block for generating a firm's relative solvency ratio (Enyi, 2005). Going by the analyzed results for RSR and OBEP, ***we reject*** hypotheses $\mathbf{H_04}$ and $\mathbf{H_06}$ and state that the Enyi's relative solvency ratio (RSR) adequately supports firms' solvency management and data-driven decision process in a disruptive technologies' environment and that the operational breakeven point (OBEP) is an acceptable measure of a firm's operational competence.

The disruptive technology gains index maintains a positive significant relationship with the MISR at the 10% but not at 5%level of significance (*DTGI* = 11.074, t = 0.865, p = 0.0958). This implies that, though a sizable number of the firms studied have implemented some forms of disruptive technologies undergone some digital transformations in their area of economic operations, many others are yet to come to terms with the development. This is in line with the suggestions of Gurumurthy, et al. (2021) that digitally mature organizations perform better and exhibit a greater capacity for innovation than less mature ones. Based on the significant result, ***we reject*** hypothesis $\mathbf{H_05}$ and affirm that the disruptive technologies gains index (DTGI) can efficiently and effectively capture the effects of digital transformation on a firm's activities and financial performances.

The mark-up rate is the last of the variables considered in the study and like the DTGI it was positively related to MISR, but its predictive value was not significant (m = 206.2799, t = 0.031, p = 2.6769) because it is a ratio derived entirely from internal operations and not based on extrinsic or market value of the firm's stocks. On the strength of this result, ***we do not reject*** hypothesis $\mathbf{H_07}$ because it indicates that the mark-up strategy of the firms studied cannot adequately sustain their going concern and long-term survival, particularly as the mean mark-up rate of the firms studied stood at 0.25 with some firms recording close to zero mark-ups. This is an indication of high operational breakeven point cycles which could induce extremely low financial performance which is an antithesis to corporate survival.

Tables 4 and 5 highlights separate GLM analysis results for India and Nigeria. Table 4 revealed that Enyi's RSR was significant at the 95% confidence interval or 5% significant level while Operational Breakeven point (OBEP) and DTGI were significant at the 90% confidence interval or 10% significant level. The significance of these three variables is an indication of the presence of the application of disruptive technologies in many Indian companies. The same cannot be said of the Nigerian firms as none of the three variables was significant at both the 95% and 90% confidence levels.

5. Conclusion and Recommendations

Disruptive technologies have come to be part of every aspect of modern-day economic activity in the world and their effects have made tremendous impacts on the successes of business enterprises while marring the chances of survival of those others which refuse to flow with the tide of digital transformation. The effects of disruptive technologies are everywhere but must be accurately determined for the full benefits to be tapped. Determination of the effects of disruptive technologies must be conducted with tools that capture the dynamism with which the phenomenon penetrates society. This study has used a combination of business accounting efficiency and effectiveness measuring instruments like capital turnover ratio (CTR) and the return on capital employed (ROCE) to fashion out a disruptive technology gains index (DTGI) through which a firm's technical and financial progressions on the application of modern technologies can be ascertained.

The results of the study revealed that many firms have embraced the conversion to new methods of operations as resulting from implementing full or partial aspects of disruptive technologies. The results also showed that the introduction of disruptive technologies (DT) significantly improved the economic fortunes of the firms which embraced their use while facilitating the exit of those others that choose to sit on the fence. The discriminant analysis tools employed in the analysis of the financial statements indicate that only the operational breakeven point and the Enyi's relative solvency ratio were significant and consistent in measuring the solvency status of the firms studied at all stages of DT implementation.

Though the Altman's Z-score agreed with the Enyi's RSR that the average number of the companies studied fell into the ***moderate fiscal health*** category, it nevertheless failed to strike a significant relationship with the firms' market-induced survival rate (MISR). Likewise, the simplified going concern index (GCI), and the current ratio fell short of being significant in their relationship with MISR. This is probably due to their non-market-related origin. In like manner, the firms' mark-up rate (m) was insignificant in its interaction with MISR because most of the firms studied have low mark-up rates and high operational breakeven point cycles with a poor financial performance which stands inimical to the overall objective of long-term corporate survival.

The study recommends a complete re-engineering of firms' activity and financial performance appraisal tools noting that the traditional methods like the current ratio, acid-test ratio, credit policy, and other time-based management ratios are no longer dependable in these days of online shopping, cashless/card payment, QR scanning and bank transfer system which reduces transaction time from days/hours to minutes/seconds. The introduction of a more robust programmable tool like the Enyi's relative solvency ratio, and the Altman's Z-score and their improved variants might be more appropriate in a jet-speed internet transaction age such as being introduced by the emergence of diverse kinds of disruptive technologies. In addition, companies still dragging their feet on the issue of implementing disruptive technologies should come to terms with modern-day realities and retool to avoid being consigned to the abyss of history because digital transformation – the fourth industrial revolution is here with us.

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Tables

Table 1: Summary Statistics

Item	Misr	Gci	C.ratio	Z-scor	Rsr	Dtgi	Obep	m
Mean	261.08	1.61	1.5	1.88	0.51	6.86	18.61	.25
Median	213.13	1.21	.71	2.0	0.0	3.05	2.44	.26
Max	3670.08	4.35	8.41	3.0	1.0	36.39	200.5	4.86
Min	.52	1.05	.1	1.0	0.0	.02	.6	.0
Std.Dev	569.13	.697	1.284	0.908	0.465	7.211	36.558	.665
Skewness	4.381	1.793	3.079	0.102	-0.031	1.828	3.096	5.793
Kurtosis	23.379	7.156	15.27	1.432	1.113	7.051	12.573	37.262
Obs	73	73	73	73	73	73	73	73

Interpretative values of between 1 and 3 were used to analyze Z-scor and Rsr in place of actual values

Table 2: Test of ANOVA

Source	*SS*	*Df*	*MS*		
				Number of obs =	*73*
-------------	--------------	-----	--------------	*F (7, 65) =*	*0.76*
Model	*1791139.89*	*7*	*255877.127*	*Prob > F =*	*0.6198*
Residual	*21786058.7*	*65*	*335170.133*	*R-squared =*	*0.0760*
-------------	--------------	-----	--------------	*Adj R-squared =*	*-0.0235*
Total	*23577198.6*	*72*	*327461.091*	*Root MSE =*	*578.94*

Table 3: Multiple regression analysis results (combined)

Var	*Coef.*	*Std.Error*	*t*	*p > | t |*	
_Cons	*234.0422*	*6010.7949*	*.0389*	*2.1291*	
GCI	*-35.0583*	*1428.0874*	*-0.0245*	*3.3769*	
C. Ratio	*36.3135*	*615.3837*	*.059*	*1.4049*	
Z-Score	*-6.593*	*19.4674*	*-0.3387*	*.2448*	
RSR	*-2.1707*	*0.4455*	*-4.8729*	*.017*	*(Significant at 5%)*
DTGI	*11.074*	*12.8025*	*.865*	*.0958*	*(Significant at 10%)*
OBEP	*-2.4848*	*0.4899*	*-5.0725*	*.0163*	*(Significant at 5%)*
m	*206.2799*	*6660.9027*	*.031*	*2.6769*	

R-squared = 0.076; Adjusted R-squared = -0.0235; Durbin-Watson statistics = 1.62703

Table 4: Multiple regression analysis results (Indian Firms)

Var	*Coef.*	*Std.Error*	*t*	*p > | t |*	
_Cons	*-162.8927*	*7871.0018*	*-0.0207*	*4.0371*	
GCI	*110.1147*	*2963.1515*	*.0372*	*2.2483*	
C. Ratio	*59.2975*	*301.2053*	*.1969*	*.4244*	
Z-Score	*-6.7465*	*12.6066*	*-0.5352*	*.1561*	
RSR	*-11.6513*	*1.9684*	*-5.919*	*.0141*	*(Significant at 5%)*
DTGI	*-5.9538*	*6.5789*	*-0.905*	*.0923*	*(Significant at 10%)*
OBEP	*0.4253*	*0.2783*	*1.5283*	*.0547*	*(Significant at 10%)*
m	*1593.3973*	*42124.7013*	*.0378*	*2.2088*	

R-squared = 0.2534; Adjusted R-squared = 0.1259; Durbin-Watson statistics = 2.01241

Table 5: Multiple regression analysis results (Nigerian Firms)

Var	*Coef.*	*Std.Error*	*t*	*p > | t |*
_Cons	*1375.339*	*94167.5671*	*.0146*	*5.8678*
GCI	*-468.5319*	*17441.0214*	*-0.0269*	*3.1902*
C. Ratio	*105.3967*	*42921.2939*	*.0025*	*34.9001*
Z-Score	*37.5145*	*190.7637*	*.1967*	*.4358*
RSR	*28.8889*	*256.2231*	*.1127*	*.7601*
DTGI	*53.6356*	*138.5882*	*.387*	*.2214*
OBEP	*-77.3401*	*233.2886*	*-0.3315*	*.2585*
m	*-736.675*	*139038.8574*	*-0.0053*	*16.1749*

R-squared = 0.3529; Adjusted R-squared = 0.0698; Durbin-Watson statistics = 1.17422

Data distribution pattern

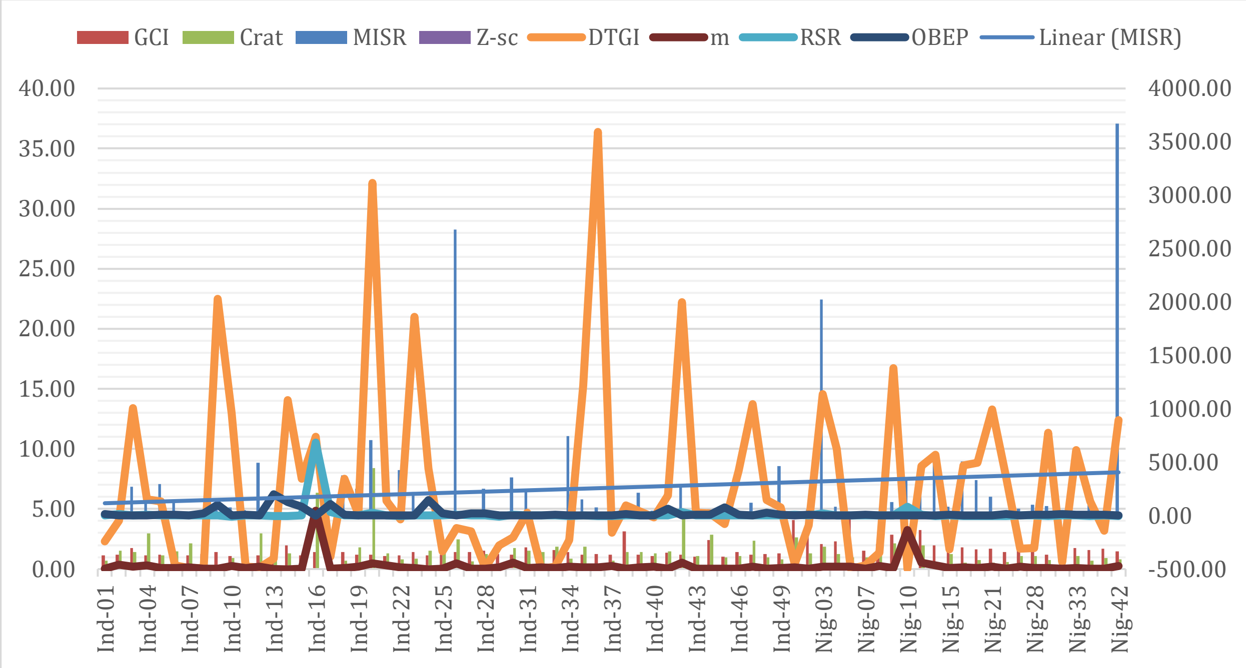

Figure 1: Data distribution pattern

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The Factors Affecting Migration Behavior of Workers at Vietnam Garment Enterprise

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Abstract
This study is conducted to identify and evaluate the factors affecting the migration behavior of workers in garment enterprises in Vietnam. The subjects selected for the survey are workers who are working at many garment enterprises in some cities and provinces such as Hanoi, Ho Chi Minh, Bac Ninh, Nam Dinh, and Binh Phuoc... By conducting a survey to collect opinions from 312 employees and using SPSS statistical software to test the hypotheses; based on SEM linear structural model with 3 groups of factors affecting the intention to migrate to find job workers and consider the impact of the intention to migrate on the decision to migrate off the workers, the research results show that the factors "Behavior"; "Subjective norm" and "Perceived behavioral control" have a positive impact on the intention to migrate of garment workers with the impact level of +0,523; +0.73; +0.439; and the factor "Migration intention of garment workers" has a positive correlation to "Migration behavior of garment workers" with an impact level of +1.0, meaning the variation of intention to migration will lead to a corresponding change of migration behavior. From the testing, analysis, and evaluation of the factors affecting the migration intention and behavior of workers in Vietnamese garment enterprises, the research team has made some exchanges and discussions to attract more employees to the garment industry, contributing to promoting economic growth and creating sustainable jobs for workers.

Keywords: Impact Factors, Migration, Job-Seeking, Workers, Garment Enterprises, Vietnam

1. Introduction

Migration is an element of development, especially in developing countries. Studies have shown that the main reason for migration is economic and the main type of migration is job-seeking. Migration is a driving force as well as a result of a country's social-economic development.

The International Organization for Migration (IOM, 2018) defines “A migrant as a person who is moving or has moved across international borders or within a country far from his or her usual place of residence, regardless of (1) whether the person has legal status; (2) whether migration is voluntary or involuntary; (3) what are the causes of migration; or (4) how long do they resident”.

According to the World Bank (2016) “Internal migrants are people who have moved across administrative boundaries within a country’s borders.” The United Nations provides a guideline for measuring internal migration which defines “internal migration as the movement from one defined area to another that occurs within a specified period and relates to change of residence” (UN, 1970).

Textiles and garments are considered key sectors of many economies. The trade scale of the global textile and garment market accounts for 8 - 8.8% of the total global trade, by value, reaching about 1,400 - 1.550 billion USD. Vietnam's textile and garment industry is also one of the key export industries and plays an important role in the growth of the economy, accounting for 12 - 16% of the country's total export turnover.

The textile and garment industry currently employs about 3 million industrial workers, accounting for over 10% of the country's industrial workers, is an industry with a large number of workers, attracting workers from the countryside to big industries. However, the human resource level of textile and garment enterprises is still low (with 84.4% of workers having a general education), while workers with a university degree account for only 0.1%... (Ministry of Industry and Trade, 2021); Human resources of garment enterprises in big cities and industrial areas are quite a lot of migrants from other localities. The situation of quitting jobs happens a lot, making it difficult for businesses to take care of their lives and retain employees. Therefore, learning about the factors affecting migration behavior approaching from behavioral theory will determine the level of impact of these factors. Therefore, the research team recommends some solutions to attract and ensure human resources for garment enterprises which have both theoretical and practical significance.

2. Theoretical Basis and Research Overview

The research team considers two models related to behavioral theory:

Firstly, *the Theory of Reasoned Action - TRA (Theory of Reasoned Action)* is a research model according to the psychosocial point of view to identify the factors of conscious behavioral tendency. The model refers to two factors affecting behavioral intention, including (1) Attitude towards performing the behavior. An individual's attitude is measured by the individual's beliefs and judgments about the results of that behavior; (2) Subjective norms. The people around influence whether or not to perform the behavior. The impulse to do so is due to the influence of those around (Fishbein, M & Ajzen, I. 1975).

Secondly, *the Theory of Planned Behavior model - TPB (Theory of Planned Behavior)* is built from the original theory of TRA, adding cognitive factors to control behavior along with two factors of attitude and subjective norm to behavioral intentions. Perceived behavioral control is an individual's perception of how easy or difficult it is to perform a behavior (related to the availability of necessary resources, knowledge, and opportunities to perform the behavior). Ajzen, I. 1991).

The team also overviews some research related to migration behavior. Which, research by Nguyen Quoc Nghi, Ngo Thanh Thuy, and Huynh Truong Huy (2010) shows the actual situation of labor migration in Hau Giang province and the factors affecting labor migration decisions in Hau Giang province. The logistic model is used and includes the variables of people of working age (with a positive relationship), production area (with a positive relationship), annual income (with a negative relationship), and variable income. The dummy shows the influence of natural conditions (with a negative relationship), and the dummy variable indicates the local underemployment situation (which has a positive relationship).

Research by Nguyen Thi Phuong Thao, Nguyen Ngoc Nam, and Nguyen Thi Thuy Dat (2020) shows that the main reason for the migration phenomenon is economic and the main type of migration is labor migration. The research team uses Logit regression to estimate the probability of household migration through the use of panel data from the living standard survey dataset. The research model proposed with variables belongs to the demographic characteristics of the household head and the characteristics and economic status of the household. The results show that the factors belonging to the demographic characteristics of the household head and of the household strongly affect the migration trend of the household.

Ravenstein, E. G., (1885) founded the study of theories of migration using census data in England and Wales. He argues that migration is closely connected with "push-pull" factors. Push factors such as low wages, high unemployment rate, and lack of health care factors, and pull factors such as high wages, and many jobs cause people to leave their residence. In other words, the main reason for migration is better external economic opportunities. Ravenstein also found that migrants tend to move to urban areas, rural people migrate more than urban people, women migrate more than men, and men often migrate farther. and most migrants are adults. Moreover, migration increases with economic, commerce, and industry development. The improvement of transport conditions increases the number of migrants.

Later studies inherited the content of Ravenstein to identify the factors that promote migration. Accordingly, the push factor is related to the place of departure (place of origin) of migrants. This factor includes low wages, high unemployment rate, lack of health care factors at the place of departure, political factors (political, ethnic, and national conflicts), economic, and cultural factors. Lee, E. S., 1966), low labor productivity and labor surplus in the agricultural sector (Lewis, W. A., 1954.; Lee, E. S., 1966). In addition, family debt pressure, poor education, and health systems, underdeveloped living conditions as well as the desire for family reunification are also among the factors " push” people to migrate (Le Bach Duong & Nguyen Thanh Liem, 2011); (Ngoc et al., 2017).

Empirical studies focus on explaining why people migrate, pointing out the characteristics of migrants. Studies agree that the main reason for migration is economic. However, in the study of the factors affecting the migration behavior of garment workers in Vietnam, the research team focuses on examining the factors affecting the migration behavior of workers according to the model. Theory of Planned Behavior (TPB) Scales adjusted for garment industry specificity and referenced in migration studies were reviewed. To implement this implementation, in addition to the desk-based research method to review the rationale and collect secondary data, the research team conducted a sociological survey through survey to collect primary and secondary data. Using SPSS statistical software to test the data based on SEM linear structural model to consider 3 factors "Attitude", "Subjective norm", and "Perceived behavioral control" to the intermediate variable. in the model is "Migration intention of garment workers" and consider the impact on the dependent variable in the model as "Migration decision of garment workers".

3. The Model and Research Hypothesis

3.1. The research model

Based on the theoretical model of intended behavior - TPB of Ajzen, I (1991), along with the research review process, the authors build a research model on factors affecting the migration behavior of workers in the garment industry as shown in Figure 1.

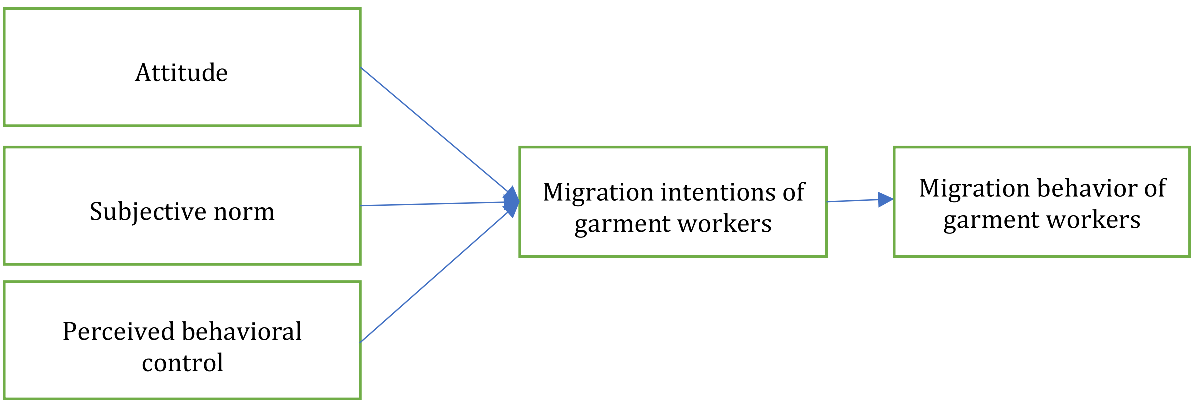

Figure 1: Proposed research model

Source: Proposal of the research team

3.2. Hypothesis and research scale

Hypothesis H1: Attitude toward migration has a positive relationship with the intention to migrate garment workers.
Hypothesis H2: Subjective norm has a positive correlation to the migration intention of garment workers
Hypothesis H3: Perceived behavioral control has a positive impact on the migration intention of garment workers.
Hypothesis H4: The migration intention of garment workers has a positive impact on the migration decision of garment workers.

The research scale is shown in Table 1 below.

Table 1: The basis for forming variables and factor scales in the model

Order	Code	Observed variable	Reference source
I	**TD**	**Attitude**	*Fishbein & Ajzen (1975); Ajzen (1991); Taylor & Todd (1995)*
1	TD1	I like migrating to find a job	
2	TD2	I am excited to find a job	
3	TD3	I am interested in finding a job	
4	TD4	Migration to find a job gives me excitement	
5	TD5	Migration to find a job gives me a lot of benefits	
II	**CCQ**	**Subjective norm**	*Fishbein & Ajzen (1975); Ajzen (1991); Taylor & Todd (1995)*
6	CCQ1	My migration to find a job is influenced by family members	
7	CCQ2	Most of my friends think that I should migrate to find a job	
8	CCQ3	There is a lot of information about the work of the garment industry in the place where I plan to move	
9	CCQ4	Many people around me migrate to find a job	
10	CCQ5	The place where I migrated to find a job has many acquaintances working there	
III	**KSHV**	**Perceived behavioral control**	*Ajzen (1991); Taylor & Todd (1995);*
11	KSHV1	I can look for a job	
12	KSHV2	I learn about the places I plan to migrate	
13	KSHV3	I am willing to ask a brokerage center / to ask relatives to help me find a job in the place where I intend to migrate	
14	KSHV4	I spend time and necessary resources to get job information about where I plan to move	
IV	**YD**	**Migration intentions of garment workers**	

15	YD1	Migration to find a job is the idea I have thought before	*Fishbein & Ajzen (1975); Ajzen (1991); Viswanath V, Michael G. Moris, Gordon B. Davis & Fred D (2003)*
16	YD2	I have prepared to find a job	
17	YD3	I expected to find to suitable job	
18	YD4	I am ready to migrate when I have chance	
V	**QD**	**Migration behaviors of garment workers**	*Taylor & Todd (1995); Viswanath V. Michael G. Moris, Gordon B. Davis & Fred D (2003)*
19	QD1	Migration to find a job is a reasonable decision	
20	QD2	Migration to find a job is an excellent decision	
21	QD3	Migration to find a job is a correct decision	
22	QD4	Migration to find a job is a necessary decision	
23	QD5	Satisfied about migrating to find work	

Source: Summary and recommendations of the research team

4. Collecting Methods and Analyzing Research Data

4.1. Measure variables and select research samples

The research is carried out based on a combination of qualitative and quantitative research. From the theoretical review and empirical studies, the research team identified 3 factors affecting the migration intention to find a job as a garment worker including Attitude (TD); Subjective norm (CCQ); Perceived behavioral control (KSHV), and the migration intention to find job variables of garment workers (YD) are the intermediate variables affecting the variable of employment migration behavior of garment workers (QD).

Next, the research team conducted a preliminary survey, the author discussed 2 groups of workers, each group including 3 workers who are garment workers working in industrial zones in Hanoi and Ho Chi Minh City. Discussion using a preliminary scale with factors affecting the migration intention and decision referencing from previous studies. The participants in the discussion were free to give their opinions on the aspects of the intention and decision to migrate for work. The preliminary study sample size is 6 (n=6). Preliminary research results are used to complete the research questionnaire and research model.

A quantitative research method was conducted to collect the opinions of garment workers on the intention and decision to migrate. The questionnaire is built based on preliminary research results and uses Likert5-level questions. Due to the limitation of survey time, the author used a convenient sampling method. The sample size was determined according to the rule of Comrey and Lee (1992), and also refers to the rule of Hoang Trong & Chu Nguyen Mong Ngoc (2005). With 23 parameters (observed variables) to conduct factor analysis, the minimum number of samples needed is 23 x 5 = 115 observed samples. Because of collecting as many observed samples as possible to ensure the stability of the impact, based on the ability to collect samples, the research team decided to choose the number of observed samples as n = 300. To ensure sample size, the author issued 350 survey questionnaires, the number of votes collected was 320 votes, of which 312 valid votes were included in the analysis.

4.2. Research data analysis

Research data collected will be cleaned and analyzed with the support of SPSS 20.0 software with analytical techniques:

Descriptive statistics: Describe the characteristics of the research sample according to predefined distinguishing signs.
Test the reliability of the scale (Cronbach's Alpha): by Cronbach's Alpha coefficient and remove inappropriate variables. Variables with a total correlation coefficient of less than 0.3 or with Cronbach's Alpha value that is larger than the total Cronbach's Alpha value will be excluded. Scales with Cronbach's Alpha from above 0.6 are usable.
EFA exploratory factor analysis: allows reducing many interrelated variables into representative factors. Using the test method (Kaiser-Meyer-Olkin) and Bartlett to measure the compatibility of the surveyed sample. Factor analysis is significant when the KMO value is > 0.5 and the sig value < 0.05; Factor loading factors must be > 0.5; In case observed variable loads on both factors, the loading coefficients must be different > 0.3, and this observable variable is included in the factor that it uploads the highest with the condition that the factor loading > 0.5.
Confirmatory Factor Analysis (CFA): The purpose is to assess the fit of the model with research data, thereby providing convincing evidence of convergent validity.) and discriminant validity of the theoretical structure through the Model Fit indexes. According to Hair et al. (2010), the indicators considered to evaluate Model Fit include:
CMIN/df 3 is good, and CMIN/df 5 is acceptable
CFI 0.9 is good, CFI 0.95 is excellent, CFI 0.8 is acceptable
RMSEA 0.08 is good, RMSEA 0.03 is excellent
Analysis of linear structural model SEM: The SEM model combines all techniques such as multivariate regression, factor analysis, and correlation analysis, allowing one to check the complex relationship in the model. The SEM model allows us to simultaneously estimate the elements in the overall model, and estimate the causal relationship between the latent concepts through indicators that combine both measurement and structure of the theoretical model stable (recursive) and unstable (non-recursive) relationships. measuring direct and indirect effects, including measurement error and residual correlation. With the confirmatory factor analysis (CFA) technique, the SEM model allows the flexibility to find the most suitable model in the proposed models. Similar to the CFA model, the SEM model also evaluates the linear structure through the Model Fit indexes.

5. The Research Result

5.1. Introduce the research sample

The subjects of the survey are workers in garment enterprises in some major provinces and cities of Vietnam and people from other localities who have migrated in search of work. The number of votes collected and put into analysis is 312. Some sample characteristics are described in Table 2 as follows:

Table 2: Describe the study sample

		Amount	Proportion(%)
Gender	Male	80	25.6
	Female	232	74.4
Age	15-18 years old	32	10.3
	>18-22 years old	116	37.2
	>22 years old	164	52.5

Source: Survey results of the research team

Classification by gender shows a large difference between males and females, with 80 males (25.6%) and 232 females (74.4%), which is consistent with the research results of Ravenstein, E. G., (1885) and the fact in Vietnam shows that garment workers still have a higher proportion of female workers. Most of the surveyed people are over

22 years old (52.5%), followed by 116 people from 18-22 years old (37.2%), and the number of people surveyed from 15-18 years old is only 32 people (10.3%).

5.2. Evaluate the quality and reliability of the scale

The results of testing the scale of factors using Cronbach's Alpha coefficient show that the coefficients are all more than 0.8 (Table 3), and the correlation coefficients of the total variables of the observed variables in the factor are all greater than 0.3. It shows that the study is relevant and reliable. Among the 5 groups of factors with the initial number of observed variables Xm = 23 variables, no scale is excluded, so the number of observed variables included in the model is Xk = 23 variables.

Table 3: The results of testing the reliability of the scale

Factor(Code)	**Number of observed variables**			**Coefficient Cronbach's Alpha**
	Before inspection	After inspection	Variables eliminated	
Attitude(TD)	5	5	0	0,895
Subjective norm (CCQ)	5	5	0	0,858
Perceived behavioral control (KSHV)	4	4	0	0,882
Intention (YD)	5	5	0	0,893
Decision (QD)	4	4	0	0,876
Total	23	23	0	

Source: Survey results of the research team

5.3. EFA exploratory factor analysis

The results of EFA analysis, at the Eigenvalue value greater than 1 with the extracted variance Principal Components and Promax rotation, the factor analysis extracted 5 factors from 23 observed variables with the extracted variance of 70.571% (more than 50%) meeting the requirements. The KMO coefficient has a value of 0.893 (>0.5), meaning the analysis is significant. The value sig = 0.000 (< 0.05) shows that the observed variables in the study are correlated with each other in the population and EFA factor analysis is appropriate.

Table 4: EFA factor analysis results

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.893
Bartlett's Test of Sphericity	Approx. Chi-Square	4166.411
	df	253
	Sig.	.000

Pattern Matrix					
	Component				
	1	2	3	4	5

TD2	.891				
TD3	.878				
TD4	.869				
TD5	.816				
TD1	.723				
QD2		.914			
QD3		.888			
QD4		.785			
QD1		.772			
QD5		.690			
CCQ5			.882		
CCQ3			.812		
CCQ1			.799		
CCQ2			.759		
CCQ4			.723		
YD3				.901	
YD4				.889	
YD2				.872	
YD1				.814	
KSHV1					.903
KSHV4					.856
KSHV2					.847
KSHV3					.823

Source: Survey results of the research team

Thus, in the factor analysis process with Eigenvalues of 1,556 (>1), 23 initially observed variables are converged into 5 groups of factors: Attitude (TD); Subjective norm (CCQ); Perceived behavioral control (KSHV); Migration intention of garment workers (YD); The employment migration behavior of garment workers (QD) with the total variance extracted is 70.571% (> 50%) means that 70.571% of the variation of the data is explained by these factors.

5.4. Confirmatory factor analysis CFA

The CFA test aims to determine the convergent validity and discriminant validity of the theoretical structure through the Model Fit indexes.

According to the test results, CMIN/df = 1.304 ≤ 3 is good, CFI = 0.978 > 0.9 is good and RMSEA = 0.036 ≤ 0.08 is good. Thus, it can be seen that the observed variables have convergent values on the representative variables, and at the same time all variables have discriminant values, there is no autocorrelation phenomenon.

5.5. Tested by linear structural model SEM

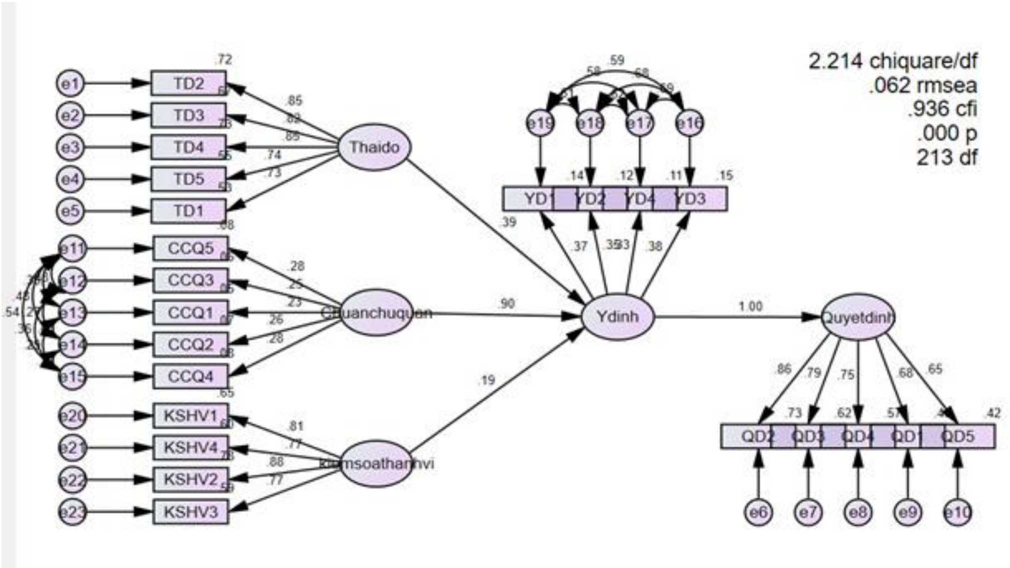

Figure 2: Structural model SEM

Source: Test results of the research team

Based on the results of the confirmatory factor analysis of CFA and the proposed research model, the research team builds a linear structural model SEM and performs verification steps. The SEM model test results show that the index CMIN/df = 2,214 (≤ 3) is good, the index CFI = 0.936 (> 0.9) is good, the index RMSEA = 0.062 (<0.08) is good. good. The indicators show that the analysis by SEM structural model is meaningful.

Identifying the SEM structural model is significant, and the research team continues to consider the significance level for the impact of the independent variable on the dependent variable (Table 5). All factors have a P value < 0.05, showing that the impact of the independent variables on the dependent variable is statistically significant.

Table 5: Determine the significance level of the impact of the independent variable on the dependent variable

	Estimate	S.E.	C.R.	P	Label
Intention ← Attitude	.186	.038	4.847		
Intention ← Subjective norm	.235	.043	5.511		
Intention ← Perceived behavioral control	.195	.045	4.372		
Decision ← Intention	1.282.	.265	4. 837		

Source: Test results of the research team

Examining the degree of impact of independent factors on the intention to migrate garment workers in Vietnam by standardized regression coefficient *(Table 6)* shows that the factor *"Attitude towards migration"* has a positive impact on the intention to migrate garment workers with an impact level of +0,523; The factor *"subjective norm"* has a positive correlation with the migration intention of garment workers with an impact level of +0.73; The factor *"Perceived behavioral control"* has a positive impact on the migration intention of garment workers with an impact level of +0.439; and the factor *"Migration intention of garment workers"* has a positive correlation to *"Migration behavior of garment workers"* with an impact level of +1.0, meaning the variable of migration intention will lead to a corresponding change in the decision to migrate. Hypotheses H1, H2, H3, and H4 are accepted.

Table 6: Identify the level of impact of factors

	Level of impact	Accepted hypotheses

Intention <---- Attitude	.523	H1
Intention <---- Subjective norm	.730	H2
Intention <---- Perceived behavioral control	.439	H3
Decision <---- Intention	1.000	H4

Source: Test results of the research team

5. Some Exchange Discussions

5.1. Discussing research results

The research results of the group have shown that the migration intention of garment workers is affected by 3 factors arranged in order from the factor with the most impact to the lowest, including (1) Subjective norm (+0.730); (2) Attitude (+0,523); (3) Perceived behavioral control (+0.439), and changes in migration intentions will lead to corresponding changes in migration behavior.

The factor *"Subjective norm"* has the strongest impact on the intention to migrate garment workers with an impact level of +0.730. This means that garment workers in Vietnam's intention to migrate are influenced by the people around them, if the impact level of the people around them increases by 1 unit, the worker's intention to migrate will also increase by 0.73 units.
Factor *"Attitude"* is the next factor that affects the intention to migrate garment workers with an impact level of +0,523. This means that the migration intentions of garment workers in Vietnam are influenced by the individual's beliefs and judgments about the outcome of their behavior. If trust and personal appreciation increase by 1 unit, the intention to migrate to find work will increase by 0.523 units.

The factor *"Perceived behavioral control"* is a factor that positively correlates with intending to migrate garment workers with an impact level of +0.439. This means that the migration intention of garment workers in Vietnam is influenced by the individual's perception of how easy or difficult it is to migrate to find a job. If workers realize that it is possible or easy to migrate as well as their ability to ensure living conditions and find a job, their intention to migrate increases and soon turns into a decision to migrate. The test results show that, when the perception of behavioral control increases by 1 unit, the employee's intention to migrate increases by 0.439 units.

In addition, the survey results also show that hypothesis H4 *"The migration intention of garment workers has a positive correlation to the migration behavior of garment workers"* is accepted. The garment workers who intend to migrate have migrated, so the impact point here is +1.0. It means that the variation of the intention to migrate will lead to a corresponding change in the decision to migrate.

5.2. Some suggestions from the research results

It is a fact that textile and garment workers are tending to move to new occupations with better working environments (especially service industries, and tourism ...). Therefore, human resources are always fluctuating, greatly affecting the production activities of enterprises, it is necessary to have solutions to attract workers, especially skilled workers for the industry.

The guarantee of income and a good working environment for the current employees of the garment industry are important factors for workers who are intending to migrate when they are under the influence of the factor *"subjective norm"* the largest according to the survey results. Because it is those who have a stable and satisfactory job in the garment industry that will be the best reference channel for information for those who are intending to migrate to find work.

"Attitudes" towards migration play the next role in influencing the migration behavior of garment workers. For workers to be willing to migrate to find jobs in the garment industry, it is required for those garment enterprises: Is necessary to put in place labor regimes and policies associated with a reasonable reward and punishment regime to encourage workers Self-disciplined, active in the production, and conscious of self-improvement of technical expertise. Regularly organize dialogues between employers and employees; creating an environment of consensus and close attachment between groups of workers in the implementation of production lines. Moreover, implementing the compensation regime by capacity based on consensus with employees. It is necessary to have policies to take care of workers' lives such as housing, entertainment, insurance, etc. so that workers can work long-term with enterprises, to be able to attract workers for the industry.

To reach the perception of migrant workers in the garment industry, and impact the factor *"Perceived behavioral control"* so that they have the intention to migrate and make a decision to migrate, the employer needs to develop an annual and multi-year labor recruitment plan. Labor recruitment information should be widely advertised in the mass media to attract workers from many regions and localities. The recruitment must fully and strictly comply with the provisions of the law. Having clear information about recruitment will be a reference channel for those who intend to migrate to find work.

The study is based on the theoretical model of intended behavior - TPB of Ajzen, I (1991), the results of model testing show the factors *"Attitude towards migration"*; *"Subjective norm"* and *"Perceived behavioral control"* have a positive impact on the intention to migrate of garment workers and the factor *"Migration intention of garment workers"* has a correlation impact on *"Migration behavior of garment workers"*. However, many other factors also have an impact on the migration of workers such as Government policy; Regulations of the local government on security and order, socio-economic development policies, and job availability in the homeland... in this study have not been mentioned but will be the objects and targets for the local government and the next research.

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"Killing the Golden Goose?": FDI in Poland 2022

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Abstract
This article is a follow up on recent events that relate to participation in foreign direct investment (FDI) activities in Poland in light of the *Law on Freedom of Economic Activity* (LFEA), the *Act on Control of Certain Investments* and the Amendments thereto, which provide for the rules on foreign participation in the Polish market and later restrictions on the purchase of Polish assets by discrete categories of investors. The article builds on research published in 2021 relating to the existence and importance of FDI in the Polish economy that had been negatively affected by a series of challenges and paradoxes in Polish society.

Keywords: Foreign Direct Investment, Polish Tech Bridges, Investment Factors, Investment Sectors

1. Introduction

Foreign direct investment, more commonly known as FDI, occurs with the purchase of "the physical assets or a significant amount of the ownership (stock) of a company in another country to gain a measure of management control" (Hunter & Ryan, 2012, p. 594). Ordinarily, FDI inflows are counted from a *10 percent stock ownership* in a company abroad.

As an active form of investment, FDI may take the form of a merger-and-acquisition activity with an existing company or entity (often referred to as a "brownfield" investment), where the purchaser acquires an ongoing business operation. In addition, FDI may take the form of creating an entirely new investment—literally from the "ground up" (often referred to as a "greenfield" investment) (adapted from Hunter & Ryan, 2012).

Poland has remained one of the most attractive destinations for foreign direct investment in Europe. This is no accident! The Polish government has made it a top policy priority to expand the domestic economy by "supporting high-tech investments, increasing productivity and foreign trade, and supporting entrepreneurship, scientific research, and innovation through the use of domestic and EU funding" (U.S. Department of State, 2019). According to a study conducted by the Polish Investment and Trade Agency (PAIH) in 2019, because of the positive investment climate fostered in Poland, as many as 94 per cent of foreign investors would re-invest in Poland (reported by Rodl & Partner, 2020).

Gorynia, Nowak, and Wolniak (2007, p. 132) noted that “Foreign direct investment (FDI) has played a pivotal role in the transformation of post-communist economies of Central and Eastern Europe (CEE) for more than a decade now. This is especially true for Poland which experienced a phenomenal growth of inward FDI.” Hunter and Ryan (2013, p. 14) commented that “From the start of the process of economic transformation in Poland in the fall of 1989, attracting FDI has been considered as a main policy objective of nearly all political parties and parliamentary configurations that have governed Poland and of all the individuals who have held the critical position of Minister of Finance in the Polish government”—at least until now.

The Polish Investment and Trade Agency (PAIH) is charged with supporting both the foreign expansion of Polish business and the inflow of FDI into Poland (see Przezdziecka, 2021). In addition, PAIH assists in boosting Polish exports and supporting the new generation of entrepreneurs who have grown up in post-1989 Poland. Specifically, PAIH assists in overcoming administrative and legal roadblocks related to implementing specific projects, in finding a suitable location in Poland for an investment, and in assuring reliable partners and suppliers to assure the sustained success of an investment.

The Agency implements pro-export projects such as "the Polish Tech Bridges" dedicated to the expansion of innovative Small and Medium-Sized enterprises (SMEs) (Wozniak, Duda, Gasior, & Bernat, 2019).

1.1. SME’s and Investment: “Building Bridges”

SMEs create more than a half of the Polish GDP in the sale of products and services abroad. Since Poland has entered the European Union, exports have tripled from almost 60 billion euro (2004) to 185 billion euro in 2016. A record of 200 billion euros in foreign sales of the product or services of Polish companies is expected in the period 2017 to 2020. The increase of investment activity has led PAIH to implement a six-year project of tailored support for Polish SMEs which is termed “**Polish Tech Bridges**.”

The Polish Tech Bridges project provides SMEs with professional tools that prepare them to compete outside traditional European markets so that they can effectively operate in as many as 20 world-wide markets. The beneficiaries of this ambitious project are entrepreneurs whose activity is part of the so-called “National Smart Specializations.”

PAIH (2022) notes that the national smart specializations are targeted priorities in the field of research, development, and innovation, “which concentrate investments in areas ensuring the added value of the economy and its competitiveness.” Smart specializations were created as the result of extensive cooperation between public administration and representatives of business and science. The intent of this initiative is to identify “bottom-up areas” in which Polish enterprises would develop market potential in the belief that the concentration of efforts will lead a strong “return on investment” and to development of innovation (Dworak, 2020). “Smart specializations are designed to contribute to the further transformation of the national economy through modernization, structural transformation, diversification of products and services and the creation of innovative socio-economic solutions, also supporting the transformation towards a resource-efficient economy, including natural resources” (Polish Investment and Trade Agency (PAIH), 2018).

The list of current national smart specializations is as follows (KIS, 2022):

“HEALTHY SOCIETY
NSS 1. HEALTHY SOCIETY
AGRICULTURE AND FOOD BIOECONOMY, FOREST BASED AND ENVIRONMENTAL BIOECONOMY
NSS 2. INNOVATIVE TECHNOLOGIES, PROCESSES AND PRODUCTS OF THE AGRICULTURE AND FOOD AND FOREST BASED SECTOR

NSS 3. BIOTECHNOLOGICAL AND CHEMICAL PROCESSES, BIOPRODUCTS AND PRODUCTS OF DEDICATED CHEMISTRY AND ENVIRONMENTAL ENGINEERING SUSTAINABLE ENERGY INDUSTRY NSS 4. HIGHLY EFFICIENT, LOW-CARBON AND INTEGRATED SYSTEMS OF GENERATION, STORAGE, TRANSMISSION AND DISTRIBUTION OF ENERGY NSS 5. SMART AND ENERGY-EFFICIENT CONSTRUCTION NSS 6. ENVIRONMENT FRIENDLY TRANSPORT SOLUTIONS **CIRCULAR ECONOMY – WATER, FOSSIL RAW MATERIALS, WASTE** NSS 7. CIRCULAR ECONOMY – WATER, FOSSIL RAW MATERIALS, WASTE **INNOVATIVE TECHNOLOGIES AND INDUSTRIAL PROCESSES (HORIZONTAL APPROACH)** NSS 8. MULTIFUNCTIONAL MATERIALS AND COMPOSITES WITH ADVANCED PROPERTIES, INCLUDING NANOPROCESSES AND NANOPRODUCTS NSS 9. SENSORS (INCLUDING BIOSENSORS) AND SMART SENSOR NETWORKS NSS 10. SMART NETWORKS, INFORMATION AND COMMUNICATION TECHNOLOGIES AND GEOINFORMATION TECHNOLOGIES NSS 11. PRINTED, ORGANIC AND FLEXIBLE ELECTRONICS NSS 12. AUTOMATION AND ROBOTICS OF TECHNOLOGICAL PROCESSES NSS 13. PHOTONICS NSS 14. INTELLIGENT CREATION TECHNOLOGIES NSS 15. INNOVATIVE MARITIME TECHNOLOGIES FOR SPECIALIZED VESSELS, MARITIME AND OFFSHORE STRUCTURES AND LOGISTICS BASED ON THE SEA AND INLAND WATERWAY TRANSPORT”

The program will also benefit small *entrepreneurs* who plan to increase the volume of exports or consider investments in foreign markets. The program also focuses on *innovators* who are seeking foreign partners to conduct research and development projects (R&D) as well as seeking external financing sources for these activities. The maximum grant for one SME could reach PLN 200,000 (about $45,500), while the total value of governmental support amounts to over PLN 176.5 million ($37.5 million). [For informational purposes, the current exchange rate, as of September 5, 2022, of the Polish zloty to the U.S. dollar is 1 Polish zloty is equal to .21 U.S. dollar. The current exchange rate of the Polish zloty to the euro (€) is .21 euro.]

Target countries include the United States, Canada, Mexico, Vietnam, China (including the Hong Kong SAR), Japan, the United Arab Emirates, Iran, Kenya, Turkey, Republic of Korea, Saudi Arabia, Egypt, India, Norway, Switzerland, Ukraine, Russia, Republic of South Africa – all of which were identified as “*fast growth markets”* (see Reynolds, 2021).

The Polish Tech Bridges project is primarily financed from the European Regional Development Fund under the Smart Growth Operational Programme and will be carried out in years 2018 – 2023.

2. Foreign direct investment (FDI) in Poland: An Overview

Poland has been one of the most attractive countries in Europe in terms of FDI. According to *UNCTAD's 2021 World Investment Report* (2021)*,* FDI inflows to Poland remained stable in 2020, reaching USD 10 billion, in line with the USD 10.8 billion recorded a year earlier, despite the outbreak of the Covid-19 pandemic which caused a contraction of 42% of global FDI (Hayakawa, Lee, & Park, 2022).

Total investment stocks in Poland [inward FDI] stood at USD 236.5 billion in 2020. Poland ranked fifth globally in terms of the value of “greenfield” projects announced in 2020, with a total of USD 24.3 billion. [Greenfield Investments are a form of foreign direct investment where a parent company starts a new venture in a foreign country by constructing new operational facilities, literally from the ground up.] The U.S. Chamber of Commerce

(2021) reported that "Foreign companies have created over 6,300 jobs in their greenfield investment ventures run by PAIH and devoted to these projects over $2.8 billion in 2020. 46% of capital expenditures and 38% of new jobs in all greenfield projects were created by US-owned companies which started or expanded their business in Poland in 2020 and were organized with the cooperation of PAIH."
Interestingly, major projects include the construction of a "cloud region" in Poland by Google for USD 1.8 billion. [A "cloud region" describes the actual, real-life geographic location where public cloud resources are located (Hargrove, 2022).]
Poland is the largest recipient of FDI inflows in Central Europe. The majority of investment stocks are held by the Netherlands, Germany, Luxembourg, and France. Investments are concentrated in manufacturing, financial services, insurance, wholesale and retail trade, and the real estate sectors. In addition, a high percentage of investors coming from China and South Korea.

According to the latest figures from OECD, in the first half of 2021 FDI inflows to Poland totaled USD 12.3 billion, greater by 27.4% compared to the same period one year earlier, when FDI inflows stood at USD 9.6 billion.

2.1. Investment Factors

In successfully attracting FDI, Poland's main assets have been its strategic position, literally "in the heart of Europe" (Davies, 2001; Wozniak, 2021), a large population of nearly 38 million, its membership in the European Union (see Rapacki & Prochniak, 2021), economic stability, relatively "cheap" but skilled labour reflected in the cost of labor (Euronews, 2018), and a fiscal system attractive to businesses.

Wozniak (2020) commented;

> "Poland is located in the heart of Europe which makes it the perfect investment location for companies needing to export products both in eastern and western directions. On the one hand, companies located in Poland can benefit from a strong economic relationship with Eurozone, having free trade access to the EU market and standardized regulations. On the other hand, the Polish economy is stable and resistant to any economic crisis thanks to having its own currency (Polish zloty). "

PAIH (2022) has assembled information on a number of factors which point to the attractiveness of Poland as a destination for foreign investment. These include:

- **Human capital:**

"Poland's greatest asset are its citizens, especially their ambitious nature, eagerness to learn, great work ethic, loyalty and entrepreneurial spirit. Companies starting their operations in Poland can also count on consumers with open minds to modern solutions."
Nurczyk (2017) cited the following "skill sets" of Poland's work force:

- Data management skills: analysis, credibility assessment, researching and logical thinking;
- Technology literacy;
- Social intelligence; and
- Flexibility.

- **Modern consumers:**

"Companies in Poland have access to a market of modern consumers - often online shoppers, open to technological innovations and fond of modern banking solutions." This observation is confirmed by Poland's second place ranking in "The Top 10 Cashless Countries in Europe," a study which assessed the percentage of the population using credit or debit payment cards and the frequency of using "contactless payments" through internet services. This is no doubt in a large part thanks to over a million payment terminals in Poland with the contactless payment function." Drapinska (2020) notes: "Polish consumers are still trying to catch up and meet their needs at a level similar to that in highly developed countries. Nevertheless, one can observe some symptoms of consumerist behaviour, e.g., spending on pleasure and entertainment prevails over saving, buying unnecessary things, or pleasure shopping."

- **Education:**

Wes and Bodewig (2016) noted that "International research has identified three dimensions of skills that matter for good employment outcomes and economic growth: cognitive skills, such as literacy, numeracy, and creative and critical thinking or problem-solving; socio-emotional skills and behavioral traits, such as ability to finish a task and work well in teams; and job- or occupation-specific technical skills, such as in engineering." Tracking these dimensions, Poland ranks third in the prestigious PISA [Programme for International Student Assessment] ranking, an international assessment of students' skills, behind Estonia and Finland, but before Ireland, Slovenia, and Great Britain.

> "From the EU perspective, the results of the PISA survey are particularly important as they form part of the strategic framework for European cooperation in education and training. As one of the few countries, thanks to educational reforms, Poland has kept its share of underperformers below 15% in all assessed areas in PISA 2018. This wouldn't be possible without a highly developed education system that makes every effort to ensure that students receive the highest quality education" (see European Commission, 2022).

Approximately 92% of Polish citizens aged 25-64 have attained at least a secondary education. This achievement places Poland in 5th place among all the OECD countries and significantly above the OECD average of 78%. Almost 1.3 million Polish students are enrolled at institutions of higher education, which places Poland 4th in Europe**.** The Polish higher education system is characterized by the large number of students in STEM (exact sciences, technology, engineering and mathematics) programs (see Piotrowski, 2019).

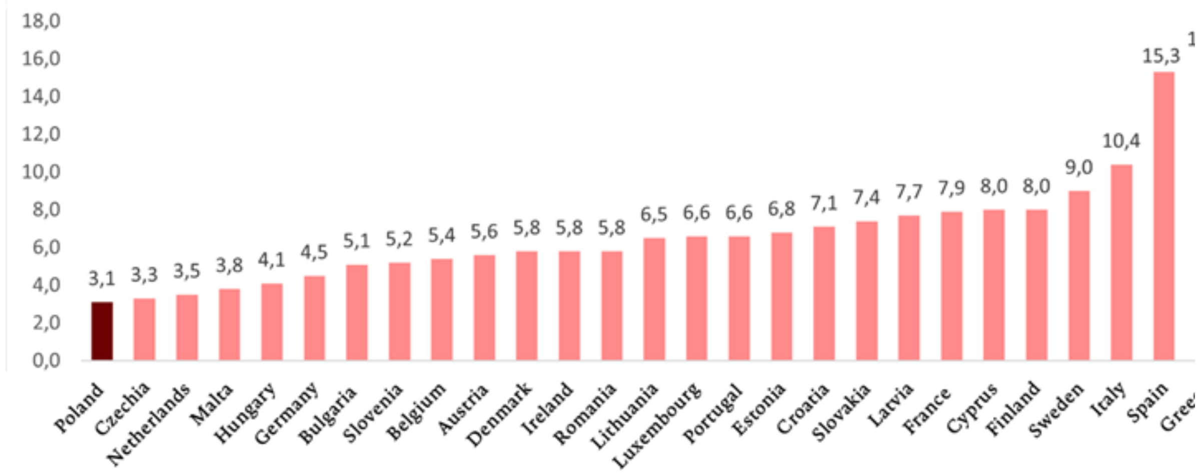
- **Knowledge of foreign languages:**

Poland places 16th (out of the top 100 countries) in 2020 in the "EF Proficiency Index," which ranks countries based on the knowledge of the English language among non-native English speakers.

- **Employment and Salary considerations:**

The average salary for workers in Poland in the first quarter of 2021 was PLN 5,681.56 (€ 1,260). This is a 6.6% increase on a year-to-year basis, 4.1% more than in the fourth quarter of 2020. The labor market is gradually recovering to the levels before the Coronavirus pandemic.

- **Unemployment in the EU as of March 2021 in %:**



At the end of 2021, *Trading Economics* (2022) reports that Poland's unemployment rate increased but has stabilized at 4.9% in July of 2022, coming in slightly above market projections The number of registered unemployed people steadied at 810,200.

2.2. Structural Reforms

Poland has established priorities assuring "structural reforms" relating to:

- Education and skills: Promote participation in lifelong learning;
- Labour market: Increase the labour force participation rate of older workers and women;
- Environmental policy: Reduce air pollution levels and carbon emissions;
- Healthcare: Improve efficiency in health and long-term care;
- Competition and regulation; and
- Ease business regulations and improve bankruptcy proceedings (see OECD 2021).

However, as the OECD (2022) offers a somewhat cautionary notes and states: "After strong GDP growth in the second half of 2021, the war in Ukraine will take a toll. Real **GDP** is projected to expand by **4.4% in 2022 and by 1.8% in 2023.** Consumption and, to a lesser extent, investment growth is expected to slow considerably, partly offset by fiscal policy. Inflation is expected to peak by the end of the year as the rise in energy prices slows and monetary policy tightens. Core inflation is projected to decrease but is likely to remain elevated at the end of 2023."

Under the 2021-2027 EU budget, Poland will receive USD 78.4 billion in *cohesion funds* (European Commission, 2022), as well as approximately USD 27 billion in grants and USD 40 billion in loan access from the EU Recovery and Resilience Facility.

"Cohesion Policy funds will promote economic, social and territorial cohesion in the Polish regions and help implementing key EU priorities such as the green and digital transition" in the following areas (European Commission, 2022):

- **Reducing energy dependence and protecting the environment;**
- **Digital transformation of the economy and society;**
- **Building socially inclusive and resilient communities;**
- **Encouraging local partnerships; and**
- **Sustainable fisheries and aquaculture sector."**

3. Positive and Negative Attributes of the Polish Economy

While there are strong positive indicators present in the Polish economy, there are also several negative indicators or factors present as well. This section of the study will describe some of the most important positive and negative factors.

3.1. Positive Success Indicators

Successes abound in the Polish economy in several areas—most especially in the growth of employment—which are important in assuring that there will not be an "innovation gap" between the Polish economy and countries in the European Union (Dworak, 2020). Theses examples are provided by the Polish Investment and Trade Agency (PAIH, 2022).

Business Support Services: A thriving BSS industry, valued at USD 19.8 billion recorded strong growth over the last decade, resulting in an increase from 50,000 employees in 2008 to over 338,000 in 2020. This growth is expected to continue throughout the decade (Leonski, 2022).

Electronics and electrical engineering: The value of electrotechnical equipment sold exceeds PLN 64.6 billion and accounts for 5% of Polish industry's total production. The industry employs a total of 115,000 workers—4.8% of the total number of people working in the manufacturing sector in Poland.

Renewable Energy: Poland ranks 5th in Europe in terms of growth of renewable energy capacity (see Jankowska, Stalinski, & Trapczynski, 2021; Pietrzak, Iglinski, & Kujawski, 2021).

Pharmaceuticals and biotechnology: The pharmaceutical industry accounted for 26,000 jobs in 2020 (Sas, 2022a) and generated about € 213 billion in market value in 2019 in the EU (see Pierigud, Piotrowicz, & Cuthbertson, 2018). Approximately 200 companies, employing over 4,000 people, work in the field of biotechnology in Poland (see Kuzmierkiewicz, Rachon, & Grynkiewicz, 2019).

Gaming: The value of the gaming segment in Poland is estimated at EUR 8.1 billion (Wanat, 2022), which includes PC gaming, console gaming, mobile gaming, game developers, and E-sports gaming (Dordevic, 2021).

IT: The size of the IT sector in Poland is estimated at PLN 70-85 billion. Fourteen Polish IT companies appeared in the 2020 ranking of the 1000 fastest growing companies in Europe (Kulig, 2019). Polish IT companies have established unique *branding* in providing export services, which are "characterised by high quality and meticulousness of the services provided, both as a supplier of comprehensive solutions as well as "tailor made" solutions or highly qualified outsourcing teams."

Cosmetics: Poland is ranked 14th in the world in terms of cosmetics export, with a 2.6% share, with over 85% of Polish cosmetics exports destined for European markets. Sas (2022b) reports:

> "The cosmetic industry in Poland has strengthened its position both on the domestic market, through sales growth, and abroad through exports. International companies compete with numerous small Polish manufacturers. The value of the Polish cosmetics market amounted to over 18 billion zloty in 2020. This was reached due to constant development in recent years. Since 2017, the value of the market has been growing on average by more than three percent a year. Past years have seen a positive balance of Poland in the cosmetics trade. The most exported cosmetic items in 2020 were make-up and skincare products, which accounted for 46 percent of all exported cosmetic goods. Poland's leading cosmetics export markets are Germany, Kazakhstan, and Russia."

Aeronautics: 17,100 Poles are employed in aeronautical production, with the value of the Polish aviation industry's sales reaching euro 1,93 billion in 2018, an increase of 16,8% on a year-to-year basis. The industry has achieved great prominence since at least 2010 (Klimas, 2016).

The five largest manufacturers of aircraft engines [Lufthansa, GE Aviation, Sikorsky, UTC Aerospace Systems and AugustaWestland] have all begun production in Poland. There are 140 aviation companies working in Poland.

Ships and yachts: KPMG (2019) reports that there are approximately 1000 companies in Poland involved in building or producing yachts, boats, and accessories, plus a network of Polish sub-suppliers.

Furniture: Poland was the world's second largest furniture exporter in 2019 and first in the European market. Sas (20222c) notes that "In 2021, in terms of value, Poland exported the most furniture to Germany, reaching five billion euros. Total exports value amounted to 14.9 billion euros in this period." Germany, Czechia, the Netherlands, France, Great Britain, and Ukraine (at least before the 2022) remain the main export destinations. The furniture industry in Poland is responsible for over 2% of Polish GDP. It is the fourth largest industry in the country in terms of employment. Poland ranks 6th in the world in terms of the value of manufactured furniture. Polish furniture is shipped mainly to Western Europe – with 90% of furniture products exported.

Automotive: 327,400 workers are employed in the automotive industry, ranking Poland 3rd in the EU. The value of the Polish automotive industry's exports in 2019 amounted to euro 36 billion, which accounts for 15.3% of the total exports of goods. The United States International Trade Commission (2022) commented that:

> "Poland's automotive industry is an important manufacturing sectors that has become Central and Eastern Europe's manufacturing hub for cars, car parts and components. Poland's automotive industry is one of the most important manufacturing sectors in Poland, accounting for 11.1 % the total value of the country's production and is second only to the food industry. In recent years Poland has attracted a substantial amount of foreign direct investment in the automotive manufacturing sector and, consequently, has become one of Central and Eastern Europe's major manufacturing hubs for cars, car parts and components. Automotive manufacturing has evolved into one of Poland's key industries in terms of production value, employment, capital expenditures and exports. Poland is the region's largest automotive market in terms of sales and services."

Polish exports of lithium-ion batteries in 2021 amounted to approximately PLN 165.9 billion. Poland is the 6th largest producer of commercial vehicles in Europe, with 208,000 units produced in 2018 alone. The largest vehicle producers in Poland are Volkswagen, Daimler, and Toyota.

Textiles, clothing and fashion: About 300,000 people are employed in the fashion industry in Poland, largely in small family businesses (approximately 73%). At the same time, a significant part of sales is carried by large companies in the fashion industry, including nationwide chains (see Sadowski, Dobrowolski, Skowron-Grabowska, & Bujak, 2021).

Paper production: The value of the Polish paper sector is approximately PLN 45 billion, ranking this sector as the second most profitable industry in Poland, after the pharmaceutical industry. Poland's share in the European Union's paper production is growing - from 4% in 2010 to over 6% in 2021 (see Cetera, 2022).

Medical equipment: There are more than 300 companies operating in the medical products and medical devices industry, offering approximately 500,000 medical products, which have been approved for sale under strict EU regulations (see Rutkowski, 2021).

3.2 Potential Negatives

Despite the strengths in the economy exhibited in these sectors of the Polish economy, however, there is one major potential negative: Polish law limits foreign ownership of companies in selected strategic sectors and restricts acquisition of real estate, especially agricultural and forest land. In addition, a new law [discussed below] was enacted which gives President of the Office for Competition and Consumer Protection the authority to review investments by non-EEA and non-OECD investors on the grounds of public security, public order, and public health. [The EEA includes EU countries and also Iceland, Liechtenstein and Norway, allowing them to be part of the EU's single market. Switzerland is not an EU or EEA member but is part of the single market as well.]

According to Trading Economics (2022), the business climate in Poland is strong. The World Bank ranks Poland 40th out of 190 countries in its latest *Doing Business* ranking; however, Poland fell seven positions compared to the previous edition.

Polish law limits non-EU citizens to 49 percent ownership of a company's capital shares in the air transport, radio and television broadcasting, and airport and seaport operations sectors, effectively creating a "golden share" relating to ownership (see, e.g., Gaydarska, 2009; Szabados, 2019). The *Law on Freedom of Economic Activity* (LFEA) of July 2, 2004, requires companies to obtain *licenses, permits, and concessions* to conduct businesses in certain sectors such as broadcasting, aviation, energy, weaponry, military equipment, mining and private security services. Licenses and concessions for defense production and management of seaports are generally granted on the basis of "national treatment" for investors from OECD countries.

In July of 2015, Poland enacted an *Act on the Control of Certain Investments* [Act] for companies operating in strategic sectors. In May of 2020, the Polish government approved a series of regulations (Pawlak, Weiss, & Kulak, 2020) aimed at making it difficult for investors from outside the European Union to acquire companies that Poland considers "strategic" to its economy at low or below market values. The regulations were part of a government rescue package worth more than PLN 300 billion to help Poland survive the coronavirus pandemic and the resulting economic crisis (Sabatino, 2021).

4. A Discussion of the Act and Regulations

Pietrasik and Michalski (2022) lay out the parameters and details of the regulations in responses to a series of questions relating to the effect of the regulations on FDI in Poland. We have adapted this format in discussing both the Act and the Regulations adopted pursuant to it.

What is the national policy with regard to the review of foreign investments (including transactions) on national security and public order grounds?

The Act obliges potential investors to notify the relevant Minister or the President of the Office of Competition and Consumer Protection of their intention to buy shares or achieve a significant participation in strategic companies.

The Act and the implementing regulation of the Council of Ministers dated 11 December 2020 provide a specific list of strategic companies directly covered by the notification procedures, including 13 Polish private and public companies in the energy, oil, gas, fuel, telecommunication, and chemicals sectors. Additionally, as a result of the Amendment to the Act which came into effect on 24 July 2020, at least partially in response to the Covid-19 pandemic, the Act substantially expands the sectors of strategic companies covered by the approval requirements.

Wnukowski and Geiss (2022) state:

> "The Amendment has extended the scope of government's control over the acquisition of stakes in Polish entities. Investors from outside of the EEA, EU, or OECD would need to obtain clearance for the acquisition of a stake in Polish companies (or partnerships) carrying out business in sectors that the government has identified as being of strategic importance. The concept behind the Amendment was not originally domestic – the Polish government responded to the EU call to protect the "European crown jewels" from buyouts by non-EU investors at lowered prices while the lowered valuations were caused by the COVID-19 pandemic."

Are there any particular strategic considerations that apply during foreign investment reviews?

The Act (in particular, its Amendment) has been introduced to protect Polish strategic companies against "hostile" takeovers by entities from non-EU/EEA/OECD countries.

What kinds of foreign investments, foreign investors and transactions are subject to the Act? Is the acquisition of minority interests subject to the Act?

As to the types of companies covered by the Amendment, the Act provides that the approval requirements apply only to the buyers who are:

- natural persons who do not have EU, EEA or OECD citizenship; and
- companies not having a registered seat within the EU, EEA or OECD for at least two years before the date of filing.

Additionally, the Amendment states that subsidiaries or affiliates of foreign entities (i.e., entities not having a residential address or registered seat within the EU, EEA or OECD), even if located within EU/EEA/OECD, will be qualified as foreign entities.

There is no specific threshold provided for acquiring a *dominant position* in a Polish company – a dominant position is reached when the buyer has a "right to control" the target company's business. However, notification to the relevant authority will in fact be required when the buyer exerts a "significant influence" on the target by owning at least 20% of its shares or in its share capital or share of its profits, as well as when the buyer achieves or exceeds 20% of the total number of votes at the shareholders' meeting or 40% of the profit derived from the target's share capital, or when the buyer purchases or leases the target's enterprise or the organized part thereof.

What are the sectors and activities that are particularly under scrutiny? Are there any sector-specific review mechanisms in place?

The approval regime applies to the Polish "strategic companies" specifically listed in the Regulation operating in the following core sectors:

- production of energy;
- production of oil and gas;
- oil and gas pipe transmission;
- storage of oil, gas and natural gas;
- underground storage of oil and gas;
- manufacturing of chemicals, fertilizer and chemical products;
- manufacturing and trade in explosives, arms and ammunition and products or technology with military or police use;
- regasification or liquefaction of natural gas;
- transshipment of crude oil and its products in seaports;
- distribution of natural gas and energy;
- transshipment in ports of major importance for the national economy;
- telecommunications;
- transmission of gaseous fuels;
- manufacturing of rhenium; and
- mining and processing of metal ores used for the manufacturing of explosives, arms and ammunition and products or technology with military or police use.

The Amendment has substantially extended the approval regime. Under the Amendment, the following new types of entities shall be also covered by the approval regime:

- all public-listed companies;
- entities owning assets in strategic infrastructure;
- IT industry entities that develop or modify software to:
- manage power plants, networks or services or systems relating to the supply of energy, natural gas, fuels or heat;
- manage, control or automate drinking water supply or wastewater treatment installations;
- operate equipment or systems used for voice or data transmission or for storage and data processing;
- operate or manage equipment or systems used for cash supply, card payments, cash transactions, settlement of securities and derivative transactions or to provide insurance services;
- operate hospital information systems, operate equipment and systems used in the sale of prescription drugs or operate laboratory information systems or laboratory tests;
- operate facilities or systems used for the transportation of passengers or goods by air, rail, sea or inland waterway, road, public transport or in logistics;
- operate equipment or systems used in the supply of food;
- entities providing cloud computing data storage or processing services;
- entities operating in the following core sectors:
- production of energy;
- production of oil and gas;

- oil and gas pipe transmission;
- storage of oil, gas and natural gas;
- underground storage of oil and gas;
- manufacturing of chemicals, fertilizer and chemical products;
- manufacturing and trade in explosives, arms and ammunition and products or technology with military or police use;
- regasification or liquefaction of natural gas;
- transshipment of crude oil and its products in seaports;
- distribution of natural gas and energy;
- transshipment in ports of major importance for the national economy;
- telecommunications;
- transmission of gaseous fuels;
- manufacturing of rhenium;
- mining and processing of metal ores used for the manufacturing of explosives, arms and ammunition and products or technology with military or police use;
- manufacturing of medical devices and products;
- manufacturing of medicinal and other pharmaceutical products;
- cross-border trade in gaseous fuels and gas;
- production, transmission or distribution of heat;
- transshipment in inland ports; and/or
- processing of meat, milk, cereals, fruits or vegetables.

Under the Amendment there is no specific list of protected companies; the Amendment only provides a generic *types of entities* covered by the Act.

How are terms such as 'foreign investor' and 'foreign investment' specifically addressed in the law?

According to the companies listed in the Regulation, there is no definition of a foreign or domestic buyer – transactions regarding any company covered by the Regulation fall under the screening procedure.

As to the types of companies covered by the Amendment, the Act provides that the approval requirements apply only to the buyers who are:

- natural persons who do not have EU, EEA or OECD citizenship; and/or
- companies not having a registered seat within the EU, EEA or OECD for at least two years before the date of filing.

Are there specific rules for certain foreign investors (e.g., non-EU / non-WTO), including state-owned enterprises (SOEs)?

If the investor is qualified as a foreign investor under the Act, then the *screening regime* applies. There are no specific rules for foreign investors such as state-owned enterprises.

Is there a local nexus requirement for an acquisition or investment to fall under the scope of the national security review? If so, what is the nature of such requirement (existence of subsidiaries, assets, etc.)?

The approval regime under the Act on the Control of Certain Investments applies only to companies with a "registered seat" in Poland.

What conditions must be met for the law to apply? Are there any monetary or market share-based thresholds?

There are four conditions that must be met jointly for the law to apply (including a monetary threshold):

1. The target company must be a company with a registered seat in Poland (and – in the case of companies covered by the Regulation – it must be listed in the Regulation);
2. The target company must be covered by the Regulation or it must operate in strategic sectors;
3. In the case of companies covered by the Amendment, the target company must have revenue from sales and services which exceeded in Poland in any of the two financial years preceding the notification, the equivalent of EUR 10,000,000; and
4. In the case of companies covered by the Amendment, the transaction must be conducted by the investor qualified as a foreign investor.

In the case of transactions, who is responsible for obtaining the necessary approval?

The general rule is that the *buyer* is obliged to notify the relevant authority upon acquiring or achieving significant participation or acquiring dominance in a strategic (protected) company.

There are two main **exceptions** form the rule presented above:

- In the case of indirect acquisition or achieving a significant position, the notification obligation is imposed on the subsidiary or affiliated entity.

- The target company is a party obliged to notify the relevant authority in the case of follow-up acquisitions, i.e., when the buyer acquires or achieves significant participation of the target, or acquires dominance over the target by way of a redemption of target's shares or the acquisition of target's own shares; division of the target company; and/or a change of articles of association of the target company resulting in the change of personal rights.

Can foreign investors engage in advance consultations with the authorities and ask for formal or informal guidance on the application of the approval procedure?

It is possible to apply for ***informal interpretations or guidance*,** but the authority has no obligation to respond to such informal enquiries and the interpretations will not have a binding effect.

What type of information do investors have to provide as part of their filing?

This is perhaps the most important aspect of the regulations. Investors must provide the authority with detailed information regarding all the entities involved in the transaction, including the target company and the investor itself.

In particular, the investor shall provide the authority with the following information:

1. The investor's shareholding in the target company (direct or indirect) and in the target's subsidiaries or affiliated entities;
2. The structure of the transaction covered by the filing;
3. The scope of the investor's business activity;
4. The investor's capital group, its structure and internal relations;
5. The investor's economic and financial standing;
6. Any criminal convictions regarding the investor, as well as any criminal proceedings in progress;
7. Any pre-transaction activities conducted before the filing;
8. Financial resources dedicated for the transaction; and
9. The investor's intentions towards the target company (long- and short-term).

Are there sanctions for not filing (fines, criminal liability, unwinding of the transaction, etc.) and what is the current practice of the authorities?

Under the Act, the acquisition or achievement of significant participation or the acquisition of the dominant position without notification or despite the relevant authority's opposition is null and void by virtue of law.

In the case of certain types of indirect acquisition (e.g., an acquisition that took place on the basis of foreign law or outside the territory of Poland), the buyer must not execute his voting rights or any other rights resulting from the shares acquired in this way, excluding the right to sell the shares.

Additionally, any resolutions adopted at a shareholders' meetings of the target company in violation of the Act are null and void, except when such resolutions fulfil quorum requirements and the resolutions would have been adopted even without the invalid votes. The relevant authority also has a right to repeal any resolution that is deemed null and void. Moreover, in some cases, the relevant authority may impose an obligation to sell the shares within a specified deadline.

In addition to the above provisions, a person or entity that purchases or achieves significant participation or acquires dominant position without the required notification is subject to a financial penalties of up to:

- PLN 100,000,000 (approx. EUR 22,000,000) – in the case of companies listed in the Regulation; or
- PLN 50,000,000 (approx. EUR 11,000,000) – in the case of entities covered by the Amendment.

Additionally, such person may be imprisoned for a period ranging from six months up to five years.

The same penalties may be imposed on a person *representing* the buyer. Additionally, a person representing the subsidiary, who knows about a transaction (indirect acquisition) that already took place and does not notify the relevant authority about the transaction, may be subject to a financial penalty of up to:

- PLN 10,000,000 (approx. EUR 2,200,000) – in the case of companies listed in the Regulation; or
- PLN 5,000,000 (approx. EUR 1,100,000) – in the case of entities covered by the Amendment.

Such person may also be imprisoned for a period ranging from six months up to five years.

The same penalties may be imposed on a person who *represents* the buyer at a shareholders' meeting of the target company and *executes* share rights on behalf of an entity that has not notified the relevant authority of the transaction, provided that such person knew or should have known about such circumstances.

Is there a filing deadline and what is the timeframe of review in order to obtain approval? Are there any provisions expediting the clearance?

Under the Act there is no "deemed approval" procedure. According to the designation of companies listed in the Regulation, approval is granted by the relevant Minister specified for each protected company in the Regulation. Securing the approval for such companies shall take no longer than 90 days. The Minister is required to issue a decision granting or denying the approval within this 90-day period.

As to the entities covered by the Amendment, approval is granted by the President of the Office of Competition and Consumer Protection. The approval procedure is divided into a *preliminary* stage and a *controlling* stage. The preliminary stage shall be closed within 30 business days by issuing a decision denying the procedure (i.e., stating that the transaction is not covered by the Act) or a decision to commence the controlling stage. In the case of the controlling stage, the decision shall be issued within 120 calendar days as of the beginning of the controlling stage.

Does the review need to be obtained prior to or after closing? In the former case, does the review have a suspensory effect on the closing of the transaction?

The general rule is that notification shall be made before taking any positive steps or legal actions that lead to acquiring or achieving significant participation or acquiring dominance in a strategic company. Thus, the review needs to be carried out prior to the closing, and in some cases. even prior to the execution of a binding agreement. In practice, this means that the review may be made on the basis of a *letter of intent*, which normally is non-binding, but in this case is an important part of the process of approval. At the same time, the Act states that the agreement (or other legal actions) covered by the notification can be conditional upon the authority's approval.

In the case of an indirect acquisition or a follow-up acquisition, the notification shall be made within seven or 30 days (depending on the situation).

If the parties conclude a transaction before approval is obtained, the general sanctions detailed above shall apply; in particular, the transaction completed without notification or despite the opposition of the relevant authority will be null and void by virtue of law.

Which authorities are responsible for conducting the review?

According to the listing of companies in the Regulation, approval is granted by the relevant Minister specified for each protected company in the Regulation. As to the entities covered by the Amendment, approval is granted by the President of the Office of Competition and Consumer Protection.

Can a decision be challenged or appealed, including by third parties? Is the relevant procedure administrative or judicial in character?

Under the Act, it is possible to appeal the decision of the competent authority to the Administrative Court (see Wiaczek, 2021) – within 30 days after a decision has been rendered. The appeal procedure has a judicial character. Only parties to the screening proceedings have standing to appeal the decision to the Administrative Court.

Is it possible to address the authorities' objections to a transaction by providing remedies, such as undertaking or other arrangements?

If the relevant decision-making authority has raised objections during the review, it may request the entity submitting the notification to provide further documents or explanations. After the decision is made by the authority, it can only be appealed to the Administrative Court. There are no conditional decisions, i.e., decisions allowing the transaction and imposing specific remedies or other arrangements on the investor on a conditional basis.

5. Some conclusions and Observations

In addition to "muddying the waters" in the area of FDI, another "potential" negative for Poland today is an unstable political landscape (Hunter & Domanska, 2016) caused by certain government policies relating to the judiciary (Hunter; 2020; Zoll & Wortham, 2018; Bojarski, 2021); restrictions on the Polish press (Chapman, 2017); threats to freedom of speech (Moran, 2018); issues relating to the "rule of law" (Rech, 2018; Bogdanowicz, 2020), human rights (Fleming & Foy, 2021) and gender equality (Rappy, 2022); and other controversial social issues such as the ongoing and perhaps deepening European refugee crisis, now exacerbated by events in Ukraine (see Klaus, 2017; Zanfrini, 2021); LGBT rights (Roache, 2019; Reid, 2021); and abortion (see Hussein, Cottingham, Nowicka, & Kismodi, 2018; Picheta, Osinski, & Mahmood, 2020; Plock, 2020; Amnesty International, 2022) and reproductive rights (Krajewska, 2021).

Many of these actions have pitted Poland against the policies and norms of the European Union (Hunter, 2017; Hunter, 2019; Erlanger & Pronczuk, 2021; Cienski, 2022). These have been chronicled and dissected by Hunter and Lozada (2021).

For some, the situation has reached a critical "tipping point." Ciobanu (2021) recently wrote:

> "The hollowness of the Polish state has been exposed by the coronavirus pandemic: almost half a million people died in the country last year, the highest figure since World War II, and 20 per cent above the annual average in recent years, according to data compiled by *Gazeta Wyborcza*.
>
> Throughout the year, Poles have been reminded again and again of the decrepit state of the national healthcare system, which has been severely underfunded for decades in a similar fashion to other post-communist countries. The pandemic follows years of protests (including hunger strikes) by Polish doctors and nurses demanding better pay and working conditions."

As a result, the "Poland of 2022" may once again be seen to be at a crossroads. For approximately 30 years, Poland was seen as welcoming, supporting, and sustaining FDI to an extent unparalleled in post-transition countries. Because the changes in the structure of FDI activities, and certain impulses gripping the nation described above that reflect skepticism or even hostility to further integration with the European Union on issues relating to culture, politics, and religion, the economic progress that Poland has experienced in the past thirty-three years may be in jeopardy, "muddled in mass of social paradoxes brought on by internal political machinations and interference by certain internal forces (Hunter & Lozada, 2021).

The next few years will certainly determine whether Poland will continue on a "glide-path to success" as demonstrated by its ability to continue to attract significant inflows of FDI or whether these counter-indications ultimately will result in a loss of investor confidence brought about by a perceived unwelcoming attitude to foreign investment on the part of the current regime. Only time will tell how these and other issues will be resolved.

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Factors Affecting the Intention to Buy Traditional Ao Dai Products: A Case Study of Generation Z in Vietnam

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Abstract
The traditional Ao Dai is the national garment of Vietnam, embodying the soul and essence of its people. In this research paper, Structural Equation Modeling (SEM) is used to examine the factors affecting one's "Intention to buy Vietnamese traditional Ao Dai" by analyzing survey data of 292 young people in the generation Z group of Vietnam. By including the 4 factors in the model: "Attitude towards the product", "Subjective norms", "Perceived behavioral control" and "Ethnocentrism", the impact of the factor "Intention to buy Vietnamese traditional Ao Dai" is examined. The results of the model highlight that the factor "Perceived behavioral control" has the largest impact on the participants' decision to buy traditional Ao Dai, followed by the factor "Subjective norms". At the 5% significance level, these factors have a positive correlation effect. Similarly, at the 10% significance level, the results show that the factors "Ethnocentrism" and "Attitude towards the product" also have a positive impact on an individual's "Intention to buy Vietnamese traditional Ao Dai". This research aims to raise the awareness of young people, specifically Generation Z, of the significance of traditional products such as Ao Dai, to encourage the understanding and usage of traditional Ao Fai products as an expression of patriotism and national spirit.

Keywords: Intention to Buy, Impacting Factors, Generation Z, Traditional Ao Dai, Viet Nam

1. Introduction

Ao Dai is the traditional costume of Vietnamese people. The name 'Ao Dai', directly translated as 'Long Dress', originates from the specific characteristic of the shirt– long enough to cover the wearer's thighs. Naming objects based on their features has been and remains a prevalent method of word identification for Vietnamese people. Around the 19th century, Westerners used to refer to Ao Dai as "Long Dress"; however, the name is no longer used since it cannot fully portray the essence of Vietnamese ethnicity that is concealed behind Ao Dai products. If not, it only evokes to listeners with a depiction of a long dress, without any special features or further significant meaning. Henceforth, in later translated texts, "Ao Dai" was kept intact to preserve its original meaning, and the same goes with words like "banh chung" or "nuoc mam", which also were not translated into other languages so readers can moderately perceive the nuance of "Vietnamese soul" in the words themselves (Vuong Thi Nam, Nguyen Bao Tram, 2011).

Ao Dai is not only a simple costume to wear but also a cultural symbol, expressing the national identity that is associated with all ups and downs of history. Undergoing countless innovative changes, to this day, Ao Dai still retains its inherent beauty, which touches hearts in the homeland and is known to friends from all over the world. Generation Z, which comprises people born between 1995-2010, is the first generation to grow up with access to the Internet and electronic devices from the young. Members of Generation Z, also known as “Digital Citizens”, thus are even more impelled to understand and be proud of the national, traditional clothes. In this study, the research team examines the factors affecting the intention to buy Vietnamese traditional Ao Dai, including “*Attitude towards the product*”, “*Subjective norms*”, “*Perceived behavioral control*” and “*Ethnocentrism*”. Analysis and testing using the SMART PLS model to construct the SEM will help to determine the impact of the proposed variables on the variable "*Intention to buy Vietnamese traditional Ao Dai*".

2. Theoretical Basis

2.1. Theoretical overview

Theory of consumer behavior - Maximizing consumer interests in terms of income, product prices, and consumer preferences. Consumer behavior is expressed when a consumer finds, purchases, uses, and rates products and services which they expect to satisfy their personal needs (Bennett, 1988). Consumer behavior is understood as a series of purchasing decisions that each consumer or group of consumers must make over time when choosing to use a product, service, idea, or activity (Munnukka, 2008).

Theory of Reasoned Action (TRA) - Fishbein and Ajzen (1975) proposed the TRA model to explain and predict the planned behavior of consumers in cases where approaching the product is necessary. This theory suggests that the intention to act is the major predictor which determines their ultimate behavior and that this intention is, in turn, a function of their attitudes toward the product and subjective norms.

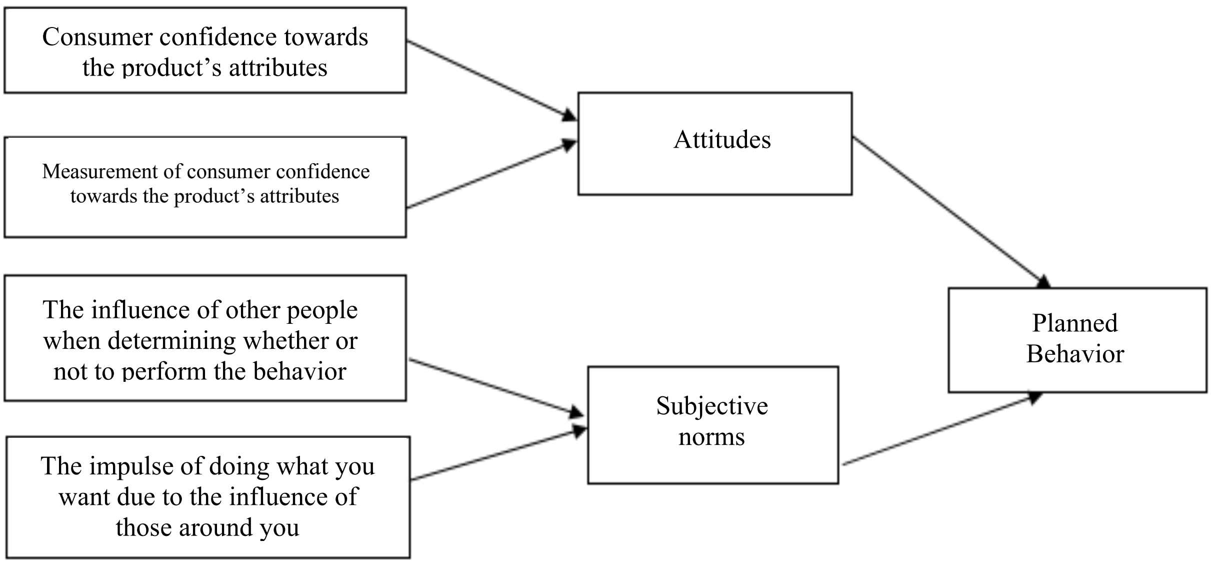


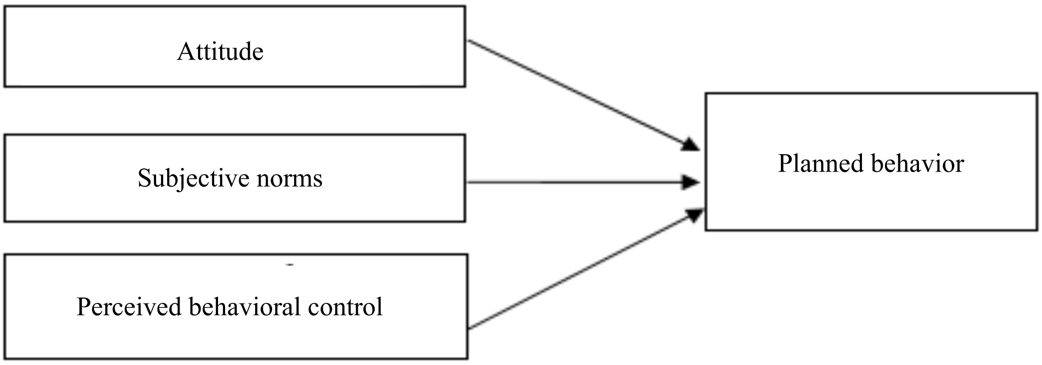
Figure 1: Theory of Reasoned Action (TRA) Model
Source: Fishbein, M & Ajzen, I (1975)

(1) Attitude: A state of emotion that expresses an individual's behavior through gestures, choice of words, facial expressions, emotional display, and other product-related behaviors.

(2) Subjective norms: Planned behaviors are influenced by the attitudes of related stakeholders towards the use of a product, and the stimuli of the product users are influenced by the behaviors and desires of the stakeholders.

Theory of Planned Behaviour (TPB) – Ajzen's TPB in 1991 suggests that people will only perform a certain behavior if they believe that this behavior will produce favorable results. This theory includes a set of relationships between attitudes, subjective norms, perceived behavioral control, and planned behavior.

Table 2: Theory of Planned Behavior – TPB



Source: Ajzen (1991)

(3) Perceived behavioral control: the perception of an individual of the level of difficulty when enacting a behavior (relative to the availability of required resources, knowledge, and opportunities to apply).

Ethnocentrism - Aimed towards the consumption of products that encapsulates the national cultural identity. With the increase of globalization and growing competition in the field of international products and services, consumers are becoming increasingly concerned about their national cultural identity. Nationalist sentiments are reflected in the consumers' behaviors through an orientation towards domestic consumer products, which leads to ethnocentrism (Visa & Faihurst, 1999).

2.2. Research Overview

Lam Ngoc Thuy (2021) on the factors affecting the intention to buy domestic fashion apparel of young people in Lam Dong province. The SEM was used to test the hypotheses by analyzing the data of 251 consumers. The results show that the factors *"Subjective norms"*, *"Attitudes towards products", "Ethnocentrism", "Perceived behavior control", "Perceived quality", "Personal interest in clothes"* and *"Social media"* are proposed in the research model to be affecting the *"Intention to buy domestic fashion brands of young people*." Theoretically, the research results support the Theory of Reasoned Action and Planned Behavior. Vietnamese businesses need to raise awareness of using domestic goods for young people; agencies and functional departments need to consider the attitudes of customers, especially those of Gen Z, towards fashion brands and devise programs to encourage the production of domestic products.

In his thesis, Phan Trung Nam (2013) identifies different factors and their impact on the intention of consumers in Ho Chi Minh city when buying Vietnamese children's clothing. The topic combines qualitative and quantitative research through interviews and focus groups consisting of some consumers trading in the children's clothing industry in Ho Chi Minh City. The independent variables included in the model include: *"Attitude", "Subjective norms", "Perceived behavior control", "Perceived price value", "Perceived quality", "Distribution",* and *"Promotion", which* affect the variable "Intention to buy". The author performed a scale test and analyzed the Exploratory Factor Analysis (EFA), the regression of factors affecting the intention to buy Vietnamese children's clothing consumers in Ho Chi Minh City, and the difference in demographic factors concerning purchasing intentions. The results show that the scales are reliable and valid. The regression equation for the standardized variables has the following form: Intention to buy = *(0.479 * Subjective norms) + (0.237 * Attitude) + (0.224 **

*Quality) + (0.220 * Price level) + (0.218 * Distribution) + (0.179 * Promotion).* The regression equation shows that at the 95% consumer confidence level, the purchasing intention of consumers in Ho Chi Minh City for Vietnamese children's clothing is affected by 6 factors. In addition, when analyzing the difference between demographic factors and intention to buy, the author found that only the income factor with regards to the intention to buy Vietnamese children's clothes of consumers in Ho Chi Minh City is divergent.

Research by Ha Nam Khanh Giao and Tran Khanh Hung (2018) shows the degree of influence of factors on the intention to buy children's clothes in Binh Duong in order of decreasing importance: (1) Knowledge of luxury goods (KL), (2) practical value (PT), (3) materialism (ML), (4) brand image (BI), (5) originality (ON), (6) product quality (PQ) and (7) atmospherics (AP). The study proposes managerial implications for managers intending to increase the intention to buy children's clothes in Binh Duong. Unstandardized regression equation: IB = -1.007 + (0.322 * KL) + (0.246 * PT) + (0.209 * ML + (0.183 * BI) + (0.106 * ON) + (0.129 * PQ) + (0.117 * AP). The regression coefficients all have positive signs (+), suggesting that the independent variables have a positive correlation with the dependent variable.

In Tran Kim Dung's study conducted in 2015, the author put the *"Ethnocentrism"* scale into use when studying the consumers' intention to buy domestic goods, specifically confectionery products, in Da Nang markets. In the description of the scale data, the author commented: "The ethnocentrism of the Vietnamese is quite high, which is consistent with the life-long tradition of our nation. With such high ethnocentrism, it is fair for consumers to think that prioritizing Vietnamese goods is reasonable, which is the result of patriotism and the protection of national economic interests due to the negative impacts of imported goods. In the research model, the author includes 3 independent variables, namely *"Perceived quality", "Domestic purchase intention",* and *"Perceived cost"* and their effects on the variable *"Planned behavior".* The regression model is defined as: *Behavioral intention = 0.415 + (0.082 * Domestic purchase intention) + (0.076 * Perceived quality) + (0.695* Perceived cost).* Therefore, it can be implied that since consumers in Da Nang are ethnocentric, they prioritize the purchase of Vietnamese goods and think that buying domestic products means contributing to ensuring employment for their fellow people. Therefore, this has positively influenced the planned behaviors of the consumers.

Regarding the ethnocentrism of young people, there is also a study by Ngo Thi Khue Thu and Le Thi Xinh (2014), which affirms that young people in the Central region have relatively stable consumer ethnocentrism, however, this level is still not high. Ethnocentrism is expressed through the purchase of Vietnamese strong domestic products, local and traditional products such as clothing, household appliances, fresh milk, etc.

2.3. Proposed research models, scales, and hypotheses

Based on the theoretical overview, the overview of related studies, and the characteristics of the Vietnamese traditional Ao Dai, the research team proposes a research model with the following factors included in the model: *"Attitude towards the product", "Subjective norms", "Perceived behavioral control", "Ethnocentrism"* and their impact on the *"Intention to buy Vietnamese traditional Ao Dai"* (Figure 3).

Hypothesis H1: Attitude towards a product has a positive correlation with the intention to buy a Vietnamese traditional Ao Dai

Hypothesis H2: Subjective norms have a positive correlation with the intention to buy Vietnamese traditional Ao Dai

Hypothesis H3: Perceived behavioral control has a positive correlation with the intention to buy Vietnamese traditional Ao Dai

Hypothesis H4: Ethnocentrism has a positive correlation with the intention to buy Vietnamese traditional Ao Dai

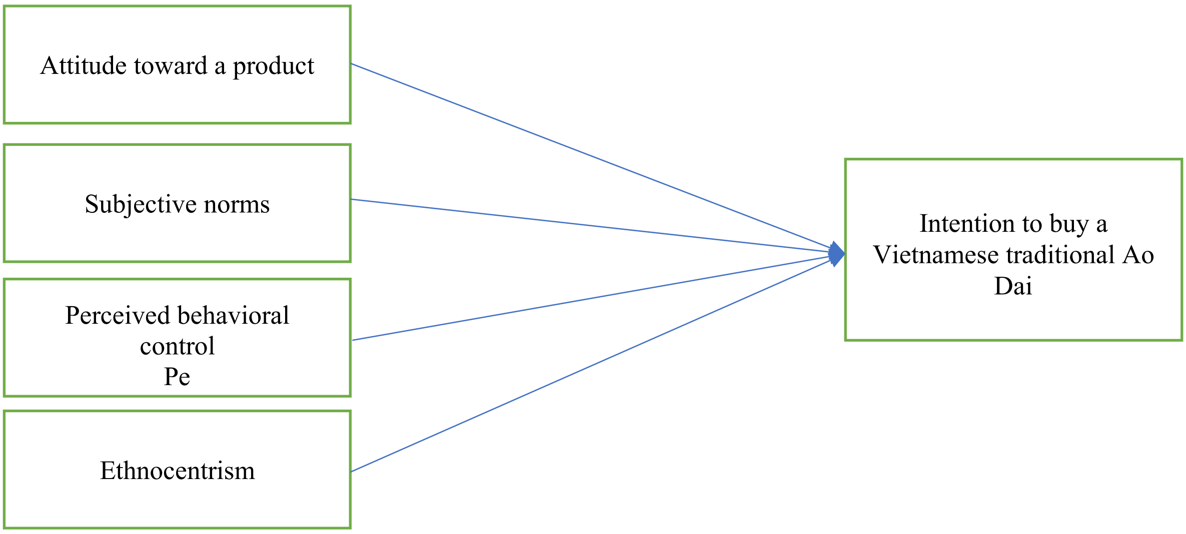


Figure 3: Proposed model

Source: Proposal of the research team Research hypotheses

The research scale is specified in table 1.

Table 1: The basis for the formation of variables and factor scales in the model

No.	Encode	Observable varaiables	Nguồn tham khảo
I	**TD**	**Attitude**	*(Valle et al., 2005; Lam, 2021)*
1	TD1	I like Ao Dai products	
2	TD2	I am fascinated by Ao Dai products	
3	TD3	I am enthusiastic about Ao Dai products	
4	TD4	Ao Dai products bring me many benefits	
II	**CCQ**	**Subjective norms**	*(Vermier and Verbeke, 2008; Lam, 2021; Phan, 2013)*
5	CCQ1	My intention to buy Ao Dai products is influenced by the people surrounding me	
6	CCQ2	Most of the people surrounding me think I should own an Ao Dai product	
7	CCQ3	There is a lot of information about Ao Dai products presented in the media nowadays	
8	CCQ4	Many people surrounding me own Ao Dai products	
9	CCQ5	I like Ao Dai in the image and style of celebrities and influencers	
III	**NT**	**Perceived behavioral control**	*(Sparks and Shepherd, 1992; Phan, 2013)*
10	NT1	I can afford to buy Ao Dai	
11	NT2	I spend time learning about Ao Dai products	
12	NT3	I am willing to spend an amount of money on Ao Dai	
13	NT4	I am willing to wear Ao Dai on Tet and festivals occasions	
IV	**TVC**	**Ethnocentrism**	*(Tran, 2015)*
14	TVC1	I believe that if you are Vietnamese, you should own an Ao Dai	
15	TVC2	Having an Ao Dai makes me feel comfortable	
16	TVC3	Having an Ao Dai makes me feel delighted	
17	TVC4	I believe that Vietnamese people should wear Ao Dai on Tet and festival occasions	
18	TVC5	I take national pride in wearing Ao Dai	
V	**YD**	**Intention to buy Ao Dai**	*(Holak and Lehmann, 1990)*
19	YD1	Buying Ao Dai is an idea that I am having in mind	
20	YD2	I will buy an Ao Dai in the near future	
21	YD3	I desire to have more Ao Dai products in my wardrobe	

22	YD4	I am willing to spend time and money to get a personal favorite Ao Dai product	

Source: Compilation and proposal of the research team

3. Research methodology

3.1. Data collection methodology

The research team conducted a preliminary survey and discussed with 5 individuals from the generation Z group using a preliminary scale with factors affecting "Intention to buy Vietnamese traditional Ao Dai", according to the model proposed by the research team. The participants in the discussion were given the freedom to voice their opinions on aspects of the intention to buy Vietnamese traditional Ao Dai. Preliminary research results are used to complete the research questionnaire and research model. After the survey is completed, the research team sends and collects the respondents using the link on Google Forms *(https://docs.google.com/forms/d/e/1FAIpQLSdck3xGDu4sjayXMAg4i4dWPxQPqqLOmYbxONg6Xb2H4ycauw/closedform).* The number of votes collected was 292 votes, which belonged to members of Generation Z, who are born in 1995 - 2010.

3.2. Data processing methodology

The quantitative research method was conducted to process research data collected from a survey of Generation Z young people about the intention to buy Vietnamese traditional Ao Dai. SMART PLS software is used to test the hypothesis and evaluate the impact of the factors.

Step 1: Evaluate the measurement model
Evaluating the measurement model is based on considering the values of the reliability of the scale, the quality of the observed variables, the convergence, and the discriminability.

- Testing the quality of observed variables (outer loadings)
The outer loadings of the observed variables are an index showing the degree of association between the observed variable and the latent variable (representative variable). In essence, outer loadings in SMART PLS are the square root of the absolute R2 value of the linear regression from the latent variable to the observed variable.
Hair et al. (2016) suggest that the outer loadings should be greater than or equal to 0.708 observed variables that are quality. To remember easily, the researchers rounded off the threshold of 0.7 instead of the odd number 0.708.

- Assessing the reliability of the scale
Assess the reliability of the scale on SMAR TPLS through two main indicators, Cronbach's Alpha and Composite Reliability (CR).
Composite Reliability (CR) is preferred by many researchers over Cronbach's Alpha because Cronbach's Alpha lowers reliability than CR. Chin (1998) suggested that in exploratory research, CR must be 0.6 or higher. With confirmatory studies, the threshold of 0.7 is the appropriate level of the CR index (Henseler & Sarstedt, 2013). Many other researchers also agree that 0.7 is the appropriate threshold for the majority of cases, such as Hair et al. (2010), and Bagozzi & Yi (1988).
Thus, the reliability of the scale on SMART PLS is shown by Cronbach's Alpha ≥ 0.7 (DeVellis, 2012); Composite Reliability CR ≥ 0.7 (Bagozzi & Yi, 1988).

- Testing the convergence
Assessment of convergence on SMART PLS based on average variance extracted AVE (Average Variance Extracted). Hock & Ringle (2010) suggest that a scale achieves convergent value if the AVE is 0.5 or higher. This level of 0.5 (50%) means that the average latent variable will explain at least 50% of the variation of each sub-observed variable. Thus, convergence is assessed by Average Variance Extracted AVE ≥ 0.5 (Hock & Ringle, 2010).

- Testing the discriminant validity

Discriminant Validity is used to consider if a research variable is different from other research variables in the model. To evaluate the discriminant validity, Sarstedt et al (2014) suggested that consider two criteria including cross-loadings and the measure of Fornell and Larcker (1981).

The cross-load coefficient is often the first approach to assess the discriminant validity of indicators (observed variables) (Hair, Hult, et al., 2017). The load factor of the observed (indicator) variable associated with the factor (latent variable) must be greater than any of its cross-load coefficients (its correlation) in the other factors.

Fornell and Larcker (1981) recommend that discriminability is guaranteed when the square root of the AVE for each latent variable is higher than all correlations between the latent variables. In addition, Henseler et al (2015) used simulation studies to demonstrate that discriminant validity is better evaluated by the HTMT index they developed.

With the HTMT index, Garson (2016) suggests that the discriminant value between the two latent variables is guaranteed when the HTMT index is less than 1. Henseler et al. (2015) propose that if this value is below 0.9, the value is less than 1. Discrimination will be guaranteed. Meanwhile, Clark & Watson (1995) and Kline (2015) use a more stringent threshold of 0.85. SMART PLS prioritizes a threshold selection of 0.85 in evaluation.

Step 2: Assess the structural model

After assessing the satisfactory measurement model, assess the structural model through the impact relationship, the path coefficient, the overall coefficient of determining R squared, and the impact coefficient f squared.

- Assessing the impact of relationship

To assess impact relationships, the results of the Bootstrap analysis were used. Based mainly on two columns (1) Original Sample (normalized impact factor) and (2) P Values (sig value compared with significance level 0.05).

- Original Sample: Normalized impact factor of the original data. SMART PLS has no unnormalized impact factor.
- Sample Mean: Mean standardized impact coefficient of all samples from Bootstrap.
- Standard Deviation: Standard deviation of the coefficient of normalization (according to the original sample).
- T Statistics: The value of the t-test (student test of the significance of the effect).
- P Values: The significance level of the t-test. This level of significance is considered with comparison thresholds such as 0.05, 0.1, or 0.01 (usually 0.05 is used).

- Assess the explanatory level of the independent variable for the dependent variable by the coefficient R^2 (R square)

To assess the R^2, the research team use the result of the PLS Algorithm analysis.

The R^2 value assesses the predictive accuracy of the model and shows the explanatory level of the independent variable for the dependent variable. R-squared ranges from 0 to 1, and the closer to 1 show that the independent variables explain the dependent variable more. (Hair, Hult, et al., 2017).

4. The research results

4.1. Describe the survey subjects

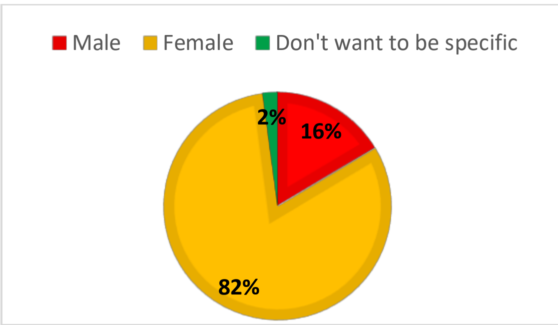


Figure 4: Gender of the survey subjects

Source: The test result

The number of survey questionnaires collected was 292, of which 48 were male (16%), 238 were female (82%) and 6 people (2%) did not want to be specific.

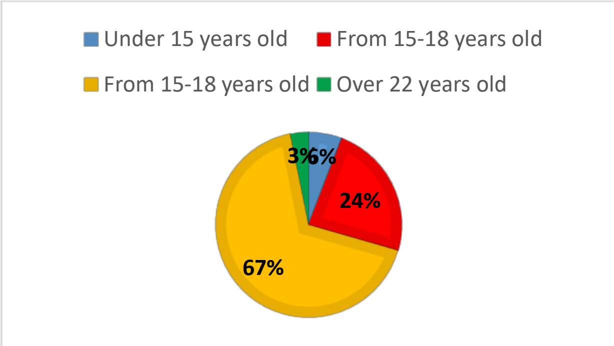


Figure 5: The age group of survey subjects

Source: The test result

Of the 292 survey participants, 17 were under 15 years old (6%); 69 people aged 15-18 (24%); 197 people aged 18-22 years (67%); 9 people over 22 years old (3%).

4.2. Measurement model evaluation results

4.2.1. Test the quality of observed variables

The quality of the observed variable is assessed through the outer loadings coefficient. The quality of observed variables affecting the intention to buy Vietnamese traditional Ao Dai is shown in Table 2.

Table 2: Outer loadings coefficient of factors affecting intention to buy Vietnamese traditional Ao Dai of Generation Z

	CCQ	**NT**	**TD**	**TVC**	**YD**
CCQ1	*				
CCQ2	0.845				
CCQ3	*				
CCQ4	0.842				
CCQ5	0.708				
NT1		0.736			
NT2		0.820			
NT3		0.879			
NT4		0.750			
TD1			0.734		
TD2			0.889		
TD3			0.921		
TD4			0.833		
TVC1				0.843	
TVC2				0.859	
TVC3				0.913	
TVC4				0.878	
TVC5				0.814	
YD1					0.890
YD2					0.904
YD3					0.895
YD4					0.866

** Scale removed from the model*

Source: Testing results by SMART PLS of the research team

Outer loadings have CCQ1, and CCQ3 have outer loadings < 0.7, so those two scales are excluded from the model; The correlation coefficients of the total variables of the factors affecting the intention to buy Vietnamese traditional Ao Dai of the remaining generation Z are all > 0.7, showing that the observed variables are significant.

4.2.2. Assessing the reliability of the scale

Assessing the reliability of the scale of factors affecting the intention to buy Vietnamese traditional Ao Dai on SMART PLS through two main indicators, Cronbach's Alpha and Composite Reliability (CR).

Table 3: Reliability index Cronbach's Alpha and Composite Reliability of impact factors affecting intention to buy Vietnamese traditional Ao Dai of Generation Z

	Cronbach's Alpha	**rho_A**	**Composite Reliability (CR)**	**Average Variance Extracted (AVE)**
CCQ	**0.718**	**0.731**	**0.842**	**0.641**
NT	**0.809**	**0.826**	**0.875**	**0.637**
TD	**0.870**	**0.904**	**0.910**	**0.718**
TVC	**0.914**	**0.922**	**0.935**	**0.743**
YD	**0.911**	**0.912**	**0.938**	**0.790**

Source: Testing results by SMART PLS of the research team

According to Table 3, after analyzing the reliability test by Cronbach's Alpha coefficient of the factor, the results are: Subjective Norms Factor (CCQ) reached 0.718; Perceived behavioral control (NT) reached 0.809; Attitude towards the product (TD) reached 0.870; The Ethnocentrism Factor (TVC) reached 0.914; The factor of intention to buy Vietnamese traditional ao dai (YD) reached 0.911. Thus, all scales satisfy the condition > 0.7 and do not violate any rule to exclude variables, so no variables are excluded and can be accepted.

The composite Reliability (CR) of all observed variables is also > 0.7. Therefore, the scale is reliable, has analytical significance, and is used in subsequent factor analysis.

4.2.3. The Convergence

According to the data analysis results in Table 3, the average variance extracted AVE (Average Variance Extracted) of: Subjective Norms Factor (CCQ) reached 0.641; the Perceived behavioral control factor (NT) reached 0.637; Attitude towards the product (TD) reached 0.718; Ethnocentrism Factor (TVC) reached 0.743; Factor of Intention to Buy Vietnamese Traditional Ao Dai (YD) reached 0.790. Thus, the average variance extracted AVE (Average Variance Extracted) of all variables is > 0.5, which shows that the model satisfies the conditions of convergence.

4.2.4. The Discriminant Validity

The results in Table 4 on the Fornell-Larcker criterion of the research model on factors affecting the intention to buy Vietnamese traditional Ao Dai show that the observed variables "subjective norms" (CCQ); "Perceived behavioral control" (NT); "Attitude towards the product" (TD); "Ethnocentrism Factor" (TVC); "Intent to buy Vietnamese traditional ao dai" (YD) are both discriminatory because all AVE square root values on the diagonal are higher than their non-diagonal values. Therefore, in terms of discriminant validity in two criteria including cross-load coefficient and Fornell and Larcker's criteria, the condition is satisfied.

Table 4: Fornell-Larcker criterion of the research model of factors affecting the intention to buy Vietnamese traditional Ao Dai

	CCQ	**NT**	**TD**	**TVC**	**YD**
CCQ	**0.801**				
NT	0.684	**0.798**			
TD	0.537	0.727	**0.847**		
TVC	0.690	0.761	0.746	**0.862**	
YD	0.652	0.773	0.645	0.696	**0.889**

Source: Testing results by SMART PLS of the research team

The test results in Table 5 give the results of the HTMT index on the discriminant between the factor variables affecting the intention to buy Vietnamese traditional Ao Dai. If according to Garson (2016), the discriminant of the variables is guaranteed (because all are < 1), according to Henseler et al. (2015) discriminant is guaranteed (because this value is below 0.9).

Table 5: HTMT index of the research model of factors affecting the intention to buy Vietnamese traditional Ao Dai

	CCQ	NT	TD	TVC	YD
CCQ					
NT	0.896				
TD	0.671	0.843			
TVC	0.842	0.877	0.833		
YD	0.803	0.886	0.694	0.755	

Source: Testing results by SMART PLS of the research team

Check for multicollinearity. According to Hair et al. (2016), the model does not have multicollinearity because the VIF indexes are < 5. (Table 6)

Table 6: VIF index – Check for multicollinearity

	CCQ2	CCQ4	CCQ5	NT1	NT2	NT3	NT4	TD1	TD2	TD3
VIF	1.6	1.655	1.238	1.646	1.77	2.3	1.449	1.925	3.219	3.607
	TD4	TVC1	TVC2	TVC3	TVC4	TVC5	YD1	YD2	YD3	YD4
VIF	1.886	2.365	3.171	4.172	3.221	2.482	3.112	3.34	2.864	2.347

Source: Testing results by SMART PLS of the research team

4.3. The assessing structural model results

4.3.1. Assess the impact relationship

The relationship and level of impact of factors on the intention to buy Vietnamese traditional Ao Dai on SMART PLS are shown in Figure 6.

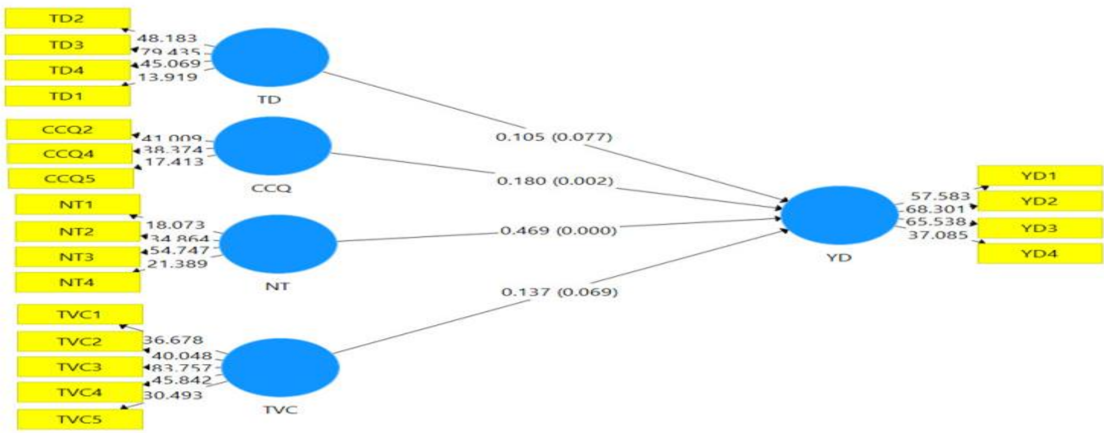


Figure 6: Factors affecting the buying Vietnamese traditional Ao Dai intention on SMART POLS

Source: Testing results by SMART PLS of the research team

The results of the Bootstrap analysis to evaluate the impact relationships are shown in Table 7. Accordingly, the factors *"subjective norms"* (CCQ), *and "perceived behavioral control"* (NT) are valuable. P Values < 0.05, this reflects that these factors are statistically significant enough to show a positive relationship on *"Intent to buy Vietnamese traditional Ao Dai"* (YD) (Hypothesis H2, H3 Accepted). The factors "Attitude towards the product" (TD); "Ethnicity" has a P Values > 0.05, so at the 5% significance level, it can be concluded that there is not enough statistical significance to indicate the relationship between these factors and *"Intent to buy Vietnamese traditional Ao Dai"*. However, the factor *"Ethnocentrism"* and *"Attitude towards the product"* have P Value = 0.069 and 0.077 both < 0.1, so at the 10% significance level, hypothesis H1, H4, and at the 10% level can be accepted. This level of significance shows the positive impact of the factors *"Ethnocentrism"* and *"Attitude towards products"* on *"Intent to buy Vietnamese traditional Ao Dai"*.

Table 7: Structural model Path Coefficient

	Original Sample (O)	**Sample Mean (M)**	**Standard Deviation (STDEV)**	**T Statistics (|O/STDEV|)**	**P Values**
CCQ -> YD	0.180	0.179	0.057	3.140	**0.002**
NT -> YD	0.469	0.472	0.071	6.571	**0.000**
TD -> YD	0.105	0.104	0.059	1.768	**0.077**
TVC -> YD	0.137	0.137	0.075	1.819	**0.069**

Source: Testing results by SMART PLS of the research team

The test results in Table 7 show that at the 5% level of significance, the factor *"Perceived behavioral control"* (NT) has the strongest impact on *"Intent to buy Vietnamese traditional Ao Dai"* with a level of impact is 0.469, followed by the *"Subjective Norms"* factor with an impact of 0.180. With a significance level of 10%, it can be concluded that the factor *"Ethnocentrism"* has an impact level of 0.137, and *"Attitude towards products"* has an impact level of 1,050.

4.3.2. Assess the overall coefficient that determines R squared

The results of the PLS Algorithm analysis give the R-squared value, which reflects the explanatory level of the independent variable for the dependent variable.

Table 8: Coefficient of explanatory strength of the independent variable for the dependent variable (R Square)

	R Square	R Square Adjusted
YD	0.643	0.638

Source: Testing results by SMART PLS of the research team

The results from Table 8 show that R squared is 0.643 and R squared is adjusted by 0.6348, so the independent variables are "Attitude towards product", *"Subjective norms", and "Perceived behavioral control". "Ethnocentrism"* explained 64.3% of the *"Intent to buy Vietnamese traditional Ao Dai"* of Vietnamese generation Z.

5. Conclusion

Of the 4 factors taken into consideration, 2 factors at a 5% significance level show an impact on "Intent to buy Vietnamese traditional Ao Dai". Which: "Perceived behavioral control" (NT) has the strongest impact with an impact level of 0.469, showing that when the perception of behavioral control increases by 1 unit, it will promote the intention to buy a traditional Ao Dai. is 0.469 units; Next, "Subjective norms" with an impact level of 0.180 shows that when the subjective norms are increased by 1 unit, it will promote the intention to buy Vietnamese traditional Ao Dai by 0.180 units; With the significance level of 10%, it can be concluded that the factor "Ethnocentrism" has an impact of 0.137, showing that when ethnocentrism increases by 1 unit, it will promote the intention to buy a traditional Ao Dai by 0.37 units; The factor "Attitude towards the product" has an impact of 0.105, showing that when the attitude towards the product increases by 1 unit, the intention to buy a traditional Ao Dai is 0.105 units. The research results initially show the relationship between the factors to the intention to buy Vietnamese traditional Ao Dai, with a small sample size of 292 collected questionnaires, along with convenient surveying, This is also a limitation on sample size and vote quality. In addition, with 4 factors included in the new model, only 64.3% of "Intent to buy Vietnamese traditional Ao Dai" can be explained, which shows that there are other factors that will affect the intention to buy this traditional product. With the research results considered as an orientation for further studies on the traditional Vietnamese Ao Dai, in the coming time, the research team can expand the survey, study additional factors, and select additional factors. Select and filter the survey subjects purposefully to increase the sample size and quality of the questionnaires, as well as the explanatory level of the model.

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The Role of Property Prices in the Conduct of Monetary Policy: Evidence from Down Under*

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Abstract
This paper examines link between property prices and monetary policy in New Zealand and Australia. Using an identified VAR model for open economies, we address two questions, i.e., whether a loose monetary policy cause house price appreciation, and whether central banks of the two countries conduct a policy of "leaning against the wind" by responding to house price shocks. Our findings suggest that, following an expansionary monetary policy shock, house prices inflations fall immediately. Yet, we find that the impact of monetary policy shocks on housing is small to modest in both countries. Furthermore, we find that the interest rate does not respond systematically to changes in house prices in New Zealand, whereas the Reserve Bank of Australia do respond systematically to fluctuations in housing price inflation.

Keywords: Property Prices and Monetary Policy, Identified VAR Model for Open Economies, New Zealand and Australia

1. Introduction

The financial and economic turmoil caused by the U.S. subprime mortgage crisis, followed by the steep rebound of asset prices around the globe fueled by the unprecedented monetary easing, has reignited the debate over the importance of housing market for the macroeconomy at large and for the conduct of monetary policy. This is primarily due to the central collateral role of housing prices, which is at the center of the asset prices bursting and having negative real effects in the U.S. Hence, asset prices can be an important source of macroeconomic fluctuations and an inflation targeting which central bank may want to respond to, see e.g., Bernanke et al. (2000) and Bernanke and Gertler (1989). However, working as a store of wealth, housing prices can work as a key transmitter of shocks since they react quickly to news (including monetary policy announcements), as emphasized

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in Rigobon and Sack (2004) and Bernanke and Kuttner (2005). Responding to economic shocks in a timely manner, housing prices can be an important indicator for the stance of monetary policy currently and in the near future. Understanding the role of asset prices in the transmission mechanism of monetary policy is therefore crucial for the implementation of an efficient monetary policy strategy.

In this paper, we analyze the role of house prices in the monetary transmission mechanism in New Zealand and Australia. More specifically, we aim to address the following two questions:
(1) Does a loose monetary policy cause house price appreciation, and if so why?
(2) Do central banks conduct a policy of "leaning against the wind" by responding to house price shocks?

We focus on the two countries for the following reasons. First, both countries have experienced steep rises in housing prices since the early 2000s. The increases in housing prices down under were so fast and steady as to put New Zealand and Australia at the top and 15th places in the Bloomberg Economics' bubble ranking among the OECD countries as of 2021: Q1. Second, the central banks of the two countries have demonstrated, at least officially, different stance toward using housing prices as an indicator for conducting a Taylor rule-like monetary policy. In 2021, the Reserve Bank of New Zealand released an announcement[1] that "Changes have been made to the Bank's Monetary Policy Committee's remit requiring it to take into account government policy relating to more sustainable house prices, while working towards its objectives", and "the Committee …will need to explain regularly how it has sought to assess the impacts on housing outcomes." In contrast, the Reserve Bank of Australia[2] maintained that "monetary policy is not the appropriate tool to address the problem [of runaway property prices], because it is designed to encourage employment and inflation", although the rise in property price "is certainly an issue that needs to be considered at the moment."

In terms of methodology, we follow the identified VAR approach frequently used in the empirical literature on monetary policy, e.g., Assenmacher-Wesche and Gerlach (2008a, b), Goodhart and Hofmann (2001), Iacoviello and Minetti (2003, 2008) and Giuliodori (2005). To address the nature of the two countries as small open economies, we build on the closed economy VAR models by incorporating two variables, foreign interest rates and real exchange rates, which are believed to affect open economies, especially in the course of monetary policy adjusting domestic interest rates.
The paper is organized as follows. Section 2 describes the VAR methodology used in the current study, and Section 3 discusses the empirical results. Section 4 concludes.

2. Model and Data

2.1 The Identified VAR model

We examine the linkage between house prices and monetary policy using a standard identified VAR model augmented with house prices. Assuming the $(n \times 1)$ vector Z_t of system variables to be stationary and invertible, we estimate a reduced form VAR(p) of the form[3]

$$Z_t = B_1 Z_{t-1} + B_2 Z_{t-2} + \cdots + B_p Z_{t-p} + \upsilon_t = B(L)\upsilon_t , \upsilon_t \sim i.i.d(0, \Omega) \qquad (1)$$

where the vector υ_t of reduced form innovations is assumed to be an i.i.d. process with a general covariance matric Ω, and the $B(L)$ is the matrix polynomial in the lag operator L which represent Z_t as the moving average of υ_t. Following the literature, we assume that the innovations (υ_t) are linear combinations of the underlying orthogonal structural disturbances (ε_t). More specifically, we rewrite the above VAR(p) as

$$SZ_t = D_1 Z_{t-1} + D_2 Z_{t-2} + \cdots + D_p Z_{t-p} + \varepsilon_t = D(L)\varepsilon_t, \;\; \varepsilon_t \sim i.i.d(0, I) \qquad (2)$$

[1] Reserve Bank to take account of housing in decision making, posted on February 25, 2021, accessed at the link *https://www.beehive.govt.nz/release/reserve-bank-take-account-housing-decision-making*.
[2] Bloomberg (June 3, 2021), accessed at the link *https://www.bloomberg.com/news/articles/2021-06-03/rba-s-debelle-reiterates-policy-isn-t-tool-to-cool-house-prices.*
[3] In equations (1) and (2), any deterministic terms are ignored for the ease of presentation.

where the structural shocks ε_t and the innovations v_t are related as $v_t = S\varepsilon_t$ via the matrix S of structural relations. If S is identified, we can derive the structural MA representation in (2) using $D(L) = B(L)S$.

The choice of variables in our VAR model is guided by the strand of New-Keynesian small open economy models, e.g., Svensson (2000) and Clarida et al. (2001). In particular, our VAR model is constructed with the following variables of the two countries: consumer price index (p_t), real GDP (y_t), the short-term nominal interest rate (i_t), the foreign interest rate (i_t^*t), the real effective exchange rates against a basket of trading partners (er_t) and the house prices (ph_t). More detials of the data are provided in the next subsection. For both countries, the nominal interest rate is chosen to capture monetary policy shocks, consistent with the use of interest rates as instruments in the monetary policy setting by the central banks.[4] To ensure stationarity of the system, (p_t, y_t, ph_t, er_t) are transformed into growth rates from the previous quarter.

With six variables in the system, we should identify six structural shocks. If we normalize the structural shocks ε_t to have unit variances, the relation $\Omega = SS$ imposes $\frac{6(6+1)}{2}$ restrictions on the elements in S. The unique identification of S thus requires us to impose $\frac{6(6-1)}{2}$ additional restrictions to uniquely identify the structural shocks. Following standard practice in the VAR literature, we identify the structural shocks mostly by recursive restriction on S. In particular, we consider the following form of S:

$$\begin{bmatrix} i^* \\ \Delta y \\ \pi \\ \pi^H \\ \Delta er \\ i \end{bmatrix} = B(L) \begin{bmatrix} S_{11} & 0 & 0 & 0 & 0 & 0 \\ S_{21} & S_{22} & 0 & 0 & 0 & 0 \\ S_{31} & S_{32} & S_{33} & 0 & 0 & 0 \\ S_{41} & S_{42} & S_{43} & S_{44} & 0 & 0^* \\ S_{51} & S_{52} & S_{53} & S_{54} & S_{55} & 0^* \\ S_{61} & S_{62} & S_{63} & S_{64} & S_{65} & S_{66} \end{bmatrix} \begin{bmatrix} \varepsilon^{i^*} \\ \varepsilon^{Y} \\ \varepsilon^{P} \\ \varepsilon^{PH} \\ \varepsilon^{ER} \\ \varepsilon^{MP} \end{bmatrix} \qquad (3)$$

where ε^{MP} and ε^{PH} are the two structural shocks of primary interest, i.e., the shocks to monetary policy and house prices, respectively.

The order of the variables (equivalently, the structural shocks) and the form of the S matrix is justified as follows. The foreign interest rate is placed on the top, since it will be affected contemporaneously by foreign monetary policy which is exogenous to a small open economy. We further follow the standard restrictions in VAR models for closed economy, i.e., the four non-policy macroeconomic variables $(\Delta y, \pi, \pi^H, \Delta er)$ do not react to policy variables contemporaneously. We also assume that real output is not affected by current shocks from aggregate price, house prices, and real exchange rate, resorting to the presence of inertia, adjustment costs, or planning delays that prevent firms to change their output in response to unexpected shocks within the same period. As shown in the third equation of (3), the price level is only affected with the contemporaneous shock to real output. The fourth equation concerns the housing market, where we assume that all currently available information in aggregate output and price contemporaneously affect housing market conditions. We then allow the real exchange rate to be affected by the shocks to all other macro variables including house prices, given the link between international capital flows and house price identified in recent studies[5]. Finally, the stance of monetary policy is gauged by the level of short-term interest rate, and the monetary authority is assumed to respond endogenously to current non-policy macroeconomic variables, i.e., a Taylor rule-like policy reaction function. As shown in the last column of S matrix, this identifying assumption is materialized by putting output, price, house price, and real exchange rate above the interest rate and imposing zero restrictions on the relevant coefficients.

It should be noted that the monetary policy shock is the only structural shock well identified in our stylized structural VAR (SVAR) model of monetary policy and that the non-policy structural shocks to the macroeconomic

[4] This is in line with Rotemberg and Woodford (1997), which find central bank behavior to be well modelled by a policy rule that sets the interest rate as a function of variables such as output and inflation.

[5] In a panel study of OECD counties, Sa et. al. (2014) find evidence supporting that capital-inflow shocks have a significant and positive effect on real house prices. In a similar study, Vásquez-Ruíz (2012) show that capital flows positively and significantly affect house prices, with the magnitude of this effect being large for the portfolio investment category.

variables are loosely identified[6]. It is also worth noting that there are alternative identification schemes for the structural shock. Nevertheless, we believe that the specification enables us to focus on the main questions of interest posited above, and the robustness of these results are confirmed by employing another set of identifying assumption[7].

2.2 Data

We use quarterly data of Australia and New Zealand spanning 1974: Q1 - 2021: Q4. For the foreign interest rate, we use the effective federal funds rate series downloaded from the Federal Reserve Economic Data (FRED) statistics. Real GDP series for income are obtained from the OECD Quarterly National Accounts (QNA) statistics in seasonally adjusted form. The core CPI (i.e., CPI less food and energy) series are used for price level and obtained from the FRED[8]. Nominal house prices[9] are obtained from the Analytical House Prices Indicators statistics of the OECD in seasonally adjusted form. For real exchange rates, we use the real narrow effective exchange rate series obtained from the FRED. Finally, the nominal interest rates are proxied by the 3-month yields of bank bills for both countries, downloaded from the OECD Main Economic Indicators (MEI) database.

In estimating the VAR model, we transform the series of income, price level, house price, and real exchange rate are transformed into the annualized growth rates from the previous quarters for the sake of stationarity. To net out the effects of possible structural changes or economic crises in data, we use two dummy variables: the de-regulation dummy taking the value of one since 1985: Q1, and the global financial crisis dummy taking the value of one over 2007: Q4 to 2009: Q4[10].

Figure 1 plots the data series for house price inflation and short-run interest rates. It is clear that both countries have experienced a house price hike accompanied with declining interest rates since the 1990s, which is why some researchers argue that the low interest rate is one of the main causes of house prices in response to interest rate shocks.

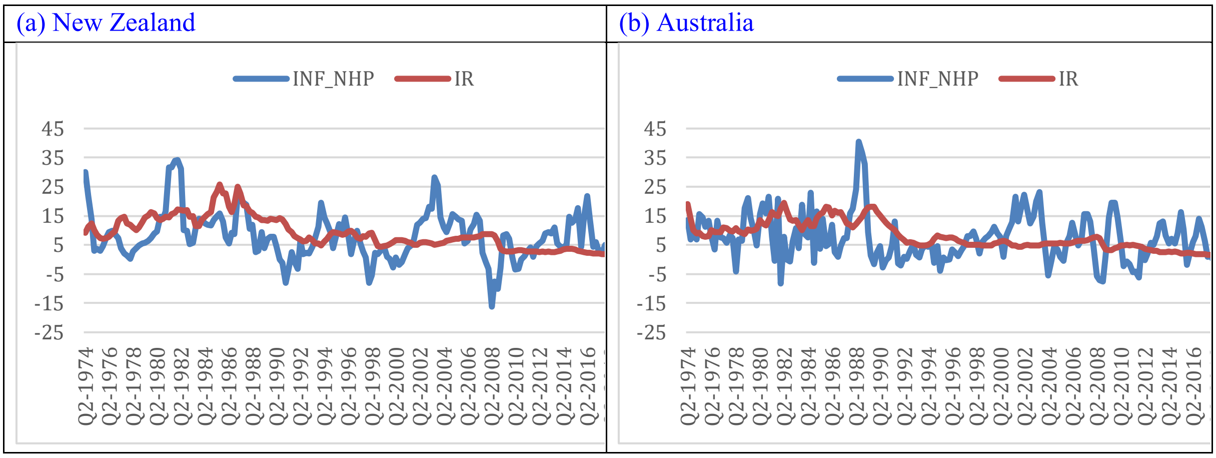

Figure 1: Nominal House Price Inflations and Short-term Interest Rates

3. Empirical Results from the Structural VAR[11]

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[6] More specifically, the shock to house price inflation could be a mixture of shocks to housing supply and demand, and CPI shocks may reflect the impacts from commodity prices or pass-through of exchange rates.
[7] The results from a different identification scheme are available from authors upon request.
[8] By using the core CPI, we intent to mitigate the problem of seasonality in the ordinary CPI and to mimic the practice of the central banks in gauging the inflationary pressure by the core PCI.
[9] Alternative series of house price, available from a BIS dataset on residential property prices, are also used in previous studies e.g., Scatigna et al. (2014) and Sutton et al. (2017). In our study, using the BIS series yields qualitatively similar results.
[10] The dummies for the Asian currency crisis and the Covid pandemic are also include initially, but they turn out to be insignificant for both countries.
[11] For both countries, the lag order of the reduced form VAR model is determined to be 2 by Schwarts and Hannan-Quinn information criteria.

3.1 Impacts of Monetary Policy on House Prices

The responses of house price inflation to a one-standard deviation shock to the short-run interest rate are shown in Figure 2, where strong evidence is found that an interest rate hike dampens house prices in both countries. The negative responses last longer than two years, and the maximum responses appear within two quarters of the occurrence of the shock.

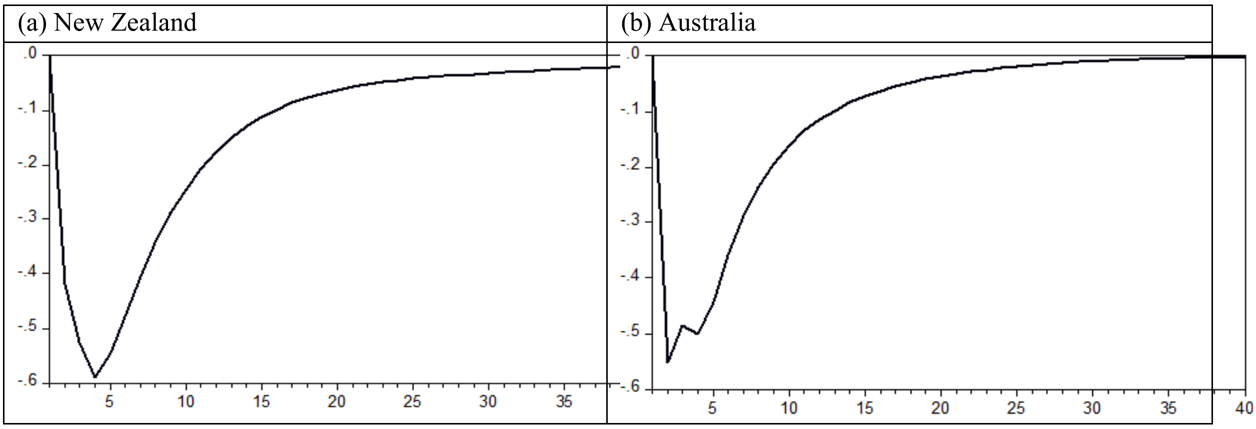

Figure 2: Responses of House Price Inflation to Monetary Policy Shock

Although response analysis provides information about how monetary policy would affect house prices, we attempt to further quantify the contribution (in percentage) of the interest rate shock to the variability in house price inflation. For this aim, we decompose the forecast error of house price inflation on horizons up to ten years, and the results are shown in Table 1. Strikingly, we observe that in the short run (e.g., up to four -quarter horizon) the interest rate shock accounts for less than 2% of the total variation in house price inflation, and that the contributions of the interest rate shock remain insignificant in the long-run as well explaining less than 3% of the total variations in house price inflation.

Table 1: Variance Decomposition of house price inflation (%, attributable to interest rate shock)

	Horizon								
	1	2	4	8	12	16	20	30	40
New Zealand	0	0.415	1.344	2.435	2.725	2.813	2.845	2.871	2.880
Australia	0	0.503	1.086	1.652	1.772	1.804	1.814	1.817	1.817

To see whether the direct link from monetary policy to housing bubbles is weak even during the periods of overvaluation in housing market, we perform historical decomposition of house price inflation. More specifically, we first construct the base projection of house price inflation obtained by the VAR model without any stochastic shocks. Then dynamic simulation of the model is performed with only the realized historical interest rate shocks included and all the others set to zero. Hence, the importance of the interest rate shock can be determined by examining the extent to which the introduction of the interest rate shock in real house prices closes the gap between the base projection and the actual series.

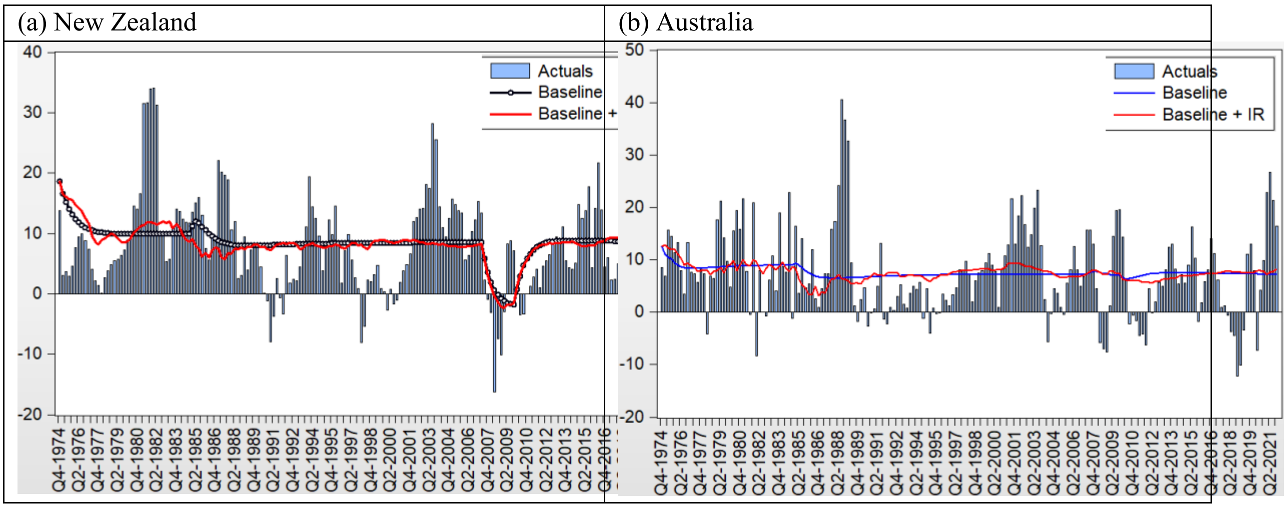

Figure 3: Historical Decomposition of House Price Inflation (attributable to interest rate shock)

Figures 3 plots the contribution of the interest rate shock to house price inflation. For both countries, interest rate shocks barely contribute to house price inflation. More specifically, the projection of housing price inflation inclusive of the interest rate shock is hard to distinguish from the base projection over the whole sample period, and that is still the case even in recent years characterized with continued hikes in house prices. The results of historical decomposition are therefore strongly suggestive of that there is no strong evidence of low interest rate having caused housing market booms in the 2000s and on.

In summary, the weak linkage between monetary policy and housing prices identified for the two countries casts doubt on the traditional belief that in the most recent boom and bust period highly stimulative monetary policy by the central banks first contributed to initial booms in housing market and upward spiral of higher house prices, which are then followed by an abrupt contraction as the yield curve inverted. There are two alternative explanations of our results standing in striking contrast to such belief. The first possibility is, as posited by Mishkin (2007), that the limited ability of standard models such as ours to explain the most recent housing developments emphasizes the uncertainty associated with housing-related monetary transmission channels. Secondly, as Kohn (2007) argues, "… when studies are done with cooler reflection, the causes of the swing in house prices will be seen as less a consequence of monetary policy and more a result of the emotions of excessive optimism followed by fear experienced every so often in the marketplace through the ages. Low policy interest rates early in this decade helped feed the initial rise in house prices. However, the worst excesses in the market probably occurred when short-term interest rates were already well on their way to more normal levels, but longer-term rates were held down by a variety of forces." Of the two, our view is more in line with the latter, in that many studies of housing markets, e.g., Kishor and Morley (2015) and Kim and Chung (2018), identify the expectation of future excess returns and sporadically rational explosive bubbles as the main drive of the housing price hikes in advanced countries.

3.2 The Role of House Price in the Conduct of Monetary Policy

Having examined the response in all variables to a monetary policy shock, we turn to investigate the reverse causation, namely the (systematic) response in monetary policy to a house price shock. Whether the central banks do or should take housing prices into account in conducting monetary policy has been an issue of heated debate, and the views in academics are far from unity. For example, Iacoviello (2005) shows in a DSGE model that allowing the monetary authority to respond to house prices yields negligible stabilization gains of output and inflation. In contrast, Mendicino and Punzi (2014) demonstrate a substantial social welfare improvement by allowing an interest rate response to house price dynamics. An eclectic set of results are found in Gelain, Lansing, and Mendicino (2013), showing that letting interest rate policy respond to house price growth can stabilize some economic variables, but at the cost of significantly magnified volatility of others.

As there do exist some good theoretical reasons for including house prices in monetary rules, we examine empirically whether the central banks of New Zealand and Australia have considered house prices when conducting monetary policy. Using the identified VAR model specifying a Taylor rule augmented with house prices, we examine the role of house prices in the determination of monetary policy via impulse responses, variance decomposition, and historical decomposition.

(a) New Zealand (b) Australia

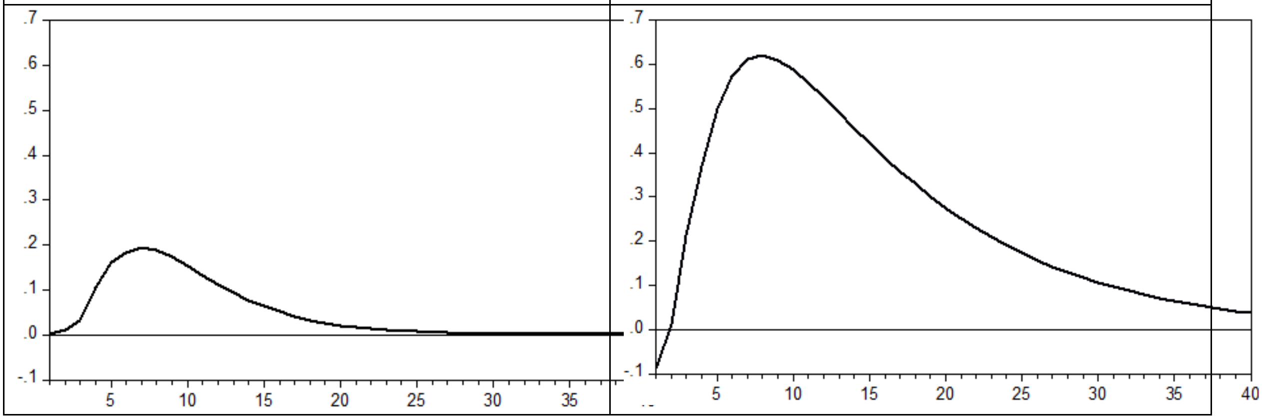

Figure 4: Responses of Interest Rate to a House Price Shock

Figure 4 shows the impacts of an increase in house price inflation on the short-run interest rate. Although both central banks respond to the house price inflation shock by raising the short-term interest rates, the magnitudes of responses are quite different. The Reserve Bank of Australia (RBA) responds by raising the interest rate by more than 0.6 percent point with two quarters following the shock, and the responses of the Reserve Bank of New Zealand (RBNZ) are at most modest if not negligible. Since housing inflation also leads to general inflation, we cannot exclude the possibility that the systematic monetary policy response to innovations in house prices could just reflect that house prices have an impact on less controversial objectives such as inflation, especially in the case of New Zealand. Notwithstanding, the first-hand evidence from impulse responses supports that an unpredicted shock to house prices influences the interest-rate setting of RBA, in that the interest rate rises initially within a quarter or two and remains 2 percent point higher until up to five years.

We also examine the contribution of house price shock to the short-run interest rate in terms of variance decomposition. The results are Table 2, where the importance of the shock in house price inflation is again quite different between the two countries.

Table 2: Variance Decomposition of house price inflation (%, attributable to interest rate shock)

	Horizon								
	1	2	4	8	12	16	20	30	40
New Zealand	0.001	0.004	0.189	1.222	1.505	1.445	1.357	1.239	1.196
Australia	1.113	0.473	5.011	18.604	24.010	25.523	25.821	25.666	25.562

For Australia, the portions of the fluctuations in the interest rate explained by the house inflation shock are smaller within a year following the shock. As the forecast horizon becomes longer, however, the importance of the house price shock rises. In the long run (h = 40) in particular, house price inflation shocks remain a non-negligible source of interest rate movements taking up to 25 percent of the total variations in the interest rate. Given that the fluctuations of the interest rate are dominated by its own shocks, the results of variance decomposition further support that the RBA does take house price into account in conducting its monetary policy. In contrast, the importance of house price inflation is as good as negligible for RBNZ.

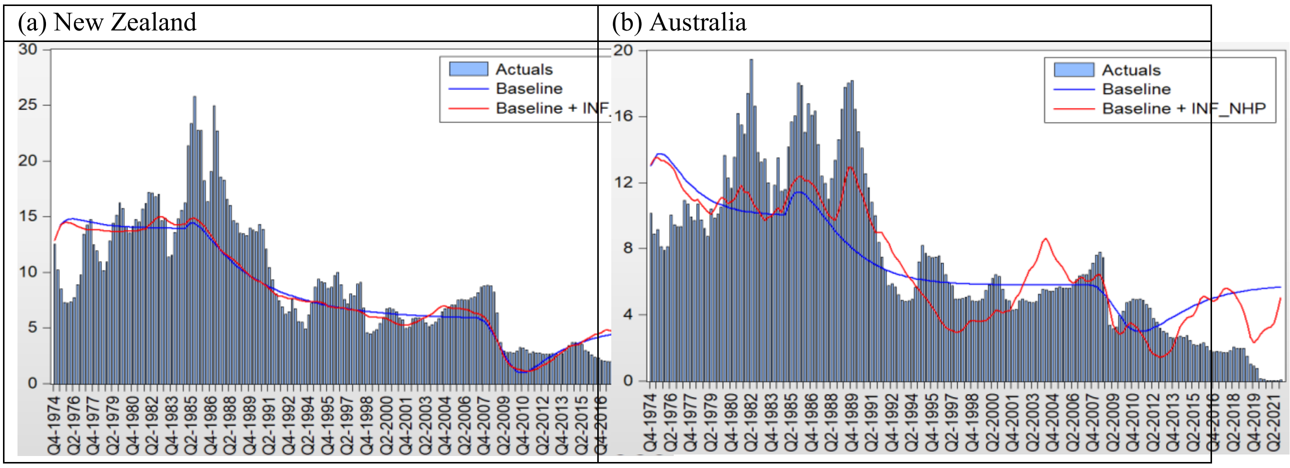

Figure 5: Historical Decomposition of Interest Rate (attributable to house price shock)

The results of historical decomposition of the interest rates are presented in Figure 5, where the findings from the impulse responses and variance decomposition are confirmed. For New Zealand, house price shocks make virtually no contribution to the prediction of interest rate. In the case of Australia, however, including house price shocks as an additional source of information renders the projection of interest rate closer to the actual value, and such informational gains are relatively more conspicuous in the past decade.

In summary, the strength and timing of the response varies between the two countries, indicating that housing may or may not play a key role in the monetary policy setting. Notwithstanding, we should mention that what are measured here is the systematic response to unpredicted changes in house prices. Furthermore, the fact that innovations in house prices also increase inflation, imply that we cannot exclude the possibility that the systematic monetary policy response to innovations in house prices could just reflect that house prices have an impact on general inflation[12].

4. Conclusion

This paper examines the link between house prices and monetary policy using quarterly data of New Zealand and Australia since the mid-1970s. Using an identified VAR model for a small open economy, we address two specific questions: i) Does a loose monetary policy cause house price appreciation? and ii) Do central banks conduct a policy of "leaning against the wind" by responding to house price shocks? From impulse responses analysis, it is found that a monetary tightening in the form of an increase in the short-term interest rate unambiguously results in a fall of house price inflations in both countries, although the magnitudes of the impact detected by variance and historical decompositions are modest. In contrast, the response of house prices to monetary policy shocks varies between the two countries. In Australia, evidence shows that housing price inflation plays a non-negligible role in the conduct of monetary policy by RBA. On the other hand, house price shocks make virtually no contribution in explaining the movements in interest rate, unlike the recent official announcement of the RBNZ that it has included housing price as a key indicator for monetary policy.

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[12] According to the Monetary Policy Committee at the Bank of England in May 2004, "… in presenting a decision to raise the repo rate, it would be important for the Committee to make clear that this did not imply that it was targeting house price inflation, or any other asset price. The significance of the unexpected acceleration in house prices was that it supported a stronger short-term outlook for consumption and output growth, and hence a steeper projected rise in inflation."

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Debt Policy, Liquidity Policy, and Profitability: A Proof from the Agricultural Companies in Indonesia

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Abstract
Profits describe managers' performance in front of the company stakeholders, especially shareholders, suppliers, and creditors. Therefore, they must organize the financial resources well by taking exceptional policies. This research aims to know manager behavior to utilize debt and liquidity policies to create profits by examining their effect on profitability in the agricultural companies listed on the Indonesian capital market between 2014 and 2020 as the population and samples. Because of their homogeneous feature and the variables-related data, this study applies the simple random sampling method and the t-test for the coefficients in the regression model to prove each relationship. By Denoting these statistical testing results and their discussion, this study infers a negative relationship between debt policy and profitability. Conversely, the liquidity policy is positively associated with profitability. Therefore, we suggest managers use less debt and excess current assets, significantly cash, to enhance profits.

Keywords: Risk-Averse Managers, Ability of the Company to Result in Profits, Prospective Projects

1. Introduction

One of the Indonesian capital market sectors is agriculture (Hartono, 2017). In Indonesia, this sector is prospective because fifty-five million hectometers of agricultural land support it. This land contains twenty-four million hectometers of temporary function, and t rest are used for permanent purposes (Quincieu, 2015). Thus, according to Tambunan (2014), this sector can guarantee the supply of related goods for Indonesians and diminish employment. By mentioning Sukirno (2016), to handle this employment, one of the ways that the associated companies conduct is by investment. The investment will increase if the government intervenes through the central bank by reducing the interest rate, for example. If the interest rate goes down, commercial banks will follow it. Therefore, the company will invest in its business using these bank loans.

Besides obtaining bank loans, the companies have alternatives to get funds for overcoming the investment issue, for instance, through the capital market (Husnan, 2015) by offering and selling their stocks initially to society (Sunariyah, 2011; Hartono, 2017). After that, all their actions attract the attention of public investors to transact the stocks in the secondary market (Sunariyah, 2011). One of their causes is the relevant information in the financial reports (Munfaqiroh, 2006), where the profits become its quality (Shan, 2015).

The reached profits show that managers successfully organize the company (Singh, Darwish, & Potocnik, 2016). Therefore, they carefully utilize the liabilities to keep their reputation. If managers use debt too much, the companies will be in danger. As the worst consequence, managers will lose their job if bankruptcy happens. Some researchers agreeing with this circumstance declare a negative association between debt policy and profitability (Utama & Muid, 2014; Al-Jafari & Al-Salman, 2015; Filipovic & Demirovic, 2016; Masry, 2016; Petta & Tarigan, 2017; Nazir, Azam, & Khalid, 2021). However, this relationship is still not conclusive. In their study, Liargovas and Skandalis (2012), Prilianti et al. (2020), and Simionescu et al. (2021) show a positive sign. Meanwhile, Pratheepan (2014) displays no relationship between the debt-to-asset ratio and return on assets (ROA). Similarly, Samo and Murad (2019) cannot statistically associate the debt-to-equity ratio (DER) with ROA.

Besides debt policy, profitability is affected by how financial managers organize working capital in the company. If they can allocate funds to increase the fixed asset, the profits will upsurge. This allocation leads to low liquidity (Gitman & Zutter, 2012). Thus, a negative relationship between liquidity and profitability exists, as Liargovas & Skandalis (2012) demonstrate. Unfortunately, this result is arguable. Some researchers, like Utama and Muid (2014), Ali Alicia, Situmorang, and Alipudin (2017), Samo and Murad (2019), and Prilianti et al. (2020), prove a positive association. Meanwhile, Pratheepan (2014), Pervan, Pervan, and Ćurak (2019), Sahabuddin and Synthia (2020), Rajaguguk and Siagian (2021), and Simionescu et al. (2021) display no relationship.

After considering this opposing evidence, this study intends to examine the influence of debt and liquidity policy on profitability by applying the agricultural companies listed in the Indonesian capital market between 2014 and 2020 and company size as the control variables. Size utilization as a control variable follows the study of Đặng et al. (2020) and Simionescu et al. (2021). Academically, this study wants to strengthen previous studies with relevant logical explanations. Realistically, this study provides a way for managers to increase their profit based on the debt and liquidity policy.

2. Literature Review and Hypothesis Development

2.1. The influence of debt policy on profitability

Debt takes companies to face an increase in financial risk. If this situation happens, they must bear the increased interest expense (Gitman & Zutter, 2012). In the most horrible circumstance, they face technical and definitive insolvencies, where their profits cannot cover them (Hanafi, 2017). Therefore, managers of the company will become risk averters. They tend to use little debt to invest money in projects to avoid bankruptcy (Easterbrook, 1984). Therefore, a negative association between debt and profitability is expected. This explanation is supported by Utama & Muid (2014) and Petta and Tarigan (2017) after investigating the manufacturing companies listed on the Indonesian stock exchange. In their study, Al-Jafari & Al-Salman (2015) find this negative relationship once researching the companies in the Muscat capital market, Oman. Besides, Filipovic and Demirovic (2016) affirm this association when studying the firms listed in the capital market in Montenegro. Also, Masry (2016) locates this evidence after studying the firms in the capital market in Egypt.

Furthermore, Đặng et al. (2020) confirm this negative tendency of debt on profitability when researching companies shaping the S & P index in the United States. Also, through their study, Nazir et al. (2021) prove that short-term and long-term debt-to-total assets ratios negatively affect the profitability of the companies in the Pakistani capital market. By mentioning this information, the first hypothesis can be shaped like this.
H_1: Debt policy affects profitability negatively.

2.2. The influence of liquidity on profitability

The high liquidity is indicated by the substantial cash and the account receivable but little current debt (Sanjaya, Sudirman, & Dewi, 2015). According to the trade-off concept in working capital management, a company with this condition cannot meet high profits (Gitman & Zutter, 2012). Unlike this perspective, Atmaja (2008) explains that if the company is liquid, the financial manager will utilize excess cash to buy goods from suppliers at a discount to get a low price. The company can compete with its rivalry to increase sales and profits if this action is effective. Thus, liquidity and profitability are expected to have a positive association. After investigating the manufacturing firms listed in the Indonesian capital market, Utama and Muid (2014), Alicia et al. (2017), as well as Prilianti et al. (2020) support this enlightenment: the company can be profitable despite high liquidity. By utilizing the current ratio and return on assets of the textile firms in Pakistan to measure liquidity and profitability, respectively, Samo and Murad (2019) support this explanation by showing similar evidence. By mentioning this information, the second hypothesis can be shaped like this.
H_2: Liquidity affects profitability positively.

2.3. The influence of company size on profitability

Large firms do not depend on debt financing because of substantial retained earnings. As long as their retained earnings are sizeable, as the pecking order perspective declares, these firms tend to use these earnings to invest in risky projects (Brealey, Myers, & Allen, 2020). If the projects succeed, the shareholders will benefit (Easterbrook, 1984). Hence, a positive association between company size and profitability is expected. This enlightenment is confirmed by Pratheepan (2014) when researching the listed manufacturing companies in the Sri Lankan capital market. In their study, Al-Jafari and Al-Samman (2015) declare that firm size influences profitability positively after studying industrial companies on the stock exchange in Oman. Besides their research, this positive impact is supported by Masry (2016), when investigating the companies in the Egyptian stock market; Fareed, Ali, Shahzad, Nazir, and Ullah (2016), after studying the publicly listed enterprises in the power and energy sector in Pakistan. This similar evidence is also confirmed by Nazir et al. (2021), employing the companies in the Pakistani capital market's automobile, cement, and sugar divisions. By mentioning this information, the third hypothesis can be shaped like this.
H_3: Company size affects profitability positively.

3. Methodology

3.1. Research Variables

The variables in this study cover the dependent and the independent. Profitability acts as the dependent, measured by the return on assets (ROA) at the end of the year. This measurement refers to Pratheepan (2014)**,** Utama and Muid (2014), Al-Jafari and Al-Samman (2015), Filipovic and Demirovic (2016), Masry (2016), Alicia et al. (2017), Petta and Tarigan (2017), Đặng et al. (2020), Nazir et al. (2021), and Simionescu et al. (2021).

Meanwhile, financing policy, liquidity, and size are independent variables. Moreover, its measurement is depicted as follows.

a. By indicating Pratheepan (2014), Utama and Muid (2014), Đặng et al. (2020), Nazir et al. (2021), Simionescu et al. (2021), we quantify financing policy by the debt-to-asset ratio (DAR) at the end of the year.
b. By denoting Pratheepan (2014), Utama and Muid (2014), Al-Jafari and Al-Samman (2015), Alicia et al. (2017), and Simionescu et al. (2021), we quantify liquidity by the current ratio (CR) at the end of the year.
c. By mentioning Pratheepan (2014), Al-Jafari and Al-Samman (2015), Masry (2016), and Nazir et al. (2021), we utilize the natural logarithm of total revenue at the end of the year to quantify the company size.

3.2. Population and Samples

The population in this study is the company in the agricultural sector in the Indonesian capital market. As for the time observation, we apply seven years, i.e., 2014 to 2020. Therefore, we found 16 consistent companies as the population size (PS). Furthermore, we use the Slovin formula with a border of error (be) of 10%, as mentioned by Suliyanto (2009) and shown in the first equation, to count the number of companies as the samples (n).

$$n = \frac{PS}{1+PS.be^2} \quad \ldots\ldots (1)$$

According to the Slovin formula, the samples needed are $\frac{16}{1+16(10\%)(10\%)} = \frac{16}{1.16} = 13.79 \approx 14$ companies. After this size is known, we take the companies by employing simple random sampling and get their name: (1) Astra Agro Lestari (AALI), (2) Austindo Nusantara Jaya (ANJT), (3) BISI International (BISI), (4) Eagle High Plantations (BWPT), (5) Dharma Samudera Fishing (DSFI), (6) Dharma Satya Nusantara (DSNG), (7) Jaya Agra Wattie (JAWA), (8) London Sumatera Indonesia Plantation (LSIP), (9) Sampoerna Agro (SGRO), (10) Salim Ivomas Pratama (SIMP), (11) Sinar Mas Agro Resources and Tech (SMAR), (12) Sawit Sumbermas Sarana (SSMS), (13) Tunas Baru Lampung (TBLA), and (14) Bakrie Sumatera Plantations (UNSP).

3.3. Technique to analyze the data

By mentioning the variables defined, we utilize the regression model to analyze the data and the t-test to examine the statistical hypothesis. The model intended is in the second equation below.

$$ROA_{it} = \beta_0 + \beta_1 DAR_{it} + \beta_2 CR_{it} + \beta_3 LN(REV)_{it} + \varepsilon_{it} \quad \ldots\ldots (2)$$

The regression must pass some classical assumption tests to be an empirically good model. Hence, this model must achieve normality without multicollinearity, heteroskedasticity, and autocorrelation. Furthermore, to check them, we utilize the Jarque-Bera, White test with the cross term by variance inflation factor by mentioning Gujarati and Porter (2009) and runs by denoting Ghozali (2016) individually.

4. Result and Discussion

4.1. Result

The number of companies becoming the sample is 14, and the number of years is seven. Therefore, 98 observations are available. Furthermore, the outcome in this section is about four classical assumption tests, regression model estimation, and hypothesis examination.

4.1.1. The result of classical assumption tests

Figure one displays the probability of the Jarque-Bera statistic of 0.955810. This value is greater than the 5% significance level; hence, the residuals of the regression model are normally distributed.

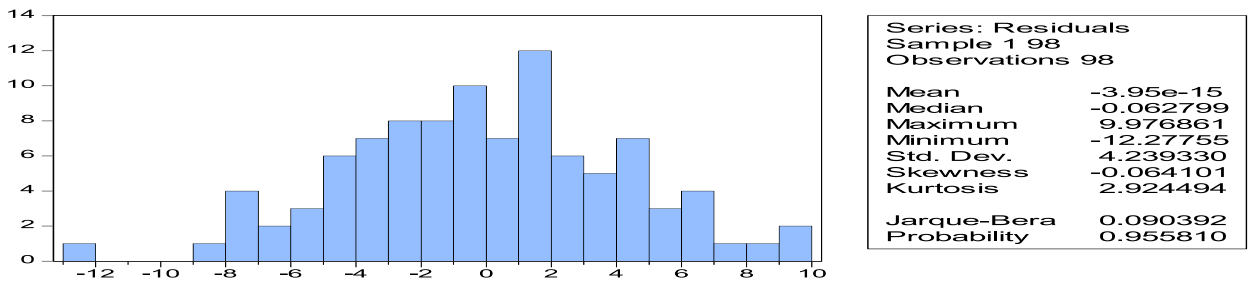

Figure 1: The Jarque-Bera test result

Source: The output of E-Views 6

Table one consists of two panels. Panel A depicts the multicollinearity recognition result based on the variance inflation factor (VIF). Moreover, the VIF for DAR, CR, and LN(TA) is 1.487, 1.491, and 1.080. These values are lower than ten as the cut-off point. As a consequence, the model regression does not have a multicollinearity problem. Panel B exhibits the autocorrelation examination result utilizing the most prominent mode as the examined residual based on the runs test, with an asymptotic significance (2-tailed) of 0.000. Because this value is lower than the 5% significance level; therefore, the residuals are not random.

Table 1: The multicollinearity recognition and autocorrelation test results

Panel A: The multicollinearity recognition result			
Independent variable	DAR	CR	LN(REV)
Variance Inflation Factor	1.474	1.462	1.026
Panel B: The result of the average value-based runs test			
Description	Residual	Description	Residual
Test value	0.00000	Number of Runs	25
Cases < Test Value	50	Z-statistic	-5.075
Cases ≥ Test Value	48	Asymptotic Significance (2-tailed)	0.000
Total Cases	98		

Source: The output of IBM SPSS 19

Table two demonstrates the White heteroskedasticity test output with the cross-term. In this output, the probability of the t-statistic for DAR**,** DAR*LN(REV) is 0.0039 and 0.0025, and these values are lower than the 5% significance level. Thus, variance residuals (RESID^2) are influenced by DAR and its interaction with LN(REV). It means heteroskedasticity occurs in this regression model.

Table 2: The White test with the cross-term result:
RESID^2 = f[DAR, DAR^2, DAR*CR, DAR*LN(REV), CR, CR^2, CR*LN(REV), LN(REV), LN(REV)^2]

Variable	Coefficient	Std. Error	t-Statistic	Probability
C	-753.1708	389.3402	-1.934480	0.0563
DAR	744.6693	250.9448	2.967463	0.0039
DAR^2	20.23793	19.72045	1.026241	0.3076
DAR*CR	0.111470	0.115240	0.967290	0.3360
DAR*LN(REV)	-49.85630	16.00526	-3.114996	0.0025
CR	1.057503	0.557982	1.895227	0.0613
CR^2	-0.000155	0.000142	-1.097017	0.2756
CR*LN(REV)	-0.063375	0.033417	-1.896504	0.0612
LN(REV)	64.22777	45.56618	1.409549	0.1622
LN(REV)^2	-0.960352	1.417748	-0.677379	0.4999

Source: The output of E-Views 6

4.1.2. Regression model estimation and hypothesis examination

By mentioning Gujarati and Porter (2009), we utilize the Newey-West feature in the E-Views program. This feature handles heteroskedasticity and autocorrelation by making the standard error and covariance compatible. Furthermore, the intended model is available in Table 3.

Table 3: The regression model estimation result: The effect of financing policy, liquidity, and company size on profitability

Newey-West HAC Standard Errors & Covariance (lag truncation=3)				
Variable	Coefficient	Std. Error	t-Statistic	Probability
C	-14.73156	6.534727	-2.254350	0.0265
DAR	-6.382910	2.899308	-2.201529	0.0301
CR	0.015457	0.004118	3.753279	0.0003

Table 3: The regression model estimation result: The effect of financing policy, liquidity, and company size on profitability

Newey-West HAC Standard Errors & Covariance (lag truncation=3)				
Variable	Coefficient	Std. Error	t-Statistic	Probability
LNREV	1.220495	0.413724	2.950023	0.0040

Source: The output of E-Views 6

In table 3, the probability of the t-statistic of the independent variables: DAR, CR, and LN(REV) of 0.0301, 0.0003, and 0.0040 exists. Because these values are below the 5% significance level, the sign of regression coefficients is statistically meaningful. It means that debt policy affects profitability negatively is acknowledged. Conversely, a positive effect of liquidity and company size exists.

4.2. Discussion

The test result of the first hypothesis declares that debt decreases the capability of the company to create profits. This tendency happens because top managers are risk averters, utilizing less debt to invest in the projects to avoid bankruptcy. If bankruptcy happens, they will get lost their job and reputation. Therefore, this study supports the research conducted by Utama and Muid (2014) and Petta and Tarigan (2017), Al-Jafari and Al-Salman (2015), Filipovic and Demirovic (2016), Masry (2016), Đặng et al. (2020), and Nazir et al. (2021), declaring the negative relationship between the debt policy and profitability.

The test result of the second hypothesis declares that liquidity raises the capability of the company to create profits. This tendency means that the managers effectively utilize their liquid assets to get discounts when buying materials from suppliers. In the context of the agricultural industry, the suppliers consist of the sellers of (1) fertilizers and pesticides from the farming sector, (2) zooplankton and pellet from the fishing sector, and (3) the sellers of planted seeds from the forestry sector for instance. By considering the positive association, this study is in line with Utama and Muid (2014), Alicia et al. (2017), Prilianti et al. (2020), as well as Samo and Murad (2019).

The test result of the third hypothesis declares that size improves the capability of the company to create profits. This propensity means that the more extensive the firm is, the higher its retained earnings position to be reinvested in the project to result in profits. Hence, this study confirms Al-Jafari and Al-Samman (2015), Masry (2016), Nazir et al. (2021), and Fareed et al. (2016), finding a positive influence of firm size on profitability. Based on this significant effect; hence, the company size can effectively control the meaningful impact of debt and liquidity policies on profitability in this study context.

By mentioning the results of this research, it is suggested that the managers reduce the debt to create a safe condition for firms to operate in their business and utilize the excess cash to purchase the related materials from suppliers to get a discount. The discount can reduce the operating cost. Therefore, the firms can still survive and compete with their other companies by selling the products at the same price to their customers without loss of revenue part.

5. Conclusion

This study intends to investigate the debt and liquidity policies conducted by managers in the agricultural companies listed on the Indonesian stock exchange and their effect on profitability by employing the size to control the consequence of these policies. Furthermore, this study uses seven years, from 2014 and 2020. Once examining three planned hypotheses and deliberating the results, this study deduces that the debt policy negatively influences the ability of the firm to result in profit. However, the liquidity policy positively affects this ability. Besides, the firm size as the control variable has the same tendency as the liquidity policy. With these empirical findings, this study effectively strengthens the related previous studies by providing relevant logical explanations.

Although successfully proving the proposed hypotheses, this study still has some boundaries, becoming the chance for succeeding scholars to improve. Firstly, this study only employs the agricultural companies listed in a single capital market as population and samples. Based on this situation, the scholars can combine the Indonesian firms with the relevant companies in the countries producing agricultural products in Southeast Asia, such as Vietnam, Thailand, Malaysia, and the Philippines. Secondly, this study only utilizes three determinants of profitability. Based on this circumstance, the scholars can add the associated causing factors into their research models, such as working capital turnover, growth, asset structure, institutional ownership, company age, Herfindahl-Hirschman index, inflation, economic development, total assets turnover, effective tax rate, free cash flow, and board governance mechanism: board size, diversity, independence, meetings, tenure, and age.

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Systematic Literature Review of Social Enterprise Financing and Investment

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Abstract
Non-profit and for-profit social enterprises struggle to source funding. Current limited understanding on the funding sources of these enterprises originates from disconnected body of studies based on different subject areas. This paper systematically reviews 50 articles published between 2009 to 2022 to bridge the existing knowledge in the subject area. This is achieved by mapping the sources of funding for social enterprises at organizational, personal, and institutional levels; analyzing the results to design an extensive model; and suggesting future areas for study in the field. It is found that studies at personal levels majorly focus on the perspective of funders of the features of a social entrepreneur. Social enterprises' dual logic is usually addressed by research at the business level; including their effect on the effective funding of these enterprises. Institutional level research is clustered into legal, social, economic, and cultural factors. The paper suggests the need for studies, which use an extensive view by looking at all the three levels of analysis together and applying both organizational and economic theories.

Keywords: Social Enterprise, Social Financing, Social Investment, Social Entrepreneurship, Impact Financing

1. Introduction

Shortcomings in the capitalist economic and political system and the need to adopt robust practices focusing on maximizing societal benefits have contributed to new business models. Therefore, some firms have structured their operations to look beyond profits and promote societal well-being by putting the people and society welfare first. According to Hirsch (2021), the trend contradicts the capitalist association with profit maximization goals in a highly competitive market environment. The author adds that the deepening of global inequalities and social stratification has contributed to the emergence of a sustainable growth ideology where long-term development can only be achieved when everybody achieves dignity (Hirsch, 2021). The trend will likely continue as more social issues emerge that cause entrepreneur to rethink their business models.

Besides, the increasing demand for firms to consider their stakeholders' well-being is forcing enterprises to adopt new measures demonstrating their concern for society. The trend arises due to businesses' detrimental impact on their environment, including pollution that adversely affects other residents' well-being. Hence, they must integrate socially, economically, and environmentally engaged business models that consider how their services' impact society and possibility of internalizing their negative impact on society (Rezende de Carvalho Ferreira 2016). The concern for society presents a new business front where enterprises seeking a favorable reputation engage in activities that demonstrate their desire to help the people. Therefore, nonprofit entities offer those using the traditional model an opportunity to expand their reach and market competitiveness.

Social enterprises are not profit-maximization oriented as they focus on optimizing their contribution to societal well-being while introducing margins that only enable them to survive. Hence, it is paramount to investigate their characteristics, financing models, and the primary motivations for investors in measuring their contributions' impacts to determine whether they are worthwhile. Besides, it is necessary to investigate their financing challenges, which is vital in evaluating their interventions' effectiveness and uniqueness from the for-profit entities. Organizations with this business model are essential to communities since they help mitigate socio-economic challenges, including housing, healthcare, and education among the disadvantaged (Macassa 2021). However, sustainability is critical to achieving their social objectives, signifying that they must implement measures to sustain stable revenue flow. The article comprises an in-depth evaluation of the organizations to understand their functioning and the issues they encounter while executing their core business functions.

Based on the study's aim and scope, the following comprise the primary questions the paper seeks to address.

1. What are social enterprises?
2. What financing models do social enterprises use?
3. How do investors measure their social returns?
4. What financing challenges do social enterprises face in sustaining their operations?
5. Are there any research gaps that stakeholders should consider adding social enterprise investment and financing?

2. Research Methodology

Understanding the present level of research on social business funding and investment required a thorough literature review approach. A systematic literature review assesses data and results of other scholars in reference to a particular research objective (Pullin et al., 2016). The method adheres to a specific protocol where the question is clearly defined before the review is done. It is an extensive, transparent research done over different databases and literature replicable and reproduceable by other scholars(Egger et al., 2022). This method is usually preferred as one usually have various databases to scrutinize and select the best articles that answer the question being studied. Various scholars have successfully applied this method in the social enterprise context. Banke-Thomas and colleagues used this method to study the limitations of social enterprise financing techniques. Alomoto et al. (2021) applied the same approach to assess social enterprises and their features. Gosselin et al. (2020) used systematic literature review to assess the physical activity and sports interventions using the SROI model. Rezende at al. (2016) also used the method to examine the finances and sustainability of social enterprises. All these articles have formed the basis of the current paper.

Fifty articles on business and management were examined primarily to extract their enterprise-related content. The journals in the Entrepreneurship and Small Business category of the Academy Business Schools Journal Guide (ABS 2018), Google Scholar, the Financial Times research ranking (FT50), and a few other select journals in the fields of business and society, nonprofit management, and public administration were reviewed. Articles were selected based on the content on social enterprise and funding since these components are the major elements of the research question. Finally, five publications from the fields of business and society and nonprofit management and public administration were selected since they also entailed social enterprise and financing. Publications and journals which fulfilled the provisions of (Chen et al., 2009) were prioritized for review. These were chosen because of characteristics like prominence in the Social Science Citation Index (SCCI), high impact factors, lengthy lifespans, and connections to influential academic networks.

The samples used for the ABS 2018 and FT50 were similar; therefore, the Web of Science database was also used to find articles. The search was limited to a specific timeframe (from 2009 – 2022) as this is the year the Social Enterprise Journal was first introduced (January 2009). As the first specialized publication dedicated only to the field of social entrepreneurship, The Social Enterprise Journal paved the way for its peers, and thus, its inception was a good place to begin the research since it represents a watershed moment in the study of social entrepreneurship.

3. Scope of the Study

The Web of Science database was used to conduct an "Advanced Search" on a sample of 50 business and management publications. The search was narrowed down to avoid displaying results for book reviews. The topic search option was used to search journal titles, abstracts, and author keywords, making it easier to find more relevant information about social entrepreneurship and finance. The keywords searched included social enterprise, social entrepreneurship, social entrepreneur, social innovation and investment, social enterprise and investment, social financing, social enterprise financing, social enterprise financing and investment, enterprise, connections, and relationships.

The first search resulted in 179 journals after being assessed to establish if social enterprise financing and investment were significantly covered. The following inclusion criteria were applied in selecting articles for the sample:

a. Were social enterprises, entrepreneurs, or innovations central to the discussion?
b. Were investment and financial theories used to analyze social enterprises, entrepreneurs, or innovations?
c. Were there empirical studies of social enterprise financing, financing for social entrepreneurs, or networking in social entrepreneurship or innovation processes?

The first sample of 179 articles was extracted from a search on Web of Science, Google Scholar and Financial Times based on the systematic review protocol. Initially 50 articles were extracted, and a snowball technique was utilized to find more publications in the 50 journals that could be relevant to social entrepreneurship, financing, and investment. The articles were screened for duplicates and 24 articles were excluded at this stage. Title and abstract review were conducted according to the research inclusion criteria defined above and 81 articles were excluded. A full paper reading of the remaining 74 articles was conducted in the next stage and a further 24 articles were excluded based on the exclusion criteria. Only English articles were required; thus, non-English articles were eliminated – which resulted in 50 articles. The 74 articles were skimmed to determine their contents and how resourceful they were in answering the study questions and this led to 50 articles. The 50 articles were assessed against the coded themes where those which contained at least three of the themes were included in the review. A final 50 articles were selected for synthesis and results were reported based on these articles. Codes were assigned to each of the 50 papers based on the following criteria: journal, year, geographic emphasis, network theories employed, methodologies used, contribution, and implications. The papers were reduced to 50 after a full paper reading as 24 papers were excluded based on the exclusion criteria which include non-related themes, lack of clarity of findings, non-English papers and unclear methodology.

The approach taken in this paper could have limitations as not everyone would agree with the journals that were chosen or the criteria applied to select them. This might lead to the loss of certain historically valuable works, which could help answer the research questions. The search process is shown in Figure 1.

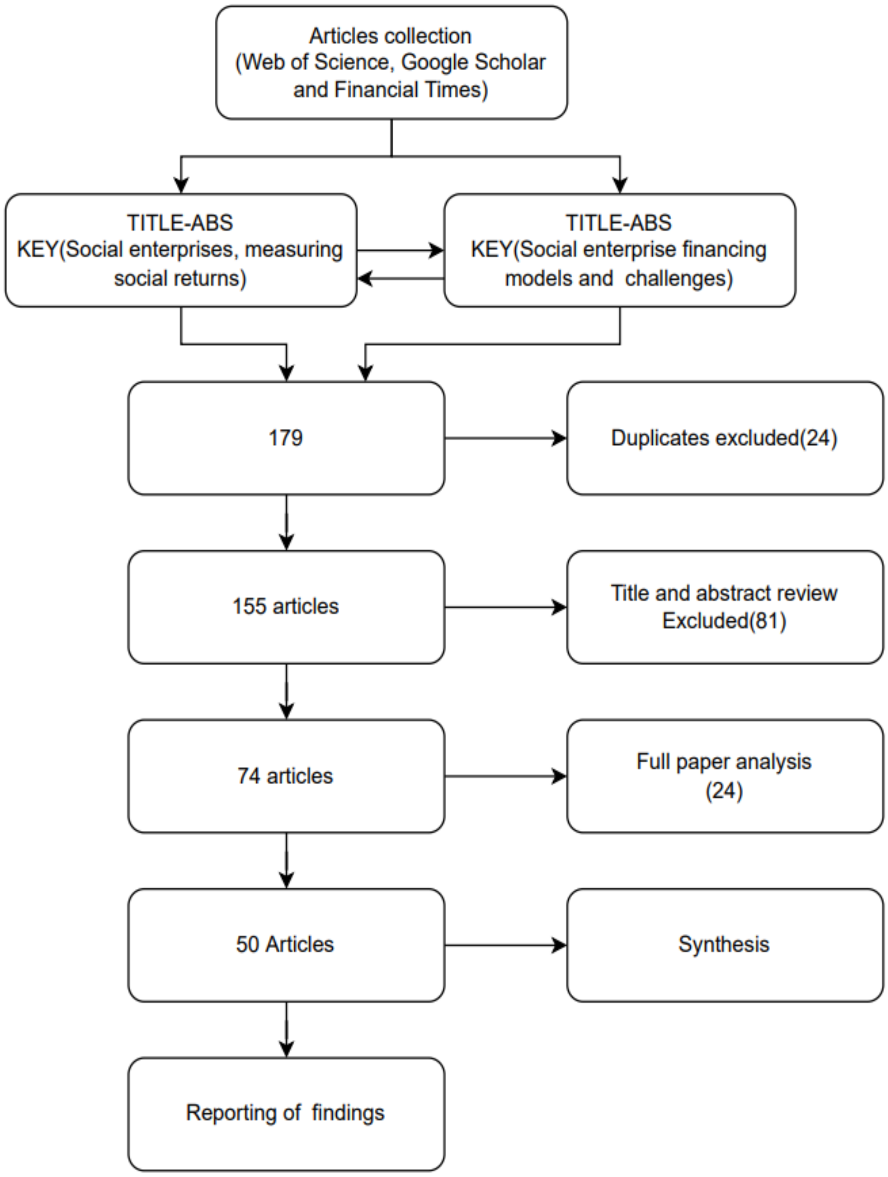

Figure 1: The search process.

4. Literature Analysis

All the articles were read, dissected, and categorized according to predetermined criteria. Terms like research approach, research method, journal subject area, and applied theory were used to describe and primarily deduce between topics. The codes in these sections indicated the kind of publication, the research location, the journal's topic categorization, and the theory or model used in the study. The second set of categories was derived inductively after reading the articles to uncover themes that represent the central ideas, rebuttals, and theoretical integration of expressions upon which the article's research questions, constructions, concepts, and measures rest. Through exclusion and refining, the massive body of literature was reduced to five overarching themes and various supporting sub-themes – connected to the study objectives – through cluster analysis and further abstraction of the codes. The articles were categorized into various groups to explore the study phenomena from a multi-level vantage point. After that, the emphasis accorded to empirical research since it had the most closely connected themes and results for the thematic analysis. This means that the method's underlying hermeneutic and iterative process involved various interplays of critical reflection on data, discernment of research patterns, and the questioning and refining review categories. Table 1 below shows the journals reviewed and their frequencies.

Table 1: Journals reviewed

Journals	Number of articles	Percentage
Academy of Entrepreneurship Journal	1	2%
International Journal of Voluntary and Nonprofit Organizations	3	6%
Nonprofit Management and Leadership	1	2%
International Journal of Entrepreneurial Venturing	1	2%
Social Indicators Research	1	2%
Journal of World Business	1	2%
Entrepreneurship Theory and Practice	1	2%
International Journal of Agricultural Sustainability	1	2%
Operations Management Research	1	2%
Journal of Entrepreneurial and Organizational Diversity	1	2%
BMC Public Health	1	2%
Journal of Rural Studies	1	2%
International Journal of Productivity and Performance Management.	1	2%
Journal of Corporate Finance	1	2%
Journal of Social Entrepreneurship	2	4%
Forest Policy and Economic	1	2%
American Journal of Industrial and Business Management	1	2%
Academy of Management journal	2	4%
Journal of Social Policy	1	2%
International Journal of Management Reviews	1	2%
Social Enterprise Journal	3	2%
Journal of Innovation and Entrepreneurship	1	2%
European Management Journal	1	2%
International Journal of Behavioural Nutrition and Physical Activity	1	2%
Journal of Business Research	1	2%
American Journal of Political Science	1	2%
The Quarterly Review of Economics and Finance	1	2%
Nonprofit and Voluntary Sector Quarterly	1	2%
Entrepreneurship Research Journal	1	2%
International Journal of Environmental Research and Public Health	1	2%
Annals of Global Health	1	2%
BAR-Brazilian Administration Review	1	2%
Technology, Market, and Complexity	1	2%
Journal of Innovation Economics Management	1	2%
Journal of Sustainable Finance & Investment	1	2%
International Journal of Management and Applied Research	1	2%
Journal of Management	1	2%
Business Ethics Quarterly	1	2%
European Research Studies	1	2%
International Journal of Contemporary Management	1	2%

5. Findings

Among the journals reviewed, 22 were published in journals within the entrepreneurial area, 15 within general management and strategy, eight on public sector management, and five on finance and accounting, as presented in Figure 2.

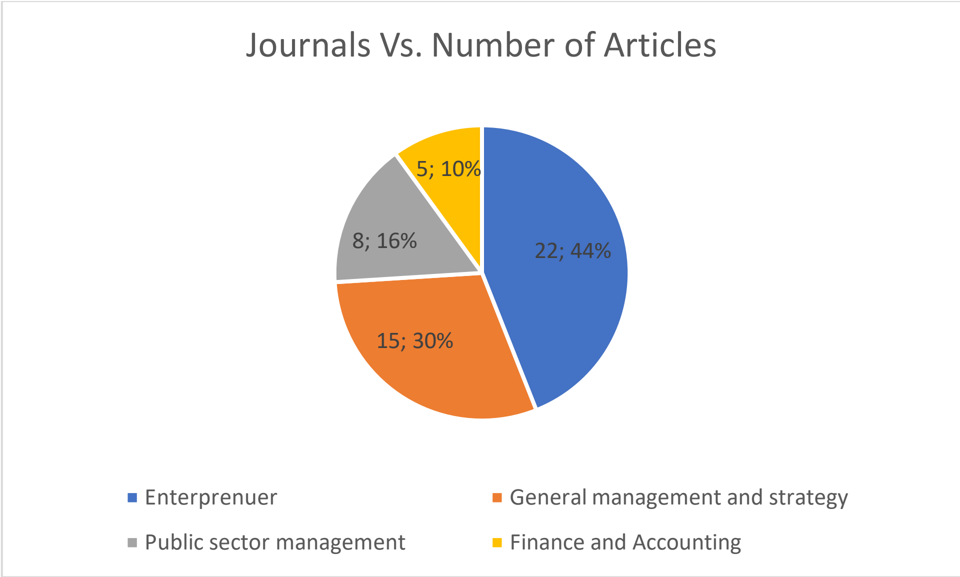

Figure 2: Journals Vs. Number of Articles.

6. Publications And Journal Types

There has been an increase in the number of publications within the journal categories mentioned in Figure 2 since 2009. Figure 3 below shows the number of articles published each year, beginning from 2009, and it is a perfect illustration of how research on the topic studied has been established.

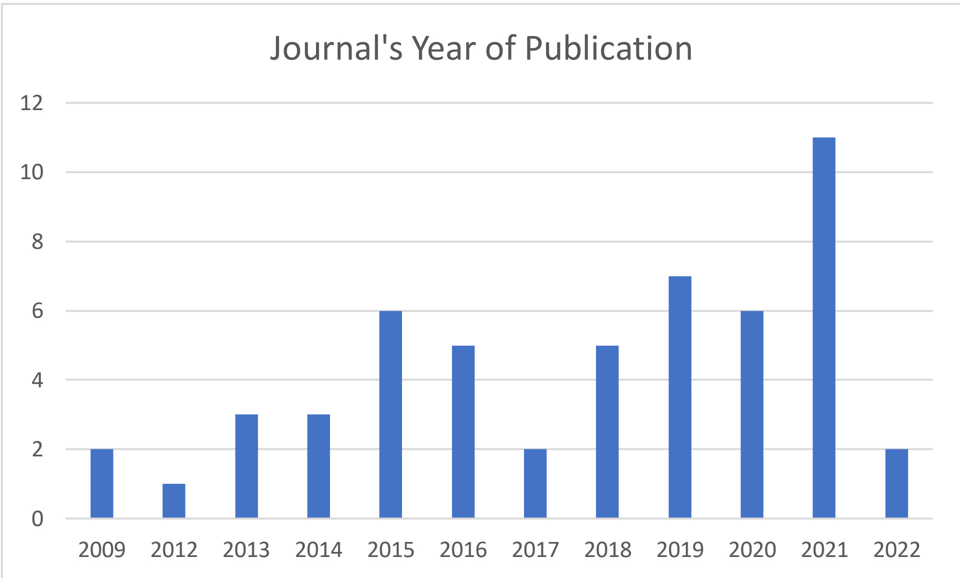

Figure 3: Journal publication by year.

6.1. Literature Views on the Roles of the Individual, the Organization, and the Institution

Various underlying themes were unearthed at the human, organizational, and institutional levels, with the results presented at three levels of organization: broad, intermediate, and specific. Table 2 shows the various ideas presented in the articles.

Table 2: Articles Vs. Research questions.

Research Questions	References	Focus area
What are social enterprises?	Saebi, Foss and Linder (2019); Fridhi (2021); Gupta et al. (2020); Nascimento Salazar 2020); Smith et al. (2013); Rostron (2015); Rezende et al. (2016); Petrella & Richez-Battesti (2014); Park, & Kim (2020); Macassa (2021); Kerlin (2012); Alomoto et al., 2019; Battilana and Lee (2014); Alomoto, W Niñerola, A & Pié (2021).	• Investigating gaps in social entrepreneurship research • The relationship between social entrepreneurship and innovation • A systematic review to identify social entrepreneurship themes • Investigating the empirical support for the conceptual model utilized in analyzing social entrepreneurship antecedents
What financing models do social enterprises use?	Chui et al. (2021); Abhi (2017); Akbulaev, Aliyev and Ahmadov (2019); Kordsmeyer et al. (2020); Park and Kim (2020); Gatzert (2015); Thomas, A & Gupta (2021); Nascimento, & Salazar (2020); Kickul & Lyons (2015); Gosselin (2020); Callegari, & Nybakk (2022); Banke-Thomas et al. (2015); Bailey et al., 2018); Callegari, B & Nybakk (2022); Bengo, and Arena (2019); Ala-Jääski and Puumalainen (2021); Addae (2018).	• The role of social enterprises in promoting labor market integration • Effectiveness of social entrepreneurial ventures in balancing between achieving social purpose and wealth creation • Financing strategies that social enterprises adopt to improve living standards and provide quality services • To review studies on coping strategies, health promotion interventions, working conditions, and health-related outcomes among social enterprises • Social enterprises' economic roles and the justifications for seeking government grants.
How do investors measure their social returns?	Maldonado and Corbey (2016); Banke-Thomas et al. (2020); Gosselin, Boccanfuso and Laberge (2020); Celli (2013); Maier et al., (2015); Li et al. (2019); Hudon, & Périlleux (2014); Gatzert (2015); Block et al. (2021); Alsos, G.A. and Ljunggren (2017).	• Evaluating public health interventions' value for money using the SROI method • Assessing the quality of reviewed studies utilizing the SROI techniques. • Assessing the quality of reviewed studies utilizing the SROI technique
What financing challenges do social enterprises face in sustaining their operations?	Wolak-Tuzimek, Duda and Sieradzka (2021); Ávila, Ferreira and Amorim (2021); Wronka-Pośpiech (2018); Alomoto, Niñerola and Pié (2021); Massey (2018); Shahidullah & Haque (2016); Kordsmeyer et al. (2020); Hirsch (2021); Busenitz et al., (2016); Abhi (2017); Chen et al. (2009); Andersson, F.O. and Self (2015).	• The association between social enterprises and their competitive advantage sources. • Assessing the relationship between operational capabilities and dual identity among social enterprises • Social entrepreneurs' failures that increase the collapse of their enterprises • Tools for measuring social impacts within the last 50 Years • Factors contributing to the high collapse rate among social enterprises
Are there research gaps that stakeholders should consider to add social enterprise investment and financing?	Busenitz, et al. (2016); Saebi et al. (2019); Naderi et al. (2022); Shahidullah, & Haque (2016); Collien (2021); Cobb et al., (2016); Barraket et al. (2019); Bansal et al. (2019); Ashby et al. (2009); Alon et al. (2020); Achleitner et al. (2013).	• Areas future studies and research should concentrate on to enhance social enterprise financing models • Expanding countries of study beyond Asia and Europe • Effects of political, economic, and cultural factors and their solutions in social enterprise financing • Requirements of social companies • Investor-investee collaboration • Expansion of public sector management research

The paper considered the duties of investors and investees, the primary parties involved in funding social businesses, and any other related topic. Table 3 shows the different kinds of literature reviewed, the method used, and various theories applied.

Table 3: Articles, methods used, and theories applied.

Article	Approach		Applied model	Source	Journal subject area
Abbi, 2017	Quantitative		Entrepreneurship	Journal	
Achleitner et al., 2013	Empirical-quantitative	Experiment	Self-determination self-selection theory	Journal	PSM
Addae, 2018	Empirical-qualitative	Multiple case studies	Institutional, organizational, path dependency	Journal	PSM
Ala-Jääski and Puumalainen (2021).	Empirical-qualitative	Interviews	Entrepreneurial passion	Journal	Entrep
Akbulaev, N., Aliyev, Y. and Ahmadov, T. (2019).	Non-empirical	Narrative/ descriptive	None	Journal	Other
Alomoto, 2021	Non-empirical	Narrative/ descriptive	None	Journal	F&A
Alon et al., 2020	Empirical-quantitative	Archival/secondary data - inferential	Cognitive evaluation	Journal	Entrep
A Alsos, G.A. and Ljunggren , 2017	Empirical-qualitative	Single case study	Institutional logics	Journal	F&A
Ashby et al., 2009	Non-empirical	Conceptual	None	Journal	Entrep
Ávila, L Ferreira, LMD & Amorim, 2021	Empirical-quantitative	Survey/primary data - inferential	Reasoned action, Entrepreneurial event, and Process driven	Journal	Innovation
Andersson, F.O. and Self, W. (2015).	Empirical-quantitative	Experiment	None	Journal	PSM
Bailey, N Kleinhans, R & Lindbergh, J 2018	Empirical-quantitative	Archival/secondary data - inferential	Signaling theory	Journal	Entrep
Banke-Thomas et al., 2015	Empirical-quantitative	Archival/secondary data - inferential	Attention-based view	Journal	Marketing
Bansal, S., Garg, I. and Sharma, G.D., 2019	Empirical-quantitative	Simulation	None	Journal	Economics
Barraket, J., Eversole, R., Luke, B., and Barth, S., 2019	Empirical-qualitative	Multiple case studies	None	Journal	PSM

Battilana, J. and Lee, M., 2014	Non-empirical	Narrative/ descriptive	Institutional theory	Journal	Gen & Stra
Bengo, I. and Arena, M., 2019	Empirical-qualitative	Multiple case studies	None	Journal	Gen & Stra
Block, J.H., Hirschmann, M. and Fisch, C., 2021	Empirical-qualitative	Interviews	None	Journal	Gen & Stra
Busenitz, LW Sharfman et al., 2016	Empirical-qualitative	Multiple case studies	None	Journal	Gen & Stra
Callegari, B & Nybakk, E 2022	Empirical-quantitative	Archival/secondary data - inferential	Self-determination theory	Journal	Gen & Stra
Celli, M 2013	Empirical-quantitative	Survey/primary data - descriptive	None	Journal	PSM
Chen, X.P., Yao, X. and Kotha, S., 2009	Empirical-quantitative	Survey/primary data - inferential	Big five personality traits	Journal	Entrep
Chui, CHK Chan, CH & Chandra, Y 2021	Empirical-qualitative	Single case study	Capital theory	Journal	Entrep
Collien, I., 2021	Empirical-qualitative	Single case study	Network theory,	Journal	Gen & Stra
Cobb, J.A., Wry, T. and Zhao, E.Y. (2016).	Empirical-quantitative	Archival/secondary data - inferential	Institutional logics	Journal	Gen & Stra
Erin, I., Castellas, P., Ormiston, J., and Findlay, S., 2018	Empirical-quantitative	Survey/primary data - inferential	None	Journal	Entrep
Fridhi, B 2021	Empirical-quantitative	Experiment	Trust theory, Entrepreneurial orientation	Journal	PSM
Gatzert, 2015	Empirical-qualitative	Single case study	None	Journal	Entrep
Gosselin, V Boccanfuso, D & Laberge, S 2020	Empirical-quantitative	Archival/secondary data - inferential	Moral hazard,	Journal	Entrep
Gupta, P Chauhan, S Paul, J & Jaiswal, MP 2020	Empirical-quantitative	Archival/secondary data - inferential	None	Journal	F&A
Hirsch, R 2021	Empirical-qualitative	Interviews	None	Journal	Marketing
Hudon, M & Périlleux, 2014	Empirical-qualitative	Single case study	Resilience adaptive cycle, change, and portfolio	Journal	Entrep
Kerlin, JA 2012	Empirical-quantitative	Survey/primary data - inferential	Institutional and social entrepreneurship intention model	Journal	Entrep
Kickul, J & Lyons, TS 2015	Empirical-qualitative	Multiple case studies	None	Journal	Economics

Kordsmeyer, AC Lengen, JC Kiepe, N Harth, V, & Mache, S 2020	Empirical-qualitative	Multiple case studies	None	Journal	Entrep
Li, J., Zhang, F & Sun, S 2019	Empirical-qualitative	Interviews	Institutional logics	Journal	PSM
Macassa, G 2021	Empirical-quantitative	Archival/secondary data - inferential	Benefits	Journal	PSM
Maier, F Schober, C Simsa, R & Millner, R 2015	Non-empirical	Narrative/ descriptive	None	Journal	Economics
Maldonado, MO & Corbey, M 2016	Empirical-mixed methods	Interviews, survey	Change theory	Journal	PSM
Massey, L 2018	Empirical-quantitative	Archival/secondary data - descriptive	None	Journal	Other
Naderi, N Khosravi, E Azadi, H Karamian, F Viira, AH & Nadiri, H 2022	Empirical-qualitative	Multiple case studies	None	Journal	Other
Nascimento, L.d.S. and Salazar, V.S. (2021).	Empirical-qualitative	Multiple case studies	Creation and discovery	Journal	Entrep
Park, J., Hwang, K. and Kim, S.-J. (2020).	Empirical-qualitative	Single case study	cial capital, relational vernance,	Journal	Gen & Stra
Petrella, F & Richez-Battesti, N 2014	Empirical-mixed methods	Interviews, questionnaire	None	Journal	Entrep
Rezende de Carvalho Ferreira, CM Amorim Sobreiro et al., 2016	Empirical-qualitative	Single case study	None	Journal	Gen & Stra
Rostron, KI 2015	Empirical-qualitative	Interviews	None	Journal	OS/OB, HRM/IR
Saebi, T Foss, NJ & Linder, S 2019	Empirical-qualitative	Single case study	None	Journal	Gen & Stra
Shahidullah, AKM & Haque, CE 2016	Empirical-qualitative	Interviews	Clustering	Journal	PSM
Smith, WK Gonin, M & Besharov, ML 2013	Empirical-quantitative	Archival/secondary data - inferential	Institutional theory	Journal	Economics
Thomas, A & Gupta, V 2021	Empirical-qualitative	Multiple case studies	None	Journal	MIS
Wolak-Tuzimek, A Duda, J &	Empirical-qualitative	Single case study	Multi-sided markets	Journal	Innovation

Sieradzka, K 2021					
Wronka-Pośpiech, M 2018	Non-empirical	Narrative/ descriptive	None	Journal	Other

7. Individual Level

Various motives emerge at the level of individual analysis; however, this study will focus on characteristics of entrepreneurs that, from the point of view of financiers, are important to their success. From the perspective of the investee, the perceived availability of financial support examines how the availability of investment alternatives affects the entrepreneur's intention to engage in social entrepreneurship and the processes by which social ventures are formed. The other significant issue from the literature is investor personality, especially regarding crowdsourcing investments.

8. Entrepreneurs Charateristics

This topic can be broken down into entrepreneurs' abilities, experiences, beliefs, and sexuality. Managerial skills, within an entrepreneur's abilities, are widely acknowledged as a determining factor in luring investors. Research has acknowledged this assertion, however, with mixed reactions. Research on the effect of an entrepreneur's history on an investment's performance has shown mixed results, and there appears to be a correlation between managerial experience and investor ratings of social entrepreneur teams (Achleitner et al., 2013). However, this assertion is disapproved by new research (Block et al., 2021; Collien, 2021) and could be due to different reasons.

First, the actual financing choice has not been used as a dependent variable in studies indicating a favorable effect; rather, researchers have focused on perceptions like investors' judgment of the social entrepreneur's history to conclude. Second, the investors in this research have been social venture capitalists who are indifferent to traditional investors. While social venture capitalists seek out social entrepreneurs to build a close and long-term relationships (Erin et al., 2018), crowdfunding and impact investors are less likely to be interested in a partnership of this length (Cobb, 2016). They may therefore overlook the potential importance of management experience. The third reason is that investors' tastes may have shifted over time, which is especially possible given the rapid pace at which social firms are becoming viable investment targets.

There has been a lot of research done on entrepreneurs' values, and a lot of it has to do with the competing social and economic values that entrepreneurs have, and the question of which values investees should highlight while pitching their businesses. Mixed findings are observed in the reviewed literature, possibly due to the different categories of investors surveyed. Mostly, investors back the social rather than the economic values of entrepreneurs; however, having too much emotional investment in the social mission can scare off potential backers (Bengo and Arena, 2019). Microfinance investors favor economic qualities since they suggest a greater likelihood of loan repayment by the social entrepreneur (Battilana and Lee, 2015).

9. Investors' Characteristics

Despite many studies on sustainability-focused crowdfunding, shockingly few have looked into the personalities and priorities of crowdfunding backers. Research by Ashby et al. (2009) states that an individual's propensity to invest in sustainable crowdfunding initiatives rises in tandem with their positive outlook on sustainability, personal and societal norms, and level of education.

10. Effect of Social Enterprise's Features and Strategies on Funding Success

In this overarching subject, four facets were identified: the social enterprise model, dual logics; the outward communication and features of social firms; and social enterprise characteristics. Many nonprofits choose the social enterprise structure to help them raise the necessary funds, whereas commercial and public funders tend to favor for-profit social businesses (Cobb et al., 2016). There is no clarity on how the dual logics of social firms affect their chances of securing finance since some research suggests that emphasizing both a social and economic orientation is beneficial while others have found the opposite to be true (Wolak-Tuzimek et al., 2021; and Smith et al., 2013). Even if conventional investors find a good association between dual logic and financing performance, socially oriented investors are reticent to support social firms (Naderi et al., 2022; Park and Kim, 2020). Scholarly works of Rezende de Carvalho et al. (2016) and Saebi et al. (2019 suggest the importance of a mission fit between investors and investees as a key factor in the success of a social business investment. Investors care most about a company's governance, financial stability, and growth potential (Block et al., 2021). Grants and contributions are more common for start-up social companies, whereas repayable finance is more common for established ones. Social entrepreneurs rely on loan financing compared to for-profit businesses for a far smaller percentage of their total funding.

EXTERNAL FINANCING FRAMEWORK OF SOCIAL ENTERPRISE

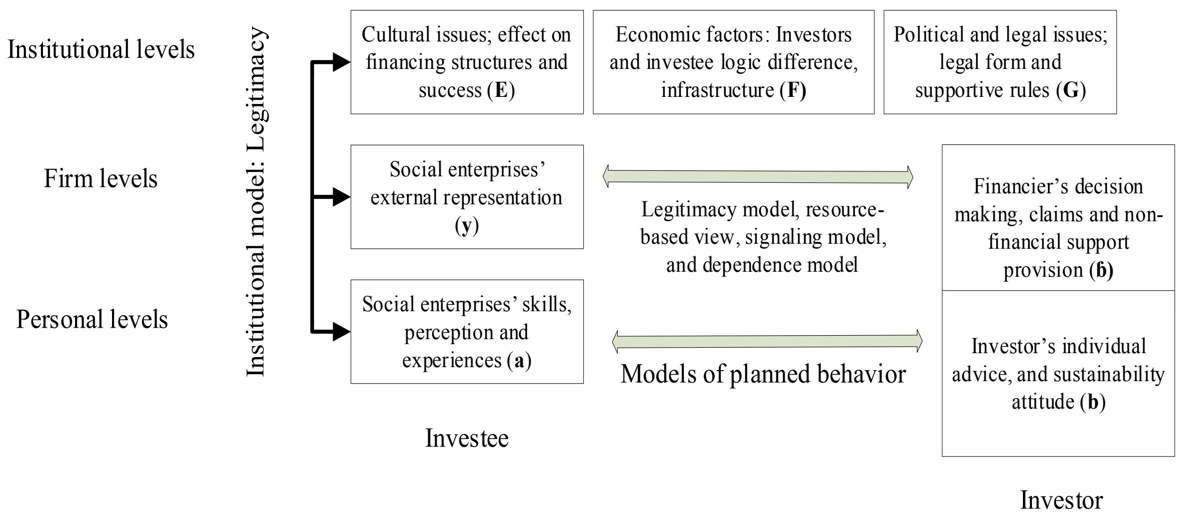

Figure 4: Mode of social enterprise funding.

Figure 4 illustrates a synthesis of the recent research trends into a model that paints a complete picture of how social businesses are funded and the theoretical foundations upon which the funding is based. It represents the systematic review's three levels of analysis. It shows how the investor, the social company as the investee, and the business environment interact with one another and the investment. The figure shows the social entrepreneur (a) and the investor (b) as separate individuals whose knowledge, perspective, and values determine investment partnerships since the potential social entrepreneur's choice to launch a social venture is heavily influenced by their expectations regarding their ability to obtain funding (Achleiter et al., 2013). Existing studies employ psychological theories as portrayed by linking real behavior to the anticipated control over its execution, which helps to understand the investee's internal processes. Social entrepreneurs must have faith in their ability to raise sufficient capital before launching a social venture (Addae, 2018).

Social entrepreneurs need to reduce information asymmetry by delivering credible signals about their competence and devotion to a double bottom line to win over investors and secure funding for their company (Achleitner et al., 2013). Where this form of societal purpose is crucial for individual investors, subjective factors, including investors' background, tastes, and objectives, also play a role in decision-making (Chen et al., 2009). Once an investor is sold on a potential investee, they give non-monetary support through counsel and introductions to other relevant parties.

Important organizational actors include the social enterprise and the investor organization, and this paper draws on the legitimacy model to comprehend what motivates each party to make the first investment. Funding becomes challenging during the early phases of a social enterprise's establishment due to the lack of financial history and the inability to draw on prior accomplishments (Akbulaev et al., 2019). Similarly, it is difficult for established social companies to provide evidence of their non-financial successes due to a lack of reliable tools for gauging their social effect (Ala-Jaaski and Puumalainen, 2021) and this causes investors to experience information asymmetry (Alon et al., 2020). Using concepts from resource dependence theory and the resource-based approach, people may understand why investees form strategic alliances with other businesses: to pool resources and gain an advantage in the marketplace (Alsos and Liunggren, 2017). Despite this partnership, there is a lack of data on investor-investee interactions, even though the transfer of intangible assets is a critical success element (Andersson and Self, 2015).

The institutional context that embeds investees and investors influences the range of funding alternatives and the methods pursued by social entrepreneurs. Studies grounded in institutional theory assert that businesses operate under a web of official and informal rules that set expectations for conduct and guide managerial decision-making (Ashby et al., 2009). This makes financers and investees experience effects at both the individual and organizational levels. Economic, cultural, political, and legal issues affect social enterprises' financing options and strategies. The research suggests that the law and the economy may not be on the side of social companies (Bansal et al., 2019). This is problematic from the perspective of institutional and legitimacy theories since it hinders the efforts of social businesses to become legitimate and, by extension, gain access to financial resources.

11. Discussion

11.1. Theoretical and Thematic Analysis

The paper's scope is limited to evaluating social enterprise financing, which is critical in understanding their sustainability models. Hence, the section comprises a detailed assessment of their theoretical models and associated assumptions based on how they answer the research question. Besides, it includes a thematic analysis focusing on the study's five research questions. The phenomenon signifies a thorough secondary analysis focused on published studies on social enterprises. Hence, the approach permits identifying studies centered on the topics highlighted in the research questions.

11.2. Schumpeterian Theory of Innovation

Joseph Schumpeter's 1911 model suggests that entrepreneurs can maximize their profits through adopting successful innovations that introduce new commodities, reduce production costs, or increase market demands. According to Bailey, Kleinhans, and Lindbergh (2018), firms can gain market power and achieve more effective outcomes by adopting creative approaches than when relying on pure price competition due to varying consumer tastes and preferences. Hence, Schumpeter assumed that capitalism disrupts market activities by destroying existing structures and creating new ones by adopting creative ideas through research and development. The phenomenon signifies a robust positive correlation between competition and innovation (Callegari & Nybakk 2022). Nevertheless, realizing the desired outcomes requires substantial initial investment and commitment to survive the highly competitive contemporary market. The model's assumptions demonstrate that firms can differentiate themselves by offering innovative and creative products as services that adequately fulfill consumer needs.

Joseph Schumpeter's theory is ideal for this study since it highlights social enterprises comprise traditional businesses' CSR programs. The initiatives aim to give back to the community by allocating a portion of the profits to support NGOs' activities in promoting social entrepreneurship. According to Li, Zhang, and Sun (2019), firms use CSR as a differentiation strategy to create robust relationships with their consumers by fundings development projects in their areas. Nevertheless, the support requires social enterprise administrators to mention their partners as a precondition for the funding. The phenomenon signifies that traditional businesses based on Joseph

Schumpeter's theory achieve their social objectives and enhance their reputation. A favorable brand image significantly influences sales performance since it affects consumer attitudes and perceptions about a company (Gatzert 2015). The assertion aligns with Joseph Schumpeter’s assumption that improving demand is a characteristic of innovation.

11.3. Social Capital Theory

Bourdieu’s 1985 social capital theory (SCT) postulates that firms can accumulate social capital by capitalizing on creating robust social relationships. According to Thomas and Gupta (2021), it comprises social capital and network among individuals living in a specific community. Bourdieu further defined social capital as a combination of potential and actual resources within a society derived through relationships among individuals. The scholars further contended that it constitutes three dimensions, including structural social capital that highlights associations among the leading actors focusing on the communication approaches adopted to facilitate information sourcing (Thomas & Gupta 2021). Besides, it focuses on the association’s significant aspects and emotions built on trust in another person’s support to achieve a specific goal. The cognitive and social aspect is the final aspect that describes the level of understanding and perception among actors (Thomas & Gupta 2021). Hence, the social capital theory assumes that every individual can play an important goal in helping their community achieve specific collective goals.

Bourdieu's 1985 theory best describes social enterprises' goal in promoting community well-being since it recognizes their ability to contribute significantly. Beneficiary-owned firms involve them recognizing their need and combining their resources to develop sustainable solutions. For instance, member-owned financial institutions such as credit and savings societies provide access to affordable loans to fund development projects they could not otherwise get from banks. Besides, community-owned organizations address social issues by combining their skills, capital, and technical expertise to construct hospitals and increase medical care and education access. Such contributions have a snowball effect of improving literacy levels and creating healthy communities where members have adopted behaviors that reduce their exposure to diseases and other conditions. Therefore, SCT justifies that some social enterprises have adopted financing models by relying on available internal resources to achieve common goals. Hence, the model posits that collectivism is appropriate for addressing social issues and promoting inclusive growth.

11.4. Social Enterprises in General

Social enterprises are firms prioritizing societal and environmental benefits ahead of shareholder gain. Hence, their profits primarily sustain their operations, signifying that investors do not rely on them as their leading income sources. The concept emerged in the 1950s to address social issues such as poverty, foster social transformation, and promote gender equality through women empowerment (Saebi, Foss & Linder 2019). Besides, it aimed to promote institutional change and inclusive growth by empowering investors to contribute significantly toward societal and environmental well-being. However, Fridhi (2021) posits that despite the in-depth knowledge of their core business purposes, there is no universal definition since it aims to satisfy social and economic objectives. Therefore, social enterprises remain a broad topic attracting practitioners, researchers, and authorities’ interest due to their potential to institute a transformation that empowers communities and individuals to be more productive.

Social enterprises differ from traditional charities and businesses based on profit’s role in supporting their operations and determining stakeholder relationships. According to Gupta et al. (2020), such organizations are more sustainable because the functions models make them self-reliant, unlike charities reliant on external financing. Besides, for-profit businesses involve limited community focus as investors focus on profit maximization, which may not be feasible when they operate in a community where people cannot afford their products and services. Hence, social enterprises have a unique approach to addressing community needs using commercial methods that involve balancing economic and social objectives (Nascimento & Salazar 2020). The phenomenon signifies that they must implement robust measures to survive the highly competitive market environment of well-financed for-profit organizations. Differentiating the social enterprises from other entities involves evaluating the mission and mission that often highlights their objectives.

Characteristics of social enterprises: The firm's features promote common goals by focusing more on objectives than investors' interests. For instance, they are driven by a social mission based on their registration documents, committed to distributing assets in case of a dissolution, and exercise high transparency (Hudon & Périlleux 2014). The attributes demonstrate that they value their contribution to society rather than stockholder value. Moreover, most of their income is from their activities; they are independent businesses and often re-invest their profits to attain environmental and social objectives (Petrella & Richez-Battesti 2014). Nevertheless, the stockholder return investment level depends on the ownership type since the beneficiaries who establish the entities in some cases. The social enterprises' characteristics demonstrate that they target the disadvantaged communities by empowering them to improve their living standards by providing an avenue to reduce their socio-economic burdens.

Social enterprise types: Social enterprise types vary according to their ownership registration, beneficiaries, and missions in executing their core functions. According to Kerlin (2012), they continuously evolve as new ones are created targeting diverse social missions, signifying that other types could emerge. Rostron (2015) adds that one category comprises those owned by the beneficiaries, including employee-owned, member-owned financial institutions, and community organizations with a large membership. The phenomenon signifies the beneficiaries who establish the social enterprises to help them overcome collective issues such as poverty, market access, and healthcare (Smith, Gonin & Besharov 2013). For instance, financial institutions provide affordable credit that empowers members to engage in other entrepreneurial activities. At the same time, community organizations can increase access to critical services such as healthcare and education. Beneficiary-owned is established based on the assumption that pooling resources strengthen their bargaining power and access to resources.

Conversely, the second type comprises institutional-owner social enterprises with limited beneficiary participation in their establishments. For instance, for-profit companies can establish non-governmental organizations (NGOs) as part of their corporate social responsibility (CSR) efforts. Shahidullah and Haque (2016) contend that they are created to address a specific social and environmental goal where profits are re-invested to support their goals. The phenomenon signifies that the stockholders may not be affected by the issues they are trying to address, but they have researched and determined that communities need specific assistance. Nevertheless, Naderi et al. (2022) note that their role may impede their understanding of the appropriate approaches to address identified communities' issues, leading to a high collapse rate. The phenomenon signifies that member-owned social enterprises are more successful in achieving their mission than those that outsiders established. Beneficiaries have an in-depth understanding of their challenges; hence, they are better positioned to develop more effective solutions.

11.5. Social Enterprises' Financing Models

Employment and income generating opportunities. Social enterprises such as NGOs can partner with community organizations by paying salaries which helps to sustain their operations. According to Kordsmeyer et al. (2020), they support local institutions and the government in improving the working conditions to improve service delivery for the community. For instance, paying health workers' salaries may motivate them to improve productivity and increase access to quality medical services among disadvantaged communities. The assertion is due to the strong link between pay and improved performance when salaries provide extrinsic motivation (Park & Kim, 2020). Hence, the financing model signifies that the social enterprises use their resources to sustain operations in other organizations with social objectives. However, it is less preferred due to its limited effectiveness in addressing social and environmental challenges. The approach is appropriate in situations when the communities have established dismally functioning institutions that are not adequately addressing their issues due to human resource shortages.

Another financing model entails providing employment opportunities to skilled and qualified candidates from disadvantaged communities. According to Saebi, Foss, and Linder (2019), it aims to promote inclusive growth and eradicate poverty in societies affected by high employment levels. Hence, stakeholders assume that the opportunities will uplift the beneficiaries and their communities into having equal chances to succeed. For instance, multinationals grant internships and employment to graduates from low-income backgrounds, those with disabilities, and those escaping political persecution. Chui et al. (2021) add that such social enterprises promote labor market integration by imparting candidates with the skills and competencies they need to become better professionals. The financing model uses the profits generated to pay salaries for employees working on internships and catering to their training and development needs. Social enterprises that use this model have a competitive recruitment strategy that values candidates' backgrounds on top of their academic and professional qualifications.

Entrepreneurship and innovation. Entrepreneurship is the leading revenue source for social enterprises to finance their social objectives. Abhi (2017) opines that the model requires the firms to blend value creation and economic benefits by ensuring their operations provide sufficient revenues. Besides, it promotes sustainability since the firms do not rely on external financing that may be unpredictable based on quantity and availability (Gupta et al. 2020). Hence, the entities re-invest their revenues to promote continuous service delivery improvements without relying on external financing. For instance, a social enterprise may offer subsidized medical services to underserved communities and use the profits to introduce and provide additional services. The phenomenon affirms that such entities have two objectives: maintaining profitability and maximizing societal benefits. Hence, operational sustainability is based on continuous innovation by offering low-cost creative services that bring the desired change.

Grants. Government bodies and philanthropic organizations are the primary sources of assistance for social enterprises where the funding aligns with their core business functions. Nevertheless, the donors rely on their social impacts when successfully executing their endeavors. Akbulaev, Aliyev, and Ahmadov (2019) postulate that grants are advantageous since they provide a low-cost financing strategy and comprise irrevocable funds receipt. The authors add that they provide traditional businesses with a platform to undertake CSR programs by using them for financial, social, and environmental development ventures (Akbulaev, Aliyev & Ahmadov 2019). Nevertheless, the funding model is periodic and limits the enterprises' flexibility in utilizing the funds as they are targeted, and open competition as numerous benefits target a smaller donor pool. Hence, grants should comprise a non-majority proportion of social enterprise financing because their unreliability can hamper their optimal functioning and the ability to achieve social objectives.

11.6. Measuring a Return on Investment in Social Enterprises

Forecast method. The social return on investment (SROI) measurement approach entails analyzing projected impacts before implementation. Hence, the predictive process involves social entrepreneurs predicting outcomes based on a specific methodology and comparing them with the intended results. Maldonado and Corbey (2016) suggest that it is appropriate during planning to empower stockholders to implement infrastructure for measuring the desired changes planning. The authors add that it hastens to identify ideal measures for leveraging available capital to achieve the highest social impacts (Maldonado & Corbey 2016). Therefore, it requires qualified personnel with an in-depth understanding of the social issues facing a particular community since they are better positioned to develop tailored interventions. Banke-Thomas et al. (2020) add that stakeholders must involve beneficiaries and utilize purchasing power parity in conducting monetary valuations. The forecasting method highlights the stakeholders' understanding of the social problem and their preparedness to implement tailored solutions.

Besides, the forecasting method enables social enterprises to seek external funding that bridges the gap that low profitability leaves. Traditional businesses and government agencies funding NGOs often demand increased scrutiny in resource utilization to promote accountability (Gosselin, Boccanfuso & Laberge 2020). Besides, they require an assurance that their investment will significantly contribute towards attaining the desired social outcomes. For instance, government agencies seek to understand how public resources will enhance the common good by alleviating challenges facing specific communities. Therefore, forecasting data is a critical tool that serves as a primary information source in understanding how the outcomes align with the social objectives (Gosselin, Boccanfuso & Laberge 2020). Moreover, they provide a guideline for assessing implementation effectiveness to minimize adverse variations between the planned and actual impacts. Forecasting methods promote informed decision-making and reduce the risk of increased deviations, decreasing the likelihood of realizing desirable outcomes.

Evaluative method. The approach refers to an analysis conducted after a project's conclusion and involves measuring the outcomes and comparing them with what was planned. The SROI tool is ideal when a social enterprise accounts for the value their programs created for the beneficiary communities (Maier et al., 2015). For instance, a community-based organization that has established and is running a hospital may measure the outcomes based on the increase in the number of people accessing quality medical services. The authors add that the method's effectiveness depends on the aggressive gathering of quality outcomes data. Hence, the social enterprise must adopt comprehensive reporting frameworks that hasten inferencing to promote informed decision-making. The authors add that they must have key performance indicators to measure the intervention's effectiveness in achieving desirable outcomes (Maier et al., 2015). Hence, the evaluative method promotes accountability and provides an avenue for measuring management effectiveness.

11.7. Social Enterprise Financing Challenges

Stiff competition from traditional businesses limits the social enterprises' ability to generate sufficient revenues to sustain their objectives. Large corporations leverage their substantial free-flowing capital derived from their profit to invest in research and development. The strategy bolsters creativity and innovation, helping them achieve economies of scale that reduce production costs per unit, strengthening their commodities' market competitiveness (Celli 2013). The aggressive investments by incumbents can reduce the social enterprises' sales performance, adversely affecting their revenues, and reducing their capacity to sustain their interventions. Wolak-Tuzimek, Duda, and Sieradzka (2021) add that resource scarcity limits the firms' ability to specialize in their social services. For instance, a community-based program offering passenger transport services cannot compete successfully against a corporation with a large fleet of buses. The financing challenge affirms the resource scarcity challenge that affects optimal functioning among the social enterprise.

Social enterprises have limited ability to expand their operations as they lack the free-flowing capital necessary to finance growth investments. According to Kickul and Lyons (2015), retaining profit proportions that only sustain operations limits the firm's growth potential. The limited expansions erode their capacity to compete successfully against those firms that re-invest all their profits in business expansion through research and development. Ávila, Ferreira, and Amorim (2021) add that most social enterprises are established with immense optimism to address a particular issue but lack structured policies and support to expand their operations. Hence, they are more susceptible to obsolescence as traditional businesses develop innovative product development and marketing strategies that align with the dynamic consumer tastes and preferences. Scaling-up operations enhance social enterprises' capacity to address their beneficiaries' needs and create new revenue sources to sustain their operations and social mission.

Besides, social enterprises lack proper business strategies, causing them to develop uncompetitive products with limited market relevance. Wronka-Pośpiech (2018) posits that the excessive focus on fulfilling social needs impedes their focus on developing actual products. For instance, a community purchasing a bus to facilitate transportation to the village may focus more on providing the service than implementing appropriate measures to promote sustainability. The author adds that it limits the development of an effective business strategy that strengthens their product's market competitiveness to limit commercial enterprises' impact on sales performance (Wronka-Pośpiech 2018). The occurrence is common among social entrepreneurs who establish firms out of goodwill and without a prior business background. Managerial skills are vital in promoting effective strategic planning, controlling, and financial forecasting and critical in acquiring fundraising and utilization skills. The phenomenon signifies that the high collapse rate among social enterprises is due to management incompetency.

Social enterprises' mission duality causes them to have two identities predisposing them to financing challenges. The phenomenon portrays them as philanthropic organizations since they appear to focus more on promoting community and environmental well-being. According to Busenitz et al. (2016), the identity ambiguity makes it challenging for their firms to get external funding as most investors prefer firms that will earn a return on investment and not engage in charity activities. The conclusion demonstrates that traditional businesses have a competitive advantage in accessing financing since they provide investors with guarantees of recouping their investment. Alomoto, Niñerola, and Pié (2021) add that quantifying the program's social impacts makes it difficult for investors to determine whether an enterprise has generated the desired SROI. The financing challenges can erode the sustainability of a social firm's model by limiting its capacity to invest in growth strategies.

The lack of necessary skills in generating funding among social enterprises predisposes them to financial challenges as the dual mission delegates them to net spenders. Most concentrate on ensuring they generate enough revenues to sustain their operations and fund their social goals, as outsourcing specialized labor contradicts their dual mission. Massey (2018) states that the limited resources and supportive infrastructure is the leading contributor to the high collapse rate among social enterprises. Hence, there is limited access to funding as they lack professionals to convince donors to support the social initiatives. The author adds that social entrepreneurs establish the enterprises to address a particular community issue; hence, they are less motivated to adopt measures that strengthen their ventures' competitiveness (Massey 2018). The dismal performance affirms the need for social entrepreneurs to collaborate with funds sourcing professionals to increase financial access, giving them the flexibility needed to sustain their operations.

11.8. Research Gaps in Social Enterprise Investment and Financing

Five potential lines of inquiry that might help fill some research gaps, enhance the understanding of the social enterprise financing and investment phenomenon, and provide a better picture of the external finance social entrepreneurs can source.

Existing research (Barraket et al., 2019) provides preliminary evidence that professional investors' decision about the funding of social companies is comparable to that for investments in commercial firms. However, in the crowdfunding setting, the notion that investors view social enterprises and traditional businesses the same does not hold, and according to studies conducted about entrepreneurship, businesses owned by males are more likely to receive funding than those owned by women (Battilana and Lee, 2014). Crowdfunding investors may be more likely to support a social company managed by a woman since the venture's social goal aligns with the stereotypes of women in business (Bengo and Arena, 2019). The inverse association is also demonstrated by previous research, suggesting that women who want to attract investors of both sexes should act in ways that go against gender stereotypes.

Studies on the factors that make social enterprises attractive to investors is still limited and needs to be expanded to produce trustworthy and useful results. In the literature on business entrepreneurship, signaling theory and key quality signals are discussed. These include, but are not limited to, the use of language and narrative in resource acquisition processes (Erin et al., 2018), entrepreneurial passion, entrepreneurial optimism, and sex-related signals. Because the investor may place a premium on certain types of investee behavior, such as a cooperative attitude (Chen et al., 2009), understanding the extent to which the entrepreneur identifies with the organization and how the investor perceives this may provide insight into the inter-organizational processes of the social enterprise that the investor values. The subjective decision-making processes that emerge from an investor's unique background, tastes, and goals warrant additional study.

The crowdfunding setting is heavily explored in the secondary data literature, notably in entrepreneurship publications. It is difficult to learn much about the dynamics and mechanisms that affect the financing processes of social entrepreneurs through publicly accessible statistics and secondary survey data. Given this context, primary data on investors like venture philanthropy and impact investing might be evaluated using public sector management research insights. A singular emphasis on certain financing techniques does not portray the complicated reality, as social businesses typically rely on many funding sources; therefore, more research might shed light on how and when various forms of financing can reinforce one another to get optimal results.

Investor-investee collaboration is key to producing meaningful outcomes though little is known about the mechanisms and processes that drive such interactions, which requires further study. Existing descriptions of the beginning of an investment partnership focus largely on the investor's side. Due to this, it is important to examine these partnerships from the standpoint of the requirements and goals of social entrepreneurs. Social companies have more access to capital since social and environmental problems are increasingly at the forefront of public consciousness; thus, it is feasible that the power dynamic between investors and social companies may eventually shift, allowing social entrepreneurs to pick and choose among investors. Also, choosing the right partner is more crucial for social enterprises than it is for investors because the latter typically have a diversified portfolio to spread out their risk (Cobb et al., 2016), whereas the latter often rely on a small number of investors who are crucial to their continued existence.

The requirements of social companies and the factors that affect those requirements are poorly understood, which calls for further exploration. There is room for more research on the requirements and expectations of social entrepreneurs and the form optimal external finance may take to ease tensions inside an organization.

Most resource-based papers (Collien, 2021; and Bansal et al., 2019) emphasize that forming connections is crucial to acquiring resources, but there is a lack of clarity on the sorts of relationships inside a network that contribute to the value of the system. This calls for expanding on the relational approach to learning more about resource exchange mechanisms and developing new network resources. An organization's most valuable resources may lie beyond its walls and be entwined with the practices of other businesses, and instead of relying solely on the resources of individual companies, competitive advantage is now dependent on the routines and processes of networks. Exploratory qualitative research is necessary to learn more about the vital factors and inter-business practices and processes since they can be challenging to comprehend using quantitative approaches.

Capital formation for social companies is often affected by regulatory, political, and institutional factors (Chen et al., 2009). Market reciprocity is essential to social or institutional transformation, which is often seen as the goal of social businesses. We contend that research integrating multiple perspectives is essential for three main reasons: examining the interplay between cultural, economic, political, and legal factors; assessing how these factors affect the financing decisions made by social enterprises; and analyzing how these financing decisions shape institutions. The research proposes an integration signaling theory and institutional theory to examine the impact of institutions on individuals and vice versa and comprehends the impact of institutional and organizational constraints on the human capital, resources, and strategies of individual entrepreneurs within the context of financial decision-making.

Current theoretical discussions have focused on issues such as whether or not a country's institutional structure may help release resources at the individual level and how contextual and individual variables interact to impact the initiation of an entrepreneurial venture (Bansal et al., 2019). Future studies should take a more comprehensive view and examine how economic, cultural and legal factors affect the tools and approaches available to entrepreneurs who wish to take advantage of available financing. Future studies might concentrate on cultural issues, such as showcasing the good impacts of social-mission companies' business models on society, because legal and economic considerations rarely support them (Battilana and Lee, 2014). There is also a need for greater cross-national studies of institutional determinants since publicly available data, often spanning numerous nations, is already used in a large proportion of current research. While many have access to the data, few actively utilize it to compare nations and analyze how institutional conditions affect funding processes. To link financial outcomes like the success or internationalization of social businesses to country-specific characteristics, it will be helpful to use such datasets and include cross-country comparisons (Alon et al., 2020). Most empirical studies have concentrated on social enterprises or investors in the European and Asian regions; though they are important geographies, other nations and regions may also be significant from an institutional standpoint concerning financing social entrepreneurs.

12. Conclusion

The study of how to finance social enterprises is in its infancy and disconnected. The comprehension of social enterprises' financing processes is patchy. By merging previously opaque and hidden academic material from a varied body of literature across various levels of study, this thorough literature review explains the state of research on the external funding of social companies. It was established that the available research is unbalanced and full of inconsistent or contradicting conclusions due to various models and theories studied by different literature. Researchers in management, entrepreneurship, finance, and public sector management will find this paper useful because it attempted to unify the field by integrating information from several disciplines. The paper's findings also have implications for the study of management and finance since conventional businesses are increasingly being pushed to balance social and environmental concerns with financial, resulting in varying degrees of hybridity.

Notable scientific accomplishments are highlighted, and numerous significant gaps are identified. The issue of funding social businesses is too complicated to be well explained from a single vantage point because of the several stakeholders involved, the variety of organizational structures, and the overlapping aims of the various stakeholders. A multi-level approach to funding social companies is illustrated by establishing an extensive model that combines key aspects at the interpersonal, organizational, and institutional levels to bridge these gaps and unify the many research streams. The study also describes potential future lines of inquiry that might assist considering the human, the organizational, and the institutional levels of analysis by drawing on theories such as organizational identity, stakeholder, paradox, and institutional. The conceptual framework helps produce theoretical originality because it draws attention to key interconnections and dynamics of issues that future research must consider at all levels of analysis. The research contributes to the field of management studies by illuminating evidence-driven insights on the external funding of social companies, offering a nuanced and holistic view of the problem, and encouraging research avenues for future empirical investigations.

The paper recognizes that several factors may restrict the scope of the findings since there is no way to ascertain if the selection of literature is exhaustive even though a thorough literature search process was employed. The paper does not extrapolate the results from the literature studied, even though a thorough search was conducted for relevant material. Finally, certain validity problems may emerge when using an interpretative-qualitative methodology, even if there is confidence that how the articles were analyzed and categorized was methodologically sound; thus, other users should consider interpretive decisions carefully.

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Factors Influencing the Demand for Indonesian Tourism

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Abstract
Tourism has become one of the largest industries in the world, specifically in Indonesia, where it plays an important role in increasing foreign exchange (FE). Therefore, this study aims to analyze the factors influencing the demand for Indonesian tourism. It used secondary data between 2010 to 2020, with 16 countries selected as samples regarding the ranking of the highest number of tourists. These utilized data contained the following, (1) The number of foreign tourists, (2) National per capita income of the sample countries, (3) The exchange rate of foreign currencies against the rupiah, and (4) The price of tourism. Based on the analytical process, the estimation method also used panel data regression. Using the Fixed Effect model, the results empirically showed that national per capita income, rupiah exchange rate, and tourism prices affected the number of tourists.

Keywords: Tourism, Data Panel, Tourism Prices

1. Introduction

The Indonesian economy increased by 6.1% in 2010 according to multiple reports, higher than the previous year's development of 4.6%. This shows that the economy has continued to improve since that period, accompanied by the support of solid domestic demand and conducive external conditions. The global economic recovery initiated in the first half of 2009 was also continuously implemented in 2010, supported by the high industrial development in emerging market countries (Bank Indonesia, 2010). The following is an overview of the national economic development in 2013, 2018, 2019 and 2020, (1) In 2013, this development was influenced by global conditions, which did not meet the expectations and the support of the domestic unsupportive industrial structure. The dynamics of the global economy also negatively affected the nation's performance through a slow trend since the early quarter of the year. This slow development was observed at 5.8% for the whole year, from the 2012 growth of 6.2%. Meanwhile, the hotel and restaurant sub-sectors developed better due to the increased number of tourist arrivals and election activities in the second semester of 2013 (Bank Indonesia, 2013). (2) In 2018, the development was recorded at 5.17%, an increase compared to the previous year's growth of 5.07% and was the highest since 2013. The global economy during this period was also in a slowing trend with increased uncertainty (Bank Indonesia, 2018). (3) The slow global economy development influenced the 2019 Indonesian export performance decline. Irrespective of this unfavourable performance, domestic demand remained strong, supporting the stability of the country's good industrial growth at 5.02% (Bank Indonesia, 2019). (4) In 2020, the development was estimated to increase from 5.1-5.5%. However, inflation remained under control within the target of 3.0±1% during this period. The account deficit was also between 2.5-3% of GDP, where the capital and financial surplus remained large, subsequently supporting external stability (Bank Indonesia, 2020).

Tourism development plays an important role in promoting economic activities, improving reputation and welfare, as well as providing job opportunities. It also plays an important role in increasing the country's foreign exchange, by improving the number and average expenditure of external tourists (Ministry of Tourism and Creative Economy, 2012). In Indonesia, this development is subsequently observed from the number of tourist visitations, due to the increase from 5.506-6.234 million between 2007 to 2008, respectively. This is subsequently emphasized by a development of approximately 13.2%, which increased by about 1.4% to 6,324 million in 2009 (Nizar, 2011). In 2012, the number of these foreign visitors was 8.04 million (5.16% increase), compared to 2011 at 7.64 million (Ministry of Tourism and Creative Economy, 2012). In addition, the country was able to absorb about 0.72% of the total world tourist visitations in 2009. The contribution of this industry to the Gross Domestic Product (GDP) in only 2008 was also Rp. 153.25 trillion or 3.09% of the total GDP (BPS, 2014). In 2014, this condition greatly and majorly produced 4.01% of the entire GDP, with the foreign exchange and tourism workforce reaching US$ 11.17 and 10.32 million people, respectively. In micro conditions, the number of foreign and domestic tourists was also 9.44 million and 251.20 million, respectively. According to the WEF (World Economic Forum), Indonesian tourism was competitively ranked 70th in the world (Ministry of Tourism and Creative Economy, 2014). The role of this sector in the country's GDP development and its responsibility as a foreign exchange export contributor also ensures economic importance.

In 2020, challenges have reportedly been observed for Indonesia, regarding the emergence of the COVID-19 pandemic. At the end of March, not long after the country detected the virus, the Ministry of Communication and Informatics launched PeduliLindungi, an application to track the spread of the disease. The crowdsourced application concept reportedly obtains information when installed on Android and iOS phones. The data obtained included the travel history for the past two weeks and the owner of the mobile number near a COVID-19 patient (Ministry of Communication and Information Technology, 2020). In this case, people need to be scanned on the protective application on their cellphones when visiting crowded environments such as shopping centres, tourist attractions, etc. This performance enables the traceability of every concerned individual, to determine whether or not they have met the vaccine requirements. Meanwhile, the condition of tourism during the pandemic has begun to improve, with the government (Ministry of Tourism and Creative Economy) updating the list of countries eligible for a visit visa on special tourist arrivals. This update emphasized a Circular Letter № IMI-0650.GR.01.01 of 2022, concerning the Ease of Immigration to Support Sustainable Tourism during the COVID-19 Pandemic. The DGI (Directorate General of Immigration) also provided the required facilities through an STC (Sustainable Tourism Concept) to optimize the immigration function as a community welfare-development facilitator and support government policies to broadly reopen the tourism sector. This focused on the principles of reciprocity and benefit, regarding the provision of free visit visas when arrivals are limited to specific foreigners (Ministry of Tourism and Creative Economy, 2022).

Therefore, this study aims to analyze the factors influencing the demand for Indonesian tourism. This is a development of Yunanto and Medyawati (2016) perspectives, although the observed difference emphasizes the analytical period of 11 years. In this case, the assessments of the results obtained are expected to be more adequate and comprehensive about the Indonesian tourism condition. All the utilized variables also emphasize the approaches of Abdurrahim (2014), which implemented the model of Munoz and Amaral (2000). These variables include (1) The number of foreign tourists, (2) The exchange rate of foreign currency against the rupiah, (3) The national per capita income, and (4) The tourism prices. The results obtained are also expected to empirically contribute to model developments and the formulation of government tourism policies.

2. Literature Review

According to Bakri (2007), income and tourism cost significantly affected the demand for natural tourism in Bantimurung. However, the educational perception of the availability of tourist facilities and the head of household work did not significantly influence this demand. Hanafiah and Harun (2010) also examined tourism demand in Malaysia using a modified Gravity model, regarding the analysis of various key economic factors such as income, prices, exchange rates, consumer price index (CPI), population, economic crisis, movements, patterns, and changes of international tourist arrivals. In this study, the sample countries included Australia, Hong Kong, Indonesia, the United Kingdom, Thailand, Taiwan, and China, with the estimation method using panel data regression. The results showed that Malaysia depended on the tourism industry as an economic maintenance source, although it was experiencing an industrial crisis. Based on Thittongkham and Walsh (2010), political turmoil and crisis were the most effective principal factors influencing the attitudes of tourists. These were accompanied by epidemic diseases, economic situations, media, disasters, crime and war, technology, marketing plan, culture, education, environmental issues, demographic change, and other influential factors. The language was also another factor affecting the Thai tourism industry's competitiveness.

Nizar (2011) examined the influence of tourism on Indonesian economic growth, as well as analyzed the tourists and rupiah-foreign exchange in 2014 using the autoregressive vector model (VAR) and monthly time series data. From the results, economic and tourism developments (foreign exchange and the number of tourists) were affected, with the exchange rate having a reciprocal causal relationship. This indicated that the increase in foreign exchange and the number of tourists elevated (appreciate) the rupiah exchange rate for 3 and 8 months, respectively. The appreciation/depreciation of the rupiah also increased/decreased in the foreign exchange and tourist rates at different periods. In addition, a positive relationship and reciprocal influence were observed between the tourists and foreign exchange rates (Nizar, 2011). According to Ibrahim (2011), the factors influencing the flow of tourist arrivals to Egypt were analyzed, using the panel data regression. These factors included (1) The GDP per capita, (2) The CPI, (3) The volume of Egyptian trade with 8 sample countries, (4) The relative cost of living for tourists, and (5) The CPI of Tunisia as a competitor country. Nurhaida (2012) also analyzed the influential variables of Indonesian tourism demand. These variables included (1) The GDP per capita income of the foreigners' countries, (2) The foreign exchange rate against the rupiah, (3) The exchange rate of the substitute country, and (4) The Dummies of security conditions and promotion. The demand for this sector was measured by an indicator of the number of tourist visitations. Using the 2002-2009 panel data from 8 dominant countries, the exchange rate significantly affected this demand through the Fixed Effect regression model. Based on Santi, Oktaviani, Hakim and Kustiari (2013), the tourism investment, demand, and supply in Indonesia were considered and analyzed. In this case, the 1990–2012 series data were used through a simultaneous model (2SLS), which tested the impacts of investment and international trade on national economic development. Using the 2SLS (Two Stages Least Squares) method, the following conclusions were obtained, (1) tourist arrivals and expenditure, investment, CPI, total consumption, government spending, as well as export and import attraction, affected the national demand, (2) Present and previous investments, total consumption (previous year), and travel warning positively affected the national supply, (3) GDP was highly influential, irrespective of the effects of Indonesia and neighbouring countries' TP (tourism prices). In addition, the fiscal and monetary policy influenced the national economy.

Moorty (2014) examined tourism demand in Malaysia, using the gravity model and panel data in 2014. The results showed that the population, distance between countries, as well as border and cognate-language nations affected Malaysia's foreign exchange. Furthermore, Abdurrahim (2014) analyzed the role of national income, tourism prices, and the exchange rate on Chinese tourist visitations to ASEAN countries, during 2007-2014. Using the Fixed Effect model, China's national income significantly and positively influenced these visitations. Putri (2014) also evaluated the factors affecting tourism demand in Indonesia using 21 sample countries. The results showed that TP (tourism prices), national per capita income, exchange rates, and distances between countries affected the number of tourists. This study did not use a dummy variable as a controlling factor, considering the relatively high condition of the 6.1% economic development rate in 2010, compared to previous years. Based on Singagerda (2015), the Indonesian tourism investment, demand, and supply were analyzed. Using the 2 SLS method on a simultaneous model, the following results were obtained, (1) Tourist arrivals and expenditure, investment, CPI, consumption, government spending, as well as export and import attraction affected the national demand, (2) Investment, total consumption (previous year), and travel warning positively influenced the national supply, (3) GDP, as well as the Indonesia and competitor prices, were the most influenced variables, (4) Foreign investment significantly affected the development of tourism, and (5) The national supply and demand were impacted by international trade (goods/services).

Mariyono (2017) proved that distance significantly reduced the number of foreign tourists. This indicated that richer and larger countries improved the greater amount of foreigners visiting the country. However, the incidence of bomb attacks greatly reduced the number of these tourists. Irrespective of these conditions, visitors from western and ASEAN countries were still more likely to visit Indonesia than other nations. The trend of foreign tourists also increased after this significant reduction, indicating that Indonesian policy should provide a guarantee of safety toward the attraction of more arrivals. This was because increased visitations led to improved job development, GDP share, and economy. In Agesti (2017), six countries were examined between 2009-2015, using panel data analysis to identify the effects of the nominal exchange rate, CPI, GDP per capita, and population on tourism demand. This demand was subsequently measured by the number of foreigners visiting Indonesia, with the results showing that all variables were positively effective. Wakimin, Azlina, and Hazman (2018) also empirically proved that income, trade, TP (tourism prices), and carbon dioxide emission were the major determinants of the demand in five ASEAN countries, using a 44-year-old panel data and applying the Pooled Mean Group (PMG) approach. This approach subsequently performed better than the MG (Mean Group) estimator, due to its ability to identically constrain long-run coefficients. Besides, it also enabled the differences in short-run coefficients and error variances across groups. Regarding these results, income and trade significantly and positively affected tourism demand, with TP and carbon dioxide emissions negatively influential in these ASEAN-5 countries. These were good references for policymakers in these specific nations.

According to Preedatham, Vivatvanit, and Suksonghong (2018), the 2003-2015 panel data of six countries were obtained from various sources, with the random effects model appropriately implemented with the dataset. The coefficient estimates were then computed using the panel least square method. From the results, the substitute TP (tourism prices) and the number of crime cases were statistically significant in explaining the variation in Thailand's tourism demand. In this case, the major markets were sensitive to the prices and more likely to select low-cost residential destinations. Security and safety also influenced decision-making processes, regarding the visitation of a specific destination. Nahar, Adha, Azizurrohman, Ulfi, and Karimah (2019) subsequently analyzed *the determinants of international tourists in Indonesia using Random Effect Model. These determinants included (1) The GDP of the origin and destination country, (2) The origin country's exchange rate, (3) The free visa impact, and (4) The length of distance in Indonesia between 2006-2016. The results showed that all variables were statistically significant, with the GDP of origin and destination country, as well as free visa impact positively influencing the number of tourist arrivals. Meanwhile, the remaining determinants exhibited negative effects on international tourists. This confirmed that the government needs to aggressively promote the attraction of international tourists, by conducting important events, increasing visa-free nations, as well as maintaining the GDP in both origin and destination countries.*

Nguyen and Nguyen (2020) also obtained 17-year-old secondary data (2000-2016) from the World Bank database and the UNWTO website of 10 ASEAN countries. Applying the generalized method of moments through virtual measurement, “private investment”, “economic sectors”, “exchange rate" and "infrastructure" increased the tourism demand of an ASEAN country. This indicated that “foreign direct investment” and “inflation” were detrimental to tourist attraction. The positive role of “political stability” was also majorly observed in increasing tourist arrivals. Irrespective of these results, some limitations were still observed. Firstly, the attraction of tourists to a country often poses many challenges to its government. Although many documents previously confirmed the assistance of industry in promoting tourism, only a few studies investigated the roles of both the agriculture and manufacturing sectors. Secondly, only a few reports were found verifying the stability of the political system to the tourism demand in the ASEAN region, with PS (political stability) having the strongest impact. Based on Esquivias, Sugiharti, Rohmawati, Setyorani, and Anindito (2021), an autoregressive distributed lag (ARDL) model was used to investigate the roles of incomes, relative cost competitiveness, and substitution prices in tourism demand. The results showed that all the variables significantly affected tourism demand in Indonesia. Since China was normally appropriate, Malaysia, Singapore, Australia, Japan, and India were income elastic, indicating that tourism was a luxurious good. Malaysia and China were also price elastic, with Japan, India, Singapore, and Australia being less affected by changes in relative costs. From these results, substitute prices often motivated tourists to other destinations when cost changes are large. Plzáková and Smeral (2022) stated that tourism demand dramatically slumped in 2020 due to the economic crisis and the implementation of various containment measures, namely (1) closed hotels and restaurants, (2) travel agencies without business, (3) cancelled air transportation, and

(4) mobility and contact restrictions. All these measures caused industrial hardship, with the entire key markets suddenly disappearing pragmatically. Based on these descriptions, the following hypothesis was formulated:
The per capita income, exchange rates, and tourism prices affect the number of tourists.

3. Research Method

The utilized 2010-2020 secondary data were obtained from the Central Statistics Agency (BPS), Bank Indonesia, World Bank, and International Monetary Fund (IMF). The complete performance of the variables is shown in Table 1.

Table 1: Research Variable

No.	Variable	Description
1.	Log_wis	Number of Tourists
2.	Log_GNI	Gross National Income (GNI per capita)
3.	Logex_rate	Exchange rate from 16 countries
4.	Log_hrg	Tourism prices

Based on the number of foreign tourist arrivals, data were obtained from BPS, with 16 countries selected as samples. These countries were ranked regarding the largest number of visits, namely Singapore, Malaysia, Australia, Japan, China, South Korea, United States, England, Philippines, Germany, Netherlands, France, Hong Kong, Thailand, India, and Russia. For Gross National Income (GNI) per capita in one million USD, data were obtained from the World Bank website. Meanwhile, tourism prices data were derived from the comparison of Indonesia's CPI with that of other countries. In this case, the CPI of the 16 selected samples was obtained from the IMF website, with the utilized model adopting the experimental modifications of Munoz and Amaral (2000). This model utilization emphasized the demand analysis for international tourism to Spain. The model from Garin and Munoz which was also adopted by Putri (2014) is as follows:

$$\boldsymbol{Ltour_{it} = \alpha + \beta_1 LGNP_{i,t} + \beta_2 LEX_{i,t} + \beta_3 LPR_{i,t} + \beta_4\ D91_t + \mu_{it}}$$

Where:
- Ltour = a log of the number of nights spent in Spain by tourists from country i in the period t
- LGNP i,t = the log of the GNP of country i in time t
- LER i,t = the log of the Spanish exchange rate against the currency of country i in the period t
- LPR i,t = the log of the Spanish tourism prices index divided by the CPI of Country i in time t
- D91 = a dummy variable representing the events of the gulf war in 1991
- μit = an error variable

Although the utilized study model adopted the methods of Munoz and Amaral (2000), a dummy variable was not used. This unusability of the dummy emphasized the 2010 Economic Report, where Indonesia's economic growth reached 6.1% and the global economy was in a conducive condition (Bank Indonesia, 2010). This was subsequently the reason 2010 was selected as the initial analytical year. The utilized model is presented as follows:

$$\boldsymbol{Log\_wis = \alpha + \beta 1 Log\_GNI_{i,t} + \beta 2 Log\_EX_{i,t} + \beta_3 Log\_PR_{i,t} + \mu_{it}}$$

The estimation method used a panel data regression to detect and measure the impacts undetected in pure cross-section or pure time-series information (Gujarati & Porter, 2012). Based on the analysis, the Mackinnon, White, and Davidson (MWD) method were initially used to determine whether the model was linear or log-linear. This was accompanied by the estimation process, which used the Common, Fixed, and Random Effects. In this case, the model selections between Common Effect and Fixed Effect as well as Fixed Effect and Random Effect were carried out through the Chow/Likelihood Ratio Test and the Hausmann Analysis, respectively. After obtaining the appropriate model, the classical assumption test was conducted, to ensure the realization of basic assumptions in the regression analysis. This includes the assumption of normality, as well as no autocorrelation, multicollinearity, and heteroscedasticity. For the final stage, the interpretation of the most suitable study model was conducted.

4. Result and Discussion

Based on the Ministry of Tourism Report (2014), the GDP generated from national tourism significantly increased yearly. This indicated that GDP of 261.06, 296.97, 326.24, 365.02, and 391.49 trillion rupiahs were acquired in 2010, 2011, 2012, 2013, and 2014 respectively. For the foreign tourists, a total of 7,582,908, 8,170,808, 8,266,268, 9,253,265, 10,697,787, 11,308,787, and 12,178,475 people were observed in 2013, 2014, 2015, 2016, 2017, 2018, and 2019, respectively. Figure 1 shows the number of foreign tourists from 2010 to 2020.

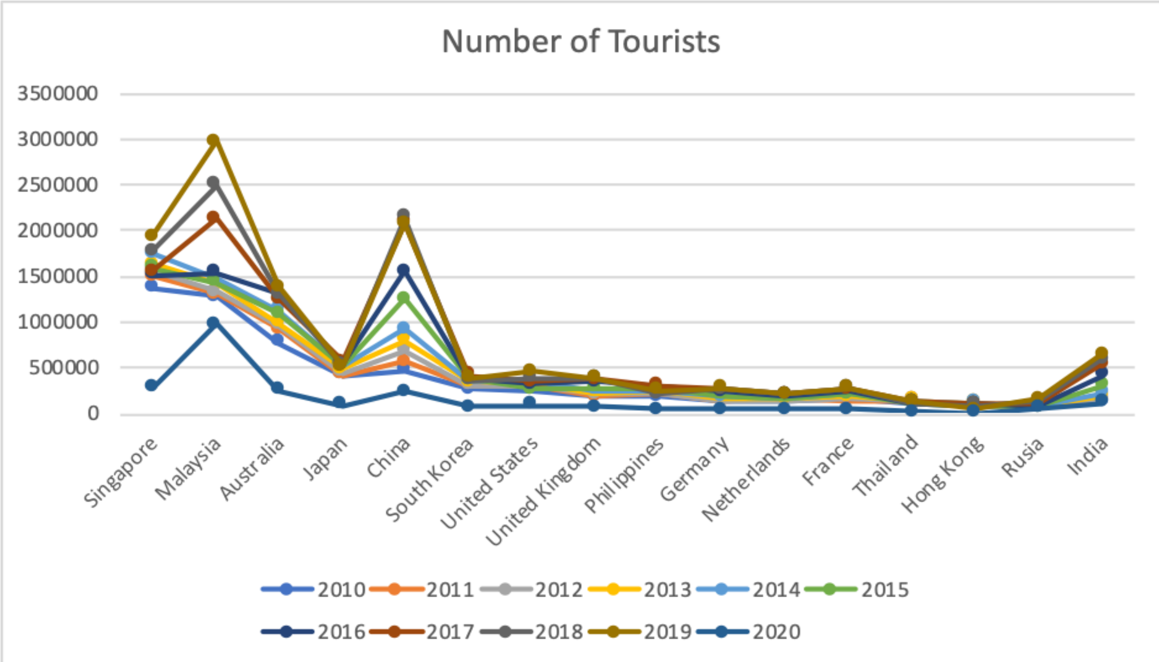

Figure 1: Number of Tourists to Indonesia from 16 Sample Countries

At the beginning of the study year, the foreign tourists in 2010 were 1,373,126 (22.49%), 1,277,476 (20.92%), 771,792 (12,64%), 469,365 (7.69%), and 418,971 (6.86%) from Singapore, Malaysia, Australia, China, and Japan, respectively. In the following years, these estimations relatively fluctuated although continuously increased, with a total of 12,178,475 homesteads from 16 countries observed by the end of 2019. These values decreased drastically in 2020 (2,483,088 people) due to the COVID-19 pandemic, which restricted people from travelling and even leaving their homes. Figure 2 shows the GNI per capita of the 16 samples from 2010 to 2020.

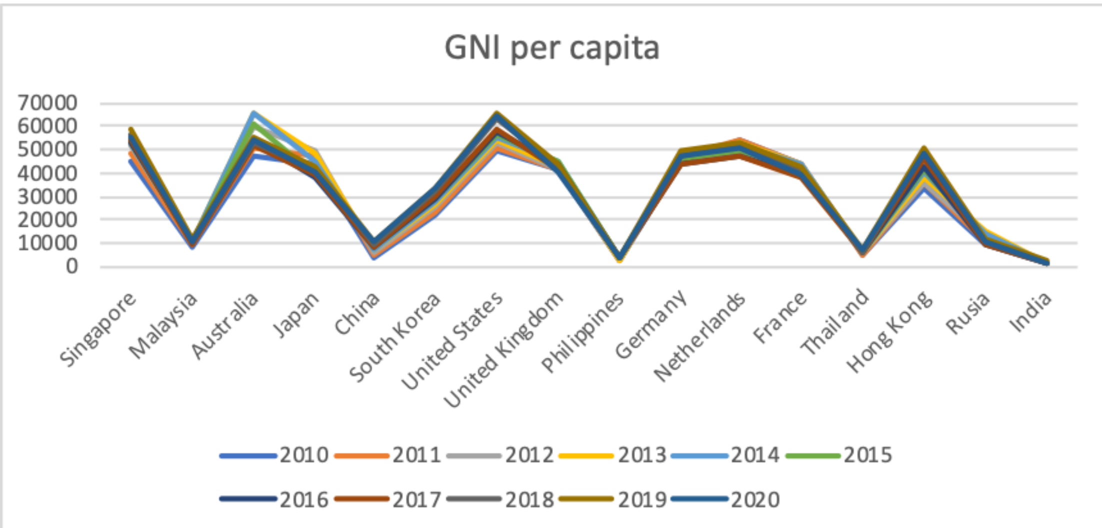

Figure 2: GNI per capita of 16 sample countries

According to Figure 2, the GNI per capita of East Asia and the Pacific showed an increasing trend in 2014, although some countries experienced slow processes. Compared with other ASEAN countries, only the GNI per capita growth of Indonesia recorded a contraction due to the data compiled by the World Bank. This reduced by 2.93% from US$3,760 in 2013 to US$3,650 last year, despite developing by 4.44% from US$3,600 to US$3,760 between 2012-2013. From these results, Indonesia was still included in the lower-middle-income category, with 50 other countries whose data were recorded by the World Bank. In the region with a positive tone, the performance of GNI was also against the trend of development, indicating the existence of other influential factors, such as the exchange rate. This was because of the GNI measurement in US dollars (Bisnis.com, 2015). In 2019, the GNI per capita was quite high for Singapore and Australia at 58390 and 54910, respectively, with the highest trend achieved by the United States at 65970. Figure 3 presents the currency exchange rate of 16 countries with the rupiah.

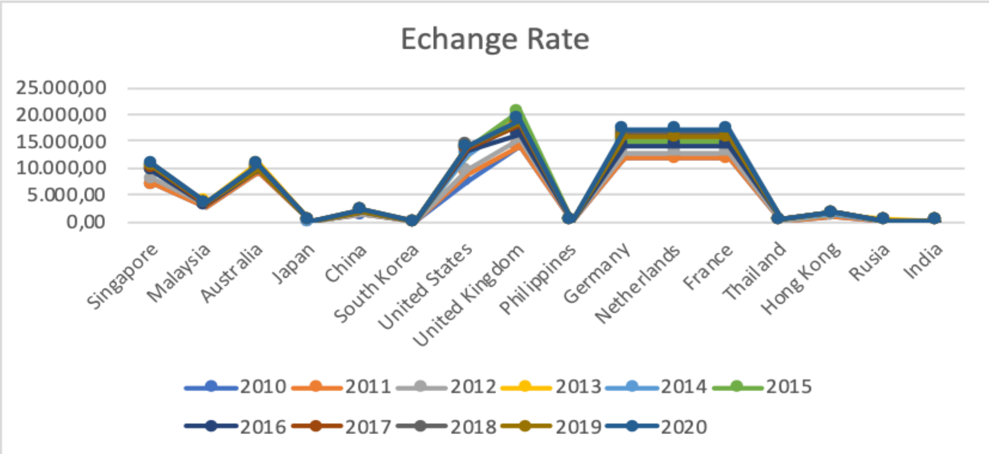

Figure 3: Currency Exchange Rates of 16 sample countries against the rupiah

Based on Figure 3, the exchange rate of the rupiah against the US dollar has continued to depreciate since 2010. This emphasized the estimations from 7,500 to almost 12,500 between 2010-2014. Besides this occurrence, the rupiah was also very weak against other hard currencies, such as the Japanese Yen, Singapore Dollar, and Euro. This condition subsequently applied to the eyes of other ASEAN countries, including the Malaysian Ringgit and the Thai Baht. In the 2014 Economic Report (Bank Indonesia, 2014), the rupiah depreciated by 1.7% to reach Rp11,876 per US dollar, lower than the 2013 depreciation that reached 20.8%. This led to the average weakness of the currency by 12.0%, accompanied by declining volatility. In 2019 and 2020, the rupiah exchange rate against the US dollar strengthened slightly and weakened at Rp. 13,901.00 and Rp. 14105.00, respectively. Figure 4 shows the CPI growth from the 16 sample countries.

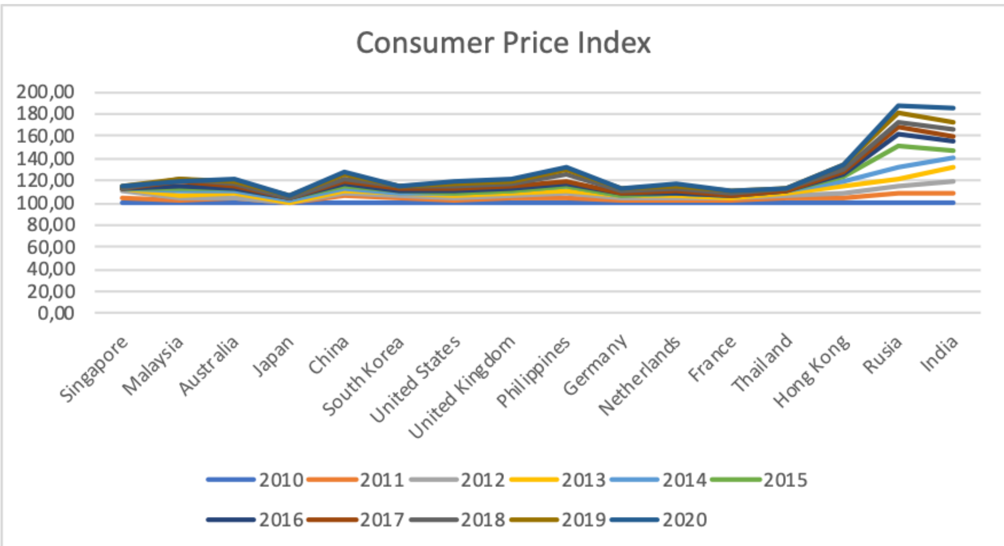

Figure 4: CPI of 16 Sample Countries

According to Figure 4, the CPI conditions were relatively stable during the study period, with Japan even experiencing minus inflation in 2010-2012. This was not in line with Indonesia, where the government issued several policies to control inflation. Various price adjustment policies were also issued to reduce the burden of subsidies, specifically in the energy sector. This was because these subsidies were likely to be transferred to financing development and more productive sectors. For specific customer groups, the government is gradually adjusting the price of 12 kg LPG and electricity tariffs (TTL). Furthermore, the policy of adjusting subsidized fuel prices began on November 18, 2014, with food price volatility causing overall inflation above the set target. In this case, the inflation rate reached 8.36% (yoy) in 2014, which was clearly above the set target (4.5±1%) (Bank Indonesia, 2014). The CPI condition did not change very much in 2019 compared to previous years, with only Russia and India experiencing an increase from 180.75 and 172.88 to 186.86 and 184.33.

Using the MWD method, the data were tested before the panel regression approach. In this process, linear regression was initially carried out to obtain the residual value, which was then stored (Res1=resid). This was accompanied by the formulation of a new variable, F1=Y-Res1. The linear log model regression was subsequently carried out to obtain another residual value (Res2=resid), with the formulation of a new variable, F2-logY – Res2. Furthermore, the potential new variables were Z1=logF1-F2 and Z2=antilog(F2 – F1), with subsequent regression carried out by inputting Z1 and Z2 in the linear and log-linear equation regressions, respectively. Based on the results, both linear and log-linear models exhibited similar features, with a high coefficient of determination, R^2, for each equation at 0.890 and 0.897. A log-linear model was then used after this process, emphasizing the method adopted by Munoz and Amaral (2000).

In the panel data regression approach, the first step prioritized estimation through Common Effect. This was the simplest technique for estimating panel data, by only combining time series and cross-section parameters. The merger was also applied without considering the differences between time and individuals. This method is known as Common Effect estimation (Widarjono, 2007), with the panel data regression obtaining the following equations and p-values.

Log_wis = 0.927 log_gni + 0.709 logex_rate - 55268.08 log_hrgpar (1)
nilai p 0.0000 0.2093 0.5020
$R^2 = 0.0245$

The next step emphasized the estimation of Fixed Effect (FE), which assumed the existence of differences in the equation intercept. This technique is often used to estimate panel data through dummy variables, to capture the differences within the intercepts. The definition of FE also prioritizes the differences between organizational intercepts, which are similar across time (time-variant). Moreover, the Fixed Effect model assumes that the regression coefficient (slope) remains between companies over time (Widarjono, 2007). From the classical assumption test, the model data were not free from heteroscedasticity, which was then resolved through FE estimation with cross-section weights (heteroscedastic estimator). The panel data regression obtained the following equations and p-values, using the Fixed Effect technique.

Log_wis = 1.9934 + 0.4319log_gni + 0.8902logex_rate -0.2268log_hrgpar (2)
nilai p 0.000 0.04100 0.0531 0.000
$R^2 = 0.806$

To determine whether the model used Common or Fixed Effects, the Chow test was performed. This indicated that both the F-test and Chi-square were significant (p-value 0.0003 less than 5%), leading to the detection of a Fixed Effect. These results were supported by the R^2 value of the equation, which was 80.6%. The next step emphasized the estimation of Random Effect, which assumes a non-constant influence from the error term (Ekananda, 2014). The following equation and the p-value are obtained by the Random Effect of the panel data regression.

Log_wis = 0.5968 + 5.0424log_gni - 0.1323logex_rate -0.0142 log_hrgpar (3)
nilai p 0.0167 0.3534 0.9446 0.0328
$R^2 = 0.0218$

To determine whether the model used the Fixed or Random Effects, the Hausman test was carried out. This proved that the random cross-section was significant, with a p-value less than 5% at 0.0061. Therefore, this model used a Fixed Effect technique, as presented in Equation (2).

Log_wis = 1.9934 + 0.4319log_gni + 0.8902logex_rate -0.2268log_hrgpar
nilai p 0.000 0.04100 0.0531 0.000
$R^2 = 0.806$

Based on the regression equation, the Fixed Effect estimation with cross-section weights showed that all independent variables influenced the dependent factors. This confirmed that the GDP per capita, the foreign exchange rate against the rupiah and the tourism prices affected the tourists. The next step emphasized the analysis of the overall data. Before any estimation performance, the analysis of the classical assumptions needs to be importantly and initially carried out as a condition for panel data regression. From the normality test, the data obtained on the number of tourists, national income per capita, rupiah-foreign exchange rate, and tourism prices met the standard assumption of normality. This was accompanied by the multicollinearity test, which was conducted to determine whether or not a deviation from the classical multicollinearity assumption was observed. The results showed that the Tolerance and VIF values of the three variables were more and less than 0.10 and 10, respectively, indicating no multicollinearity problem in the regression model. Moreover, the heteroscedasticity test was used to determine whether or not inequality of variance from the residuals for all observations was observed in the regression model. This analysis was observed through the plot graph between variables and residuals. When a specific pattern is found, such as the dots on the scatterplot (wavy, widen, then narrowed), heteroscedasticity is stated to have occurred. However, this element does not exist when no clear pattern is observed, with the scattering points above and below zero on the Y-axis. Based on the results, the autocorrelation test value for DW was 1.209. This indicated the non-occurrence of autocorrection, as the DW value was between -2 and +2. Therefore, the appropriate study model used the Fixed Effect technique, as shown in Equation (2).

Log_wis = 1.9934 + 0.4319log_gni + 0.8902logex_rate -0.2268log_hrgpar

These results were in line with Abdurrahim (2014), Moorty (2014), Putri (2014), and Yakup & Haryanto (2019), where the number of tourists was influenced by national per capita income, exchange rates, and tourism prices. This was calculated by comparing the CPI of the tourists' country and Indonesia.

5. Discussion

5.1. Impact of per capita income, exchange rate, and tourism prices on the number of tourists-Fixed Effect Model

The average development of foreign visits to Indonesia reached 14% yearly between 2014-2018, before the COVID-19 pandemic. This was higher than the average development in 2009-2013, at 9% per year. According to the BPS, foreign tourist visitations were recorded at 6.32-8.8 million people from 2009 to the end of 2013, respectively. In 2018, this estimation had increased to 15.81 million people, 2.5 times more than the values recorded in 2009. These data led to a set target by the government, regarding the expectations of 18 million people this year (Widowati, 2019). The BPS also reported that the number of foreign tourist visitations to Indonesia reached 15.81 million people in 2018, indicating an increase of 12.58% compared to 14.04 million in 2017. This value was less than the target set at around 17 million foreign tourists. Furthermore, BPS stated that the 2018 foreign exchange target was achieved, with the number of tourists influenced by national income per capita. This was explained based on the visitation prediction of the tourists, which achieved the daily average expenditure. At 16 million, the calculation of USD 1,100 ASPA (Average Spending Per Arrival) becomes USD 17.6 billion (Finaka, 2018). This proved that the tourists' incomes often promoted them to travel for vacations or work matters. Therefore, residents with fairly high-income levels are always promoted to travel to other countries.

The exchange rate was very important in influencing the decision of tourists to travel, specifically the type between the countries of the foreigners and the tourism destinations. This showed that more information on travel costs between these destinations led to greater tourists' sensitivities to prices, as measured by the exchange rate. These conditions emphasized the adjustment of tourists from high (depreciation) to low (appreciation) exchange rate (ER) countries. This is because ER is an essential determinant of tourism (Patsouratis, Frangouli, & Anastasopoulos, 2005). Comparing the CPI of the tourists' countries and Indonesia, the tourism prices negatively affected the number of visitors. This was in line with Yakup and Haryanto (2010), where the CPI negatively influenced the number of foreign tourists. Based on these results, a higher CPI level of 1% decreased the number of tourist arrivals by 1.122022% (Yakup & Haryanto, 2019). According to Choyakh (2009), the CPI was observed as the tourism prices of the destination country. The indirect use of this variable also included the effect of inflation. When a country experiences inflation, an increase is subsequently observed in the prices of goods and services, leading to the elevation of CPI. This elevation then increases prices relative to the foreigners countries, leading to a reduction in tourist arrivals (Yakup & Haryanto, 2019). In December 2019, the arrival of foreign tourists to Indonesia decreased by 2.03%, compared to a similar period in 2018. Meanwhile, the values increased by 7.52% when compared to November 2019. In 2019, the total visitations reached 16.11 million, an increase of 1.88% when compared to the values of a similar period in 2018 (15.81 million visits) (Badan Pusat Statistik, 2020). Based on this experimental period (2010 to 2020), the difference in the number of tourists occurred with the beginning of the COVID-19 pandemic in 2020. Regarding Figure 1, the visitations of tourists experienced a very drastic decline due to the emergence of the pandemic in February 2020. This proved that the restrictions on travelling and various community activities such as LSSR (Large-Scale Social Restrictions), greatly affected the number of visitations. These conditions were subsequently experienced by many countries in the world, where an appeal to stay at home was observed during the COVID-19 pandemic. This indicated the broad impact of the pandemic on the global tourism sector, specificallly in Indonesia.

6. Conclusion

Based on the results, the tourism prices, the gross national per capita income of the tourists' countries, and the rupiah-foreign exchange rate affected the number of visitations to Indonesia. In this case, tourism played an important role in improving the Indonesian economy. Its roles in the country's GDP development and as a foreign exchange also strengthened the position of tourism as an industrial sector that needs constant attention.

Besides these results, some limitations were also observed, including the non-inclusion of control variables such as the global crisis. This was due to the vulnerability of the tourism sector to other categories (unpredictable influences). A more comprehensive and in-depth analysis is also needed, regarding the inclusion of dummy variables. This emphasizes the determination of changes in the factors affecting tourism demand in Indonesia.

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Church Economics: Why Tithes May Not Be Enough Anymore In Christian Denomination In Cameroon

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Abstract
Every organization, be it the state or the Church, needs money to be able to operate. While the state raises revenue through the imposition of taxes on the citizens, the Church does it through collection of tithes and other offerings from her members. Among other collections, tithe constitutes a major source of revenue to the modern Church. This work thus sets out to determine the factors influencing tithes compliance by members of some selected Christian Denominations in Bamenda. Specifically, it investigates the effect of: (a) demographic characteristics; (b) perceived benefits derived from tithing and (c) management approach on tithe compliance. Data was collected from Christians of selected church denominations in Bamenda, Mezam Division in the North West Region of Cameroon using the stratified random sampling technique. The data was obtained from 351 questionnaires, 193 of which were issued to Presbyterian Christians, while 67 were issued to Roman Catholics, 47 to Full Gospel and 44 to Apostolic Christians respectively. Descriptive statistics, correlative research design and inferential econometric approach base on the binary logistic regression were employed. Results show that payment of tithe statistically depends on gender as women were more likely than men to pay tithe. The occupation of the Christians, their marital status and denomination also significantly influenced their compliance to tithe. As the index for perceived benefits from tithe increased, the more likely were the Christian to pay tithe. Christians who perceived that tithes were not well managed were significantly more likely not to have paid tithe in the past three months. We thus recommend that Christians be taught to pay tithe as their Christian duty, not due to benefits previewed and strict management principles be applied to tithe to increase the adherence rate of tithe payments.

Keywords: Tithe Compliance, Perceived Benefits, Management Principles and Logistic Regression

1. Introduction

Every organization, be it the state, the Church or Non-Governmental Organization (NGO), needs money to be able to operate. While the state raises revenue through the imposition of taxes on the citizens (Tanzi & Zee 2001), the Church does it through collection of tithes and other offerings from her members. With revenue collected from taxes, governments carry out development projects that are beneficial to the population. Tax revenue therefore is a component of governments' mobilization of resources to invest in social and human development including health, education and infrastructural development (Cummings, 2007). On the other hand, the church also mobilizes resources through collection of various offerings. The revenue from these collections enables the church to carry out general administration, infrastructural development and humanitarian assistance. At higher level of church management, the church develops a partnership with government in providing social amenities and other services also meant for human development such as health and education.

Among other collections by the modern church, tithe constitutes a major source of revenue. Tithe is collected almost wholly in monetary terms. The practice of tithe is quite an ancient phenomenon, and was not practiced only in Israel. Evidence abound that tithing was practiced among the Egyptians as well as the Mesopotamians in the Ancient Near East (Ademiluka, 2020). According to Moretsi (2009), various kinds of objects are found to have been subjected to tithe in the Ancient Near East. These include wool, cloth, wood, weapons, gold, silver, donkeys, to name a few. In Israel, items tithed included grain, new wine, olive oil, fruit, cattle and sheep (Deut. 14:23; Lev. 27:32). Within the Israelite community, the practice of tithing is as old as the time of Abraham who tithed spoils of battle (Gen 14:18-20) and Jacob who vowed to tithe all that God gave him (Gen 28:20-22). Later, tithing became a command from God, constituting part of the Mosaic Law (Lev 27:30), as an essential religious practice. In obedience to this command, the Israelites had to tithe the produce of the land God gave to them (Deut. 8:18). According to Sehling (1953), the mention of tithe at Gen. 47:14; 1 Sam. 8:15, 17 and Amos 7: 1, implies a secular tax to be used for some state administrative expenditure. Therefore tithes were originally levied for the king and later for the deity or god for the other communities in the Ancient Near East, and God for Israel (Moretsi, 2009). According to Croteau (2010), while there is much to be found in the Old Testament about tithing, the New Testament is almost silent on the topic. The mentioning of giving a tenth to God by Jesus in the New Testament particularly in Matthew 23:23 and Luke 11:42, is indicative of the practice of tithing by devout Jews within the New Testament era. There is no evidence that tithing was emphasized in the early church. The earliest positive legislation on the subject is contained in the letter of the Bishops assembled at Tours in 567 and the Canons of the Council of Macon in 585 A. D., when the Catholic Church reiterated the call to tithe, adopting it from the Old Testament Law (Hernandez, 2013 & Catholic Diocese of Wichita, 2015). From this time on, tithing came to be practiced in the Church and is usually referred to as 'giving back' because it is done in grateful recognition that all we have belongs to God (Catholic Diocese of Wichita, 2015).

With these, the modern Church is confronted with doctrines that tithing is not scriptural and therefore not obligatory (Smith, 2006). However, there is also a strong belief and doctrine that tithing is compulsory for Christians today. Ademiluka (2020) outlines some mainline and Pentecostal churches in Nigeria for example which teach voluntary and compulsory tithe compliance. The doctrine that tithing is compulsory is mostly pronounced in the Pentecostal Churches and their teaching is based on Malachi 3:8-12, with its accompanying declarations of woes and curses for non-compliance and blessings for compliance.

As aforementioned, tithes make up one of the principal sources of income for many Christian Churches today. Attitudes to the doctrine of tithing are of two major types across the different denominations. On the one hand, we have proponents who teach that tithing is voluntary and on the other, we have those which teach that it is obligatory (Ademiluka, 2020). Many of the mainline churches teach voluntary tithing and encourage their members to pay tithe, while most of the Pentecostal Churches make tithing obligatory.

In the Presbyterian Church in Cameroon (PCC) for example, tithing is voluntary and became an official collection quite recently. In the early 2000s, some Christians of the PCC expressed a desire to pay tithes as they observed the phenomenon and perceived benefits of tithing in other Christian Denominations around. With this, some Pastors of the PCC, serving at the time in some city congregations from where this desire was expressed, took upon themselves to teach on Christian giving with particular emphasis on tithes.

Realizing that this notion about tithing was going to make some Pastors, particularly those serving in the cities, extremely rich while others serving in the suburbs would remain poor, considering the Pastors' meager stipend, the highest ruling body of the PCC – the Synod – took a decision to officially introduce and moderate tithing in the PCC. In her meeting of November 2005 which held at Church Center Kumba, it was decided that tithes collection should officially go into effect in the PCC, the proceeds of which should be directed to the Central Administration (PCC, 2005). The purpose was that the collection would be put together and used to increase the stipend of Pastors generally so that none benefits more than the other no matter the location of service.

From personal experience, very few Christians pay tithes and those who do pay, hardly pay the prescribed amount. Through interactions with Christians of various congregations of the PCC during teaching on Christian giving, the opinion is expressed that the reason why some Christians are reluctant to pay tithes is because they perceive that tithes are the pastors' personality money. For these Christians, many pastors have been enriched through the collection of tithes, reason why they ride in cars and live luxurious lives. They are of the opinion that if the church were to experience infrastructural development, and the poor and needy given humanitarian assistance all sourced from the tithe fund without necessarily turning to the same Christians who pay the tithe for collection of project levies and poor and needy funds, many will be true to their tithing. In fact, there are Christians who do not give tithes in church but who take care of orphans, widows, street children and the like with the argument that what they spend on these constitute their tithes. For them, this is the application of Deut. 12: 6-8 & 14: 28-29 where God spells out that tithes should be used to take care of such people in need including strangers. As mentioned earlier, following the biblical demands and definition, a tithe is ten percent of one's income.

If all Christians of the PCC were to obey the command to tithe and appropriately surrender one tenth of their income for this, the Church will raise a lot of funds from tithing, considering her huge Christian population. Taking Mezam Presbytery for example with over thirty thousand adult Christians and considering that every Christian earns the minimum wage of 36,270FRS per month as prescribed in the Labour Law of Cameroon, the scenario for this Presbytery, in the past three years would have been as presented in Table 1. The amounts expected could be more, less or exactly the amounts presented considering that some Christians earn more than the minimum wage and others less. From the variances between the expected amounts and the actual collections, one may suggest that many Christians are not tithe compliant, by way of not tithing at all, or by tithing less than ten percent of their income.

Table 1: Comparison of expected amounts of tithes with actual collection

Year	No of Christians per yearly Census	Tithes expected considering each Christian earned the minimum wage: 10/100*36,270*No of Christians (FCFA)	Actual Tithes Collected (FCFA)	Variance (FCFA)
2018	31,986	116,013,222	42,704,400	73,308,822
2019	33,488	122,967,936	40,949,180	82,018,756
2020	36,501	134,031,672	31,720,215	102,311,457

Taking the example of the Presbyterian Church in Cameroon, irrespective of the fact that Christians have been given sound teaching in the doctrine and biblical perspective of tithing, many are not tithe compliant. The issue of non-compliance cuts across many churches. Christians may not comply with the tithe requirements in the sense that they either do not pay tithe at all or they fail to pay up to the prescribed amount, that is, one tenth of their income. Base on the aforementioned background the question that arise is: What are the determining factors of tithe compliance by members of Christian Denominations in Bamenda? The specific objectives of the study are to investigate the effect of: (a) demographic characteristics; (b) perceived benefits derived from tithing and (c) management approach on tithe compliance.

The gap to be filled by this study will be of great significance to the Christian churches and will act as an eye opener to them to frame policies that will encourage tithe compliant attitudes in the Christians. This will reduce the phenomenon of non-payment of tithes thereby reducing the gap between tithe projections and realization in the budget of the church.

2. Empirical Literature

Nyamosi & Nderitu (2015) carried out a study in Kenya which aimed at investigating if religious giving matters. They found out that majority of the respondents gave in church in order to get blessings from God. In a similar study conducted in Oyo State, Eberechi & Abiodun (2016) found that tithe payment is still biblical and relevant to the contemporary believers as the respondents reported being blessed abundantly by God for obeying the tithe law.

According to Kitause & Achunike (2013), in some of the churches where tithing is practiced, every tithe payer is issued a card in which their weekly payments are recorded, with corresponding records made in a church ledger for official documentation. This recording makes payment of tithe obligatory so that any Christian, who fails to pay, owes the church. They found that with this procedure, majority of the Christians tithed not voluntarily or as an act of worship but because they did not want to be viewed as debtors. In most cases, before the Pastor prays, he gives a short exhortation supported with relevant biblical passages, particularly the Malachi text, to promote compliance (Ademiluka, 2020). According to Uroko (2021), who was interested in investigating the purpose for assigning tithes to pastors he found out that this was because they had no source of income and their own portion of the tithe would encourage them in their ecclesiastical work.

Today, tithe is destined for the church. It is used within the church for various purposes including payment of the pastor, church construction, administration and general expenses and charity. While in the mainstream churches tithe collections are pulled together to a central pool and dispensed for the general welfare of the church, it is purported to be the property of the church leader in most of the mushroom churches. Obalowu & Rahim (2019), found out that a number of pastors in Nigeria are among the few figures that own private jets. They relate this wealth to tithe collections which for these pastors belong to them – the modern Levites. They do everything to intimidate members to offer tithes, emphasizing on its importance and warning on the repercussion of not giving the tithe based.

3. Methodology

The causal research design in made use of because it enables the description of the relationship between Christians' tithe compliant attitudes and their demographic characteristics, perceived benefit from tithing, and management of tithe funds in the current study. The study adopted a stratified random sampling technique which was used to select the Presbyterian Church in Cameroon (PCC), the Roman Catholic Church (RCC), the Apostolic Church (AC) and the Full Gospel Church (FGC) as the denominations to be studied. A total of 400 respondents were chosen for the study purposely selected from the various denominations as follows: 200 from the PCC, 100 from the RCC, 50 from the AC and 50 from the FGC. Assigning a higher number for the Presbyterian and Roman Catholic was in consideration of their high population and the ease to access especially the Presbyterian Christians. After the treatment of data 351 questionnaires were retained. The sample size makes 11.4% of the target population and is sufficiently large enough to generate data that was representative of the accessible population, as a sample of 10% to 20% of the accessible population is acceptable according to Ary et al. (1979). The study made use of primary data to answer the research questions collected with the help of questionnaires.

3.1. Model Specification

$$\boldsymbol{TC = \beta_0 + DC\beta_1 + BT\beta_2 + MT\beta_3 + \varepsilon}$$

Where: TC stands for Tithe Compliance measured as a dichotomous variable that take 1 for noncompliance and 0 otherwise. DC represent a vector of demographic characteristics, BT a vector of benefits derived from tithing, MT a vector of management of tithe funds and ε, a vector of error term. While β_0 is vector of intercepts β_1, β_2 and β_3 are the vector of coefficient associated to vector of demographic characteristics, benefits derived from tithing and management of tithe funds respectively. This model is analyzed using the binary logistic regression.

4. Findings

4.1. Sex Distribution of Respondents

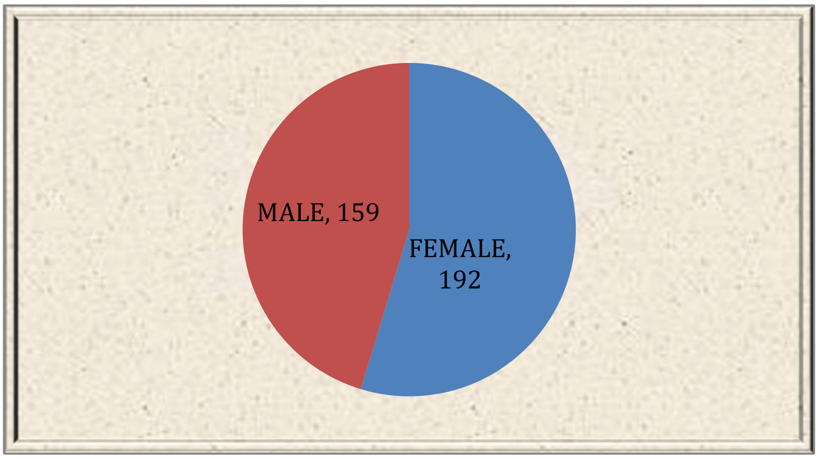

Figure 1: Sex Distribution of Respondents

As seen in Figure 1, out of the 351 respondents to this questionnaire, 159 (45%) of them were male while 192 (55%) of them were female. We thus had more female than male respondents in the sample. This is also indicative of the fact that the number of women who attend church far surpasses that of the men. Thus, more females than males were included in the sample.

4.2. Age Distribution of Respondents

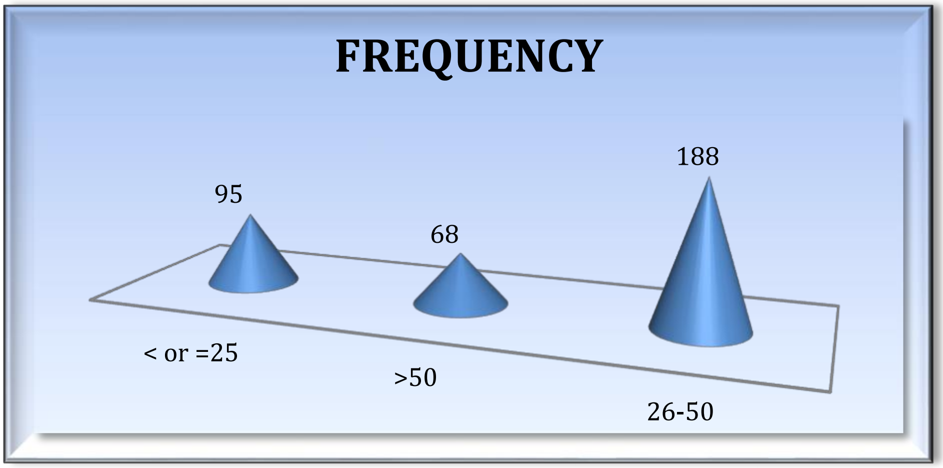

Figure 2: Age Distribution of Respondents

The data in Figure 2 shows that all age groups were represented to avoid bias. This consisted of the age ranges ‘less than or equal 25 years’, ‘26 to 50 years’ and ‘above 50 years’. Respondents from age 26 to 50 had the highest number of representation (188) followed by those in age group ≤ 25years (95) and lastly by those above 50years (68). This is indicative of the fact that active members of the church is made of middle age groups (26-50).

4.3. Distribution of Respondents Based on Level of Education

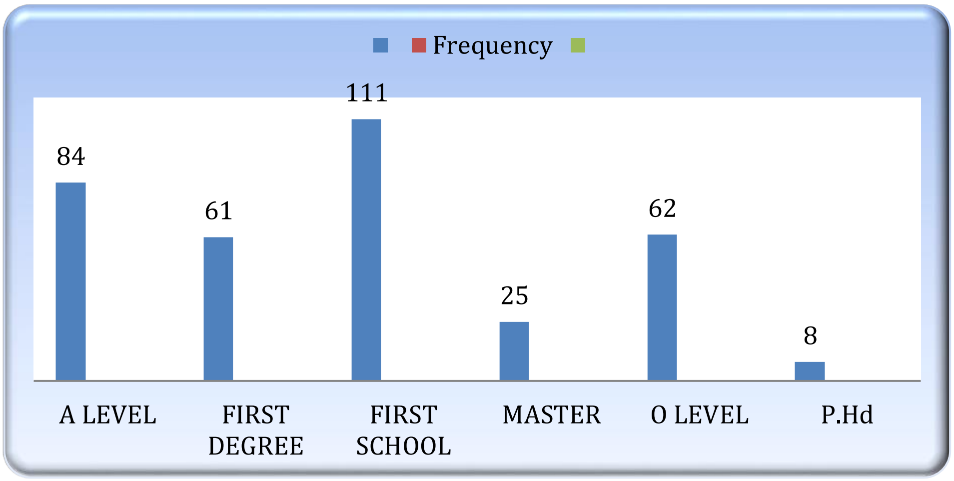

Figure 3: Educational Levels of Respondents

As shown in Figure 3, most respondents had First School Living Certificate (111) followed by those with 'A' level (62) and lastly by the PhD (8) holders. The figures however simply indicate the proportion of individuals in the churches with this degree and in no way mean PhD holders are less likely to pay tithe, neither does it mean that First School leavers are more likely to pay tithes. We deduce from the data that we have people of various educational levels in the churches just like we have them in the society.

4.4. Distribution of Respondents Based on Occupation

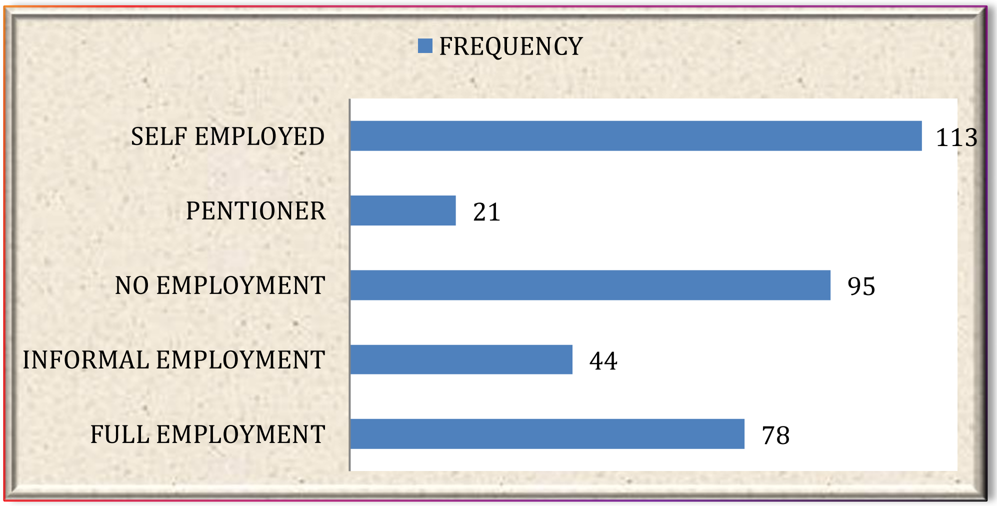

Figure 4: Occupation of Respondents

The data in Figure 4 reveals that majority of the respondents were self-employed (113) followed by those with no employment (95) and lastly by pensioners (21). From the frequencies, we could predict that self-employed Christians are in the majority in Christian churches denominations.

4.5. Distribution of Respondents Based on Denominational Affiliation

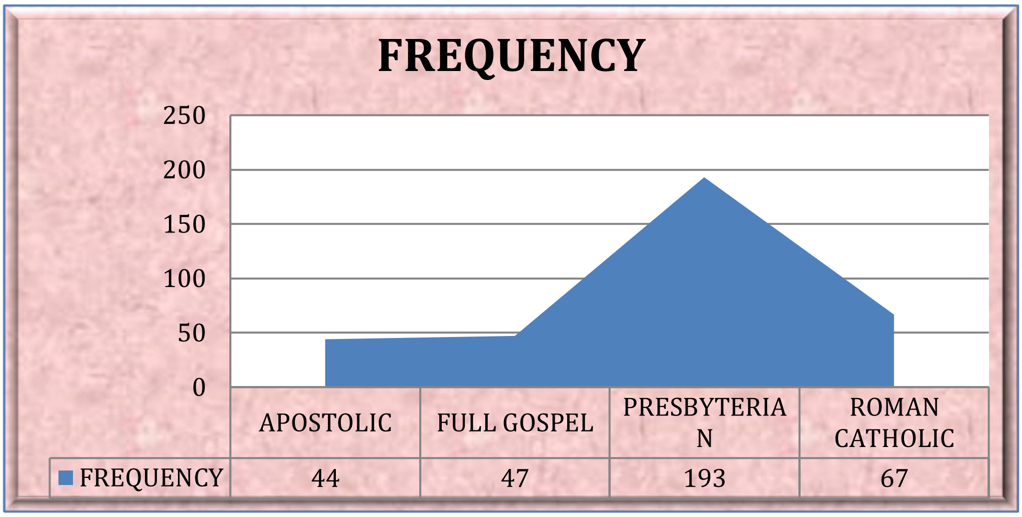

Figure 5: Denominational Affiliation of Respondents

As presented in Figure 5, out of the 400 questionnaires that were administered, 193 of them returned from Presbyterian Christians, 67 of them returned from Roman Catholics, 47 and 44 of them returned from the Full Gospel and Apostolic Christians respectively. This gives a total number of 351 from which data was collected for the study. As aforementioned, more questionnaires were issued to Presbyterians due to ease of accessing them and their willingness to participate in the study.

4.6. Presentation of Results on the Demographic Determinants of Tithe Compliance

The first objective of this work is to establish the demographic determinants of tithe compliance by Christians. The results are presented in two parts. The first part presents the chi square result (Table 2) investigating the individual effect of each of these demographic variables on tithe compliance while the second part presents the logistic regression results (Table 3) which take care of the group effect of all the demographic variables on tithe compliance.

Table 2: Chi Square Results of Demographic Determinants and Tithe

VARIABLE	SUBVARIABLES	NO	YES	TOTAL
GENDER	FEMALE	85(24.2%)	107(30.5%)	192(54.7%)
	MALE	97(27.6%)	62(17.7%)	159(45.3%)
Pearson Chi-Square	9.757		0.002	
AGE	< or =25	54(15.4%)	41(11.7%)	95(27.1%p
	>50	32(9.1%)	36(10.3%)	68(19.4%)
	26-50	96(27.4%)	92(26.2%)	188(53.6%)
Pearson Chi-Square	1.620		0.445	
Education	A level	42(12.0%)	42(12.0%)	84(23.9%)
	Bachelor degree	29(8.3%)	32(9.1%)	61(17.4%)
	First school	56(16.0%)	55(15.7%)	111(31.6%)
	Master degree	16(4.6%)	9(2.6%)	25(7.1%)
	O Level	36(10.3%)	26(7.4%)	62(17.7%)
	Ph.D	3(0.9%)	5(1.4%)	8(2.3%)
Pearson Chi-Square	3.753		0.585	
OCCUPATION	Full employment	38(10.8%)	40(11.4%)	78(22.2%)
	Informal employment	10(2.8%)	34(9.7%)	44(12.5%)
	Not employed	59(16.8%)	36(10.3%)	95(27.1%)
	Pensioners	9(2.6%)	12(3.4%)	21(6.0%)

	Self employed	66(18.8%)	47(13.4%)	113(32.2%)
Pearson Chi-Square	21.882		0.000	
INCOME	< or = 36720	85(24.2%)	69(19.7%)	154(43.9%)
	>125000	41(11.7%)	36(10.3%)	77(21.9%)
	36721-75000	39(11.1%)	44(12.5%)	83(23.6%)
	75001-125000	17(4.8%)	20(5.7%)	37(10.5%)
Pearson Chi-Square	2.053		0.562	
MARITAL status	Divorce	1(0.3%)	1(0.3%)	2(0.6%)
	Married	82(23.4%)	96(27.4%)	178(50.7%)
	Single	90(25.6%)	57(16.2%)	147(41.9%)
	Widowed	9(2.6%)	15(4.3%)	24(6.8%)
Pearson Chi-Square	9.541		0.023	
DENOMINATION	Apostolic	10(2.8%)	34(9.7%)	44(12.5%)
	Full Gospel	8(2.3%)	39(11.1%)	47(13.4%)
	Presbyterian	121(34.5%)	72(20.5%)	193(55.0%)
	Roman Catholic	43(12.3%)	24(6.8%)	67(19.1%)
Pearson Chi-Square	50.955		0.000	

The chi square results in table 2 shows that payment of tithe statistically (p-Value=0.002) depends on gender. More women {107(30.5%)} complied with the payment of tithe than men {62(17.7%)}. The compliance of tithe was not significantly associated with age (P-Value = 0.445) and level of education (P-value = 0.585). The occupation of the Christians significantly (P-vale =0.000) influenced their compliance to tithe. Most self-employed {47(13.4%)} and full employed Christian {40(11.4%)} had the highest compliance rate while pensioners {12(3.4%)} had the least rate. The level of income of the Christians is statistically independent (P-value= 0.562) to tithe complains. Tithe compliance is significantly (P-value=.023) associated with marital status. More of married Christians (96(27.4%) than single (57(16.2%) comply to tithe payment. Compliance to tithe was also significantly (P-value = 0 .000) associated with denomination. When comparing the number who pay and those who do not pay, it was noticed that Apostolic {34(9.7%)} and Full Gospel Christians {39(11.1%)} had more numbers paying than those not paying. On the other hand, the Presbyterians and the Roman Catholics had more numbers not paying than those paying.

The results of the logistic regression testing the group effect of all demographic factors put together on tithe are presented in table 3.

Table 3: Logistic Regression Tithe by Demographic Characteristics

		COIEFFICIENT	STANDARD ERROR	P-VALUE
NO	MALE	.948	.274	.001
	26-50			.620
	< or =25	.417	.437	.340
	>50	.101	.377	.788
	Ph.D			.721
	FSLC	-.673	.943	.475
	GCE O'LEVEL	-.446	.935	.634
	GCE A'LEVEL	-.439	.952	.645
	BACHELOR DEGREE	-.861	.983	.381
	MASTERS	-.970	.977	.321
	PENTIONER			.009
	NO EMPLOYMENT	.403	.437	.356
	FORMAL EMPLOYMENT	1.396	.468	.003

INFORMAL EMPLOYMENT	-.590	.400	.140
SELF EMPLOYMENT	.527	.597	.377
>125000			.795
≤36720	-.253	.502	.614
66721-75000	-.505	.516	.327
75001-125.000	-.160	.479	.738
DIVORCED			.051
MARRIED	-.260	1.678	.877
SINGLE	-.217	.540	.689
WIDOWED	-1.217	.623	.051
FULL GOSPLE			.000
PRESBYTERIAN	1.768	.514	.001
CATHOLIC	2.593	.539	.000
APOSTOLIC	-.085	.344	.804
Constant	.163	1.152	.887

Table 3 presents the results of the effect of demographic factors on tithe payment. Results show that female than male Christians were more likely to pay tithes. It also shows that people between 26 and 50 compared to those in other age groups were more likely to pay tithes. Compared to PhD holders, respondents holding other certificates were more likely to pay tithe. When compared to pensioners, respondents with no employment (.403), formal employment (1.396) and self-employment (.527) were less likely to pay tithe. This is surprising as it shows that those with formal employment had a stronger tendency not to pay tithe than the other groups. Of all the groups, those in informal employment (-.590) were most likely to have paid tithe in the past three months. People in all salary levels were most likely to pay their tithe when compared to those with salaries above 125.0000 FCFA. Compared to the divorced, married, single and widowed Christians were most likely to pay their tithe. Compared to Full Gospel, more Apostolic than Roman Catholic and Presbyterian Christians were most likely to pay their tithes.

4.7. Presentation of results on perceived benefits and tithe compliance

This section of the results presents findings for the second objective which seeks to test the effect of perceived benefits on tithe compliance. Results are presented using chi-square to capture the individual effect and logistic regression for group effect.

Table 4: Chi Square of Tithe by Perceived Benefits

VARIABLE	SUBVARIABLES	NO	YES	TOTAL
BLESSINGS	No	59(16.8%)	0(0.0%)	59(16.8%)
	Yes	123(35.0%)	169(48.1%)	292(83.2%)
Pearson Chi-Square	65.855		0.000	
RIGH	Agreed	49(14.0%)	51(14.5%)	100(28.5%)
	Disagree	14(4.0%)	9(2.6%)	23(6.6%)
	Not sure	43(12.3%)	26(7.4%)	69(19.7%)
	Strongly agreed	76(21.7%)	83(23.6%)	159(45.3%)
Pearson Chi-Square	5.149		0.161	
SPIRITUAL EDIFICATION	Agreed	44(12.5%)	54(15.4%)	98(27.9%)
	Disagree	9(2.6%)	11(3.1%)	20(5.7%)

	Not sure	47(13.4%)	14(4.0%)	61(17.4%)
	Strongly agree	70(19.9%)	88(25.1%)	158(45.0%)
	Strongly Disagree	12(3.4%)	2(0.6%)	14(4.0%)
Pearson Chi-Square	27.823		0.000	
Freedom	Agreed	39(11.1%)	55(15.7%)	94(26.8%)
	Disagree	17(4.8%)	7(2.0%)	24(6.8%)
	Not sure	50(14.2%)	18(5.1%)	68(19.4%)
	Strongly agree	59(16.8%)	82(23.4%)	141(40.2%)
	Strongly Disagree	17(4.8%)	7(2.0%)	24(6.8%)
Pearson Chi-Square	29.426		0.000	
SUCCESS	Agreed	53(15.1%)	49(14.0%)	102(29.1%)
	Disagree	5(1.4%)	4(1.1%)	9(2.6%)
	Not sure	36(10.3%)	14(4.0%)	50(14.2%)
	Strongly agree	76(21.7%)	100(28.5%)	176(50.1%)
	Strongly Disagree	12(3.4%)	2(0.6%)	14(4.0%)
Pearson Chi-Square	19.909		.001	

The chi square results on table 4 show that the payment of tithe is statistically associated (P-value=0.000) with the Christians conception of the blessings they will get from it. This can be seen as all Christian {59(16.8%)} who did not believe tithe will lead to blessing did not pay tithe. The payment of tithe was not associated with the Christian opinion on tithe leading to right standing with God (p-value= 0.161). The payment of tithe is strongly and significantly associated with Christians' opinion that it leads to spiritual edification (P-Value = 0.000). Most Christians who paid tithe agreed and strongly agreed to this. Christians also believed that payment of tithes was strongly associated with freedom (P-value=0.000) and success (P-value=0.001)

The results of the group effect of all perceived benefits put together on tithe is presented on table 5.

Table 5: Logistic Regression Tithe by Perceived Benefits

VARIABLES		COIEFFICIENT	STANDARD ERROR	P-VALUE
Do not pay tithe	INTERCEPT	19.969	.798	.000
	BLESSING	-19.329	.000	.043
	RIGH STANDING	.085	.176	.628
	SPIRITUAL EDIFICATION	-.149	.160	.352
	FREEDOM FROM MISFORTUNE	-.292	.122	.017
	SUCCESS	.109	.167	.514

Base group: Pay tithe

Table 5 presents the results of the effect of perceived benefits on tithing. Christians who felt tithing leads to increase blessing were more likely to tithe than those who did not believe tithing will lead to blessing (-19.329). This result is significant at 5% level (P-value= 0.043). People who agreed to the fact that tithing instead led to right standing with God (0.085) and success (0.109) were less likely to be those paying tithes. However, individual who agreed to the fact that tithing leads to spiritual edification (-o.149) and freedom from misfortune (-.292) were more likely to pay tithes. Amongst all factors that enhanced the payment of tithes, blessing (p-value 0.043) and freedom from misfortune (P-value=0.017) were the only significant variables that enhanced the payment of tithes.

4.8. Presentation of Results on Quality of Management and Tithe Compliance

This section of the results presents findings for the third objective which seeks to test the effect of management on tithe compliance. Results are presented using chi-square (Table 6) to capture the individual effect and logistic regression (Table 7) for group effect.

Table 6: Chi Square of Tithe by Management

VARIABLE	SUBVARIABLES	NO	YES	TOTAL
WELL MANAGED	No	67(19.1%)	19(5.4%)	86(24.5%)
	Yes	115(32.8%)	150(42.7%)	265(75.5%)
Pearson Chi-Square	30.974		0.000	
TEACHING	Monthly	64(18.2%)	85(24.2%)	149(42.5%)
	Once a year	34(9.7%)	19(5.4%)	53(15.1%)
	Twice a year	45(12.8%)	23(6.6%)	68(19.4%)
	Weekly	39(11.1%)	42(12.0%)	81(23.1%)
Pearson Chi-Square	13.971		0.003	
KNOWLEDGE	No	57(16.2%)	28(8.0%)	85(24.2%)
	Yes	125(35.6%)	140(39.9%)	265(75.5%)
Pearson Chi-Square	11.277		0.004	
MANAGERIAL SKILLS	Discouraging	19(5.4%)	4(1.1%)	23(6.6%)
	Encouraging	98(27.9%)	92(26.2%)	190(54.1%)
	Very discouraging	6(1.7%)	9(2.6%)	15(4.3%)
	Very encouraging	58(16.5%)	63(17.9%)	121(34.5%)
Pearson Chi-Square	12.314		0.031	
METHODS	Drops his/her envelope in the basket	97(27.6%)	86(24.5%)	183(52.1%)
	Alter call	58(16.5%)	75(21.4%)	133(37.9%)
	Pay tithes in the office	26(7.4%)	7(2.0%)	33(9.4%)
Pearson Chi-Square	15.313		0.004	
MOTIVATION	Drops his/her envelope in the basket	94(26.8%)	79(22.5%)	173(49.3%)
	Alter call	55(15.7%)	70(19.9%)	125(35.6%)
	Pay tithes in the office	33(9.4%)	20(5.7%)	53(15.1%)
Pearson Chi-Square	5.816		0.055	
OWNERSHIP	CHURCH	152(43.3%)	156(44.4%)	308(87.7%)
	PASTOR	30(8.5%)	13(3.7%)	43(12.3%)
Pearson Chi-Square	6.300		0.012	
USAGE	Pay salary	20(5.7%)	31(8.8%)	51(14.5%)
	Church projects	24(6.8%)	33(9.4%)	57(16.2%)
	Assist the poor and needy	52(14.8%)	29(8.3%)	81(23.1%)
	General administration	84(23.9%)	76(21.7%)	160(45.6%)

Pearson Chi-Square	12.260		0.016	
MOTIVATED USES	Pay salary	14(4.0%)	18(5.1%)	32(9.1%)
	Church projects	37(10.5%)	37(10.5%)	74(21.1%)
	Assist the poor and needy	111(31.6%)	72(20.5%)	183(52.1%)
	General administration	20(5.7%)	42(12.0%)	62(17.7%)
Pearson Chi-Square	16.159		0.001	
IMPACT MANAGE	Great motivation	88(25.1%)	83(23.6%)	171(48.7%)
	Little motivation	15(4.3%)	4(1.1%)	19(5.4%)
	No motivation	13(3.7%)	2(0.6%)	15(4.3%)
	Very great motivation	52(14.8%)	72(20.5%)	124(35.3%)
	Very little motivation	14(4.0%)	8(4.0%)	22(6.3%)
Pearson Chi-Square	18.988		0.001	

When tithes are perceived as being well managed, Christians are most likely to pay tithes (P-value=0.000). Up to 150(42.7%) of those who felt tithes are well managed had paid their tithes in the last three months. The payment of tithes was also significantly associated with the teachings. Christians who had teachings on tithe were more likely to pay tithe (P-value=0.003). Most Christians who were taught monthly paid their tithes. Knowledge on tithes also significantly influences the payment of tithe (P-value=0.004) as even those taught yearly paid their tithes. The managerial skills of the priest/pastor also significantly influenced the payment of tithe (P-value=0.031). Christians who were very encouraged with the managerial skill were more likely to pay their tithes. The method used for tithe collections also significantly influenced tithe payments (P-value=0.004). Christians from churches where they were called up in front of the alter most often paid their tithes. Christians who paid tithes indicated that, they were motivated by being called up to the alter than the other methods. Ownership of tithes also significantly influenced Christians desires to pay tithes (P-value=0.012). Majority of those who pay tithes are those who perceived it was owned by the church not the pastor. More of Christians who felt tithes were used for salary and church projects paid tithes (P-value=0.016). Many Christians indicated that when tithes are used for the poor and the needy, they are more motivated to pay (P-value=0.001). The payment of tithes also significantly depended on the motivation Christians had (P-value=0.001). Christians who had very great motivation were more likely to pay tithes.

The logistic regression results of the group effect of all perceived management factors put together on tithe is presented on table 7.

Table 7: Logistics Regression of Tithe by Management

VARIABLES		COIEFICIENT	STANDARD ERROR	SIGNIFICANT
NO	INTERCEPT	17.485	.810	.000
	GOOD MANAGEMENT EFFECT ON TITHING	-.409	.130	.002
	NOT WELL MANAGED	1.227	.316	.000
	WELL MANAGED			
	NO ADDEQUATE KNOWLEDGE	.913	.300	.002
	ADEQUATE KNOWLEDGE			
	ENCLOSED ENVELOPE	-.166	.363	.648
	CALL UP INFRONT	-.524	.379	.167
	PAY IN THE OFFICE AND RECORD CARD			
	CHURCH	-.721	.412	.080

	PASTOR			
	SALARY	-16.611	.370	.000
	CHURCH PROJECTS	-16.322	.351	.000
	ASSIST THE POOR	-15.547	.307	.000
	ADMINISTRATION	-16.018	.000	.
	PASTORS MANAGES			

Table 7 presents the results of the effect of management on the payment of tithes. Results show that most people who paid tithe (-.409) felt good management was very motivating in their tithe payment. This result is significant at 1% level. Those who felt tithe were not managed were less likely to pay tithe (1.227) compared to those who felt it was well managed. This results is significant (p-value=0.000) at 1% level. Christians with no knowledge on tithe were significantly (p-value=0,002) less likely to pay tithe (0.913) compared to those with adequate knowledge on tithes. There is no significant difference between the payments of tithes either using enclosed envelopes, alter calls or paying in the office. Compared to those who felt the tithes were managed by the pastors, those who felt the tithes are managed by the church (-.721) were more likely to pay tithe than those who felt it was managed by the pastors. This results is significant (P-value=0.08) at 10% levels. All Christians who felt the church used the tithe for salary (-16.611), church projects (-16.322), assist poor (-15.547) and for administration (-16.018) were significantly more likely to pay tithe than those who felt the tithes were managed by the pastors.

4.9. Presentation of a Combined Logistic Regression Results on Demographic Factors, Perceived Benefits and Management on Tithe Compliance

This section of the results combines in one model all three objectives of this work.

Table 8: Combined Analysis on Demographic Factors, Perceived Benefits and Management on Tithe

Tithe (YES/NO)		coefficient	Std. Error	Sig.
No payment of tithe	Intercept	2.963	.767	.000
	gender=F	-.845	.252	.001
	gender=M			
	age=< or =25	.333	.309	.280
	age=>50	-.197	.327	.547
	age=26-50			
	income=< or = 36720	.655	.435	.132
	income=>125000	.043	.452	.924
	income=36721-75000	.174	.449	.698
	income=75001-125000			
	Perceived benefits index	-.186	.038	.000
	Not well managed	1.700	.320	.000
	well managed			

Base (payment of tithe)

Table 8 presents the results of the three objectives of this work put together. Results show that women are significantly more likely to pay tithes than men. It also shows that compared to Christians aged 26-50, Christians older than 50 years are more likely to pay their tithes while those below or equal to 25 are less likely to pay their tithe. This result is however statistically insignificant. Compared with Christians with income between 75001-125,000, those in the other income groups (less than or equal to 36720; > 125.000, between 36721-75000) are less likely to pay tithes. As the index for perceived benefits from tithe increases, the more likely is the Christian to pay tithe. This result is significant at 1% level. Christians who perceived that tithes were not well managed were more likely not to have paid tithe in the past three months. This result is significant at 1% level. This is thus indicative of the fact that the payment of tithe is influenced by gender; the Christians perception about the benefits derived from the tithe and how well the tithe is being managed.

5. Discussion of Results and Recommendation

Findings from results show that the payment of tithe was statistically significant on gender, occupation, marital status and denomination. The result is justified as generally women are more committed to church activities than men. Women are more emotional than men and feel obliged to pay tithe especially when they know it is used to help the needy, reasons why results equally reveal that people who felt tithes were used to help the needy were more likely to pay tithes. The occupation of the Christians also significantly influenced their compliance to tithe. Most self-employed and full employed Christians had the highest compliance rate. This is because self-employed have the freedom to take as much as they want from their business without being questioned. Fully employed individuals have a steady and stable source of income which permits them to deduct a particular percentage from it to pay tithe monthly. This is however not the case with people who are not working or working part time because they will need to wait until they have money from an irregular source to pay.

More of married Christians than singles comply to tithe payment. Being married indirectly signifies increase in income level for the family and chances to depend on the other partner for help in times of crisis. This justifies why married people will easily pay tithes than singles will do. Marriage also signifies, maturity and stability thus increased desire to meet the needs of others apart from one's immediate family thereby increasing the likelihood of them paying tithe. It was found that compliance to tithe was also significantly associated with denominational affiliation. The Apostolic and Full Gospel Christians have more numbers complying than those who do not comply. This result is justified as the doctrine for tithe payment is predominating in Pentecostal churches than in Catholic and Protestant churches. It is common to get the pastors of Pentecostal churches mention tithe in almost all their preaching (Ademiluka, 2020). However, Catholics believe in church contributions than tithe and Christians mostly pay this once a year. This accounts for the increase in the likelihood that Catholic Christians did not pay tithe in the last three months.

Results further show that payment of tithe was statistically associated with the Christians conception of the reward gotten from it. This finding corroborates the findings of Ola (2017) who indicated that many proponents of tithe teach that lots of blessings are reaped from tithing. Nyamosi & Nderitu (2015) found out that majority of Christians gave in church in order to get blessings from God. Furthermore, in a study carried out in Nigeria Eberechi & Abiodun (2016) stated that the respondents reported to have been blessed abundantly by God for their obedience of the tithe law. For this reason they see tithe payment to still be biblical and relevant to contemporary believers. Findings also show that when tithes are perceived as being well managed, Christians are most likely to pay tithes. The findings also confirm the results of Uroko (2021), who found out that the purpose for assigning tithes to priests was because they had no source of income and their own portion of the tithe would encourage them in their ecclesiastical work. So immediately Christians feel the tithes are not used for this purpose, they perceive it as not being well managed and thus are not willing to pay.

Base on the above finding it is recommended that Christians be taught to pay tithe as their Christian duty, not due to benefits previewed and strict management principles be applied on tithe to increase the adherence rate of tithe payments.

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Growth of Youth-Owned Micro and Small Enterprises in Kigali City, Rwanda: What is the Role of Government Entrepreneurial Interventions?

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Abstract
Micro and Small Enterprises are major players in the wealth of nations, and therefore various entrepreneurial interventions were launched for boosting the economies and standards of living by creating employment opportunities and profits. However, these MSEs have experienced some problems which lessen their growth. The objective of the research was to investigate the effect of government interventions on the growth of youth-owned MSEs in Kigali City, Rwanda. The study was anchored on the resource-based view, Gibb's support theory, adoption theory, and growth of a firm theory/ Explanatory and descriptive research designs were adopted. The sample was 154 respondents drawn from three districts of Kigali city with a population of 252 youth-owned MSEs. Data was collected using a questionnaire and analyzed using multiple linear regression analysis. The study concludes that entrepreneurial training, access to credit, technology-based online social media, and market access effectively influenced the growth of MSEs in Kigali City, Rwanda. The study recommended that government entrepreneurial interventions should be effectively factored into policy-making and program implementation for sufficient growth of MSEs. MSEs should adopt technology-based online social media to market their products to the global market beyond the Rwanda boundary. Moreover it's an effective management tool for customer relations for online business.

Keywords: Government Entrepreneurial Interventions, Growth of Youth Owned MSEs, Resource Based Review, Rwanda

1. Introduction

The contribution of Micro and Small Enterprises (MSEs) to the wealth of a nation has been acknowledged by several governments (Muathe, 2010, Chen & Yuan, 2021). In this modern business world, MSEs are proven as an effective instrument since it reduces socio-economic issues related to poverty, income inequality, and unemployment, especially among people aged between 18-35 years, (Muathe, Wawire, & Ofafa, 2013, Tundui & Tundui, 2013). Therefore, MSEs deserved to get entrepreneurial interventions attributable to their outstanding pertinence in ensuring a perpetual upturn in per-capita income, output, and employment opportunities, (Tekele, 2019). Different authors argue that MSEs are at different phases of growth as the extent of entrepreneurial interventions given to the MSE sector differs from one sector to another, nation to nation, and or developed to growing countries. As such government entrepreneurial interventions were increased in which the growth of youth-owned MSEs would be augmented, (World Bank, 2014).

Various scholars avowed that there was an increase in the number of MSEs and their growth caused by an increase in government entrepreneurial interventions in many countries of the world. Thus, nowadays more than 78% of all enterprises operating their businesses are in the MSE sector across the world, (Muathe, & Muraguri-Makau, 2020, Khan & Khalique, 2014). It has been noted in different research that MSEs contribute about 20% to the GDP and 35% of total workers are engaged in this sector worldwide, (World Bank, 2014). Furthermore, micro-enterprises recruit between 1 and 9 workers whereas small enterprises hire between 10 and 49 workers across the world. It has been demonstrated that in 2012, Malaysian MSEs contributes greater than 50% of the GDP, (Byrnes, *et al,* 2015). They also hired 3 million workers; corresponding to 65.1% of the total employment. This sector is the principal pillar of Singapore's economy where MSEs provide 62% of employment and contributes around 47% to the country's GDP (UNCTAD, 2016). According to Jirabi (2017), in countries of EAC, MSEs account for more than 90% of all private businesses, and they absorb more than 24% of the country's GDP.

In a growing country like Rwanda, the contribution of MSEs induced policymakers to concert efforts for improving the business environment in that MSEs are operating and their business growth, (World Bank, 2014). Consequently, MSEs are crucial accelerators of social and economic development and wealth formation due to their substantial contributions to the national economy. Government entrepreneurial interventions enabled MSEs to increase growth in the manner of accessing knowledge-based resources and physical assets such as buildings, lands, equipment, machines, and adoption of suitable technology which facilitates a firm to interact with customers, and stay competitive, (Aidara *et al*, 2021). The Rwandan MSEs have been speeding up's vision of 2050 by building robust government entrepreneurial interventions (World Bank, 2014). This sector contributes to the country's economy by uplifting public revenue and creating more employment opportunities, (Okello, 2014).

Despite these efforts made by the government to expand the output of MSEs, the growth is still scanty (Aidara *et al*, 2021). They encounter problems of restricted financial capital and skills, quickly changing customer needs that require a dynamic market orientation, and constant technological innovations which are critical to firms' growth (Irungu & Kamau, 2015). As remarked by Gallup (2014), these challenges negatively affect 40% of new businesses failing during the first five years of operation. Overcoming these challenges requires strong entrepreneurial interventions to improve the growth of MSEs improve the growth of MSEs. It has been noted that public entrepreneurial interventions could have a positive impact on the growth if the specific interventions provided to this sector are adequate in nature, extent, and quality; e.g: quality of training, the extent of credits, level and nature of technology adopted and ability to operate profitably in markets, which is dominated by large firms, (Gherghina *et al,* 2020).

This study contributes to the study knowledge by considering the effects of four aspects of government entrepreneurial interventions. Many studies focused on one or two factors when carrying out research. They also considered RBV theory and Gibb's MSEs support theory only. This study also contributes to the research by providing four theories that support the study's hypotheses. The primary theory, RBV theory, describes all kinds of resources allowing firms to achieve full growth. Gibb's support theory demonstrates software and hardware support helps MSEs to realize their growth and supports the RBV theory. It also enlightens how the MSEs respond to all types of support. Adoption theory demonstrates the steps that firms follow in accepting or rejecting new technology. Finally, the theory of the growth of a firm gives details of all resources needed for firm growth.

It is for this reason that government has to induce entrepreneurial interventions which are significant strategies for improving the growth of youth-owned MSEs. Therefore, the study endeavored to investigate the contribution of entrepreneurial training, credit access, and technology-based social media and market access to the growth of youth-owned MSEs in Kigali, Rwanda.

1.1 Statement of the problem

Micro and Small Enterprises globally play a very important role in contributing to the Rwandan economy through employment generation and its significant contributions to the GDP, (World Bank, 2014). Therefore, entrepreneurial interventions have been initiated by various governments because they are widely seen as one of the essential factors that expand enterprises' development through profits and job generation (Rwamigabo, 2019). Even though the efforts made by the governments toward entrepreneurial interventions, the growth of enterprises is still unsatisfying (Uwitonze, 2016).

Past studies by Abay, Temanu, and Gebreegziabher, (2015) and Rwamigabo (2019) advanced four aspects that can influence the growth of MSEs specifically: entrepreneurial training, credit access, technology adoption, and market access. However, most of the previous studies concentrated on one or two aspects when carrying out research. The current study employed four factors to seek the direct relationship between government entrepreneurial interventions and the growth of Micro and Small Enterprises.

Different empirical studies averred that public entrepreneurial interventions have a positive influence on the firms' growth in the manner of accessing available resources, (Jibrilla, 2013; Simiyu 2018). This resource accessibility leads the firms to more opportunities for growth. The studies confirmed that interventions in entrepreneurship should have structures that allow MSEs to get existing resources required for firm growth. The studies assumed that there is a direct relationship between government entrepreneurial interventions and the firm's growth. The paper, therefore, seeks to illustrate the link between government entrepreneurial interventions and the growth of MSEs.

1.2 Objectives of the Study

The objective of the study was to investigate the effect of Government Interventions on the Growth of Youth-Owned MSEs in Kigali City, Rwanda

2. Review of Literature

This section revises the conceptual, theoretical, and empirical literature related to the research objectives.

2.1. Theoretical review

The research is anchored on four theories namely: Resource-Based View, adoption theory, Gibb's support theory, and growth theory of a firm.

2.1.1 Resource-Based Theory

The proponent of the Resource-Based View theory was Penrose (1959) who put forward that resource accessibility leads to the firm's growth. Alvarez and Busenitz, (2001) supported the theory by confirming that the growth of any business organization can be achieved when a firm holds the resources that others cannot get. An enterprise can achieve long-run growth if the resources held are characterized by uniqueness, scarcity, and inimitability, or hard to copy means that resources cannot be copied by other rivals, (Thompson, 2004). This facilitates enterprise to create unique values for clients and expansion achievement. Barney (1991) demonstrates six types of resources that enable a firm to realize growth and become competitive. For example financial, tangible, technological, organizational capital, intellectual and human resources. According to Aldrich, (1999), all these resources have been categorized into three classes which are financial, social, and human.

The theory provides two categories of resources to be accessed by an enterprise and these resources can be either material or non-material, (Jones and Hill, 2009). Tangible resources are visible and concrete; namely: land, buildings, and equipment while non-materials resources are palpable and computable. For example trademarks, administration processes, and routines of organizations that the firm used to organize and interrelate these resources, the reputation of a firm; goodwill, and among others. The theory states that resources used by a firm to interact with clients and competitors are external intangible resources, (Simpeh, 2011). The maximum utilization of resources is important for the business organization to achieve its objective, (According to Jones & Hill, (2009). The theory also reveals the hat business sector should not be overlooked since it plays a vital role in determining enterprises' growth and therefore entrepreneurs must consider the sector for deciding activities to be carried out. The RBV was utilized because it is anchored on four components of government entrepreneurial interventions which are the main factors affecting the growth of firms.

2.1.2 Gibb's MSEs Support Theory

The proponent of the Gibb model was Gibb (1998) and the author explains different support services that government policymakers must emphasize on them when designing entrepreneurial interventions for firms' growth. The model describes two kinds of support needed by the enterprise sector to realize its growth such as non-material and material support. The non-material support is training, counseling, consultancy, and others while material support comprises credit platform, infrastructure, and materials. The theory elucidates policy or interventions must be flexible, it means that support services can change resulting from a change in the needs of enterprises; a change in support structure; a change in institutional structure for firms, and a change in policy for the development of firms. Gibb states that there should be a policy structure clarifying supportive action to boost the firm growth and key aspects to measure achievable enterprises' growth. The theory notes that support structure should specify features. It has been asserted that MSEs' needs should not be overlooked from the beginning of program planning when programs are based on the need of enterprises; it reduces the probability of its failure.

The theory stipulates that the institutional framework should outline features and types of entrepreneurial interventions and explains how MSEs can benefit from initiated programs or policies. It should indicate institutions in charge of MSEs and their capability to capacitate enterprises for achieving their full growth. Gibb's theory has a role in determining how entrepreneurial intervention can change as a result of the alteration in the needs of the MSEs, reform in the support structure, change in institutions structure for MSEs, and change in policy for the development of the MSE sector. However, training, access to credit, market information, and technology infrastructure are essential supports that can be used to improve the growth of enterprises.

2.1.3 Adoption Theory

The proponents of adoption theory were Ryan and Gross (1943) and it is built on the assumption that individuals can adopt new technology by imitable character, (Hamed, 2017). The background and understanding of people are key elements that encourage the utilization of technology in society. Dearing and Jeffrey (2018) explains that people can learn new knowledge about technology-based online social media via their cultures. It has been stated that technology can also be learned through training, shared beliefs, or practices among enterprises. Innovation diffusion has a vital role in influencing an individual's adoption decision.

The technology-based online social media has been described as a particular social system that businesspeople are currently using to communicate with their business partners and competitors and it can be learned through culture over time. Rogers (1962) developed the adoption theory by demonstrating the stages that individuals have to follow when making a particular innovation acceptance, or rejection. The adopters must learn knowledge of how to apply the new technology and adopters must know the value of online social media before making an acceptance or rejection decisions, ((Tuten & Marks, 2012). Olupot and Mayoka (2013) noted three reasons that can guide an enterprise in accepting or rejecting new technology. These are rivals’ forces, low awareness of firms, and benefits expected from new technology-based online social media. According to Ardjouman (2014), different enterprises use technology as an influence resulting from trading partners, rivals, and government support and policy.

The business conditions and enterprise features are the main aspects that determine the utilization of technology in the enterprise. The theory also notes that technology acquisition depends on how an enterprise inspires its employees to adopt changes that are brought along with embracing technology. The theory brings out the importance of technological innovation adoption that an enterprise has to make for the enhancement of its capacity in handling issues related to growth (Oliveira & Martins, 2011). It also establishes all stages that a firm has to follow when making a particular online social media acceptance or rejection.

2.1.4 Theory of Growth of a Firm

The proponent of the growth of a firm theory was Penrose (1959) who enlightens the significance of resources in shaping a firm's growth. According to Evans (1987), the rule of proportionate growth avows that the growth of every business organization in the market is autonomous of its entire size. Therefore, micro, small, medium, and large enterprises have the same average proportionate rates of growth that is to say in the market; all firms can grow at the same ratio regardless of their size if they are given equal opportunity to access resources needed for growth. This theory describes the five stages of growth that all enterprises go through. The first phase is called the start-up stage and at this phase, the enterprise brings its idea into implementation.

The second stage is the survival stage whereby the firm deals with how it can make more cash flow for growth and continue its business operations in long run. The theory asserts that an enterprise is required to have enough cash flow for its survival and continued operations. The third is the success stage for which the firm increases its output and earnings through professionalization and technology adoption. The fourth phase is the take-off stage in which the enterprise tries to use gained resources at the optimum level and enhance the competencies of its employees through training. The last one is called the maturity stage whereby a firm must access and use effectively resources to attain full growth. The accessibility of resources determines how MSEs identify opportunities and convert them into profitable business ventures as well as facilitate growth. In the perspective of this study, the growth of a firm theory brings out the relevance because it shows how access to resources can be a source of competitive advantage and growth achievement.

2.2 Empirical Review

The study is attached to various constructs such as growth, government entrepreneurial interventions, individual characteristics, and micro and small enterprises. Thus, this section revised the conceptual literature which accurately explains each construct.

2.2.1 Entrepreneurial Training and Growth of Youth-Owned MSEs

Many researchers have agreed that entrepreneurial training has made notable improvements in the area of enterprise development across the world, (Mano *et al,* 2012). Therefore, various governments introduced training programs with the perception that entrepreneurial training would help to influence entrepreneurial culture and build enterprising economies among many young men and women by developing their mindsets and attitudes about enterprise management. Entrepreneurial training has been used to upturn entrepreneurial abilities with the aim focus on how to use technological innovation change, the techniques of applying modern management systems, customers' satisfaction shown by repeat purchasing, marketing strategies, and well-kept business records, (DeGobbi, 2014; Andaregie, *et al,* 2022). Entrepreneurial training substantially influences the growth of a firm if skills learned by youth entrepreneurs translated into more practical work, (Kithae, Kimani, & Mburia, 2013).

According to Kithae, Kimani, and Mburia (2013), entrepreneurial training can considerably contribute to the growth of a firm when skills learned by entrepreneurs translated into more practical work. Different empirical studies stated that trainees did not apply their gained skills because youth could not access financial resources. Yet, another study carried out by UNCTAD (2016) demonstrated that 70% of MSEs who had received training; could conveniently accomplish business undertakings. The study carried out by Salfiya and Haleem (2021) on entrepreneurial training and its contribution to enterprises' growth in Sri Lanka. The study utilized an explanatory research design and the finding asserted that training in marketing, quality maintenance, and financial management positively influences the enterprises' growth. Mohamed (2017) researched the contribution of entrepreneurial training to the growth of enterprises held by youth in Somalia. It has been noted that entrepreneurship training has a positive effect on the growth of firms. The study further affirmed that training benefited youth-owned MSEs by stimulating income in Somalia.

The Moroccan government has trained youth-owned MSEs with the purpose that they may advance their business capabilities; grow their enterprises, and endlessly contribute to the Moroccan economy, (Gray & Finley-Hervey,

2005). Umutoni (2018) observed that entrepreneurial training has enhanced the competencies and growth of MSEs in Rwanda. Entrepreneurial training has been documented as a major factor of interventions that the government provided to the MSEs for stimulating their growth. This training was normally aimed to transfer entrepreneurial capabilities which facilitate youth to carry out business activities. Thus, the study strived to provide detailed data by investigating the contribution of entrepreneurial training to the growth of youth-owned MSEs. The following hypotheses were formulated based on the conceptual framework:
Ho1: Entrepreneurial training has no significant contribution to the growth of youth-owned MSEs in Rwanda.

2.2.2 Access to Credit and Growth of Youth-Owned MSEs

Preceding studies have seen access to credit as the primary factor that can allow MSEs to access all other remaining resources (Rajan & Zingales, 2001; Ghoul, Guedhami, & Kim, 2017). Access to financial capital influences significantly the competitiveness and growth of MSEs. Owolabi, and Obida (2012) pointed out that for firms to achieve growth and be competitive, they must hold financial capital. However, Edwards *et al,* (2021) noted that the main growth restriction remains funds. This is because the majority of youth-owned enterprises do not get credits due to the collateral security required by banks. In another study Pandya (2012) noted that several countries formed microcredit programs targeting MSEs, but the findings revealed that the majority of MSEs are not able to acquire microcredits as a result of a lack of borrowing security with higher value, (Fatoki & Asah, 2011). Microfinance and financial institutions neglected youth-owned MSEs because most of them are not able to offer financial statement documents required by banks. The bank requirements limit their access to credit and affect negatively enterprise growth. The majority of MSEs prefer to use informal sources of financing.

According to research done by Nwosu, Emmanuel, and Anthony (2016), on financial credits and the expansion of small businesses in Nigeria. It has been found that access to credit has a vital role in assisting enterprises to access all kinds of assets needed by SMEs and improve firm performance. The study asserted that Nigerian SMEs still use informal sources of financing because they are not able to access banks' credits. Ovat, (2016) noted that the full growth of MSEs is limited by the shortage or inadequate credit. Lack of access to credit negatively influences the firm growth and affects a firm's decision to invest in fixed capital, research, and development (Muchiri, Shukla, & Kibachia, 2017). Pandya (2012) proved that credit has an important influence on SMEs' growth.

Wellalage and Locke (2016) investigated financial loans and the performance of enterprises in Sub-Saharan Countries and noted that the main growth restriction remains funds. This is because youth-owned enterprises do not get credits due to the collateral security required by banks. The study found that MSEs with high rates of growth; are enterprises that used or accessed credit from loan institutions. Previous researches show that most institutions do not target youth-owned MSEs because MSEs are not able to offer financial statement documents required by banks. On contrary, Geleta and Talegeta (2019) noted that several countries formed microcredit programs targeting MSEs, but their surveys revealed that the majority of MSEs are not able to access them. This is because high numbers of MSEs are not able to access bank credits. After all, owners of enterprises are required to have borrowing security with higher value, (Fatoki & Asah, 2011). These requirements limit their access to credit and affect negatively enterprise growth.

Mpakaniye and Paul (2017) affirmed that the establishment of a youth development fund facilitates MSEs to access bank credit, particularly those without sufficient collateral required by financial institutions. Most of the empirical studies confirmed that credit accessibility was also assisting MSEs in contributing to the country's development. The Rwandan government has supported young women and men in accessing credit with the aim that young people may improve their entrepreneurial capabilities; grow their firms, and continuously contribute to the Rwandan economy (Anyanwu, 2013). Therefore, this current study strived to provide detailed information by scrutinizing the contribution of entrepreneurial credit accessibility to the growth of youth-owned MSEs. The following hypotheses were built on the conceptual framework:
Ho2: Credit accessibility has no significant contribution to the growth of youth-owned MSEs in Rwanda.

2.2.3 Online Social Media and Growth of Youth-Owned MSEs

Various studies have indicated that online technology-based online social media improve business process and growth, (Winer, 2009). Some scholars have confirmed that the utilization of online social media increased interaction with customers, and sales return, and it has been found that there is a positive correlation between online social media and the growth of youth-owned MSEs, (Rapp *et al,* 2013). Handayani and Mahendrawathi (2019) revealed that the use of online social media influences the social capital of any business organization, which increases its financial and non-financial growth. Kemi (2016) demonstrated that the use of Facebook, LinkedIn, Twitter, YouTube, and Whatsapp had positively boosted sales growth. The study also noted that firms adopted these social media for product promotion, advertising services delivery, and showing different brands held by the enterprise. Xiang and Gretzel 2010; Parveen, Jaafar, and Ainin, (2015) explored how social media adoption influences the performance of small business companies and noted online social media increases sales turnover and the growth of SMEs. Many researchers noted that firms with the use of online social media performed well in their business activities than firms that were not concentrated on that (Appel *et al,* 2020).

According to Malthouse *et al,* (2013), online social media allows MSEs to access regional and international markets as some products are sold through social media. They further confirmed that online social media has removed geographical boundaries that were market entrance restrictions for MSEs. On the other hand, in developing countries MSEs ignore online social media because people depend on cultures of face-to-face bargaining instead of bargaining via online social media (Vij & James, 2014). Online social media entails incorporating new technological approaches that a firm uses to enter the market and improve growth through interacting with and reaching customers (Wang, & Kim, 2017). Malthouse *et al,* (2013) confirmed that online social media enables MSEs to enter the market without geographical boundaries. Another study by Rapp *et al,* (2013) noted that firms with the utilization of online social media can achieve growth as a result of reaching customers and finally making more sales. Hence, this current study strived to provide updated data by examining the contribution of technology-based online social media to the growth of youth-owned MSEs. The following hypotheses were formulated based on the conceptual framework:
Ho3: Online social media adoption has no significant contribution to the growth of youth-owned MSEs in Rwanda.

2.2.4 Market Access and Growth of Youth-Owned MSEs

Market access influences on the growth of enterprises since market accessibility increases the probability of growth achievement through making more sales (Hessels, & van, 2011). Therefore, market access has been noted as an essential factor affecting the growth of MSEs. According to Seelos and Mair (2007), youth-owned MSEs with more market information and other market facilities can realize firm growth. It has been asserted that MSEs' growth is determined by how an enterprise accesses market opportunities for maximizing its output. Chigunta (2001) scrutinized the issues limited small business organizations to access local and international markets. The study found that MSEs do not have enough skills for innovating their product and services which limit their competitiveness in international markets. Empirical evidence asserted that youth-owned enterprises copied and operated successful businesses which lead to high local competition.

Ali *et al,* (2020) investigated the obstacles and public policies encumbering small enterprises' international market expansion in Sub-Saharan Countries. The study used access procurement access, contracts access, financing regulatory structure, and access to market information as independent variables. The findings indicated that market information barriers and institutional environment have negative influences on the expansion of small business organizations and these barriers reduce their accessibility to the regional and international markets. Chigunta (2001) scrutinized the issues limited small business organizations to access international markets. This is because youths do not have enough skills about innovating their product and services which limit their competitiveness in global markets. For that reason, this current study endeavored to provide current information by examining the contribution of entrepreneurial training to the growth of youth-owned MSEs. The following hypotheses were built on the conceptual framework:
Ho4: Market access has no significant contribution to the growth of youth-owned MSEs in Rwanda.

3. Research Methodology

3.1 Research Design

Explanatory and descriptive research designs were adopted in this research. Descriptive research design has vital in delineating the nature of the relationship between dependent and independent variables, (Muathe, 2010, Rahi, 2017). An explanatory research design determines the causal relationship between government entrepreneurial interventions and the growth of youth-owned MSEs, (Mathie, 2006).

3.2 Study Context and Population

The study was carried out in 35 administrative sectors comprising Gasabo, Kicukiro, and Nyarugenge which are three districts of Kigali city, Rwanda. The City of Kigali was selected because of the highest number of youth-owned MSEs benefiting entrepreneurial interventions delivered by the government. Some youth-owned MSEs strived to bring their enterprise to success while others failed thus being appropriate for this study. The study has chosen MSEs since they occupied more than 90% of youth and MSEs have been found to generate income and employment opportunities for a high proportion of inhabitants.

The study also concentrated on the youth-owned MSEs; with 35 years and below and who were operating economic activities in the City of Kigali for the period of data collection. The study also targeted youth-owned MSEs that got at least one entrepreneurial intervention given by the government. The MSEs were drawn from the following different business sectors, agriculture, mining, commerce, services, manufacturing, and energy. For the youth-owned Micro and Small Enterprises being unit of population, they ought to operate a profitable business as well as hold a recent business certificate. The unit of analysis was the MSEs, while the unit of observation was the youth-managed MSEs. The stratified sampling technique was also employed to select 154 youth-owned MSEs from 252 of the population (Alene, 2020). The Yamane (1967) formula was utilized to formulate a sample size. The study gathered data using open and closed-ended questions to assess the effect of government entrepreneurial interventions on the growth of MSEs in Kigali city, Rwanda.

3.3 Research Data and Analysis

The questionnaires were used to collect data from youth-owned MSEs related to the government entrepreneurial interventions and growth of youth-owned MSEs. The data which was mainly quantitative in nature was analyzed using multiple linearr regression. However, before the analysis diagnostic tests were carried on to test the assumption of regression analysis.

4. Results and Discussion

The study intended to test whether government entrepreneurial interventions have an impact on the n growth of youth-owned MSEs in Kigali Rwanda.

4.1 Regression Analysis

As good practice before the regression analysis which was used to test the hypotheses of the study was done it was necessary to test the assumption of the regression**.** The results are presented below

4.2 Diagnostic tests

Several diagnostic tests were undertaken to confirm whether the basic assumptions of the regression model has not been violated and the findings were presented below

Table1: Diagnostic tests

Test	**Measures**	**Results**	**Interpretations**
Multicolliniarity	VIF	VIF>10	No multicolliniarity

Normality	Shapiro-wilk test	P>0.05	Normally distributed
Sample adequacy	Bartlett's Test of Sphericity and Kaiser-Meyer-Olkin	KMO 0.806 Bartlett's Test 0.000	The research sample was adequate
Linearity	Pearson's correlation coefficient	r > 0	Positive linear relationship
Reliability	Entrepreneurial training	0.857	Reliable
	Access to credit	0.889	Reliable
	Online social media	0.900	Reliable
	Market access	0.875	Reliable
	Individual characteristics	0.919	Reliable
	Growth	0.797	Reliable

The sample adequacy, linearity, homoscedasticity, normality, and multicollinearity assumptions of the linear regression model have been examined and analyzed to confirm the specification of the linear regression model (Morgan *et al*, 2019)

4.3.1 Testing of Hypotheses

H_{01}: Entrepreneurial training does not influence the growth of MSEs in Kigali, Rwanda.
H_{02}: Access to credit does not contribute to the growth of MSEs in Kigali, Rwanda.
H_{03}: Online social media does not contribute to the growth of MSEs in Kigali, Rwanda.
H_{04}: Market access does not contribute to the growth of MSEs in Kigali, Rwanda.

4.3.1 Model Summary

The adjusted R squared indicates the variation in the MSEs' growth caused by equal changes in the government entrepreneurial interventions as displayed by results in table 2.

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. the Error of the Estimate	R Square Change	Durbin Watson
1	.791[a]	.626	.616	.17001	.626	2.767

Table 2, shows the adjusted R-squared value of 0.626. It indicated that there is a variation of 62% in the growth of SMEs in Kigali city due to training, access to credit, online social media, and market access, and it has been measured using a 95% of confidence level. The study shows that all other factors remain constant; the 62% change in the growth of MSEs is contributed by variations in entrepreneurial training, access to credit, online social media, and market access. Table 2 indicated the strong correlation between government entrepreneurial interventions and the growth of MSEs as indicated by a robust coefficient of correlation of 0. 791.

4.3.2 Analysis of Variance (ANOVA)

The significance of the study was also tested by use of the ANOVA method and the results were displayed in Table 3 below.

Table 3: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	7.221	4	1.805	62.454	.000[b]
	Residual	4.307	149	.029		
	Total	11.527	153			

a. Dependent Variable: growth
b. Predictors: (Constant), training, credit, online social media, market access

Table 3 indicates that the p-value of 0.000 is less than 0.05 and F (4,149) = 62.454. This is an indication that entrepreneurial training, access to credit, online social media, and market access has a significant contribution to the MSEs' growth in Kigali city, Rwanda.

Table 4: Regression Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.607	.499		1.217	.024
	Entrepreneurial Training	.171	.117	.161	1.466	.016
	Access to credit	.109	.111	.112	.981	.032
	Online Social Media	.111	.135	.106	.825	.042
	Access to Market	.764	.144	.697	5.315	.000

a. Dependent Variable: Growth of youth-owned MSEs

Source: Survey data, 2022

Table 4 shows that entrepreneurial training, access to credit, online social media, and market access are individually correlated with the growth of youth-owned MSEs. The following model has been drawn from table 4:

Growth of MSEs = 0.607 + 0. 171 entrepreneurial training + 0.109 access to credit + 0.111online social media + 0. 764 access to market + e…………………………………Model 1

H_{01}: Entrepreneurial training does not affect the MSEs' growth in Kigali, Rwanda.

Table 4 shows that entrepreneurial training and the growth of MSEs specifically those managed by youth; the two variables are statistically correlated as β= 0.171and p=0. 016 which is less than 0.05 at the confidence level of 95%. **H_{01}** was rejected; it means that entrepreneurial training affected the MSEs' growth in Kigali. The results found in Table 4.5 do not differ from the resource-based view and other studies. According to the Resource-Based View, access to the resources such as training is critical for firms to achieve growth (Brem & Wolfram 2014). These arguments are agreed with studies by Haider, *et al,* (2017), and Mamo, (2022), who found that entrepreneurial training, is the main component of government entrepreneurial interventions that allow firms to access knowledge-based needed for the growth of enterprises. Other studies, including that by Semegn and Bishno, (2021), which reflected on the influence of training on the growth of the firm in Ethiopia, they agreed with the findings of this study; since their studies confirmed training as an important factor that contributes to the growth of enterprises.

H_{02}: Access to credit does not affect the MSEs' growth in Kigali, Rwanda.

Table 4.5 shows that access to credit has β= 0.109 and p=0.032 which is less than 0.05. Access to credit has an effect on the growth of micro and small enterprises in Kigali, Rwanda, according to a 95 percent confidence level. It is indicated that there is a substantial correlation between access to credit and the growth of MSEs in Kigali, Rwanda, at a confidence level of 95%. **H_{02}** was rejected. The findings agreed with other research carried out by Semegn and Bishno, (2021), which was dedicated to the effect of credit on firm growth in Nigeria, they are agreed with the findings of this study; since their studies confirmed that finances accessibility has a substantial impact on the growth of enterprises, additionally, Acquah and Mensah's (2015) study noted that financial credit contributes to firm growth. RBV theory arguments support these findings because credit enables enterprises to access other existing resources needed for firm growth (Sok, O'Cass, & Sok, 2013).

H_{03}: Online social media does not influence the MSEs' growth in Kigali, Rwanda.

Table 4 reveals that online social media has an important contribution to the growth of MSEs in Kigali, Rwanda, with p=0.042 being less than 0.05. It means that **H_{03}** was rejected, and it means that the alternative hypothesis was accepted. Online social media has the greatest impact on customer retention and sales improvement. According to the study by Salim and Sulaiman (2011), online social media and growth are statistically and positively correlated even if; some enterprises do not focus on online social media. Moreover, Sylvie (2012) found that online social media positively influence the growth of small firms.

H_{04}: Market access does not influence the growth of MSEs in Kigali, Rwanda.

The study reveals that there is a positive correlation between market access and growth of MSEs in Kigali, Rwanda at a confidence level of 95%, as β= 0.764 and p=0.000 lesser than 0.05. **H_{04}** was rejected and the alternative hypothesis was accepted. Different studies revealed a positive relationship between market access and growth (Al-Ansari, Pervan, and Xu, 2013). Therefore, access to market enables firms to sell more as well as to grow. Different forms of accessing resources are unique approaches that youth-owned MSEs utilize to create possibilities in a changing economy (Schumpeter, 1942).

5. Conclusion and Policy Recommendation

5.1 Conclusion

The purpose of the study was to investigate the effect of government entrepreneurial interventions on the growth of youth-owned MSEs in Kigali City, Rwanda. The study concluded that the growth of MSEs has been based on the resources-based view, Gibb's support, technology-based online social media adoption, and the growth of firm theories. Government entrepreneurial interventions enabled MSEs to survive and grow from the infantry to the maturity stage. The research findings confirmed that the four components of the government entrepreneurial interventions have significantly influenced the growth of youth-owned MSEs. The level of growth explained has been attributed to resource accessibility. Many empirical studies agreed with this research that financial credit is the most cogent for the growth of any enterprise.

5.2 Policy Implication

Entrepreneurial training had a positive effect on the growth of youth-owned MSEs in Kigali city, Rwanda hence Government through the relevant ministry should enhance training to the growth. The entrepreneurial training should be given to the MSEs and their employees so that they can gain necessary skills in various aspects of managing the business, the course of entrepreneurship should be included curriculum at all levels. This will have an overall positive influence on the sustainability of their business. The Rwandan government and its stakeholders should intervene by designing and enforcing a financial strategy to assist the MSEs to get credit in flexible terms. The study recommends that the government and its partners must create platforms aimed at providing market information to the MSEs. The study highly recommended that micro and small business use technology-based online social media in business operations as a better way to reach and, or interact with customers during this period of online business.

5.3 Limitation and Future direction of Research

The authors note that there are several limitations to the findings of the study. The data was obtained from self-reported data by the respondents and could have challenges of accuracy particularly on the growth construct of the study. Hence for validation purposes, future research could design a similar study with an expanded scope of respondents to include the public players. Secondly, the conceptual scope of the operationalization of the independent variable was limited by the four components of government entrepreneurial interventions. It is therefore suggested that future research could expand the set of components investigated under the component of government entrepreneurial interventions.

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The Effect of Tangibility, Profitability, and Firm Size on Financing Policy with Debt: Evidence from Companies in the Consumer Goods Industry

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Abstract
This research is expected to check the influence of tangibility, profitability, and firm size on financing policy with debt. Moreover, to implement this purpose, this study employs the Indonesian-listed companies in the consumer goods industry between 2018 and 2020. Once calculating the sample size by the Slovin formula, twenty-one firms are obtained. Additionally, this study utilizes the probability of t-statistic for the related regression coefficients to examine hypotheses. After testing them, this study demonstrates that tangibility and company size positively affect the financing policy with debt; however, the more profits, the less debt to finance the assets.

Keywords: Asset Structure, Financing Policy with Debt, Firm Size, Profitability

I. Introduction

Besides investing and dividing profits in dividends, one of the firm policies is financing. Financing policy is related to selecting funding sources: debt or equity. Furthermore, related to debt, the company needs to use it carefully. It is due to two opposite consequences: tax saving and bankruptcy (Gitman & Zutter, 2015). To anticipate the high liabilities causing the business default, issuing stocks in the capital market for the first time becomes the best alternative (Husnan, 2015).

The financing pattern will differ if the company is already in the capital market. Pecking order theory suggests that it should utilize retained earnings. Then, if these earnings are insufficient, the company is advised to issue bonds and their convertible. The last step recommends that the company issue stocks (Brealey et al., 2020).

The studies investigating the determinant of financing policy get the attention of researchers using the capital market data from Indonesia (Arilyn, 2019; Hadianto, 2015), Pakistan (Nasimi et al., 2018), India (Chadha & Sharma, 2015; Dakua, 2019; Handoo & Sharma, 2014), Bangladesh (Imtiaz et al., 2016), Malaysia (Basri et al., 2019; Saif-Alyousfi et al., 2020), Iran (Alipour et al., 2015), China (Setiawan & Yumeng, 2021), Vietnam (Nguyen et al., 2021), and South Korea (Prieto & Lee, 2019).

By referring to them, at least three determinants of financing policy with debt are available: tangibility, profitability, and firm size. Unfortunately, the results for the impact of tangibility on financing policy are still inconsistent: negative (Alipour et al., 2015; Arilyn, 2019; Imtiaz et al., 2016; Setiawan & Yumeng, 2021), positive (Basri et al., 2019; Chadha & Sharma, 2015; Handoo & Sharma, 2014; Nasimi et al., 2018; Nguyen et al., 2021; Saif-Alyousfi et al., 2020), and meaningless (Dakua, 2019; Prieto & Lee, 2019).

Similarly, the results for the impact of profitability on financing policy with debt are still contrary: negative (Alipour et al., 2015; Chadha & Sharma, 2015; Hadianto, 2015; Handoo & Sharma, 2014; Imtiaz et al., 2016; Nasimi et al., 2018; Nguyen et al., 2021; Prieto & Lee, 2019; Saif-Alyousfi et al., 2020; Setiawan & Yumeng, 2021) and positive (Basri et al., 2019; Dakua, 2019).

Finally, the results for the impact of firm size on financing policy with debt are still conflicting: negative (Alipour et al., 2015; Chadha & Sharma, 2015; Handoo & Sharma, 2014; Nasimi et al., 2018), positive (Basri et al., 2019; Prieto & Lee, 2019; Saif-Alyousfi et al., 2020; Setiawan & Yumeng, 2021), and absent (Dakua, 2019; Imtiaz et al., 2016; Nguyen et al., 2021).

The different empirical results of the three determinants of financing policy with the debt motivate this study by using the Indonesian capital market-listed enterprises in the consumer goods industry in Indonesia between 2018 and 2020. According to Azis et al. (2022), this industry is still prospective in Indonesia because of two matters. Firstly, Indonesians are numerous with their basic needs. Secondly, the goods produced by these companies are fast-moving to serve this community. By considering these potential reasons, the companies in this industry can utilize bank loans or issue bonds in the capital market.

2. Literature Review and Hypothesis Development

2.1. Tangibility and financing policy with debt

In some previous studies, tangibility for a company is reflected by the portion of the fixed assets in total assets (Alipour et al., 2015; Chadha & Sharma, 2015; Dakua, 2019; Handoo & Sharma, 2014; Imtiaz et al., 2016; Prieto & Lee, 2019; Setiawan & Yumeng, 2021). According to static trade-off theory, these assets are guaranteed by the company to borrow money from the banks, which will cut their lending risk (Rajan & Zingales, 1995). Besides, these assets can be collateral to issue bonds in the capital market (Hartono, 2017). As a result, the more fixed assets are assured, the more debt the company has (Rajan & Zingales, 1995). The explanation based on this theory is confirmed by Handoo and Sharma (2014), Chadha and Sharma (2015), Nasimi et al. (2018), Basri et al. (2019), Saif-Alyousfi et al. (2020), and Nguyen et al. (2021), declaring a positive influence of asset structure on capital structure. By mentioning this information, the first hypothesis is like this.
H_1: The tangibility positively affects the tendency of the firms to utilize debt.

2.2. Profitability and financing policy with debt

Profitability is the capability of the company to result in profits, and if these profits are more extensive, the company can reserve them as retained profits (Gitman & Zutter, 2015). According to the pecking order theory, the company with these sufficient profits will use them to finance the investment projects at the beginning stage and

does not utilize debt and issue stocks in the following step. Therefore, this company does not depend on debt (Brealey et al., 2020). The explanation of this theory is affirmed by Alipour et al. (2005), Chadha and Sharma (2015), Hadianto (2015), Handoo and Sharma (2014), Imtiaz et al. (2016), Nasimi et al.(2018), Prieto and Lee (2019), Saif-Alyousfi et al. (2020), Setiawan and Yumeng (2021), and Nguyen et al. (2021). By denoting this information, the second hypothesis is like this.
H_2: Profitability negatively affects the tendency of the firms to utilize debt.

2.3. Firm size and financing policy with debt

A big company can diversify the default risk and overcome bankruptcy, leading to more debt utilization (Rajan & Zingales, 1995). This enlightenment is supported by Basri et al. (2019), Prieto and Lee (2019), Saif-Alyousfi et al. (2020), and Setiawan and Yumeng (2021), reporting a positive effect of the size on capital structure. By referring to this information, the third hypothesis is as follows.
H_3: Firm size positively affects the tendency of the firms to utilize debt.

3. Research Method

3.1. Variable Definition

In this study, we utilize the debt-to-total assets ratio (DAR) to measure the financing policy with debt acting as the dependent variable by mentioning Handoo and Sharma (2014), Alipour et al. (2015), Chadha and Sharma (2015), Hadianto (2015), Imtiaz et al. (2016), Dakua (2019), Prieto and Lee (2019), and Setiawan and Yumeng (2021).

Moreover, to measure tangibility, profitability, and firm size as the independent variable, we use the net fixed asset-to-total asset ratio (FATAR) by denoting Handoo and Sharma (2014), Alipour et al. (2015), Chadha and Sharma (2015), Imtiaz et al. (2016), Dakua (2019), Prieto and Lee (2019), and Setiawan and Yumeng (2021), return on equity (ROE) by referring to Dakua (2019), and the natural logarithm of total assets: LN(TA), by mentioning Handoo and Sharma (2014), Alipour et al. (2015), Chadha and Sharma (2015), Imtiaz et al. (2016), Dakua (2019), Prieto and Lee (2019), and Setiawan and Yumeng (2021).

3.2. Population and Samples

The population comes from the enterprises in the consumer goods industry in the Indonesian capital market between 2018 and 2020. Based on the observation from IDX Fact Book, their number is 26, and the company names exist in Table 1.

Table 1: The names of the company as the population

No.	Stock code	The name of the company	Sub-sector
1	ADES	Akasha Wira International Tbk.	Food and beverage
2	AISA	Tiga Pilar Sejahtera Food Tbk.	Food and beverage
3	CEKA	Wilmar Cahaya Indonesia Tbk.	Food and beverages
4	DLTA	Delta Djakarta Tbk.	Food and beverages
5	DVLA	Darya Varia Laboratoria Tbk.	Pharmaceuticals
6	GGRM	Gudang Garam Tbk.	Tobacco manufacturers
7	HMSP	HM Sampoerna Tbk.	Tobacco manufacturers
8	INDF	Indofood Sukses Makmur Tbk.	Food and beverages
9	KDSI	Kedawung Setia Industrial Tbk.	Houseware
10	KICI	Kedaung Indah Can Tbk.	Houseware
11	KLBF	Kalbe Farma Tbk.	Pharmaceuticals
12	LMPI	Langgeng Makmur Industri Tbk.	Houseware
13	MERK	Merck Tbk.	Pharmaceuticals
14	MLBI	Multi Bintang Indonesia Tbk.	Food and beverages
15	MRAT	Mustika Ratu Tbk.	Cosmetics and household

Table 1: The names of the company as the population

No.	Stock code	The name of the company	Sub-sector
16	MYOR	Mayora Indah Tbk.	Food and beverages
17	PSDN	Prasidha Aneka Niaga Tbk.	Food and beverages
18	RMBA	Bentoel International Investama Tbk.	Tobacco manufacturers
19	SCPI	Schering Plough Indonesia Tbk.	Pharmaceuticals
20	SKLT	Sekar Laut Tbk.	Food and beverages
21	SQBB	Taisho Pharmaceutical Indonesia Tbk.	Pharmaceuticals
22	STTP	Siantar Top Tbk.	Food and beverages
23	TCID	Mandom Indonesia Tbk.	Cosmetics and household
24	TSPC	Tempo Scan Pasific Tbk.	Pharmaceuticals
25	ULTJ	Ultrajaya Milk Industry & Trading Co.	Food and beverages
26	UNVR	Unilever Indonesia Tbk.	Cosmetics and household

Before taking the companies as samples, their number (n) has to be calculated. Moreover, the Slovin formula with a margin error (e) of 10% in Suliyanto (2009) is used (see the first equation).

$$n = \frac{N}{1+Ne^2} \qquad \text{(Equation 1)}$$

With this formula, the total samples obtained are $\frac{26}{1+26(10\%)^2} = \frac{26}{1.26} = 20.63 \approx 21$ companies. Furthermore, 21 companies are taken randomly from the population by a simple random sampling technique. After that, the code of the firms becoming samples is AISA, CEKA, DLTA, DVLA, HMSP, KDSI, KICI, MERK, MLBI, MRAT, MYOR, PSDN, RMBA, SCPI, SKLT, SQBI, STTP, TCID, TSPC, ULTJ, and UNVR.

3.3. Method to testing the data

This study employs t-statistics to inspect the hypotheses based on the coefficient of the regression model with pooling data. Moreover, this model is described in the second equation:

$$DAR_{it} = \beta_0 + \beta_1 FATAR_{it} + \beta_2 ROE_{it} + \beta_3 LN(TA)_{it} + \varepsilon_{it} \quad \text{(Equation 2)}$$

This regression model adopts the ordinary least square technique to estimate its coefficients (Nachrowi & Usman, 2006). Therefore, this model must meet the classical assumption tests, such as normality, non-autocorrelation, non-multicollinearity, and homoscedasticity (Ghozali, 2021).

4. Result and Discussion

4.1. Descriptive Statistics

This study uses 21 firms as the samples and three years as the period. Hence, the total observation (N) is 63. Furthermore, the minimum, maximum, mean, and standard deviation for DAR, FATAR, and ROE, exist in Table 2. In this table, the smallest, greatest, mean, and standard deviation for DAR are 0.02, 0.74, 0.1330, and 0.16836. For FATAR, the lowest, highest, average, and standard deviation are 0.09, 0.94, 0.3404, and 0.20933. The smallest, highest, average, and standard deviation for ROE are -118.17%, 137.46%, 21.7302%, and 50.54945. For LN(TA), the lowest, highest, average, and standard deviation are 11.38, 17.13, 14.0668, and 1.36516.

Table 2: The statistics to describe the variables

Variable	N	The Smallest	The Highest	Average	Standard deviation
DAR (decimal)	63	0.02	0.74	0.1330	0.16836
FATAR (decimal)	63	0.09	0.94	0.3404	0.20933
ROE (%)	63	-118.17	137.46	21.7302	50.54945

Table 2: The statistics to describe the variables

Variable	N	The Smallest	The Highest	Average	Standard deviation
LN_TA (decimal)	63	11.38	17.13	14.0668	1.36516

Source: Output of IBM SPSS 19

4.2. The result of classical assumption tests

The normality and autocorrelation examinations apply Kolmogorov-Smirnov, runs, and variance inflation factor (VIF) performed by IBM SPSS 19. Also, the multicollinearity is detected by the variance inflation factor using a similar program. Furthermore, these testing results can be seen in the third table: the residuals follow the normal distribution and non-autocorrelation, reflected by the asymptotic significance (2-tailed) of the Z-KS for residuals and Z-statistic based on runs test above α of 5%: 0.071 and 0.856. Besides, multicollinearity does not exist, as demonstrated by the variance inflation factor below 10 for FATAR: 1.053, ROE: 1.125, and LN(TA): 1.186.

Table 3: The testing result of normality, autocorrelation, and heteroscedasticity

The test of classical assumptions	Result	Meaning
Normality based on Kolmogorov-Smirnov (KS)	The asymptotic significance (2-tailed) of the Z-KS for residuals is 0.071.	Residuals are normally distributed because the asymptotic significance is above α of 5%: 0.071.
Autocorrelation based on runs with mode as the reference	The asymptotic significance (2-tailed) of the Z-statistic is 0.856.	The autocorrelation does not occur because the asymptotic significance is above α of 5%: 0.856.
Multicollinearity based on the variance inflation factor	VIF for FATAR is 1.053, ROE is 1.125, and LN(TA) is 1.186.	Multicollinearity does not exist because VIF is lower than 10.

Source: Output of IBM SPSS 19

The fourth table shows the White heteroscedasticity test result with the probability of Chi-Square for observation R-square of 0.0034. This value is less than α of 5%; hence, heteroskedasticity occurs. Also, this situation is supported by the likelihood of the t-statistic for FATAR^2 and ROE^2 below α of 5%: 0.0067 and 0.0111.

Table 4: White test result: Residuals = f(FATAR^2, ROE^2, LN(TA)^2

Variable	Coefficient	Std. Error	t-Statistic	Probability
C	0.021792	0.013672	1.593915	0.1163
FATAR^2	-0.018541	0.006599	-2.809680	0.0067
ROE^2	1.71E-06	6.54E-07	2.623224	0.0111
LN(TA)^2	-5.56E-05	7.18E-05	-0.774558	0.4417
Obs*R-squared	13.65175	Probability of Chi-Square(3)		0.0034

Source: Output of EVIEWS 6

4.3. The regression model estimation

In this regression model, heteroskedasticity occurs (see Table 4). Therefore, this study makes the standard errors and covariance consistent using E-Views 6, as Gujarati and Porter (2019) explain. As a result, the adjusted estimation of the regression model is displayed in Table 5.

Table 5: The regression model estimation result based on White heteroskedasticity-consistent standard errors and covariance: The effect of tangibility, profitability, and firm size on the financial policy with debt

Variable	Coefficient	Std. Error	t-Statistic	Probability
C	-0.209919	0.141811	-1.480271	0.1441
FATAR	0.132184	0.053791	2.457343	0.0170
ROE	-0.002586	0.000525	-4.923104	0.0000

LN(TA)	0.025173	0.010492	2.399298	0.0196
R-squared	0.539084	F-statistic		23.00201
Adjusted R-squared	0.515648	Prob(F-statistic)		0.000000

Source: Modified Output of E-VIEWS 6

Table 5 demonstrates the probability of t-statistic for FATAR, LN(TA) with the positive sign is 0.0170 and 0.0196. This value is below α of 5%; therefore, the first and third hypotheses declaring tangibility and firm size affect financial policy positively are recognized. Meanwhile, the probability of a negative coefficient of ROE is 0.0000. Again, this value is under α of 5%; thus, the second hypothesis stating profitability negatively influences financial policy is acceptable.

4.4. Discussion

This study verifies the first hypothesis: tangibility's positive influence on financing policy using debt. This positive tendency means firms use their fixed assets to borrow money from banks or issue bonds in the capital markets. With these collaterals, the lenders get assurance that their position will be safe if the firms fail to pay their liabilities. By having this positive sign, this study confirms Handoo and Sharma (2014), Chadha and Sharma (2015), Nasimi et al. (2018), Basri et al. (2019), Saif-Alyousfi et al. (2020), and Nguyen et al. (2021).

For the second hypothesis declaring that profitability negatively affects the tendency of the firms to utilize debt, this study affirms it. It means that the firms are afraid of bankruptcy. By accumulating the earnings, they finance the projects. If they do not exist, the firms can allocate the profits to pay for the principles, decreasing the bank loan. Also, they can save profits to pay the bond principals in maturity. By having this negative sign, this study confirms Alipour et al. (2005), Chadha and Sharma (2015), Hadianto (2015), Handoo and Sharma (2014), Imtiaz et al. (2016), Nasimi et al.(2018), Prieto and Lee (2019), Saif-Alyousfi et al. (2020), Setiawan and Yumeng (2021), and Nguyen et al. (2021).

For the third hypothesis declaring that firm size positively affects the tendency of the firms to utilize debt, this study proves it. In this context, big firms can hire experts to analyze and diversify the risk. This potency is proven to increase the tendency of companies to borrow debt from banks or issue bonds from the capital market. Hence, this positive sign confirms Basri et al. (2019), Prieto and Lee (2019), Saif-Alyousfi et al. (2020), and Setiawan and Yumeng (2021).

5. Conclusion

This investigation intends to prove the effect of tangibility, profitability, and firm size on financing policy with debt in companies in the consumer goods industry. After utilizing the regression model to examine pooling data from 2018 through 2020 based on 21 firms as the sample, this study infers that tangibility and firm size positively influence the financial policy to use debt. Unfortunately, a negative propensity of profitability on debt exists.

This research only uses three years as time observation and three determinants as restrictions. This circumstance motivates the subsequent researchers interested in this topic to add the periods to be ten years, for example, to get a better conclusion. Also, they can insert some explaining variables of capital structure determinants in their model, such as non-debt tax shield, firm growth, liquidity, firm age, effective tax rate, and macroeconomic factors: economic growth, inflation, and interest rate.

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Talent Management Research Trends in International Market-Based Organizations: A Bibliometric Analysis from 2018 to 2021

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Abstract
The purpose of this article is to collect information on previous research on talent research trends in international market-based organizations 2018 - 2021, with Bibliometric analysis. The analytical tool used in this article is to use VOSviewer. The data sources used are 985 RIS documents obtained from Google Scholar and Scopus databases with Publish or Perish software. The analysis results show that the most significant nodes are firm performance. This shows the trend of talent management that is most often carried out. These nodes also correlate with a performance measure and culture nodes.

Keywords: Talent Management, Bibliometric Analysis, Firm Performance, International Organization, Trend Research

1. Introduction

Globalization is changing how business works and creating a new era in almost all industrial sectors. This certainly impacts the increasingly complex market complexity in the business world, the evolution of technology in the future, and a significant increase in global competition (Tarigan et al., 2018). Issues related to globalization that occur require every organization in all fields to face competitiveness in their respective industries. In this competition, talent management today is the fundamental driving force for organizations to succeed in facing globalization (A El Dahshan et al., 2018). In addition, due to changing industry dynamics, organizational managers in all sectors need a new perspective on the work goals and attributes of future generations of workers to attract, recruit and retain talented people (Qureshi et al., 2022). Therefore, every organization needs continuous learning to obtain further information that can be used as a competitive advantage and develop an effective business strategy. This causes the need for organizational learning processes to increase.

Talent management is crucial in creating, developing, and maintaining a competitive advantage for every organization (Jindal & Shaikh, 2021). In the face of globalization, organizations must be responsive to organizational learning that focuses on individuals involved in the organization because they are a source of ideas and knowledge in line with how to design appropriate strategies for employees to compete in the international market. The strategy applied must be correct so that the organization can run following the specified goals. Organizations must also have characteristics, develop and, as long as possible, retain employees, especially those with extraordinary potential. Therefore, organizations compete with each other to acquire and retain talent so that their organizations develop and continue to grow (A El Dahshan et al., 2018).

Human capital refers to knowledge, skills, and abilities more valuable to the recipient organization than current organizations (Amankwah-Amoah, 2020). Additionally, businesses that are able to recruit and keep competent or great workers through efficient talent management will be able to thrive in a changing business climate since these workers may be able to grow and advance in ways that are advantageous to the firm. That way, talent management is indeed very influential in this issue. *Talent management* is a strategic process that is very important in ensuring the sustainability and success of an organization (Shingenge et al., 2022). A competent workforce is currently being prioritized more as a result of advancements in the information economy. The key to getting the best outcomes is having the best talent. A winning organization is created through an efficient talent management system that uses tactics designed at various levels. The competitive advantage of a winning organization depends on the ability to effectively recruit, retain, deploy and engage talent at all levels of the hierarchy (Hongal & Kinange, 2020a).

Talent management is also a major global challenge facing most organizations worldwide. Due to the scarcity of talent, organizations worldwide are competing for the same talent to acquire and retain talent to sustain their operations and continue to grow in service and profitability. Since 2010, there has been an increasing number of empirical studies on talent management, leading to the first claim that this mode of management, as the concept mentioned earlier, is likely to become a mature trend in the next few years (TABOR-BŁAŻEWICZ, 2019). Thus, it can be explained that talent management is important to study in line with the development of international-based business organizations. Companies such as AT&T Inc., Walmart Inc., JP Morgan Chase & Co., and Accenture PLC have begun efforts to prepare workers for new roles. At a time of historically low unemployment and rapid digital transformation requiring high-tech job skills, more US companies are saying they want to help their employees transition to new positions (Chip Cutter, 2019).

2. Method

This research was conducted to collect information from previous research related to trends in talent research in international market-based organizations from 2018 - 2021 so that it is included in Bibliometric research. Bibliometric methodologies summarize the application of quantitative techniques (i.e., bibliometric analysis—e.g., citation analysis) to bibliometric data (e.g., publication units and citations) (Donthu et al., 2021) To conduct a literature review, meta-analysis, bibliometric study, and content analysis. This study adopted a method to identify, sort, and report related articles (Nagariya et al., 2021).

The review of criteria that might be integrated in the selection and recruiting process for company growth has been explored in several earlier papers on the issue of talent management and bibliometric models (Abbasi et al., 2022). The previous research discussed more about the condition of talent management itself on a global scale (Beechler & Woodward, 2009). In the meanwhile, a different piece explores how talent management affects organizational performance (Hongal & Kinange, 2020b), (Ejovwokeoghene et al., 2018), (A El Dahshan et al., 2018). Some of these articles became support for the preparation of this research trend.

The data sources for this research are international articles, and the organization of the data is done by searching through the database that we got through Google Scholar on the publish or perish software. For keywords in the search field it is written as (JUDUL-ABS-KEY ((TALENT MANAGEMENT INTERNATIONAL MARKET-BASED ORGANIZATIONS "all"))). The open access and registry institution keywords or phrases are searched in the database using the "Document Search" search area. The year of publication, the organization that published it, the country, the name of the journal/publication, the type of text, and the research subject were all analyzed descriptively with a maximum limit of 1000 documents. From these keywords, we got 985 documents which we made the main research material. The second database used to get data is Scopus, where the search field is written as follows: TITLE-ABS-KEY(talent management international market based organizations) AND (LIMIT-TO (PUBYEAR,2021) OR LIMIT-TO (PUBYEAR,2020) OR LIMIT-TO (PUBYEAR,2019) OR LIMIT-TO (PUBYEAR,2018)) AND (LIMIT-TO (SUBJAREA,"BUSI") OR LIMIT-TO (SUBJAREA,"ECON")) only 6 RIS data were obtained.

To find out the results of the literature analysis in terms of the quantity of documents each year, the activeness of the authors on this topic, and countries with dominant references. Meanwhile, for data retrieval through Scopus with the following keywords: TITLE-ABS-KEY(talent management international market based organizations) AND (LIMIT-TO (PUBYEAR,2021) OR LIMIT-TO (PUBYEAR,2020) OR LIMIT-TO (PUBYEAR,2019) OR LIMIT-TO (PUBYEAR,2018)) AND (LIMIT-TO (SUBJAREA,"BUSI") OR LIMIT-TO (SUBJAREA,"ECON"))

Data is exported in RIS Export file format to distribute research map information. The researcher then exported the data in (RIS) format and used VOSviewer. Data analysis using VOSviewer application to display bibliometric maps (Prastya et al., 2021) from a research design that focuses on the main themes of research problems in international market-based organizations 2018 - 2021. Based on this description, the following is the research model of this article:

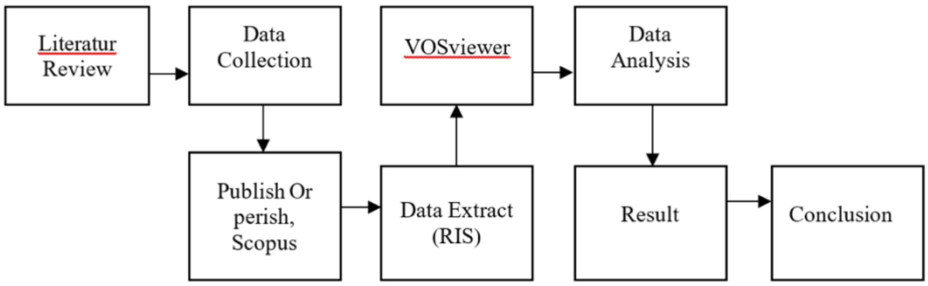

Figure 1: Research Model

3. Results

3.1 Statistics

If we look more deeply, bibliometric research from 2018 to 2021 continues to increase yearly. This figure also represents the publication trend of bibliometric papers between 2018 and 2021. The data is taken from the Scopus database using the keyword “bibliom*”. So looking at the data, researchers or writers still favor the trend of analysis using the bibliometric method.

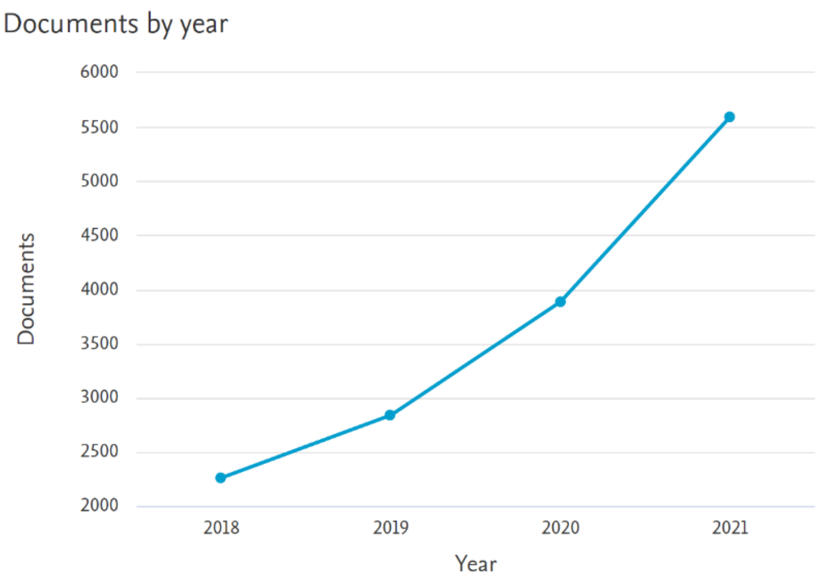

Figure 2: Documents by year
Source: Scopus data analysis

From the graph results, seen from the graph results continue to increase from 2018 to 2021, it can be explained that research using bibliometric analysis schemes is still exciting and favored by some researchers. Bibliometrics in that year was quite popular because this database is usually used in academic research and bibliometric analysis due to its large size, the number of indexed papers and journals, and high scientific relevance. (Almeida et al., 2021).

Year ↓	Documents ↑
2021	5593
2020	3886
2019	2840
2018	2261

Figure 3: Documents by year
Source: Scopus data analysis

More specific results can be seen in the table above, where based on the results of the analysis obtained from the Scopus database, the research related to the bibliometric model in 2018 was 2261 studies, followed by the following year as many as 2840 in 2019 and 2020 as many as 3886 documents. The most documents from the results of the Scopus database analysis are in 2021 with a total of 5593 research documents. The increase in the number of documents each year indirectly explains that researchers increasingly favor research with bibliometric models. The increase in the number of documents with bibliometric models could also be because based on bibliometric techniques researchers can also identify different sub-fields, and characterize them concerning their underlying assumptions, research design, contributions to the field and future research trajectories.(Anand et al., 2021). Additionally, some studies have stated that quantitative review methods, such as bibliometric analysis, can give researchers a high degree of completeness without a time or scope restriction and minimize worries about selection bias in the sampling process (Zhang et al., 2021).

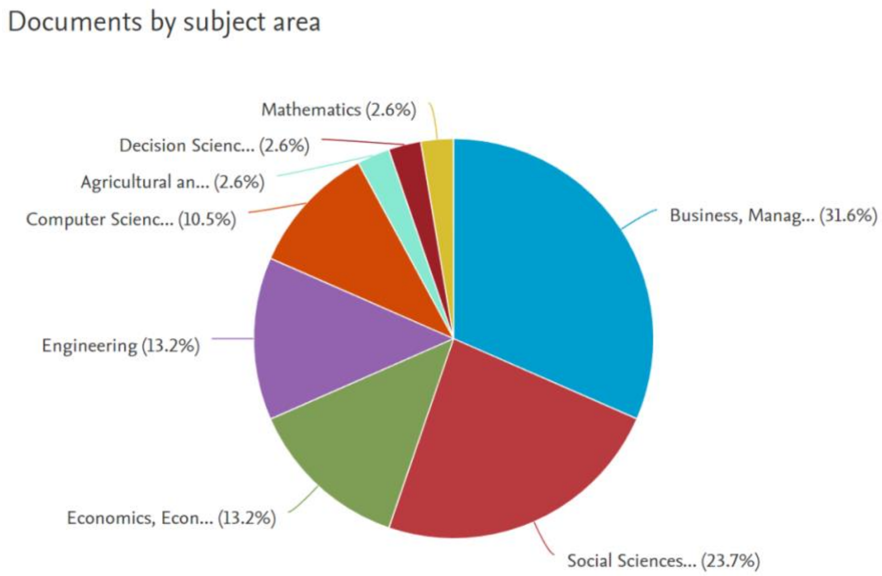

Figure 4: Documents by subject area

Source: Scopus data analysis

Other results from the analyses produced by Scopus from 2018 to 2021, the subject areas of research with a fairly large percentage are economics, econometrics and finance and engineering (13.2%) and engineering with the same percentage (13.2 %). The next subject area, which is related to social science articles, is (23.7%). The largest subject area is business, management and accounting (31.6%). The number of studies that focus on the subject area is certainly in line with the sector experiencing growth. Growth in this sector can be caused by various factors.

Growth also describes a company's overall increase in resources (including cash and human capital), output (including the quantity of items produced), and market share (Kalogiannidis, 2021). Expansion to acquire new markets is essential to increase profitability. However, of course, this process must be accompanied by good management. In this regard, a study found that employee performance, selection, and recruitment procedures play an essential role in business growth (Abbasi et al., 2022). The largest percentage is another consideration that the trend of talent management is a topic that can be studied more deeply.

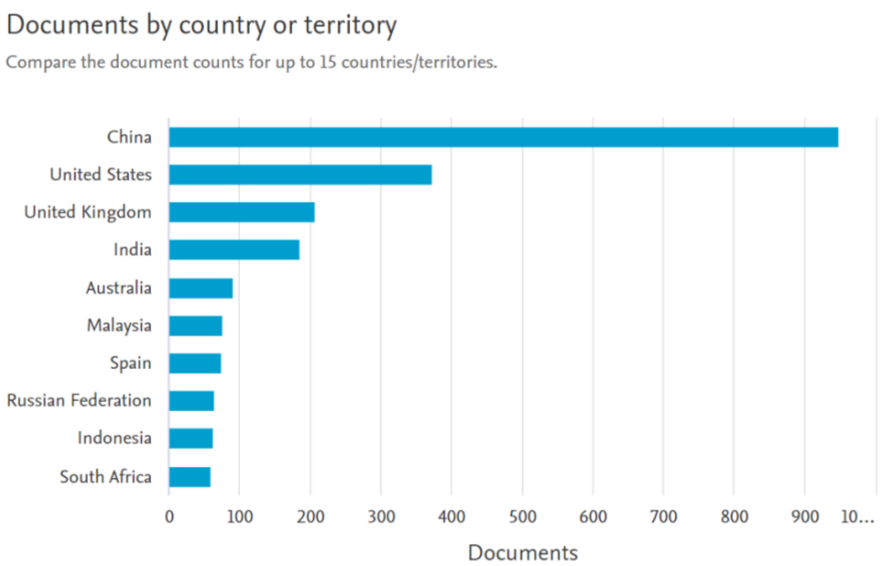

Figure 5: Documents by country or territory

Source: Scopus data analysis

The comparison of global talent management trends from 2018 to 2021 obtained from the Scopus database is dominated by China with 947 documents followed by the United States with 371 documents in second place. Furthermore, in the third position is the UK where the documents produced are 205 documents. Below are the countries of India, Australia, Malaysia, Spain, Russian Federation, Indonesia, and the last position is South Africa.

This comparison can be taken into consideration that in China, there is intense competition to get employees with good talents. In addition to global competition in China that year, it was also due to the massive COVID-19 virus pandemic in the country. The occurrence of the pandemic certainly impacts economic growth in the country, and to restore it, of course, organizations in the country must have better output than before. Then in line with producing good output, the organization in that country must be supported by many factors, one of which is good talent.

3.2 Bibliometric Data

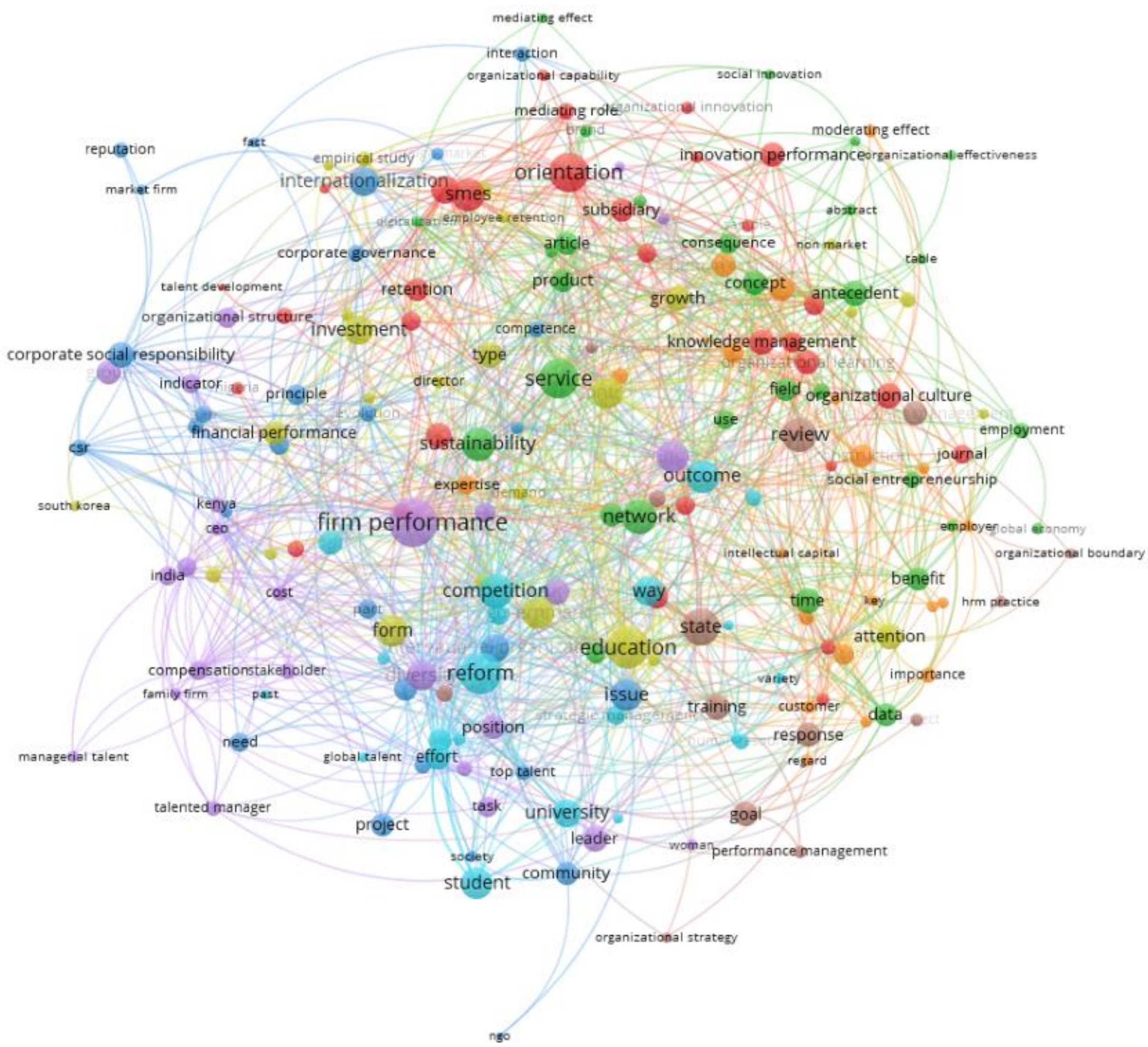

Figure 6: Analysis of RIS

Source: Publish or Perish data using VOSviewer

The analysis above results from the overall analysis of the RIS data processed using VOSviewer. These results describe topics related to TM used by researchers in compiling articles. The topics that emerge from the analysis results will then be called "Nodes." From these nodes, the researcher took the most important nodes. The size of the node/circle indicates the number of publications, and the line between the two nodes represents the academic relationship between the two organizations, and the shorter the line, the stronger the link (Guan et al., 2021).

4. Discussion

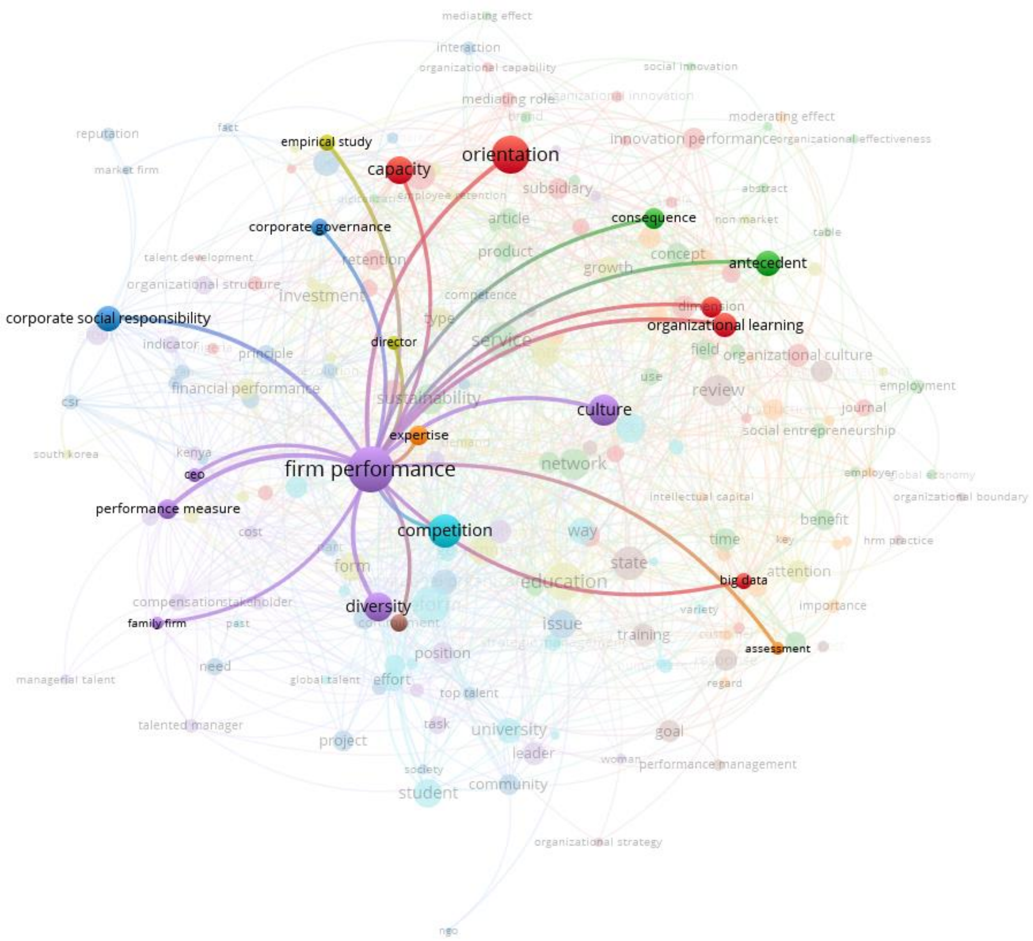

Figure 7: Analysis of RIS (Publish or Perish) data using focus VOSviewer node firm performance

4.1 Firm Perfomance

The results of the analysis that have been carried out explain that the largest node is Firm Performance. This indicates that research on "Firm Performance" is the most widely conducted research topic. Talent management aims to create a high-performing and sustainable organization that meets its strategic and operational goals and objectives (A El Dahshan et al., 2018). And organizational performance depends on the performance of its employees. If an organization's employees have unique competencies, it will differentiate them from their competitors (Hongal & Kinange, 2020a) A good talent management strategy can provide effective work results in an organization or company. In other words, when an employee is allowed to be mentored, trained, appreciated, recognized, motivated, and empowered to perform some leadership role, it can help improve and improve the pattern so that employees can believe in their ability to achieve and achieve goals (Omotunde & Alegbeleye, 2021).

The research trends of TM and the company's performance, when viewed from the results of the bibliometric analysis that has been carried out, are very close. In some research on talent management practices, the focus is on the various talents of organizational employees that can help companies achieve success. That's because talented individuals are likely to do their job well and show outstanding performance in certain environments (Tarigan et al., 2018) Reviewing any organization's success depends on its employees' effective performance through effective human resource management practices (Khdour, 2021).

Talent management is not always related to how managers set strategies for their employees to improve company performance but also in efforts to retain employees. Therefore, how to secure and retain key talent emerges as a management problem for managers (Yi et al., 2021). In line with this opinion, another study of trend TM explains Talent Management is the process of attracting, finding, growing, attracting, retaining, and placing people who are invaluable to the company, considering the "good prospects" for the long term or as they perform the function. - an important function for a company (Suwaidi et al., 2018).

4.2 Competition

Firm performance is then connected to the competition nodes. Competition in globalized talent management is changing how business works and creating a new era in almost all industrial sectors. This leads to a sharp rise in global competitiveness, ongoing technological advancements, and the complexity of the expanding industry that are altering the corporate landscape (Tarigan et al., 2018). Issues related to globalization that occur require every organization in all fields to face competitiveness in their respective industries. In this competition, talent management today is the fundamental driving force for organizations to successfully face globalization (A El Dahshan et al., 2018). In addition, due to the changing industry dynamics, organizational managers in all sectors need new perspectives on the work goals and attributes of future generations of workers to attract, recruit and retain talented people (Qureshi et al., 2022).

The increasingly fierce competition also encourages organizations to have a competitive advantage. Talent management plays a crucial role in creating, developing, and maintaining a competitive advantage for any organization (Jindal & Shaikh, 2021). In the face of globalization, organizations must be responsive to organizational learning that focuses on individuals involved in the organization because they are a source of ideas and knowledge in line with how to design appropriate strategies for employees to compete in the international market. The strategy must be correct so the organization can run following the specified goals and have a competitive advantage.

4.3 Director

The next trend of discussion related to talent management is the director or leader. Additionally, the capacity of the company to successfully attract, hold on to, use, and engage talent at all levels of the hierarchy is its competitive edge (Hongal & Kinange, 2020b). It also explains that in addition to employees with talents, leaders are also involved in achieving organizational goals and competitive advantage. A leader is someone who organizes and plans every operational activity, and he has the right to provide something according to the needs of his organization (Abdulridha Jabbar & Hussein, 2017).
Leaders can empower employees and encourage them to feel responsible for realizing the vision and mission of the organization (Putri & Rofi, 2018). In other words, not only looking for employees who match the organization, but the leader must also nurture his followers to bring out the best performance in the organization. That way, talent management will be integrated with the leadership style. Some things that must be considered by companies for their employees are by providing training to support employees in the development process in carrying out work, paying attention to the talents or talents possessed by these employees to achieve success in the company and how the leadership style of the company leaders to assist employees in implementing his work in the field.

4.4 Performance Measure

The next trend is towards performance measures. Considering that employees with good talent scores are so important for organizations and companies, previous research stated that "there are three dimensions in talent management as a measurement tool which includes Talent Attraction which must be appropriately planned to get transparent results from overall results and the development of consistency organization, Talent Development with benefits in increasing the output of what has been learned, and the last is Talent Retention which is the primary concern of the company to maintain a competitive workforce (Sari et al., 2020). Additionally, according to other research, most firms place a high priority on attaining performance targets, which they do so by employing key performance indicators to measure progress. This strategy is related to management by objectives, where superiors and subordinates agree on job assignments and responsibilities for a certain period of time, specify precise goals, evaluate these goals, and establish a deadline (Boštjančič & Slana, 2018). Trends related to performance measures according to bibliometric results do not have much interest, so it can be an opportunity in the future for further research.

4.5 Culture

Nodes from the firm performance are also correlated with several topics, one of which is culture. Some researchers put forward the idea of possible differences in TM practice depending on the cultural context but admit that too little empirical research has been done so far (Forsman et al., 2018). In another study, TM is not a foreign practice in culture. On the contrary, it can be used as a helpful tool for employee attraction, retention, development, and improving organizational performance in a highly competitive environment (Ejovwokeoghene et al., 2018). The study explains that the topic of culture has a relationship with firm performance. TM strategy in the organization is not all created by the organization.

As for organizations that adopt the TM strategy from organizations in developed countries to be implemented, even adopt it in its entirety. However, some researchers have argued that organizations in developing nations shouldn't just follow the TM models used in developed nations because they might not produce the same results because of a variety of issues (like as cultural differences, structural inequalities, conflicts that arise from differences in culture and religion, and underdeveloped financial markets), which will have an impact on how effectively it is implemented (Aina & Atan, 2020). In line with the results of bibliometric analysis, research related to TM and culture can be developed and further research conducted in the future.

5. Conclusion

This research is an analysis of trends from previous research. Using bibliometric analysis to get research trends with the VOSviewer tool and Publish or Perish to collect data from Google Scholar and SCOPUS databases. The database is then compared based on the specified keywords. From the google scholar database, the amount of data obtained was 985 RIS data, while the SCOPUS database only had 6 RIS data. In the end, no further calculations were carried out due to insufficient data. The selection of keywords that are carried out can also affect the search results that have been carried out so that the lack of data obtained cannot be ascertained due to the lack of publications in the database, but because keywords determine the search for the two databases.

Based on the results of research on RIS data from the Google Scholar database assisted by publishing or perish with the VOSviewer analysis tool, the trend of TM in international market-based organizations has the most significant nodes, namely "firm performance." This indicates that most TM research is related to the topic, namely firm performance. In line with this trend, several studies explain that the goal of talent management is to create a high-performing and sustainable organization that meets its strategic and operational goals and objectives (A El Dahshan et al., 2018). And organizational performance depends on the performance of its employees. If an organization's employees have unique competencies, it will differentiate them from their competitors (Hongal & Kinange, 2020a). There are other nodes related to firm performance trends, namely competition, director performance measure, and culture.

Some of these trends are the result of research that has been done on the primary subject of talent management, with the most important node being "firm performance," where most firms place a high priority on reaching performance objectives, which they evaluate using key performance indicators. This strategy is related to management by objectives, where superiors and subordinates agree on job assignments and responsibilities for a certain period of time, specify precise goals, evaluate these goals, and establish a deadline (Boštjančič & Slana, 2018) as well as the idea of possible differences in TM practice depending on the cultural context, but acknowledges that too little empirical research has been done so far (Forsman et al., 2018).

Acknowledgments

This research is an analysis of trends that are spread over 2018 – 2021. This research is only limited to discussing research trends and does not discuss in detail the results of the analysis that has been done. From the results of this trend, future researchers can develop research in terms of nodes that have received less attention from researchers but are pretty important. Node talented manager is one of them. These nodes are considered necessary because the most critical role in talent development is played by operational managers (direct managers). These are managers who need to understand what makes each employee stronger (Ahmadiyeh et al., 2020). By developing research based on nodes not paid attention to, it is hoped that the analysis and research will be more varied and can explore more details in the research conducted.

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Ethnicity, Language, and Work Segregation: A Cohesive and Profitability Perspective

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Abstract
This research aims to obtain the benefit of the organization in the work place, the employee cohesiveness and positive perspectives could be focus on some various factors such as; cultural differences, (ethnicity), language differences and injustice over the separation of one group from other in the workplace (exclusion). The purpose of the research that carried out qualitatively. The approach in this research is descriptive method by using this descriptive method is to describe whether cultural differences (Ethnicity), differences in language (Language) and different treatment of employees in the work environment (Workplace Segregation) have an effect on good or bad employee cohesiveness. (A Cohesive) in carrying out its main duties and inherent functions and how it affects the employee's perspective on his ability to bring benefits to himself and his organization (Profitability Perspective). Based on the research model framework the researcher concludes 16 research hypotheses that Ethnicity, language, work segregation has positive effects toward employee's cohesiveness and profitability perspectives. But Gender can have positive and negative effects toward Interpersonal Attractive.

Keywords: Ethnicity, Language, Work Segregation, Cohesiveness and Profitability Perspective

1. Introduction

Something that applies globally in achieving the goals of an organization that one of them is achieved through the fulfillment of a determining asset in one of the resources is Human Resources. An organization really needs to understand and tolerate the differences in its employees in order to create a good work climate with mutual respect so that it has an impact on work cohesiveness, employee perspectives to increase their potential and productivity in an effort that bring more benefits to the organization

In Indonesia, employee cohesiveness and positive perspectives could benefit themselves and their organizations are often influenced by various factors such as cultural differences (ethnicity), language differences and injustice over the separation of one group from another employee (exclusion) in the workplace. Because this fact have an impact on the cohesiveness of employees in carrying out their main tasks and functions and reduce the perspective of employees' abilities on potential that can increase self and organizational profitability, so it is necessary to observe and research these conditions as an effort to prevent negative conditions and efforts. improving the quality of human resources for an organization.

The various differences mentioned above are often encountered by organizations as several forms of problems such as cultural differences that often the basis for employee behavior and courage in terms of different decision making, differences in language acquisition and minimum understanding often result in limited communication and understanding of employee duties, unfair treatment of employees (segregation) in the workplace often results in the development of employees' potential and creativity as well as the lack of employee cohesiveness and the Human Resource's perspective to be able to benefit themselves and the organization because they are not fully accommodated and understood by the organization.

Therefore, the purpose of research that carried out qualitatively with this descriptive method is to describe whether cultural differences (Ethnicity), differences in language (Language) and different treatment of employees in the work environment (Workplace Segregation) have an effect on good or bad employee cohesiveness. (A Cohesive) in carrying out its main duties and inherent functions and how it affects the employee's perspective on his ability to bring benefits to himself and his organization (Profitability Perspective). The approach in this descriptive method is through the exposure of several literature reviews on previous journal research and then draw a final conclusion in accordance with these objectives.

2. Literature Review and Research Model Framework

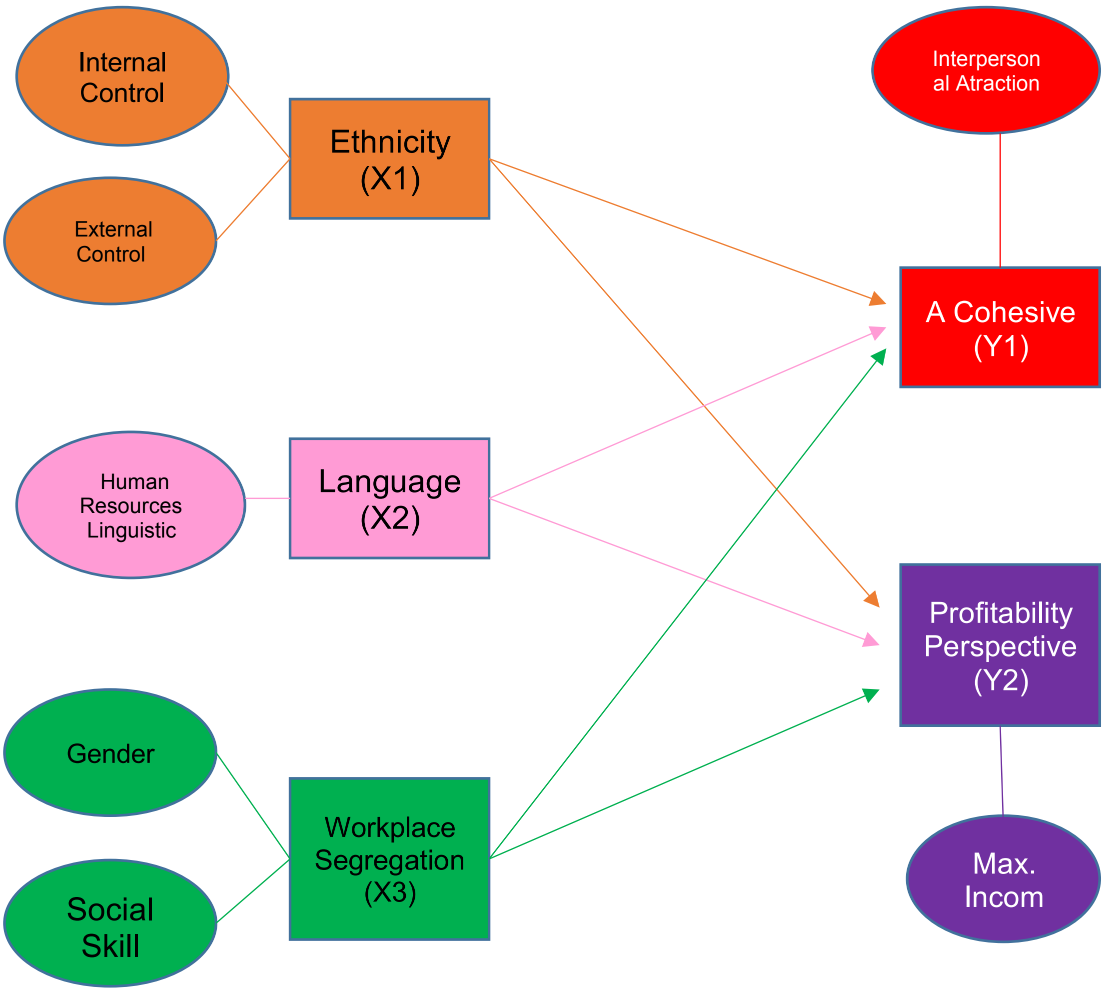

Figure 1: Research Model framework
Source: author

Based on the Research Model framework above, then obtained 16 research hypotheses which will determine whether the relationship is significant or not between the variables. Those hypotheses include:

H1 : Ethnicity affects toward A Cohesive of an organization
H2 : Language affects toward A Cohesive of an organization
H3 : Workplace Segregation affects toward A Cohesive of an organization
H4 : Ethnicity affects toward Profitability Perspective of an organization
H5 : Language affects toward Profitability Perspective of an organization
H6 : Workplace Segregation affects toward Profitability Perspective of an organization
H7 : Internal Control affects toward Interpersonal Individual Attraction
H8 : Internal Control affects toward Maximizing income individual of an organization
H9 : External Control affects toward Interpersonal Individual Attraction
H10 : External Control affects toward Maximizing individual income of an organization
H11 : Linguistic Resource affects toward Interpersonal Individual Attraction of an organization.
H12 : Linguistic Resource affects toward Maximizing individual income of an organization
H13 : Gender affects toward Interpersonal Attraction of an organization
H14 : Gender affects toward maximizing individual income of an organization
H15 : Social Skill affects toward Interpersonal Attraction of an organization
H16 : Social Skill affects toward Maximizing individual income of an organization
The explanation of the whole hypothesis above will be summarized in the following sub-themes:

2.1. Culture (Ethnicity) in organization environment

Culture is formed in every country and it is handed down from generation to generation to each generation as a way of life that is owned and develops according to the times. Because culture is a pattern of life that is comprehensive, complex, abstract and very broad, many aspects of culture also determine the communicative behavior of a person or group of people in an organization.

The word Ethnicity means attachment to the cultural value system of a particular group on the same ethnics, national origin, religion / belief or a combination of these categories. Value has an element of consideration which contains a person's ideas or ideas about things that are good, true or desired. Value is a tool that shows in principle that the process of execution or a certain final state that is socially preferable.

By category, cultural (ethnic) differences are not always influenced by the presence or absence/existence of physical relationships between these ethnic groups. Even though there has been cultural penetration between several different ethnic groups, the boundaries of each culture still persist. These original cultural boundaries make the characteristics that become the cultural identity of each ethnicity in a country. Cultural identity is a role attribute that is internal and external and often used in the interaction process. So that it can be stated that the cultural identity of a society in a nation also influences the various patterns of the order of the values of the community's life.

The differences in values, rules and beliefs in the social life of society avary according to ethnic diversity which has an impact on different desires and behavior of a person (Luo, 2009). This is also supported by the opinion of Scholtens and Dam (2007) which states that there are real differences in corporate ethics policies that are applied and centered on different countries. Lozano (1998) also concludes the same result in his research that culture (ethnicity) contributes to the dominant value of a business activity. The results of research by Goerge et al. (2012) also state that organizational culture is also influenced by national culture, so that it should be a concern for a multinational organization when planning to Go Global and operate in other countries. An organization should have a profitability perspective by making adjustments to the local culture at each of its business locations. Culture as an external factor in the work environment plays a role in determining the success or failure of the business. For example, making decisions on products to be produced must be adjusted to local wisdom in the area where the business is built so that it will be in line with the acceptance of market share and the profit from sales. Based on several reviews on the results of previous research in several journals above, it is concluded that internal control (habit) and external control (value) have an influence on cultural diversity (Ethnicity) and the profitability perspective in this case is the effort to maximize income. **So, it can be said that Hypothesis 4, Hypothesis 8 and Hypothesis 10 are accepted**.

A certain area that has multi-ethnicity become very strong with the integration of cultures with each other or contrarily became weak (divided) if negative effects are found on the cohesiveness and mutual trust that fades between cultures. It was because separated areas can provide fewer opportunities for more meaningful social interaction between groups of people and tend to strengthen their respective ethnic identities and social contacts within certain groups in different social environments (Rothwell, 2012). **This statement supports hypothesis 1, that ethnicity affects A Cohesive**.

The question of the positive or negative effects of ethnic differences on cohesiveness (Cohesion) yields two different theories. Tafjel (1981) states that the first perspective is the "Conflict Theory" which states that various social environments cause feelings of discomfort and anxiety between minority and majority groups including in an organization mainly as a result of competition for limited resources, besides that because of social identity status and position. relative in the hierarchy of power which also determines the degree which group members work together to achieve organizational goals. Those threats create stereotypical characteristics and discriminatory treatment of different ethnic groups.

Differently, “Contact Theory” states that stereotypical characteristics and prejudice can be reduced through direct relationships between individuals and members of different ethnic groups. Basically, direct relationships of various members of ethnic groups have been shown to reduce various negative attitudes and behavioral measures in the group (Pettigrew and Tropp, 2006). It is because stereotypes are replaced by other schemes that derive from direct individual experience and serve as a reason for the heterogeneity of individuals within and between different ethnic groups. The level of positive individual interaction in general into their ethnic group as well as outside their ethnic group results in the loss of prejudice between individuals and also conflicts between different ethnic groups.

In general conditions, contact theory has a positive effect on the same ethnic group even when the relationship or contact is experienced through delegation or representation, networks of friends from other friends, work partners and even family (Wright et al., 1997). Ford (2008) proved that in the UK age is very influential on negative racial attitudes, the racial prejudice attitude of young age groups who grow up in communities with various ethnicities is very small. And in Canada, Stole and Harell (2012) did not find general trust in young age groups with multi-ethnic networks of friends, instead finding greater trust between ethnically diverse neighbors. **Those five opinions in the previous review indicate the truth of Hypothesis 7, that Internal Control affects Interpersonal Attraction.**

Sturgis et al. (2011) showed a positive and strong interaction relationship between cultural diversity, contacts / relationships and trust (values) between members of ethnic groups. According to him, the Contact theory and the Conflict theory in general have different mechanisms, but in certain environments, the two mechanisms may occur simultaneously. For example, in a multi-ethnic environment it may be that some individuals feel anxious about feeling threatened or prejudice against others, but on the other hand it could be the opposite, which results in positive attitudes towards different ethnic groups. As a determinant of the individual's attitude as external control in an ethnically diverse environment is the level of social contact and meaningful interaction between these individuals.

A study of Sturgis et al. (2014) states that ethnic diversity and segregation have an effect on social cohesion in the environment which is very clearly influenced by individual age factors, ethnic diversity has two effects, a positive effect on social cohesion for young people but on the contrary has a negative and there is a tendency for social cohesiveness in the older age group. The reason for these two effects is due to the difference in the level of trust and active interaction in the cohesion of the interpersonal community.

The positive effect of a relationship or contact between group members will appear greater if it has several additional requirements, among others, if members within or between groups have the same status, if group identity is dominant, when group members are oriented towards achieving on common goals and if a relationship between groups / contacts supported by social institutions (Pettigrew, 1998). **Some of these statements support Hypothesis 9, that external control has an effect on Interpersonal Attraction**.

2.2 Language in organization

With regard to the work environment and its relationship with language, there has been an increase in skepticism about the use of language from certain countries in another country in understanding daily communication practices (Blommaert, 2010). In order to create a communicative impression in daily face-to-face communication characterized by contacts between individuals who come from different cultural backgrounds, linguistic resources are needed (Blommaert, 2011). Individuals who come from other countries should understand the practice of communicating with the National Language that is applied in that country. Mastery over languages of other countries where an individual who comes from a different country will provide more value in interacting and communicating formally and informally.

According to Bloomfield, L. (1933) Language as a communication tool means that language is a series of systematic sounds, in the form of symbols, arbitrary, meaningful, conventional, unique, universal, productive, varied, dynamic, human, and a means of social interaction that replaces individuals in stating something or expressing to the interlocutor. in a social group as a means of communication and the identity of the speaker. Language as a thought image means that language is formed from thoughts, or the form of language (individually and spontaneously) imitates or follows the form of thoughts or ideas.

In the concept of language, there is the concept of diversity. The term of Superdiversity concept was developed to meet broader communicative needs in diversity studies which include multimodal aspects of communication such as movement, posture, use of space, how text is represented on a signboard and so on. Historical antecedents explain what unites certain people and how superdiversity can be created as strength and cohesiveness of an organization and nation through development (Arnaut et al., 2015). **Then Hypothesis 2 is fulfilled.**

Zane Goebel (2018) sees a unity and pure perspective. Language in general in Indonesia is increasingly mixed by linguistic shifts that come from other languages and social changes that occured. Local and foreign people tolerate each other and try to master the language that guides interpersonal communication in everyday life and in their work environment. Indonesian citizens in an effort to adapt to the era of globalization and self-awareness as the Asean Economic Community are now making English a second language that must be understood and be mastered in addition to Indonesian as their mother tongue. This is understood as a form of the profitability perspective of the community to be more advanced and develop the potential for success and to achieve benefits in terms of employment and income. Through mastery of a foreign language, a person is able to adapt to the progress of the world and open horizons and work in multi-field and multinational corporations around the world. **Those assumptions in Hypothesis 5 are accepted.**

Variations of colloquial ethnic languages and mixed languages acquire social value in many social domains in Indonesia. The consequences of this language shift led to increased familiarity with the multiethnic fragments of language and allowed interaction and understanding of the meaning of the language of several Indonesian societies with different cultures. Now, in general, fragments of ethnic languages are felt in the Indonesian-speaking National narrative. Agha (2007) talks about how the language fragments used allow people involved in interaction to understand each other with ideas about language that are generated by state institutions. For example, in interacting between different ethnicities on the island of Java, non-Javanese ethnicities can use Javanese fragments to harmonize with community ideas (Goebel, 2010). **The statements in this paragraph support the content of Hypothesis 11.**

The results of Zane Goebel's research (2018) show that changes in the idea of language are revalued and can be found in every situation that involves various types of communication. Everything related to Indonesian culture continues that to be configured in view of future perspectives through profitable processes and projects, such as the television industry which has become a medium of information and communication to benefit Indonesian people in all regions. These processes of change have contributed to further diversification of Indonesia through the positive revaluation of previously neglected local language varieties. **The statement of the results of this study supports Hypothesis 12**.

2.3 Different Treatment (Segregation) in organization

A condition of separation (one class from another) can cause feelings of alienation or isolation in the workplace. Uslaner (2010,2012) and Rothwell (2012) argue that the tendency to dominate ethnicity and diversity has caused real failure in organizations and has an impact on segregation in the work environment. Only about 3% of segregation due to differences in race at work is due to the level of education between black and white employee groups, but most ethnic segregation (32%) in the workplace is due to differences in language proficiency (Hellerstein, 2006). In contrast to the title of this study, Hellerstein's previous research made differences in language proficiency and race as independent variables. Other differences that can also cause segregation in the workplace are Gender and Social Skills. All the differences that exist cause the effect of segregation on individual cohesion or feelings of clinging which have an impact on cohesiveness in the work environment and one's perspective on being able to work in an effort to achieve more benefits for oneself and contributions to the organization. **Then Hypothesis 3 and Hypothesis 6 are accepted.**

Lee Cinthia (2004) found that a person's past performance and self-efficacy had a positive relationship with group efficacy. Efficacy here means a belief in the ability to organize, perform a task, achieve goals and final results and implement actions to achieve a form of skill. Furthermore, it is said that the interaction of gender diversity and group efficiency is positively related to group effectiveness as seen from the creation of group cohesion and project achievement. In particular, groups consisting of members of mixed gender facilitates the link between the efficiency of the group and the effectiveness of the group. William's and O'Reilly (1998) note that there is provisional evidence obtained about a greater effect of gender, race, ethnicity, age or years of service on job effectiveness or less observable (education, functional background, background). back of work). Research on gender shows that the more homogeneous the group's gender composition, the higher their job satisfaction (Konrad et al., 1992). In addition, group cohesion is seen to be lower and conflict will be higher in mixed-gender groups (Kirchmeyer, 1995).

Furthermore, Williams and O'Reilly (1998) stated that the results of a number of studies revealed heterogeneity in race and gender often had a negative effect on group processes and performance. This is because an employee will feel more satisfied if he can work with other people who are considered to have the same attitude (Jackson et al., 1991). Therefore, from the perspective of attraction (equality), mixed gender groups are deemed ineffective due to the lack of opportunities to be interested in working together interpersonal (Byrne, 1971). Some of the negative realities of mixed gender groups are the frequent lack of positive attitudes, lack of active communication, and the possibility of high turnover of the group (Jehn et al., 1997).

The results of research that contradicts the role of gender on cohesion (cohesion) in the work group are presented by Field and Blum (1997) in the United States who found that job satisfaction is related to gender composition. They found that men and women working in gender-balanced groups found more job satisfaction than those in homogeneous work groups. Heterogeneous working groups will have an impact on increasing social interaction between members of the minority and majority, therefore according to Konrad et al. (1992) it is important to improve the relationship between group members and reduce the differences between subgroups (male or female). Blum (1984) suggests that due to the larger number of women in the workforce and the greater level of intimacy among them, this potential can lead to the achievement of more positive employment outcomes.

According to Ancona (1993) there are two important components of group performance, namely task performance and group maintenance. In order for a work group to be successful, they must complete pre-assigned tasks and also manage an interpersonal work environment, keeping it harmonious and conflict free. In addition to objective task performance, work group maintenance can also be measured through members 'positive feelings about group interactions or members' interpersonal interest in the group so as to create cohesion (group cohesion). High group efficiency such as group cohesion can increase the likelihood of group thinking and limit members' independent critical thinking so that it may affect poor group decision-making outcomes. It is possible that perceptions of collective efficiency and consent seeking behavior are more likely to occur in the same gender group because they may have the same attitudes (Jackson et al., 1991). The findings suggest that the interaction of gender diversity and group efficiency is responsible for group performance but may not be cohesion, but the interaction of gender diversity suggests a strong direction. **Based on the several research results on the pros and cons of the role of gender on interpersonal attraction (cohesion), it can be concluded that Hypothesis 13 is accepted**.

Gender characteristics often explain the differences in terms of obtaining successful income / income. Some of these unsuccessful factors are caused by the smaller size of the women's business, women's inexperience, their unfavorable and profitable concentration in the industry as well as the structural weaknesses of women both inside and outside the business arena. Women seem to prefer the small business arena to avoid well-documented labor losses (Fox & Hesse –Biber, 1984). However, their businesses are not as successful as those of men, even when women operate in the same industry (Loscocco & Robinson, 1991). There are several reasons that may be the cause of relatively women experiencing financial inadequacy in business. This can be broadly categorized as a function of the individual differences brought to the small business sector. Thus differences in material resources such as financial and human capital brought into the business arena may be largely responsible for gender differences in economic success (Light, 1984).

The issue of gender equality in the field of employment is still widely discussed in various countries, including in Indonesia. Although various protections have been sought through international and national legal products, the cultural background in a country will still play an important role in efforts to achieve gender equality in the field of employment (Nuraeni and Suryono 2021).

On the previous studies on women and small businesses have tended to assess women's motivation to choose small and medium enterprises. The results of previous studies show that women are actually similar in motivation for men to start their own businesses, although women are more likely to join the ownership business as a response to the lack of opportunities in the labor market (Bender, 1980). Women as business owners are actually the same as male business partners, tend to have internal locus of control or beliefs to determine their own destiny and tend to respect autonomy and achievement (Cromie, 1987). The differences in character and personality between female and male business owners are known, the pattern does not indicate that women are less suitable to be business owners (Smith et al., 1982).

According to the traditional perspective, gender differences in work outcomes are expected to be able to explain that before entering a certain job position both women and men have had dissemination, training and other experiences that are different and ultimately shape their experiences about work (McCreary, 1987). In line with the traditional perspective, the gender model states that the failure of women as business owners is comparable to that of men in terms of lack of human resources. In fact, women reported that they lacked the managerial and technical skills essential to the success of their businesses (Humpreys & McClung, 1981). Marini & Brinton (1984) stated that gender differences in socialization experiences can result in women having less attitudes such as risk-taking and internal locus of control which are considered important for business success.

According to Loscocco (2016), there are two important ways of investigation in the study of gender and business success. First, it is important to ascertain which factors are identified that most explain the causes of the lower tendency of women to achieve economic success in business than men. While the gender model emphasizes personal characteristics, the job model identifies aspects of the work-related structure as the main determinants of work outcomes. Second, it is also important to assess whether the various individual and structural determinants go through in the same or different processes in influencing the economic success of women or men as business owners.

The idea of the process is different for women and men that consistent with the gender model of work. The unique socialization experiences of women and their different positions in the social structure can be very meaningful. Structural or occupational models, on the other hand, it is explaining that any gender differences in results can be due to differences in individual and business characteristics. The implication is that if a woman shares male characteristics, then they will achieve a comparable level of success.

The essence of all the explanations for the last research is that in order to achieve success, everyone can have a profitability perspective regardless of gender and have the same chance of success. The way to achieve this is by increasing specific experience in business and industry, being able to manage goals and personal life well, have an entrepreneurial orientation, strive to achieve the same structural position regardless of gender, and strive to gain trust and expansion capital. **Based on these conclusions, Hypothesis 14 is not rejected**.

According to Gooderhama et al. (2004), cooperation tends to induce and is due to mutual assistance, exchange of needed resources and trust with others. Conversely, competition tends to cause and be induced by obstruction of each other's success, coercive and threatening tactics, increasing power differences, forced communication and the desire to win over others. The use of appropriate social skills is able to promote the success of other group members and requires them to have interpersonal skills in interaction with other groups in the work environment in terms of high-quality collaboration and have the motivation to continue to do their best. (DW Johnson, 2003). Based on the above opinion, a person should have social skills to be able to support his interpersonal skills when he interacts with other parties both in his daily life and in an effort to create cohesion in his work environment. **Thus, Hypothesis 15 can be accepted.**

In the results of the study of Mesch et al. (1988) regarding the long-term implementation of collaborative efforts, it was found that the combination of interdependence associated with positive goals allows better performance for all group members, and that having social skills will add to the highest level of achievement and productivity of group members of an organization. Archer-Kath et al. (1994) argued that providing individual feedback to someone on how often they engage in targeted social skills more effectively will be able to increase group member achievement and create more positive relationships within the group. By understanding the two opinions of the results of previous research, it can be said that a person will be able to realize his profitability perspective if he has social skills in interacting both individually and in groups in the workplace environment, **so that Hypothesis 16 can be accepted.**

2.3 Cohesiveness meaning (A Cohesive) in an organization

Cohesiveness is termed the creation of cohesiveness in the organization, the extent of employees are close to become a single unit who can present themselves in various ways and differences that are owned and can help each other towards the same end result. The basics of cohesiveness that must be possessed by employees include, among others, the existence of interpersonal attraction, the existence of structural integration and the ownership of attitudes that are shared by group members to be able to work together to achieve certain goals / tasks.

The employees cohesiveness can be realized through the existence of togetherness and intensive mutual interaction between fellow members of the organization. When employees have cohesiveness or cohesivity, they will feel protected so that communication becomes smoother and flexible.

Perspective is a person's point of view and perspective on something. Through the existing perspective of the employees of an organization, it will provide them with schemes or instructions regarding which point of view they will choose and use as meaning for the objects they want to achieve. Profitability perspective is an individual's perspective on their ability to benefit themselves and their organization (Ardianto and Q-Anees, 2014).

2.4 The meaning of employees have the perspectives to get the profits (Perspective Probability) in organization Meaning Employees have a Perspective to Get Profits (Perspective Probability) in the Organization.

3. Method

This study uses content analysis as a methodology. By using qualitative content analysis, this study focuses on the characteristics of language as communication by paying attention to the content or contextual meaning of texts or literature (Budd, et.al, 1967). The aim of content analysis is "to provide knowledge and understanding of the phenomenon under study" (Downe, 1992). In this case, the study is related to the importance of Ethnicity, Language, and Work Segregation in Profitability Perspective.

4. Discussions

Based on the purpose of writing this study, it can be described that some of the results of the qualitative analysis through a literature review related to the title of the research we took "***Ethnicity, Language, Workplace Segregation: A Cohesive and Profitability Perspective"*** as follow:

4.1 Ethnicity (Culture) through the indicators of Internal Control (Human Habitat) and External Controls (Cultural Values) have a significant influence on A Cohesive.

A Cohesive or a unified feeling in the form of unity / cohesiveness between individuals with one another both in everyday life and in organizations. The intimacy between individuals in the unity can be displayed in various ways and differences by frequently interacting and helping each other towards the achievement of the final goal. However, cohesiveness and trust can fade due to isolated opportunities for interaction due to the distance between regions that are far apart and people tend to be ethnocentric in the strength of their respective cultural identities.

4.2 Ethnicity also affect toward Profitability Perspective.

An organization must be wise in its viewpoint if it wants to develop a business or Go Global Organization by trying to respect the local cultural wisdom of a country. Various aspects should be of concern such as a variety of local resources that will be used as business assets, including human resources, raw material resources, understanding cultural habits related to market share and values or different local policy rules in various country of origin that must be respected.

4.3 Internal Control Indicator of ethnicity also affects toward Interpersonal Attraction.

Where in general the results of previous research show that cultural diversity provides an attraction between fellow members of the organization or individual to cooperate and interact in a compact manner. In general, there are two theories in the relationship between Ethnicity and Cohesion, the first is Conflict Theory where interpersonal interactions cause anxiety / conflict due to limited resources, differences in identity status and relative positions in the hierarchy of power so that it impacts on differences in the degree of individuals working together to achieve organizational goals and the second is Contact Theory, which means that the intensity of a strong interpersonal contact relationship will directly reduce a person's negative prejudice and stereotypical characteristics.

4.4 External Control Indicator of ethnicity also affect toward Interpersonal Attraction.

Where the differences in values, rules and beliefs in the social life of people of different ethnic diversity will have an impact on differences in individual behavior and desires.

4.5 Internal Control Indicator affects toward Maximizing Income.

It shown through the Habit of individuals who always want to interact, cooperate more widely across their borders and collaborate with foreign parties even though it is risky to develop the potential of themselves and the organization in an effort to increase profits such as income.

4.6 External Control Indicator affects toward Maximizing Income.

The rules, customary beliefs and cultural values serve as a fence to preserve the identity value of a country. So that efforts to obtain individual progress and organizational efforts must wisely see and support local wisdom which is the basic rule. When a person or an organization wants to go international, what is no less important is the ability to adapt to the local culture of the place where we are. Organizations can do this by exporting products or importing raw materials, or conducting direct investment by opening branches or factories directly in other countries or in other areas using indigenous people as their human resources. This will have an impact on the reciprocal relationship between the people who get a job so that their standard of living increases and provides benefits to the organization due to the maximum increase in income and profit as long as the condition continues to flexibly follow the rules, values, and local cultural beliefs.

4.7 Language affects toward a Cohesiveness.

Language affects the strength of togetherness or cohesiveness of a group of individuals in society or a group of members in an organization (Cohesion). Good language mastery is able to make interpersonal and group communication smooth. Adaptation to the mastery and understanding of the meaning contained in the National Language of a country becomes an added value to be comfortable and feel accepted in a general community group or organization.

4.8 Language also affects toward Profitability Perspective.

An individual or an organization always thinks about adapting to the mastery and understanding of a foreign language which is dominant to become the mother tongue in a country or a typical regional language is used as the identity of the area before developing themselves and their organizations. If the local native language has been mastered, it will smoothen every activity and plan to achieve future goals such as developing a business by opening a branch office or taking education and even a career in another country. An organization will also get more benefits if it employs local native personnel of a region or country where a branch office is opened, this is because labor costs will be reduced, but human resource management must be adjusted to the use of the native language of the country or at least master of the language.

4.9 Linguistic Resource Indicators of Language affect toward interpersonal attractive.

Ethnic language variations and mixed languages in the interpersonal attractive of everyday life have dominated social circles, one of which is in Indonesia. This shift in language (linguistic power) results in increased familiarity with multiethnic language fragments in the National narrative, allowing interaction and understanding of the meaning of different regional languages among Indonesians of different ethnicities

4.10 Linguistic Resource Indicators of Language affect toward Maximizing Income.

The results of past research have shown the changes in language ideas that are revalued in nature and can be found in every situation involving various types of communication, both verbal and non-verbal. Everything related to Indonesian culture continues to be configured to see beneficial perspectives in the future through various processes and projects that involve the role of Language.

4.11 Workplace Segregation affects toward A Cohesive.

All the differences that exist in individuals and may cause separation or feelings of isolation such as Gender, Age, Race, Language, Social Skills will have an impact on the cohesion or feelings of individual attachment to a sense of cohesiveness in interacting and cooperating with other people in their work environment.

4.12 Workplace Segregation affects toward Profitability Perspective.

It means that if a person feels separated from his work environment, psychologically it will have an impact on his inability to prove his true potential to achieve and perform better. Feelings of discomfort and exclusion will reduce one's perspective to work and achieve more benefits for oneself and the organization.

4.13 Gender can have positive and negative effects toward Interpersonal Attractive.

The influence of gender based on the results of previous research can be positive or negative on Interpersonal Attractive in the work environment. The research results can supported and stated that the more homogeneous the gender composition in a work group will increase the job satisfaction of members, it is because the members of these groups have the same attitude and enthusiasm for work. Meanwhile, the results of research that are contradictory to the heterogeneous gender composition will have an unfavorable impact on the satisfaction and performance of group members because group cohesion will appear to be lower and conflict will be higher in mixed gender groups. In addition, there is often a lack of good attitudes, passive communication and a tendency for high turnover of mixed gender groups. From all these reasons, the results of the contradictory research conclude that mixed gender groups are deemed ineffective because they are less able to cooperate interpersonally.

4.14 Gender affects toward Maximazing Income.

The results of previous research indicate that working groups consisting of mixed gender members specifically facilitate the relationship between group efficiency and group effectiveness in the organization. It can be concluded, in an effort to achieve success, everyone can have a positive view of achieving profitability regardless of gender differences because essentially have the same opportunities. Some of the ways to achieve this are through increasing experience in specific fields of business and industry, entrepreneurial orientation, being able to manage goals and personal life as well as possible and trying to gain the trust and business partners.

4.15 Social Skill affects toward Interpesonal Attractive.

A person should have the social skills to support his interpersonal skills when he interacts with other individuals in his daily life and in an effort to create cohesion and motivation to advance in his work environment.

4.16 Social Skill affects toward Maximazing Income

In the results of previous studies it was found that there was a combination of interdependence associated with positive goals enabling better performance for all group members of an organization. Having the expertise in social skills will also increase the level of achievement and productivity, which will lead to maximum income.

5. Conclusion

Based on the purpose of writing this study, it can be described that some of the results of the qualitative analysis through a literature review related to the title of the research we took ***"****Ethnicity, Language, Workplace Segregation: A Cohesive and Profitability Perspective"* as follow:

1. *Ethnicity* (Culture) through the indicators of Internal Control (Human Habitat) and External Controls (Cultural Values) have a significant influence on *A Cohesive*.
   A Cohesive or a unified feeling in the form of unity / cohesiveness between individuals with one another both in everyday life and in organizations. The intimacy between individuals in the unity can be displayed in various ways and differences by frequently interacting and helping each other towards the achievement of the final goal. However, cohesiveness and trust can fade due to isolated opportunities for interaction due to the distance between regions that are far apart and people tend to be ethnocentric in the strength of their respective cultural identities.
2. *Ethnicity* also affect toward *Profitability Perspective.*
   An organization must be wise in its viewpoint if it wants to develop a business or Go Global Organization by trying to respect the local cultural wisdom of a country. Various aspects should be of concern such as a variety of local resources that will be used as business assets, including human resources, raw material resources, understanding cultural habits related to market share and values or different local policy rules in various country of origin that must be respected.
3. Internal Control Indicator of *ethnicity* also affects toward *Interpersonal Attraction*.
   Where in general the results of previous research show that cultural diversity provides an attraction between fellow members of the organization or individual to cooperate and interact in a compact manner.

In general, there are two theories in the relationship between Ethnicity and Cohesion, the first is **Conflict Theory** where interpersonal interactions cause anxiety / conflict due to limited resources, differences in identity status and relative positions in the hierarchy of power so that it impacts on differences in the degree of individuals working together to achieve organizational goals and the second is **Contact Theory**, which means that the intensity of a strong interpersonal contact relationship will directly reduce a person's negative prejudice and stereotypical characteristics.

4. External Control Indicator of *ethnicity* also affect toward *Interpersonal Attraction*.
   Where the differences in values, rules and beliefs in the social life of people of different ethnic diversity will have an impact on differences in individual behavior and desires.
5. Internal Control Indicator affects toward *Maximizing Income*.
   It shown through the Habit of individuals who always want to interact, cooperate more widely across their borders and collaborate with foreign parties even though it is risky to develop the potential of themselves and the organization in an effort to increase profits such as income.
6. External Control Indicator affects toward *Maximizing Income*.
   The rules, customary beliefs and cultural values serve as a fence to preserve the identity value of a country. So that efforts to obtain individual progress and organizational efforts must wisely see and support local wisdom which is the basic rule. When a person or an organization wants to go international, what is no less important is the ability to adapt to the local culture of the place where we are. Organizations can do this by exporting products or importing raw materials, or conducting direct investment by opening branches or factories directly in other countries or in other areas using indigenous people as their human resources. This will have an impact on the reciprocal relationship between the people who get a job so that their standard of living increases and provides benefits to the organization due to the maximum increase in income and profit as long as the condition continues to flexibly follow the rules, values, and local cultural beliefs.
7. Language affects toward a Cohesiveness.
   Language affects the strength of togetherness or cohesiveness of a group of individuals in society or a group of members in an organization *(Cohesion).* Good language mastery is able to make interpersonal and group communication smooth. Adaptation to the mastery and understanding of the meaning contained in the National Language of a country becomes an added value to be comfortable and feel accepted in a general community group or organization.
8. Language also affects toward *Profitability Perspective*.
   An individual or an organization always thinks about adapting to the mastery and understanding of a foreign language which is dominant to become the mother tongue in a country or a typical regional language is used as the identity of the area before developing themselves and their organizations. If the local native language has been mastered, it will smoothen every activity and plan to achieve future goals such as developing a business by opening a branch office or taking education and even a career in another country. An organization will also get more benefits if it employs local native personnel of a region or country where a branch office is opened, this is because labor costs will be reduced, but human resource management must be adjusted to the use of the native language of the country or at least master of the language.
9. Linguistic Resource Indicators of Language affect toward *interpersonal attractive.*
   Ethnic language variations and mixed languages in the interpersonal attractive of everyday life have dominated social circles, one of which is in Indonesia. This shift in language (linguistic power) results in increased familiarity with multiethnic language fragments in the National narrative, allowing interaction and understanding of the meaning of different regional languages among Indonesians of different ethnicities
10. Linguistic Resource Indicators of Language affect toward *Maximizing Income.*
    The results of past research have shown the changes in language ideas that are revalued in nature and can be found in every situation involving various types of communication, both verbal and non-verbal. Everything related to Indonesian culture continues to be configured to see beneficial perspectives in the future through various processes and projects that involve the role of Language.
11. Workplace Segregation affects toward *A Cohesive*.

All the differences that exist in individuals and may cause separation or feelings of isolation such as Gender, Age, Race, Language, Social Skills will have an impact on the cohesion or feelings of individual attachment to a sense of cohesiveness in interacting and cooperating with other people in their work environment.

12. *Workplace Segregation* affects toward *Profitability Perspective*.
    It means that if a person feels separated from his work environment, psychologically it will have an impact on his inability to prove his true potential to achieve and perform better. Feelings of discomfort and exclusion will reduce one's perspective to work and achieve more benefits for oneself and the organization.
13. *Gender* can have positive and negative effects toward *Interpersonal Attractive.*
    The influence of gender based on the results of previous research can be positive or negative on *Interpersonal Attractive* in the work environment. The research results can supported and stated that the more homogeneous the gender composition in a work group will increase the job satisfaction of members, it is because the members of these groups have the same attitude and enthusiasm for work. Meanwhile, the results of research that are contradictory to the heterogeneous gender composition will have an unfavorable impact on the satisfaction and performance of group members because group cohesion will appear to be lower and conflict will be higher in mixed gender groups. In addition, there is often a lack of good attitudes, passive communication and a tendency for high turnover of mixed gender groups. From all these reasons, the results of the contradictory research conclude that mixed gender groups are deemed ineffective because they are less able to cooperate interpersonally.
14. *Gender* affects toward *Maximazing Income.*
    The results of previous research indicate that working groups consisting of mixed gender members specifically facilitate the relationship between group efficiency and group effectiveness in the organization. It can be concluded, in an effort to achieve success, everyone can have a positive view of achieving profitability regardless of gender differences because essentially have the same opportunities. Some of the ways to achieve this are through increasing experience in specific fields of business and industry, entrepreneurial orientation, being able to manage goals and personal life as well as possible and trying to gain the trust and business partners.
15. *Social Skill* affects toward *Interpesonal Attractive.*
    A person should have the social skills to support his interpersonal skills when he interacts with other individuals in his daily life and in an effort to create cohesion and motivation to advance in his work environment.
16. *Social Skill* affects toward *Maximazing Income*
    In the results of previous study it was found that there was a combination of interdependence associated with positive goals enabling better performance for all group members of an organization. Having the expertise in social skills will also increase the level of achievement and productivity, which will lead to maximum income.

6. Suggestions

Several things that can be used as suggestions for improving the results of next research related to the same research theme, including:

1. The dependent variable indicators for ethnicity, language, and workplace segregation can be selected differently to be discussed further as an enrichment for the next literature review.
2. It is necessary to be examined and researched the level of work groups risks that are gender heterogeneous and gender homogeneous related to managerial decision making in organizations.
3. Future studies may need to examine the ways to find correct perceptions of the effectiveness of segregated teamwork, such as gender or age level.

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Determinants of Non-Performing Loans Between Islamic And Conventional Banks: A Systematic Literature Review

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Abstract

This article conducts a systematic literature review of 52 papers on the determinants of non-performing loans (NPL) published for 2006-2022 in peer-reviewed journals. This paper adds to the development of this emerging field of systematic review in non-medical field settings by mapping existing research to inform future research exploits. This study synthesizes NPL studies by applying the systematic review methodology. The data synthesis is done through first and second-level codes. The first level codes group studies according to bank-specific, borrower-specific and comparative (Islamic vs conventional bank types). The literature is conscientiously analyzed through 13 subcategories using an open coding process. The literature synthesis shows that borrower-specific factors that may determine NPL include borrower profile, internal factors, external factors, and social issues. Also, the bank-specific factors that may influence NPL growth include economic conditions, management competence, profit maximization, and information economics. The findings highlight that the way borrower profiles, banks-specific factors and macroeconomic factors interact to influence NPL still needs more understanding. Further, Islamic banks and conventional banks seem to behave similarly regarding many bank-specific and macroeconomic factors even though the profit and loss sharing contract used in Islamic banks was deemed to moderate NPL positively. But the borrower-specific factors' interaction with bank-specific and macroeconomic factors of Islamic banks clients remains unclear. This highlights an important research gap in understanding the behavior of Islamic bank borrowers towards NPL prediction.

Keywords: Non-Performing Loans, Islamic Banks, Conventional Banks, Literature Review

1. Introduction

Economic crisis allows researchers to assess some theories underpinning economic phenomena to engender more understanding and propose new ways of doing things. Some of the economic crises can manifest through instability, bank and thrift failure, and the nature of the economic cycle attracts significant interest from scholars, policymakers, and practitioners. One area within this economic puzzle is non-performing loans (NPL) which has attracted much interest from scholars and practitioners (Berger & Humphrey, 1997; Podpiera & Weill, 2008). NPL, commonly known as loans in arrears for at least 90 days, lead to a fast impairment of banks' loan books (Labbé-Pinlon et al., 2016). Many studies conclude that banks always accumulate a lot of NPL as a precursor to their collapse (Berger & Humphrey, 1997). NPL implies that they always stand as an obstacle between banks and the real economy (Makri et al., 2014).

Islamic banks perform financial intermediation similarly to conventional banks. In theory, Islamic banking is a banking system that operates strictly per the Shariah law, specifically the *muamalaat* branch of Shariah that provides laws governing business transactions and contracts. Islamic Banks mobilize funds from surplus economic units and transform these through size packaging and maturity matching to financial assets using sale, lease and sharing contracts. Sale contract modes of financing used by Islamic banks include *Murabahah* (deferred payment sale or cost-plus), Salam (forward sale) and *Istithn'a* (forward sale in manufactured goods). *Murabahah* financing mode allows Islamic banks to finance clients through a deferred sale basis where the price of the commodity or item is deferred to a future date, and the client pays this price in instalments. The asset-backed financing coupled with the deferred price allow the Islamic bank to charge a profit on the original price in the form of a mark-up (Karimu et al., 2022). Religion plays a vital role in moderating behavior and influences the level of loan default, as concluded by (Baele et al., 2014). Islamic finance borrowers are less likely to default financing advanced to them (Baele et al., 2014). Customer orientation toward loan default may differ depending on the banking model.

This study is motivated by two developments. Firstly, the understanding of the determinants of NPL is still not settled, and policymakers and practitioners continue to look for more understanding to address these issues with appropriate measures. Secondly, Islamic banks and conventional banks may both be affected my same factors as financial intermediaries, but it is still unclear whether the business orientation of the two bank types provide any differentiator when it comes to NPL. This study undertakes a synthesis of NPL studies by applying the systematic review methodology. The data synthesis is done through first and second-level codes. The aim of the study is to answer the following research questions.

a. What are the determinants of non-performing loans from the supply and demand sides of financial intermediation?
b. Are there differences in NPL between Islamic and conventional banks?

The rest of the paper is organized as follows. Section two discussed the materials and methodology. Section three presents the findings and discussions, concluding the paper in section four.

2. Materials and Methodology

NPL is a well-researched area. The theorization of the determinants of NPL has sparked a lot of research interest undertaken by researchers such as (Berger & Humphrey, 1997). These researchers hypothesized about the phenomenon of NPL determinants within commercial banks. According to literature, financial losses coming from banks have been attributed to NPLs (Kingu et al., 2017). Theoretically, this study analyses the link between NPL factors from their central angles: agency theory, asymmetric information theory, and credit default theory.

Agency theory explains the link between the agent-principal relationship proxied by the owner and the management of the organisation (Wilson et al., 2012). The relationship between the parties is usually theorised as agency conflict as the agent may not faithfully represent the interest of the principal. The organisation's management is typically viewed as an agent contracted by the shareholders to work towards improving the stockholder value and via effective financial performance. The stakeholder employs various strategies to assure that management responds in the company's best interest (Muluwork, 2016).

Similarly, Credit default theory (CDF) asserted that existing ideas of credit default do not associate causes to the effect or default. As a result, it failed to assess credit risk in an increasingly changing market environment, which is affected by the credit market and mortgage crisis. This theory is significant in elucidating the lending risk and dynamically managing and measuring credit risk for the stability of the financial system (Idris & Nayan, 2016).

Information asymmetric theory (IAT) is implemented in financial markets, for instance, lending and borrowing (Morris et al., 2016). It demonstrates the information gap between borrowers and lenders in these markets (Baele et al., 2014), and this theory is significant in imperfect knowledge. Asymmetry information is studied by (Dignah et al., 2017) to examine information among people in economic decision-making. The participants showed that information sharing lowers adverse selection by enhancing bank-related information on credit claimants.

Some studies have also looked at bank-specific factors that may determine the occurrence of NPL. These studies are usually empirical and use bank-level data by controlling for bank-specific indicators deemed to cause NPL. Some indicators include return on equity, cost-to-income ratio, bank size, net interest margin, credit growth, and portfolio composition, among others. Bank-specific variables behave similarly to macroeconomic indicators in their explanatory powers of NPLs. Within this domain (Klein, 2013) finds that the equity-to-assets ratio is indirectly correlated with NPLs, confirming the "moral hazard" hypothesis, whereby thin capitalized banks respond to moral hazard incentives by exposing their portfolio to risky financial assets, which may lead to higher NPLs in the future. Also, better managed banks may achieve lower NPL and its impact on increased profitability as a result of the quality of the financial assets (Beaton et al., 2016). Conversely, predatory lending behavior of banks as proxied by loans-to-assets ratio has links with higher NPLs (Klein, 2013).

NPL definition has not been universally standardized because the term usually connotes varying qualitative and quantitative characteristics(Barseghyan, 2010). According to the literature, a non-NPL is a loan that is in arrears for at least 90 days, which may have already defaulted or at the brink of default (Mayock & Tzioumis, 2021). Subject to respective loan contract terms, the bank is likely to be entitled to terminate or has already terminated the loan contract (Scharpf, 2009). In this study we follow the proposal of (Berger & Humphrey, 1997) to focus on NPL in the narrow sense, as these serve as most commonly agreed-upon definition of problem loans in the literature, because they are subject to less managerial discretion than other measures of credit quality.

For a study of NPL, it is important to consider both the demand and supply sides of the financial intermediation market. The demand side consist of borrowers who are looking to satisfy their utilities through financing of their bankable projects and personal consumption. The supply side is driven by the providers of funds, in this case the banks.

The method use to undertake this review of the determinants of NPL is the traditional method of a systematic review (Egger et al., 2022a) (Egger et al., 2022b). The systematic review process involves planning review, conducting the review, and reporting of review (Pullin et al., 2016) . A systematic review is a creation of the medical sciences and is mainly undertaken using the requirements of "the Preferred Reporting Items for Systematic Reviews and Meta-Analyses" (PRISMA) Statement(Moher et al., 2009). The PRISMA Statement details a checklist of 27 points and an informational flow template for conducting a review (Moher et al., 2009).

Peer review published studies were selected based on the determinant of non-performing loans by focusing on loans demands, loan supply and comparison between Islamic and Conventional banks. We searched for published English papers on the identified topics based on the research protocol spanning 2006-2022. The topic of interest included the determinants of NPL, bank-specific determinants of NPL, borrower-specific determinants of NPL, macroeconomic determinants of NPL, institutional determinants of NPL and a comparison between Islamic and Conventional banks NPL. The literature search was performed using the ScienceDirect database, Emeral and Google Scholar (Ghisellini et al., 2016) and (Manz et al., 2019). The keywords used included "determinants of non-performing loans or default*"; "economic performance and non-performing loans or default*"; "customer behavior and non-performing loan*"; "demographic factors and non-performing loans or default*" gender and non-performing loans or default*"; "impact of non-performing loans or default* on banks' performance"; "efficiency and financial stability due to non-performing loans or default*" “Islamic banks and non-performing loans or default*”; comparison of Islamic banks and Conventional banks non-performing loans or default*”, “loan default in Islamic and Conventional banks”; “differences in loan default between Islamic and conventional banks” The search results were exported to Rayyan software for screening[1]. Rayyan is a cloud-based platform for screening articles citation to organize them into meaningful data (Ouzzani et al., 2016). The search results key word analysis showed that non-performing loans, credit risk, loan default, Islamic bank and loan loss provisions

[1] Home - Rayyan for Systematic Reviews - Guides at McGill Library

are the dominants (see figure 1) The number of papers extracted initially was 755. Some 227 articles were identified as duplicates from the initial search results and these were excluded. The research inclusion/exclusion criteria were then applied based on a study of abstracts by one reviewer and a blind review by another. The research inclusion criteria are based on selected articles that address the identified thematic areas of the systematic review, including borrower-specific determinants of NPL, bank-specific determinants of NPL, macroeconomic determinants of NPL, institutional determinants of NPL and comparison between Islamic and Conventional banks NPL. Exclusion criteria were applied to the papers based on the topic's relevance to the research interest and non-primary papers such as literature review studies. Further, non-English papers and papers that did not have a transparent methodology for arriving at findings were excluded. Figure provides a summary of the systematic review methodology. The title and abstract review of the articles led to the exclusion of 382 papers. The remaining 145 papers were subjected to full paper review, and 93 were excluded. The exclusion criteria on the papers regarding the full paper review included removing papers that were literature review type, book chapters, conference papers, unclear methodology, lack of clear findings, and papers that could not be classified under any of the thematic areas of the review (Khalifa et al, 2022). A final fifty-two (52) papers were then synthesized, and results were reported. The publication trend summarized in figure 3 indicates that most of the papers were published in the year 2022, followed by 2020 and the least number papers in the sample were published in the years 2008-2015. The Journal of Banking and Finance (one of the top tier banks in finance) featured 15% of the total papers in the sample (see figure 4). Table 1 provides a summary of all the papers reviewed under this study by highlighting the methodology and the major findings.

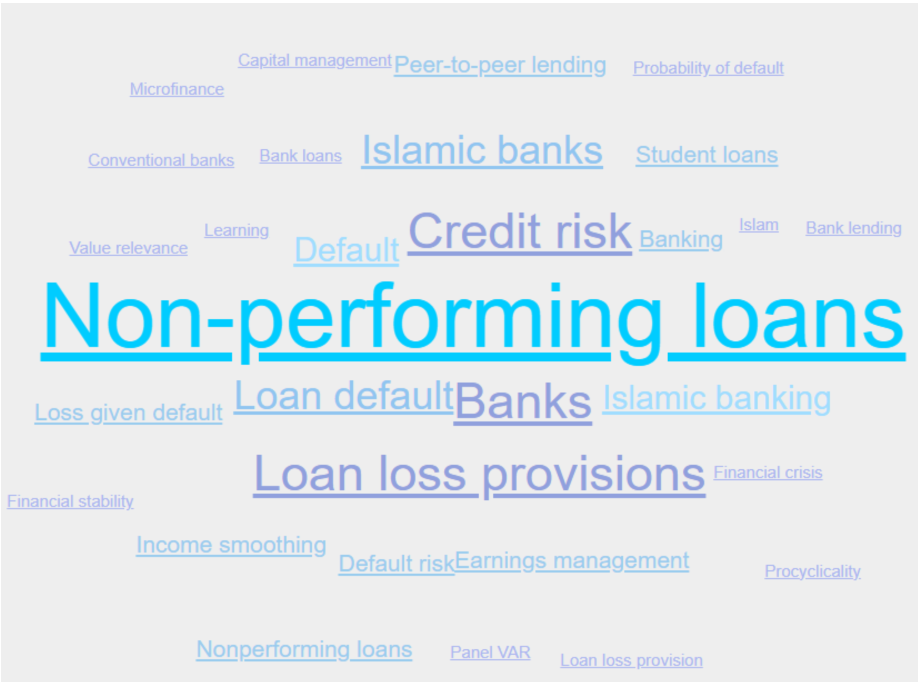

Figure 1: Keywords in the literature search

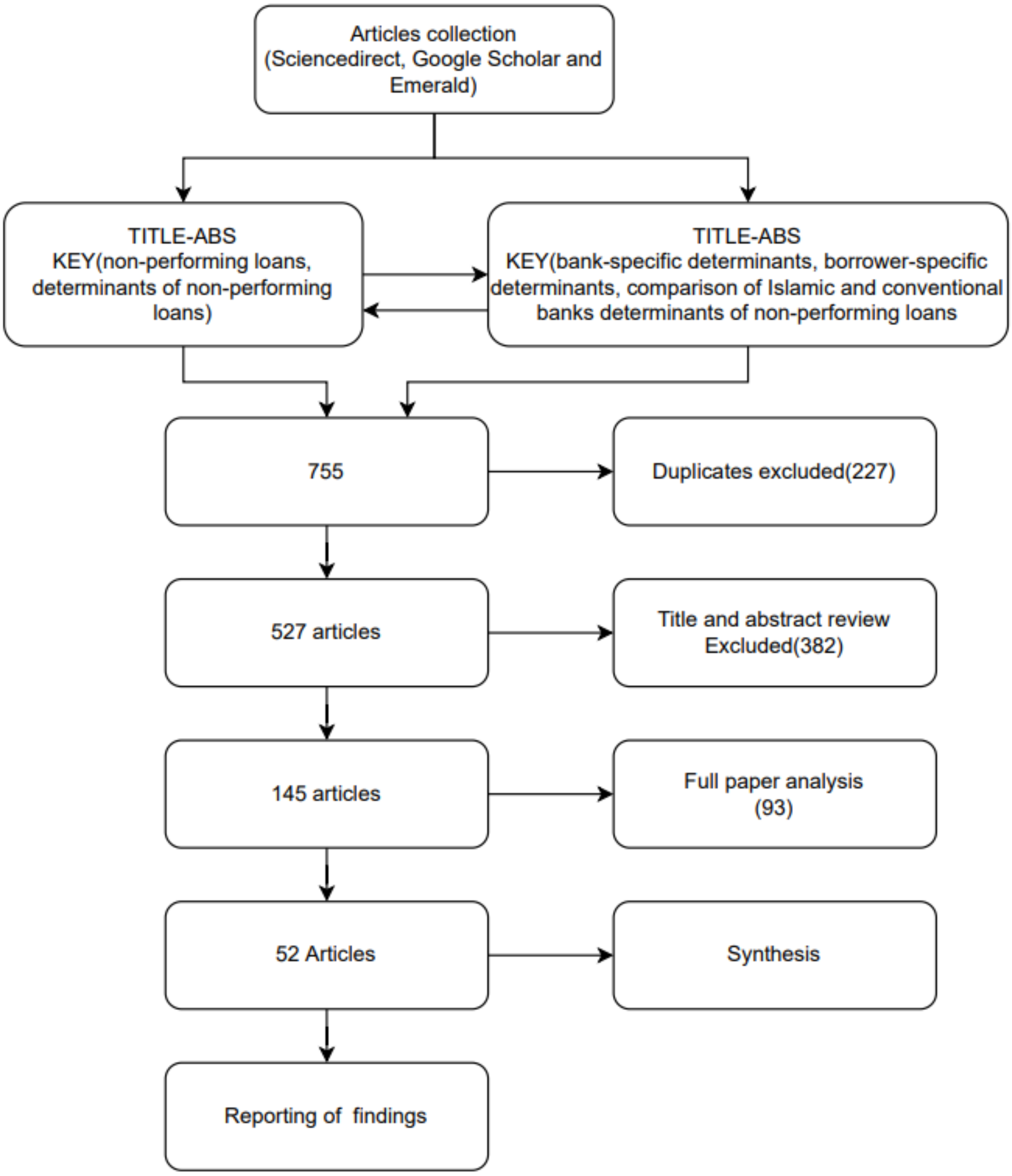

Figure 2: Systematic Review Process Flow

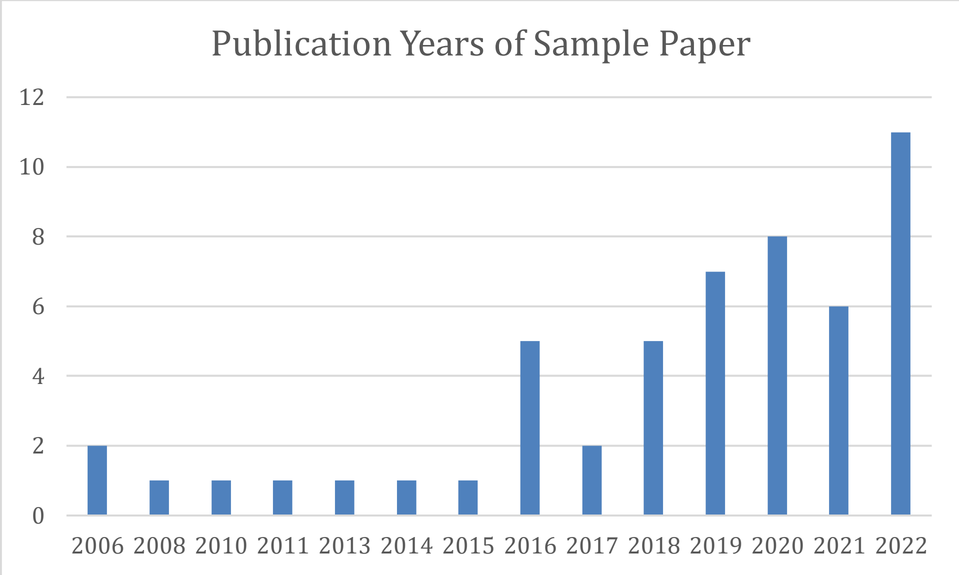

Figure 3: Publication trend

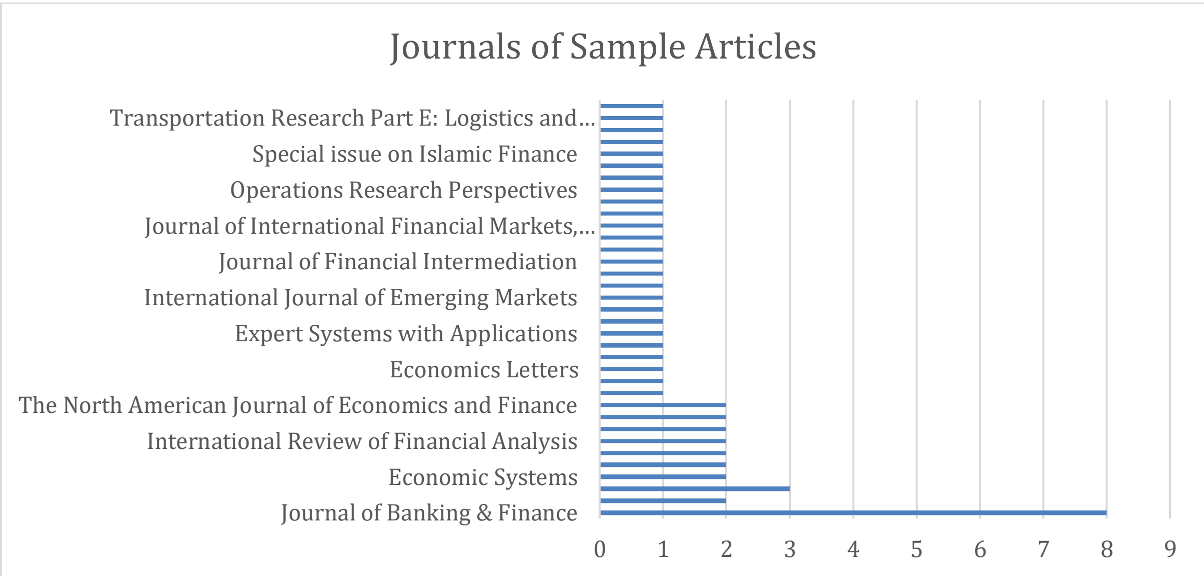

Figure 4: Journals sampled

Table 1: Summary of sampled articles

Author	Year	Journal	Methodology	Major Findings
Borrower-Specific Determinants				
Alaoui Mdaghri, Anas	2022	International Journal of Emerging Markets	GMM	The results demonstrated a significant negative effect of bank liquidity creation on NPLs in the short and long term, implying that liquidity creation through both on- and off-balance sheet activities decreases NPLs
Karadima, Maria and Louri, Helen	2020	International Review of Financial Analysis	quantile dynamic panel regression	The results suggest that post-crisis consolidation facilitates the faster reduction of NPLs, especially in the euro area periphery countries, while competition discourages the growth of new NPLs.
Saengchote, Kanis and Samphantharak, Krislert	2022	Emerging Markets Review	logistic regression	We find that same-bank borrowers are less likely to default on mortgage loans first, and borrowers with longer banking relationship and lower switching cost are more likely to default on mortgage loans first (which is welfare-improving).
Fianto, Bayu Arie and Maulida, Hayu	2019	Heliyon	logistic regression	The results show that age, gender, occupation, and type of contract influence the non-performance of clients of Islamic MFIs in Indonesia. Probit regression confirmed the results.

and Laila, Nisful				
Trautmann, Stefan T. and Vlahu, Razvan	2013	Journal of Banking & Finance	experimental	We show that changes in expectations about bank and borrower fundamentals change the risk dominance properties of the borrower's coordination problem, and that these changes subsequently explain strategic defaults. For the individual borrower, loss aversion and negative past experiences reduce repayment, suggesting that bank failure can be contagious in times of distress.
Kavussanos, Manolis G. and Tsouknidis, Dimitris A.	2016	Transportation Research Part E: Logistics and Transportation Review	logistic regression	Industry specific variables, captured through current and expected conditions in the extremely volatile global shipping freight markets, the risk appetite of borrowers "the shipowners "expressed through the chartering policy they follow "and a pricing variable, are shown for the first time to be the important factors explaining default probabilities of bank loans.
M, Jayadev and N, Padma	2020	IIMB Management Review	OLS	We argue that borrowers turn into wilful defaulters by taking undue advantage of weak governance structures such as ineffective functioning of the economic, legal and political institutions of the country.
Nigmonov, Asror and Shams, Syed and Alam, Khorshed	2022	Research in International Business and Finance	logistic regression	Our results show that a higher interest rate and inflation increase the probability of default in the P2P lending market. We also find that the impact of interest rate on the probability of default is significantly higher for loans with lower ratings.
Gao, Weihe and Liu, Yong and Yin, Hua and Zhang, Yiwei	2022	Decision Support Systems	OLS	Our analysis shows that the more incoming calls a borrower usually receives, the less likely he or she is to default on a loan. However, the more outgoing calls a borrower makes, the more likely default will occur. We further find that calling activities associated with stronger social ties have greater predictive power for loan defaults than those associated with weaker ties.
Armona, Luis and Chakrabarti, Rajashri and Lovenheim, Michael F.	2022	Journal of Financial Economics	FE	We present evidence that these debt and default outcomes are driven by higher for-profit tuition and a negative effect of for-profit enrolment on labor market outcomes.
Legendre, Nicolas and Nitani, Miwako and Riding, Allan	2021	Journal of Business Research	OLS	Findings suggest that the benefits of the franchising model, such as new firms acquiring the franchisors€™ brand name, do not necessarily lead to lower default rates for franchisees.
RadivojeviÄ‡, Nikola and CvijanoviÄ‡, Drago and Sekulic, Dejan and Pavlovic, Dejana and Jovic, Srdjan and MaksimoviÄ‡, Goran	2019	Physica A: Statistical Mechanics and its Applications	GMM	No evidence was found in support of the significance of the impact of the inflation rate and the microeconomic variables that were the subject of research in this paper.
Boumparis, Periklis and Milas, Costas and Panagiotidis, Theodore	2019	International Review of Financial Analysis	VAR	At the same time, sovereign rating decisions impact on NPLs and all other variables.
SÃ¡nchez Serrano, Antonio	2021	The North American Journal of Economics and Finance	FE	general, higher rates of non-performing loans, together with other variables, are associated with lower growth rates of performing loans.

Fidrmuc, Jarko and Hainz, Christa	2010	Economic Systems	DE	how that liquidity and profitability factors are important determinants of SME defaults. Moreover, we find that indebtedness significantly increases the probability of default.
Goedecke, Jann	2018	Economics Letters	Cox's proportional hazards regression model.	Potential underlying mechanisms include contagious defaulting behavior, which bears the risk of proliferating into a repayment crisis in the event of an economic or political shock, as experiences from similar markets suggest.
Carvalho, Jaimilton and Orrillo, Jaime and da Silva, Fern and a Rocha Gomes	2020	The North American Journal of Economics and Finance	Cox's proportional hazards regression model.	We find that the probability of default is negatively correlated with the level of collateral,
Zhang, Xuan and Ouyang, Ruolan and Liu, Ding and Xu, Liao	2020	Economic Modelling	FE	We demonstrate that leverage, liquidity, firm size are the key firm-specific factors in determining default risk in China, along with macroeconomic factors like interest rate and stock return.
Hartarska, Valentina and Gonzalez-Vega, Claudio	2006	Journal of Housing Economics	VAR	We find some evidence that counselled borrowers defaulted less often than non-counselled borrowers and that counselling affects optimal exercise of the default option.
Mayock, Tom and Tzioumis, Konstantinos	2021	Journal of Banking & Finance	FE	we find that loans for new homes were roughly 1.7 percentage points more likely to default, while our instrumental variables analysis suggests that new-home loans are 4.5 percentage points more likely to default.
Castillo, JosÃ© A. and Mora-Valencia, AndrÃ©s and Perote, Javier	2018	Finance Research Letters	FE	We find that low effort and underinvestment variables have a significant impact on default risk and thus moral hazard has an effect on the failure of SMEs with collateralized obligations.
Odeh, Oluwarotimi and Koduru, Praveen and Featherstone, Allen and Das, Sanjoy and Welch, Stephen M.	2011	Expert Systems with Applications	internal factors	Empirical results show that the best indicators of default status are observed when repayment capacity and owners' equity are low, and the working capital is either low or high. Also, the two worst rule indicators are low repayment capacity, high ownersâ€™ equity and medium working capital or medium repayment capacity, low ownersâ€™ equity and high working capital.
Cowling, Marc and Ughetto, Elisa and Lee, Neil	2018	Technological Forecasting and Social Change	OLS	New technology financing is directly related to NPL
Mangrum, Daniel	2022	Journal of Financial Economics	FE	Students with higher-income parents respond by adjusting borrowing, reducing median balances by 7%. By contrast, first-generation and low-income borrowers bound by mandates did not significantly adjust borrowing but were nonetheless more likely to pay down balances.
Bank-Specific Determinants of NPL				
Choudhary, M. Ali and Jain, Anil K.	2021	Journal of Banking & Finance	cross sectional regression	we show that banks with low leverage ratios are both significantly slower and less likely to recognize a loan as non-performing than other banks that lend to the same firm.
Wasiaturrahma and Ajija, Shochrul Rohmatul and Sukmana, Raditya and Sari, Tita Novita and Hudaifah, Ahmad	2020	Heliyon	Tobit regression	The results showed that size, non-performing financing (NPF), number of branches, grants, financial leverage, and age have a significant impact on Islamic cooperatives' outreach. An interesting finding is that size has a negative effect.

Aysan, Ahmet F. and Disli, Mustafa and Ng, Adam and Ozturk, Huseyin	2016	Economic Modelling	Pooled OLS and FE	We also find that the quality of Islamic banks' SME loan portfolio is comparable to that of conventional banks.
Wengerek, Sascha Tobias and Hippert, Benjamin and Uhde, AndrÃ©	2022	The Quarterly Review of Economics and Finance	FE	we provide evidence for a negative impact of securitization on NPL exposures suggesting that banks predominantly used securitization as an instrument of credit risk transfer and diversification. In addition, the analysis at hand reveals a time-sensitive relationship between securitization and NPL exposures.
Palvia, Ajay and VÃ¤hÃ¤maa, Emilia and VÃ¤hÃ¤maa, Sami	2020	Journal of Business Research	OLS	we document that female-led banks with high real estate exposure are associated with lower loan charge-offs and lower non-accrual loans relative to similar male-led banks. Furthermore, our empirical findings indicate that female-led banks with high real estate exposure have lower default risk and are less likely to fail in the aftermath of real estate price shocks
Parrado-MartÃ-nez, PurificaciÃ³n and GÃ³mez-FernÃ¡ndez-Aguado, Pilar and Partal-UreÃ±a, Antonio	2019	Journal of International Financial Markets, Institutions and Money	dynamic panel	We conclude that capital adequacy, liquidity, asset quality and profitability indicators influence the European banksâ€™ PD. The macroeconomic scenario, the industry concentration and the size of banks also appear to have an impact on their risk.
Lee, Pei-Ling and Lye, Chun-Teck and Lee, Chin	2022	Central Bank Review	GMM	his study confirms the â€˜risk-mitigation viewâ€™, in which banks with higher ESG scores are more prudent in lending and have better relationship management, reducing the probability of bank default. Underperforming banks tend to have a higher portion of risky loans in their credit portfolio and therefore demonstrating a higher default propensity. Bank risk appetite, ESG, asset quality, economic growth, and currency depreciation appear to be material drivers for bank risk.
VonnÃ¡k, Dzsamila	2018	Journal of International Money and Finance	OLS	Foreign currency denomination can worsen loan performance considerably, while selection also contributes significantly to the default differences. On the one hand, per se less creditworthy firms borrowed in foreign currency and during the crisis the foreign currency shocks further weakened their loan performances.
Soenen, Nicolas and V and er Vennet, Rudi	2022	Finance Research Letters	OLS and GMM	We find that Basel 3 regulation improves the banksâ€™ risk profile since higher capital ratios and more stable deposit funding contribute significantly to lower CDS spreads. We confirm the persistence of the bank-sovereign interconnectedness and find that sovereign default risk is transmitted to bank risk with an amplification factor
Puri, Manju and Rocholl, Jairg and Steffen, Sascha	2017	Journal of Financial Intermediation	logistic regression	Our results show that banks with relationship-specific information act differently compared with banks that do not have this information both in screening and subsequent monitoring borrowers which helps reduce loan defaults.
Widodo, Erwin and Rochmadhan, Oryza Akbar and Lukm and ono and Januardi	2022	Operations Research Perspectives	Bayesian-Nash equilibrium analysis	The identified factors causing NPLs include customers' utility and disutility, inspection error in the form of false alarm and non-detection, operational costs to conduct an inspection, and bank utility related to inspection
Mueller, Holger M. and Yannelis, Constantine	2019	Journal of Financial Economics	FE	Falling home prices affect student loan defaults by impairing individualsâ€™ labor earnings, especially for low income jobs. By contrast, when comparing the default sensitivities of homeowners and renters, we find no evidence that falling home prices affect student loan defaults through a home equity-based liquidity channel.

Ari, Anil and Chen, Sophia and Ratnovski, Lev	2021	Journal of Banking & Finance	OLS, Logistic and Tobit	These predictorsâ€"a set of weak macroeconomic, institutional, corporate, and banking sector conditions€ "help shed light on post-COVID-19 NPL vulnerabilities.
Lafuente, Esteban and Vaillant, Yancy and Vendrell-Herrero, Ferran	2019	European Management Journal	OLS	The results indicate that the negative effect of non-performing loans on ROA is significantly greater in banks with non-performing directorship associated with high rates of unexpected changes in the board. The findings of the study highlight that the competence of boards matters
Comparison of Islamic and Conventional banks determinants of NPL				
Lee, Yok Yong and Dato Haji Yahya, Mohd Hisham and Habibullah, Muzafar Shah and Mohd Ashhari, Zariyawati	2020	Journal of Financial Economic Policy	GMM	The empirical results reveal that NPL is primarily driven positively by lagged-one NPL and risk profile
Riahi, Youssef Mohamed	2019	Managerial Finance	OLS	The results indicate that NPLs affect liquidity risk differently across the banks â€"specifically, there is a significant difference in the funding and managing of liquidity between the two bank types.
Saif-Alyousfi, Abdulazeez Y.H. and Saha, Asish and Md-Rus, Rohani	2018	International Journal of Bank Marketing	GMM	he results indicate that oil price shocks and gas price shocks do not have directly affect NPLs of Qatari banks at the aggregate level, while they have indirect effects that are channelled through the country-specific macroeconomic and institutional factors. The authors find that oil and gas prices shocks affect NPLs of Qatari Islamic banks directly through extended oil and gas-related cash flows, while their impact on the NPLs of Qatari commercial banks is indirect.
Bekele, Genanew and Chowdhury, Reza H. and Rao, Ananth	2016	Review of Behavioral Finance	Box-Cox double hurdle model	The paper demonstrates that the probability of default and the quantum of default appear to be influenced by different set of client-specific factors. The results suggest that the probability of default does not vary significantly between Islamic and conventional banking borrowers. The evidence also shows that Islamic banking defaulters, compared to those in conventional banking, repay a large quantum of overdue when their financial leverage improves.
Baele, Lieven and Farooq, Moazzam and Ongena, Steven	2014	Journal of Banking & Finance	Fixed effects	We find robust evidence that the default rate of Islamic loans is less than half the default rate of conventional loans. Islamic loans are less likely to default during Ramadan and in big cities if the share of votes to religious-political parties increases, suggesting that religion â€" either through individual piousness or network effects â€" may play a role in determining loan default.
Al and ejani, Maha and Asutay, Mehmet	2017	Research in International Business and Finance	GMM	Our findings indicate that the sectoral distribution of Islamic financing has an adverse impact on NPL, which suggest that the sectoral financing growth of Islamic banks increases the credit risk exposure more than conventional banks. The findings of the Islamic finance methods growth show that the impact of fixed-income debt contracts could increase NPL more than profit-and-loss-sharing contracts.
Saeed, Momna and Izzeldin, Marwan	2016	Special issue on Islamic Finance	VAR	Our analysis shows that the relationship between profit efficiency and default risk banks across the sample, for CBs and for the GCC is such that a decrease in default risk is associated with lower efficiency levels. With the single exception of IBs, the causality from profit efficiency to default risk is inversely related for all categories. For CBs, the trade-off between efficiency and risk is evident.
Croux, Christophe and Jagtiani, Julapa and Korivi, Tarunsai and Vulanovic, Milos	2020	Journal of Economic Behavior & Organization	logistic regression	Identified a robust set of contractual loan characteristics, borrower characteristics, and macroeconomic variables that are important in determining the likelihood of default, such as loan maturity, homeownership, loan purposes, occupation, etc. We also find an important role of alternative data in determining the default, even after controlling for the obvious risk characteristics of the

				borrowers, loan characteristics, and the local economic factors. The results are robust to different empirical approaches. Results imply that it would be important for regulators to provide greater transparency in terms of guidance and regulatory clarity on which alternative data can be used legally without violating fair lending rules.
Ghosh, Amit	2015	Journal of Financial Stability	GMM	find greater capitalization, liquidity risks, poor credit quality, greater cost inefficiency and banking industry size to significantly increase NPLs, while greater bank profitability lowers NPLs. Moreover, higher state real GDP and real personal income growth rates, and changes in state housing price index reduce NPLs, while inflation, state unemployment rates, and US public debt significantly increase NPLs.
Mirpourian, Seyedmehrdad and Caragliu, Andrea and Di Maio, Giorgio and L and oni, Paolo and RusinÃ , Emanuele	2016	World Development Perspectives	experimental	Empirical results show that the repayment rate improves as borrowers get closer to the loan limit, which is the maximum available loan. In other words, motivation for reaching the maximum loan level is positively associated to the repayment performance.
Dermine, J. and de Carvalho, C. Neto	2006	Journal of Banking & Finance	logistic regression	empirical results relate to the timing of recoveries on bad and doubtful bank loans, the distribution of cumulative recovery rates, their economic determinants and the direct costs incurred by that bank on recoveries on bad and doubtful loans.
Riahi, Youssef Mohamed	2019	Managerial Finance	FE	The results indicate that NPLs affect liquidity risk differently across the banks â€“specifically, there is a significant difference in the funding and managing of liquidity between the two bank types.

The synthesis of the selected papers was conducted to understand the state of the literature and the characteristics of studies and to identify potential research gaps that need to be addressed. Research synthesis describes the methods for summarizing, integrating, and possibly, aggregating the findings of different studies on a topic or research question (Mulrow, 1994). Even though both quantitative and qualitative synthesis can be applied in answering a research question, the current research adopts qualitative analysis. The qualitative synthesis paradigm was used based on the nature of the topic. The qualitative synthesis allows evaluation of the effects of intervention and the way it may be influenced by measured study characteristics and data quality (Collaboration for Environmental Evidence, 2018). Quantitative analysis on the other hand, provides estimates of size effect and reasons for heterogeneity in the effect of the intervention. A meta-analysis is a systematic review that uses quantitative methods to synthesize and summarize results and is now applied frequently in ecological research (Osenberg et al., 1999).

Unlike physical sciences, where positivity can establish, research in the social sciences tends to be problematic in positivity concerning key research questions because of the interpretation of social phenomenon (Tranfield et al., 2003). Studies in the social sciences do not usually address the same problems and, more importantly, ask the same questions. Even when the same questions are asked, economic and social contexts are significant in interpretation. Consequently, aggregative approaches to research synthesis in this area may become daunting.

Guided by the previous sampled literature sample, we synthesize and order each reference by concept (Webster & Watson, 2002). The concepts were identified in three phases through an open coding process (Tabor et al., 2018). Each reference was given a descriptive label. After the first labelling, we grouped similar labels into 13 broader groups, also called second-order codes (Corbin & Strauss, 1990). Finally, we conclude with a concept-centric framework guided by the research protocol and research questions with dimensions which include borrower specific, bank-specific and a comparison of Islamic and conventional bank types. The outcome of this coding is presented in figure 5.

The holistic framework essentializes the need for research on determinants of NPL to consider the bank-specific factors holistically within the broader borrower-specific and external factors. This framework also highlights the nuance in the NPL determinants when it comes to Islamic banks and their implications for financial stability, which is the concern of regulatory authorities, especially in jurisdictions with a dual banking system.

3. Findings and Discussion

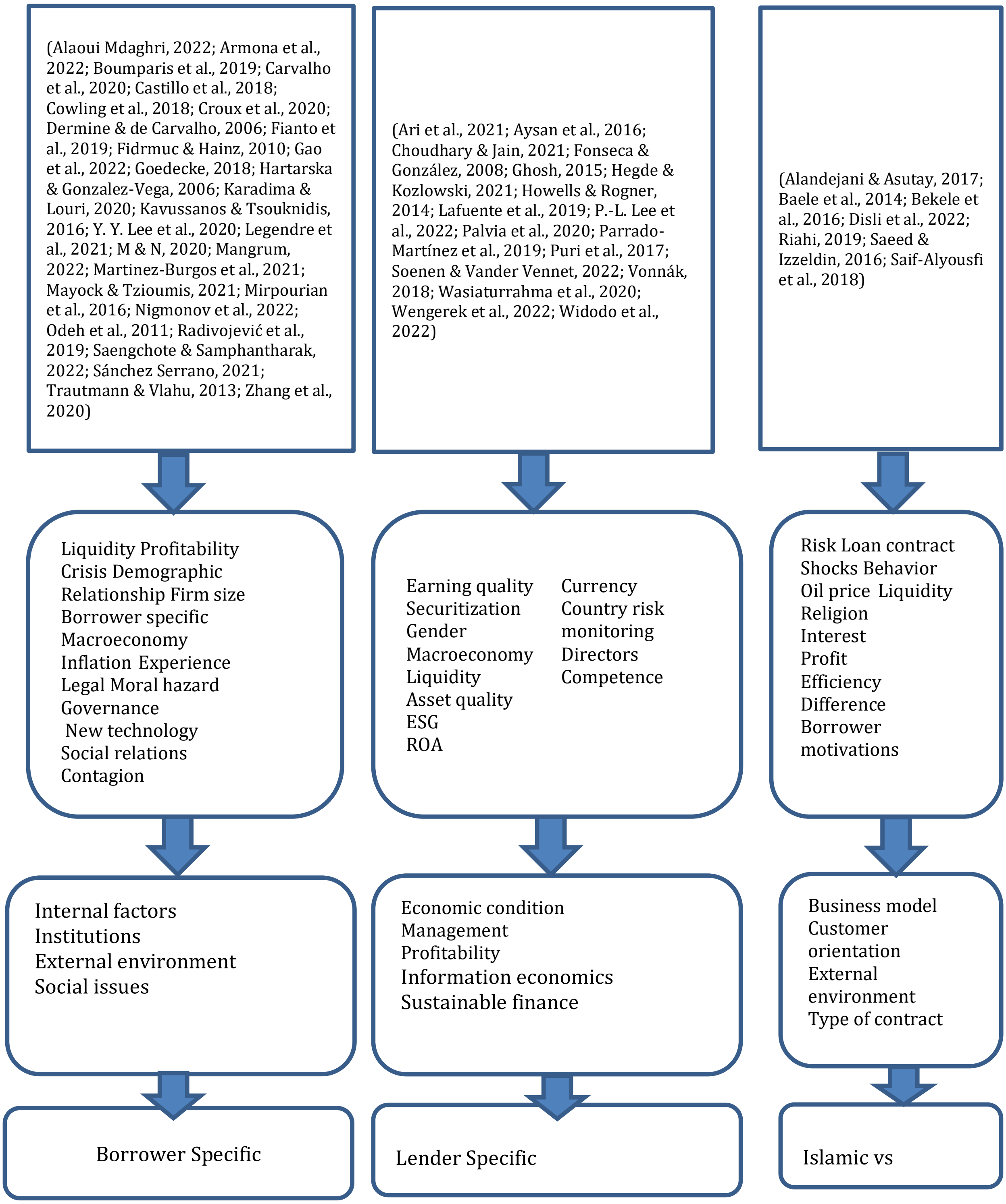

Figure 5: Articles coding and synthesis summary
Style adapted from (Manz, 2019; Tabor et al., 2018)

As indicated earlier, fifty-two (52) articles were synthesized to engender clarity in the literature and to provide more understanding. The aggregation of the first-order and second-order codes established that most of the articles studied addressed the demand side of the financial market. Specifically, twenty-four (24) articles, sixteen (16) articles and twelve (12) articles were attributed to the borrower-specific determinants of NPL, bank-specific determinants of NPL and comparison of Islamic and conventional bank type determinants of NPL respectively (see figure 6).

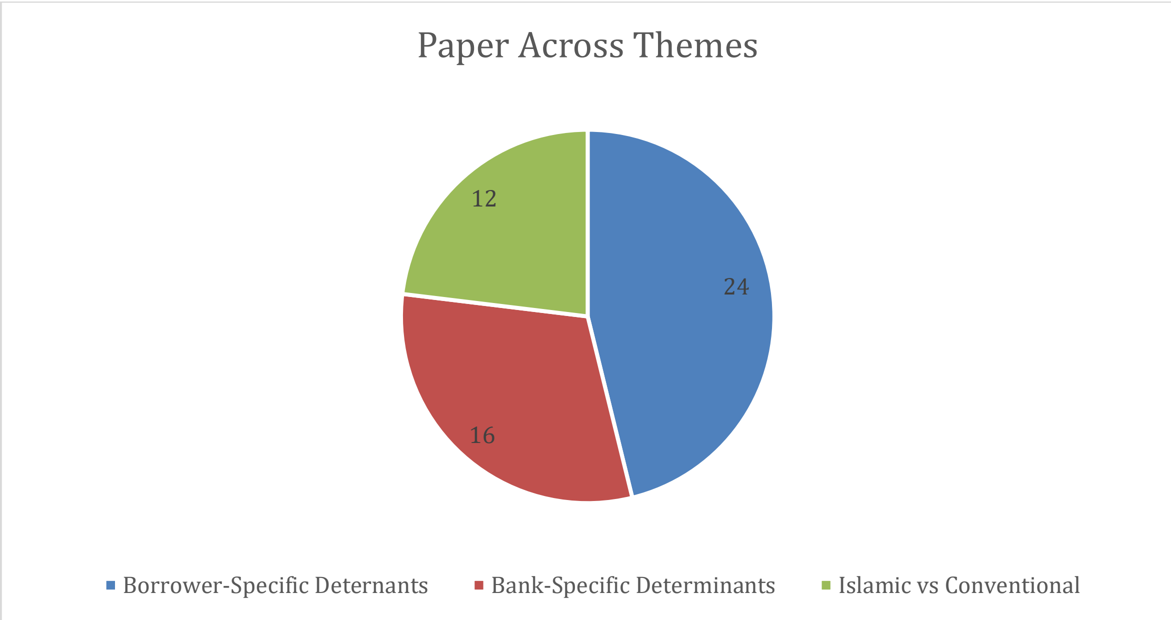

Figure 6: Themes of articles

3.1. Borrower Specific Determinants

The studies of the borrower-specific determinants of NPL are classified into Internal factors, ((Cowling et al., 2018; Fianto et al., 2019; Fidrmuc & Hainz, 2010; Gao et al., 2022; Mayock & Tzioumis, 2021; Odeh et al., 2011; Radivojević et al., 2019; Zhang et al., 2020); Institutions(M & N, 2020), External environment (Goedecke, 2018; Nigmonov et al., 2022; Radivojević et al., 2019) and Social issues (Castillo et al., 2018; Hartarska & Gonzalez-Vega, 2006; Trautmann & Vlahu, 2013). Borrower organizational profile. The analysis of the findings suggests that borrower internal company organization greatly influences the possibility of defaulting on loan payments. These internal factors range from management competency, which manifests in the inefficiency of the use of organizational resources, to financial matters, such as the company's indebtedness, which affects liquidity. Also, organizational innovation determines the possibility of default as new technologies face a higher risk of failure, which intends to constrain organizational cashflows. Also, borrowers who have established long relationships with banks reportedly have a higher chance of default, especially for SMEs. The institutional factors that contribute to a loan default are weak laws and lax regulatory regimes. These conditions make it easy for organizations to default and make the recovery of loans difficult. Most of the external factors identified relate to macroeconomic conditions and crises. High inflation, unemployment, high-interest rates, and low economic growth are attributed to loan defaults

3.2. Bank-Specific Determinants

The characteristics of how banking business is conducted also influence the NPL level. The overarching issues identified in the various reported studies include economic conditions (Ari et al., 2021; Mueller & Yannelis, 2019; Soenen & Vander Vennet, 2022; Vonnák, 2018), profitability pursuit (Choudhary & Jain, 2021; Disli et al., 2022; Parrado-Martínez et al., 2019; Wengerek et al., 2022); information economics(Parrado-Martínez et al., 2019; Widodo et al., 2022); management competence(Lafuente et al., 2019; Palvia et al., 2020; Wasiaturrahma et al., 2020); and ESG(Lee et al., 2022). Many studies from banks' perspectives attribute the level of loan default to the prevailing macroeconomic conditions. Similar to the borrower's assertion of the role of macroeconomic conditions to their inability to service their loans, bankers also admit that borrowers are likely to default in a period of distressed macroeconomic conditions. Also, the pursuit of profit maximization may influence banks to lend money to less credit worthy borrowers which is likely to lead to defaults. This is more likely when bankers bonuses are tied to the level of revenue they generate without considering the quality of revenue. Additionally, when credit assessment leads to adverse selection of borrowers, this can lead to moral hazard which is conceptualized as the economics of information. This affects repayment of loans when the character of borrowers change post-loan disbursement. It is also found that an ESG-focused lending leads to lower NPL occurrence as there is high prudence in selecting borrowers and projects. Finally, competence of bank management is also deemed to determine the probability of NPL. A well-managed bank will ensure that the borrowed funds are allocated most efficiently to ensure that the funds are paid back.

3.3. Islamic vs Conventional

23% of the articles studied addressed determinants of NPL in a comparative way (Islamic banks vs Conventional banks). The focus here was to find out if the Islamic bank business model, borrower orientation, external environment, and type of contract used have some particularities that influence NPL differently from conventional banks. The analysis of the data shows that Islamic banks defaults are less than conventional banks default, profit and loss sharing reduces default, Islamic finance face sectoral concentration risks which may drive NPL higher, tradeoff between efficiency and risk less evident in Islamic banks (Alandejani & Asutay, 2017; Baele et al., 2014; Bekele et al., 2016; Croux et al., 2020; Disli et al., 2022; Riahi, 2019; Saeed & Izzeldin, 2016). Oil prices is also seen to affect conventional banks more than Islamic banks when it comes to their impact on NPL (Saif-Alyousfi et al., 2018). Religion is seen as a moderator for customer motivation to repay their facility with an Islamic bank. This manifests in the findings that Islamic bank customers are more likely to repay the facility when their financial condition improves than conventional bank borrowers (Croux et al., 2020; Mirpourian et al., 2016). Finally, it ascertained from the literature synthesis that the contract used in structuring Islamic financial transactions may have some features that reduce the NPL occurrence. For instance, the use of profit and loss-sharing contracts is seen to be less prone to default than fixed-interest debt financing (Alandejani & Asutay, 2017; Croux et al., 2020). Contractually, this may be true, but in the economic sense, the performance of the underlining profit and loss-sharing project may signal the possibility of default.

4. Conclusions

Despite the vast literature on NPL, the determinants of NPL are still partly understood due to the complexity of the financial intermediation role of banks. This article conducts a systematic literature review on the determinants of NPL published in scientific journals. This study is motivated by the fact that NPL determinants are not fully understood, and policymakers are seeking more understanding to address NPL issues with appropriate measures in the post-covid-19. Also, Islamic and conventional banks may face similar NPL issues in their financial intermediation roles. However, it is still unclear whether the business orientation of the two bank types provides any differentiator when it comes to NPL. The review shows that the literature on NPL determinants covers many theoretical underpinnings from diverse perspectives. This paper adds to the development of this emerging field of systematic review in non-medical field settings by mapping existing research to inform future research exploits. The study also seeks to synthesize knowledge into a form that can be conceptually represented. This was done through three levels of the open coding process. Finally, this study aggregated the various research into conclusions of the NPL determinants through borrower-specific, bank-specific and comparison of Islamic and Conventional banking determinants of NPL. The synthesis of the various studies into these three themes presents a novelty of interpretation of the existing research strands, stressing the divergence within the literature.

The literature synthesis shows that borrower-specific factors that may determine NPL include borrower profile, internal factors, external factors and social issues. Also, the bank-specific factors that may influence NPL growth include economic conditions, management conditions, profit maximization, and information economic. However, the findings highlight that the way borrower profile, banks-specific factors and macroeconomic factors interact to influence NPL still needs more understanding. Further, Islamic banks and conventional banks seem to behave similarly regarding many bank-specific and macroeconomic factors even though the profit and loss sharing contract used in Islamic banks was deemed to moderate NPL positively. But the interaction of the borrower-specific factors with bank-specific and macroeconomic factors of Islamic banks clients remains unclear. This highlights an important research gap in understanding the behavior of Islamic bank borrowers towards NPL prediction.

The practical implication of the review is that the literature revealed that many NPL determinants are caused by borrower characteristics which require banks to intensify their customer profiling and monitoring in the post-loan disbursement to reduce NPL. In addition, banks should also apply a high level of competence in their credit assessment and general governance of banks to reduce predatory lending behavior motivated by the unguided pursuit of profit.

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The Nexus Between Some Selected Macroeconomic Variables on Growth Output in Nigeria: An Autoregressive Distributed Lag (ARDL) Approach

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Abstract
Macroeconomics remains an evolving science, but the goals of macroeconomic policy are consistent around the world. These include price stability, currency stability, unemployment, the balance of payments, and growth output. This study X-rayed the link between Real Gross Domestic Product (RGDP) which was considered a measure of growth output, Exchange Rate (EXR), Inflation Rate (IFR) and Money Supply (M2) for the current republic in Nigeria. The objectives of the study include: examining the short-run and long-run impact of growth output (RGDP) on EXR, IFR and M2 in Nigeria. A secondary source of data collection was employed for the study. The tools employed for data analysis include the Augmented Dickey-Fuller (ADF) test, Jarque-Bera test, Autoregressive Distributed Lag (ARDL) Co-integration technique, and the error correction parameterization of the ARDL model. The result of the Jarque-Bera test showed that the variables were approximately normally distributed. The findings showed that growth output (RGDP) was cointegrated with EXR, IFR and M2 and the existence of a long-run relationship amongst the variables. The study concludes that while seeking to foster economic growth, Nigerian banks should commit to their mandate of price stability and improve their regulatory framework to ensure a strong financial sector with effective intermediation.

Keywords: Economic Growth, Exchange Rate, Growth Output, Inflation Rate, Money Supply

1. Introduction

Since the Central Bank of Nigeria (CBN) announced on October 26, 2022, that it will redesign some of the Nigerian currency, there has been a lot of discussion among top Nigerian banks about the pros and cons of such a move. In addition, the policy's impact on economic output and the performance of key macroeconomic variables affecting the Nigerian economy is also debated. The main economic reason for the CBN's decision to consider redesigning the banknotes was the massive hoarding of banknotes, in this case, N2.73tn of the N3.23tn currency in circulation as of September 2022 outside of commercial vaults and banks across the country making this move.

Macroeconomics remains an evolving science, but the goals of macroeconomic policy are consistent across the globe. These include price stability, foreign exchange stability, unemployment, the balance of payments, economic growth and development. As important as these policies are, they cannot be implemented simultaneously because some of them conflict with each other. There are always trade-offs between various goals, so a country pursues policies related to its stage of development at different times and in different situations (Ebikila et al., 2018). However, it can be agreed that the main challenge facing any country is to achieve sustained and stable economic growth and development. One of the open research questions in the macroeconomic literature is the relationship between macroeconomic variables such as real GDP, EXR, IFR, and M2.

A crucial issue for policymakers and economists is the specific role of money in the economy, as changes in the quantity of money can have an impact on key macroeconomic indicators such as inflation, exchange rates, and vice versa (Yousfat, 2015). Last few years, the convergence problem between money supply and various macroeconomic variables has received more and more attention in the field of monetary and financial economics due to disagreements between economists and financial scholars on the association between money supply and various economic variables. In Nigeria, the government attempts to influence the performance of the national economy through fiscal and monetary policy, such as changing taxation levels, government spending, or the supply of money or credit to the economy. Changing macroeconomic policies affect national income, prices, interest rates and exchange rates, which in turn affect economic development (Aroriode and Ogunbadejo, 2014). Economists are divided on which policies can boost short- or long-term growth. Hence, the study by Antwi et al. (2013) argues that macroeconomic policies are necessary for long-term development. According to Gatawa et al. (2017), monetary variables are more effective and reliable than fiscal variables in influencing changes in economic activity. Previous attempts to understand the impact of macroeconomic variables on the economy of Nigeria have led to conflicting opinions. Existing research diverges on meaning lines and relational directions. Numerous findings highlight the significant influence of macroeconomic variables, especially the moderating role of money supply (Gatawa et al., 2017; Olawale, 2015). While agreeing that economic performance is responsible for macroeconomic changes, these studies disagree on the direction of the effect. Therefore, the motivation for this study was to conduct an X-ray of the relationship between Nigeria's real GDP and EXR, IFR, and M2.

Macroeconomic stability remains one of the bases for sustainable economic development because it increases national savings and private investment, and improves exports and balance of payments by enhancing competitiveness (Obidike and Nduka, 2022). Therefore, macroeconomic stability greatly guarantees people's economic well-being. To this end, several potential determinants of macroeconomic stability have been identified, such as low inflation, low budget deficits, real exchange rates and stability of exchange rate relations. The above factors are important drivers of economic growth. Surprisingly, at some Nigerian presidential debates for the scheduled Presidential election for 2023, some candidates have expressed aversion to saving, which is probably why Nigeria's economy has been unstable for so long. A study by Nse and Anietie (2018) considered a dynamic model using quarterly data from 1995 to 2016. The dynamic models considered are horizontal lag variables, differential lag variables, log-transformed lag variables, and differential log-transformed lag variables. The selection of the best predictive model is done using the Schwartz Information Criterion (SIC). The outcome of the study showed that the horizontal form model outperforms the differential form model. Based on model brevity, the horizontal lag model was the preferred model in the ensemble of selected models. The predictions obtained from the model indicate that the model is stable because the actual interest rate (IR) values fit well within the calculated 5% critical value. The study by Vorlak et al. (2019) assessed the impact of EXR on Cambodia’s economic growth. The study used variables such as gross domestic product (GDP), as well as explanatory variables such as EXR, M2 and trade openness (TOP), IFR and foreign direct investment (FDI)). The study employed the ordinary least squares (OLS) regression model for the analysis. According to estimates, the results show that the impact of the EXR and trade openness (TOP) on GDP is 1%. The EXR was positively correlated with GDP, and TOP is negatively correlated with GDP. During the study period (1995-2017), other variables such as M2, IFR and foreign direct FDI had no significant impact on Cambodia's GDP. The study by Jibril (2019) examined the determinants of exchange rate volatility using Nigeria's sticky price currency model. This article adopted secondary quarterly data for the period 2016 and 2017. The data analysis technique employed is the Autoregressive Integrated Moving Average (ARIMA) regression technique. The study found that currency variables significantly affected exchange rate volatility in Nigeria during the period under review. The findings show that interest rates and inflation levels have a significant and positive impact on exchange rate volatility in Nigeria. While the negative impact of M2 on EXR volatility is negligible, the positive impact of productivity on exchange rate volatility is negligible. However, the number of observations/the period considered by the author (8 data points) seems not to be sufficient for the ARIMA technique employed in the study.

The study by Obidike and Nduka (2022) considered the following macroeconomic variables; EXR, IR, IFR, TOP, FDI and M2 for assessing the performance of the Nigerian economy. The tools used to analyze the data were the ADF test, ARDL and diagnostic tests to determine the reliability of the model. The outcome of the study showed that IFR, TOP, FDI and M2 have a significant positive impact on real GDP in the short run, while EXR and IR have a significant impact on real GDP in the short run. Therefore, the study concludes that the selected macroeconomic variables are an effective short-term policy tool, influencing the Nigerian economy to a large extent. However, the point of departure from the present study and the study by Nse and Anietie (2018) and Obidike and Nduka (2022) apart from the choice of macroeconomic variables considered in the various study is the period considered for the two studies. The current study examines quarterly data for macroeconomic variables from the fourth/current Republic of Nigeria from 1999 to 2021. It is on record that Nigeria has experienced so far four Republics; the first republic is the republican government of Nigeria between 1963 and 1966 which was governed by the constitution of the first republic, the second republic (1979–1983), the third republic (1993) and the fourth/current republic (1999–present).

2. Method

2.1. Source of Data Collection

In this research, the secondary data has been used. Secondary data is collected from the Central bank Statistical Bulletin for 2021. Quarterly data on macroeconomic variables such as Money supply (M2), Gross Domestic Product (GDP), Exchange rate (EXR) and Inflation (IFR) was obtained from 1999 to 2021.

2.2. Method of Data Analysis

The ADF was used to test for the presence of a unit root in the time series sample data obtained for the study. The result of the ADF will be useful in deciding the Cointegration method to adopt for the study. Assuming that the variable of interest has a unit root that is integral of the same order, the Cointegration method used to test the long-term relationship can be either the Engle-Granger method or the Johansen-Juselius method. However, Engle-Granger, when the variables are integrated into different orders, the appropriate method to use is the ARDL method. However, the present study employed the ARDL approach to examine the long-run relationship of the variables since the variables were integrated of order (I(1) and I(0)).

The ARDL models are usually specified and estimated when an appropriate lag length is determined. The generalized form of the ARDL (m, n; p) model with p exogenous variables can be expressed as

$$y_t = \alpha_0 + \sum_{i=1}^{m} \alpha_i y_{t-1} + \sum_{j=1}^{p} \sum_{i=1}^{n} \beta_{ij} \, x_{jt-1} + \varepsilon_t \tag{1}$$

where, $\varepsilon_t \sim iid(0, \sigma^2)$.

However, equation (1) can be expressed using the lag operator $L^n_{Z_t} = Z_{t-n}$ as

$$\alpha\left(L\right) y_t = \alpha_0 + \sum_{j=1}^{p} \beta_j(L) \, x_{ij} + \varepsilon_t \tag{2}$$

Where,

$$\alpha\left(L\right)=1-\sum_{i=1}^{m}\alpha_i L^i, \; and \; \beta\left(L\right)=\sum_{j=1}^{n}\beta_{ji}L^i \tag{3}$$

In the present study, the obtained estimates for the ADRL model will be used to describe the relationships that exist between growth output (RGDP) and EXR, IFR, and M2. The decision rule for ARDL Bound tests of Cointegration is to reject the null hypothesis significance level of no Cointegration relationship between the variables of the ARDL model when the computed *F* statistic is found to be above the assumed 5% upper critical value.

3. Results

The descriptive statistics result of the variables considered in the study is presented in Table 1. The result found that the average real GDP growth rate during the study period was 70,815,236, while EXR, IFR, and M2 were: 185.4940, 25.04196 and 31474491. The standard deviations of real GDP growth, M2, inflation, and exchange rates indicate that the values in the dataset are close to the mean. Thus, reflecting small changes in variable data. All variables are positively skewed, as indicated by the positive skewness coefficient. The results of the Jarque-Bera test indicate that the variables are approximately normally distributed.

Table 1: Descriptive Statistics of RGDP, EXR, IFR and M2

	RGDP	EXR	IFR	M2
Mean	70815236	185.4940	25.04196	31474491
Median	43178983	150.7550	24.05000	29626482
Std. Dev.	60643111	88.86316	14.91931	31039554
Skewness	0.577068	1.162532	0.271564	0.615846
Kurtosis	1.920658	2.972482	2.018357	2.159946
Jarque-Bera	4.571871	4.72559	4.824682	5.520574
Probability	0.088346	0.084032	0.089605	0.094118
Observations	88	88	88	88

Source: Eview 9.0

The results of unit root testing of variables using the ADF test statistic presented in Table 2 found that real GDP (RGDP), EXR, and M2 were the first The difference has more negative values at the 5% significance level (-9.3342, -6.8975, and -9.8835, respectively), while the IFR has more negative values at the 5% significance level for the self-test statistic value (-3.772187). This result means that real GDP (RGDP), EXR and M2 are integrals of order 1 (I(1)), while IFR is of order 0 (I(0)) integral. Therefore, all series are stationary over the study period and there is a trend.

Table 2: Result of Augmented Dickey-Fuller unit root test for the variables

Variables	**Level**		**1st Difference**		**Order of integration**
	No Trend	With Trend	No Trend	With Trend	
RGDP	-1.902951	-2.561695	-9.385452	-9.334291	**I(1)**
EXR	1.424133	-0.504583	-6.358487	-6.897597	**I(1)**
IFR	-1.420051	-3.772187	-	-	**I(0)**
M2	-1.575183	-2.335636	-9.893695	-9.883508	**I(1)**
Critical values					
5%	**-2.893589**	**-3.459950**	**-2.894332**	**-3.156776**	

Source: Eview 9.0

From the results in Table 2, it can be seen that some variables are stationary at zero difference I(0), but after the first difference of I(1), they all become stationary. Differences are applied to avoid spurious regressions. Since the differenced variables were stationary, there may be Cointegration between the variables. The ARDL Bound test shall be employed to ascertain whether certain variables in the model are cointegrated, and the expected result shall show whether there is a long-term relationship between sets of variables. Assuming that the variables of interest have the unit root of the same order integral, the Cointegration method used to test the long-term relationship can be the Engle-Granger method or the Johansen-Juselius method (Aronu et al., 2020). However, this study employed the ARDL approach to examine the long-term relationship of variables, since it was found that the variables were integrated into different orders (I(1) and I(0)). The number of lags used in the Cointegration test is based on the information criterion used in the underlying model. Cointegration tracking tests for real output (RGDP), the EXR and M2, and IFR are shown in Table 3. The results of the ARDL bound test for Cointegration presented in Table 3 found a calculated F statistic of 4.8981, which was found to be greater than the upper critical value of 4.35 (assuming a significance level of 5%). This result indicates that the null hypothesis that there is no Cointegration relationship between the variables of the ARDL model was rejected. Therefore, the findings show that growth output (RGDP) is cointegrated with the EXR, IFR, and M2. Furthermore, this result further suggests that there is a long-term relationship between the variables.

Table 3: Result of test for the existence of level relationship amongst the variables in the ARDL

Number of regressors	**Value of statistic K=3**
Computed F-statistic	4.8981
5% critical value	
Lower bound value	3.23
Upper bound value	4.35

The critical bound values were extracted from Pesaran et al., (2001).

Hence, the findings from the result obtained in Table 3 revealed that there exist a long-run relationship amongst the variables of the ARDL model since the computed F-statistic value of 4.8981 was greater than the lower and Upper bound values at significant level of 0.05 (4.8981 > (4.35, 3.23)). Therefore, it is appropriate to obtain an estimate of the ARDL long-term coefficient for the model, and also an estimate of the error correction model (ECM). The results of the long-term estimation are shown in Table 4, and Table 5 shows the estimate of the corresponding ECM. After evaluating 5832 models, the ARDL (5, 0, 2, 5) model was chosen as the better model using the Hannan-Quinn criterion (HQ). The results indicate that the model has 0 lags in EXR, 2 lags in IFR, and 5 lags in M2. This can be seen from the results presented in Table 5.

Table 4: Estimated long-run coefficients: ARDL(5, 0, 2, 5) selected by Hannan-Quinn criterion (HQ).

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EXR	632503.89	195955.82	3.227788	0.0019
IFR	-4210366.25	1130654.099	-3.723832	0.0004
M2	-2.005562	0.63539	-3.156384	0.0023
Constant	105639971.69	26279536.56	4.019857	0.0001

Source: Eview 9.0

The result of the long-run relationship between the growth output and variables such as EXR, IFR and M2 presented in Table 4 found that the coefficients for all the variables were significant since their p-values were obtained as 0.0019, 0.0004, and 0.0023 respectively since their p-values were all less than significant level of 0.05. It was found that IFR and M2 have negative coefficients while EXR has a positive coefficient. This result indicates that EXR, IFR and M2 have a significant long-run effect on group output in Nigeria.

From the result presented in Table 4, the Co-integration equation can be expressed as equation (4) below:

Cointeq = RGDP - (632503.89*EXR - 4210366.25*IFR-2.0056*M2 + 105639971.6978) (4)

The result presented in Table 5 showed that the error correction coefficient of -0.274250 (p-value = 0.0003) was significant and indicates that the system corrects its previous period disequilibrium at a speed of 27.4% quarterly. A further result showed that the lag of RGDP, IFR and M2 has an insignificant short-term effect on growth output (RGDP).

Table 5: Error correction representation of the selected ARDL model: ARDL(5, 0, 2, 5)selected by Hannan-Quinn criterion (HQ)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(RGDP(-1))	0.182725	0.108688	1.681190	0.0971
D(RGDP(-2))	-0.037662	0.100940	-0.373113	0.7102
D(RGDP(-3))	0.019969	0.087460	0.228319	0.8201
D(RGDP(-4))	0.605668	0.150469	4.025201	0.0001
D(EXR)	173464.081950	73888.986397	2.347631	0.0217
D(IFR)	-2600975.706204	377429.915733	-6.891281	0.0000
D(IFR(-1))	894182.523279	444227.014701	2.012895	0.0479
D(M2)	-0.461900	0.195680	-2.360484	0.0210
D(M2(-1))	0.249340	0.261045	0.955160	0.3427
D(M2(-2))	-0.115892	0.258453	-0.448408	0.6552
D(M2(-3))	-3.935621	1.233645	-3.190238	0.0021
D(M2(-4))	4.497386	1.340876	3.354065	0.0013
CointEq(-1)	-0.274250	0.072953	-3.759263	0.0003

Source: Eview 9.0

4. Discussion

The study x-rayed the relationship between growth output, exchange rate, inflation and money supply with the current Republic in Nigeria. All variables were found to be positive skew, as indicated by the positive skew coefficients. The result of the Jarque-Bera test showed that the variables were approximately normally distributed. The variables considered in the study were found to be integrated in order (I(1) and I(0)). Hence, the study employed the ARDL approach to examine the long-run relationship of the variables since the variables were integrated in a different order. The lag used in the Co-integration test was based on the information criterion used in the underlying model. The findings showed that growth output (RGDP) was Cointegrated with EXR, IFR and M2 and the existence of a long-run relationship amongst the variables. After evaluating 5832 models, the ARDL (5, 0, 2, 5) model was selected as the better model using the Hannan-Quinn criterion (HQ). The result indicates that EXR has 0 lag, IFR has 2 lags and M2 has 5 lags in the model.

The result of the long-run relationship between the growth output and variables such as EXR, IFR and M2 found that the coefficients for all the variables were significant; further findings showed that IFR and M2 have negative coefficients while EXR has a positive coefficient. This result indicates that EXR, IFR and M2 have a significant long-run effect on group output in Nigeria. This result was contrary to the findings of Obidike and Nduka (2022) who noted that inflation rate and money supply have a significant positive impact on growth output while exchange rates have a significant impact on real GDP in the short run. This could be attributed to the choice of the present study to consider the current republic in Nigeria. The result of the error correction coefficient indicates that the system corrects its previous period disequilibrium at a speed of 27.4% quarterly. A further result showed that the lag of RGDP, IFR and M2 has an insignificant short-term effect on growth output (RGDP). This result is in line with the findings of Vorlak et al. (2019) who stated that variables such as M2 and IFR had no significant impact on Cambodia's GDP. Based on the conclusions drawn from this study, the following recommendations are hereby made: (i) It is therefore prudent that, in seeking to foster economic growth, Nigerian banks should commit to their mandate of price stability and improve their regulatory framework to ensure a strong financial sector with effective intermediation, and (ii) To avoid inflationary effects, the government should control the excessive expansion of Nigeria's broad money supply.

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Football and Entrepreneurship: Some Insights from a Football-Mad Country Without a Single World Cup Trophy

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Abstract
Southeast Asia may be considered forgotten in the world of football as no country in this region can compete with any football countries in Europe or the neighboring countries such as South Korea, Japan, and Australia. Countries such as Indonesia, Malaysia, Vietnam, and Thailand have never competed in the World Cup, but one should not ever doubt their continuing fervor for football. The question arises as to why these countries cannot translate their potential into actual achievement football-wise achievements and in terms of sport-based entrepreneurship. This paper uses the concept of sports entrepreneurship and entrepreneurship as a process to capture the essence of football entrepreneurship from the context of Indonesia, the largest and most populous country in Southeast Asia. The study identifies several ways to encourage creativity and innovation as part of value creation in football entrepreneurship in the country.

Keywords: Football, Entrepreneurship, Southeast Asia

1. Introduction

Football fanaticism and traditions have long been known in many countries. Football has become part of identity in South America (e.g., Brazil, Argentina, Uruguay), European countries, and Africa (e.g., Nigeria, Ghana, Senegal). Such fanaticism and traditions are unlikely expected to occur in Southeast Asian countries. The expectation turns out to be untrue. The people of these countries are as passionate about football as those from South America and Europe. In a way, such passion for football is more than expected. Football fans in Indonesia, Vietnam, Thailand, and Malaysia follow the world of football closely. In particular, they enjoy the English Premier League, Serie A, and La Liga. To put this into perspective, TVRI, the state-owned television channel in Indonesia, regained popularity in 2019 after it broadcasted the English Premier League as its "killer content."

In addition, outsiders will be amazed to see how football fans based in Indonesia show their support for their clubs. Every time Persib Bandung and Arema Malang (two strong football clubs from Liga 1 Indonesia) play in front of their home crowd, thousands of people will come and show their support by singing and interesting choreography. However, recent Kanjuruhan tragedy which is the saddest tragedy in Indonesian Football has shown the dark side of Indonesian football. As a result of the incident that includes soccer fans from Arema Malang and polices, 135 people reportedly died. Similarly, every time the Indonesian national football team (Garuda) plays their games, it is supported by at least sixty thousand people flocking to Gelora Bung Karno (the biggest football stadium in Indonesia). Such was also the case when the Malaysian national football team (Tiger) performed in their home crowd and stadium. Vietnam portrays another interesting story. This country has never been seen as a strong national team for a long time. In recent years, however, Vietnam has transformed itself into the strongest football national team in Southeast Asia as it is close to paving its way to join World Cup 2022 in Qatar. In short, Southeast Asian countries, in particular Indonesia, can be seen as football-mad countries. They have so much passion for football but have had no success in the World Cup competition. This suggests that these countries are incapable of translating their passion for football into achievement.

More than 662 million people populate the Southeast Asian region. The number no doubt promises a big market for football. This paper focuses on why countries in this region, especially Indonesia, the largest and most populous country in Southeast Asia, cannot translate the hype and love for football into achievements, such as participating in the world cup. Until the 1970's Indonesian national football team could easily defeat Japan national team. Today, it is hard to imagine that would be the case. The recent FIFA ranking (fifa.com, 2022) has shown the fall of Southeast Asian football, including Indonesia (155th), Malaysia (147th), Thailand (111th), and Vietnam (97th). The ranks are significantly lower than other Asian countries' rankings in AFC, including Australia (39th), Japan (24th), and South Korea (28th). Furthermore, the paper also portrays the dynamics of football in Indonesia by examining some important actors such as football fan headquarters, football club owners, footballers, and, (not) surprisingly, politicians. I borrowed some concepts from entrepreneurship to capture the dynamics of Indonesia's football, especially sport-based entrepreneurship, as suggested by Ratten (2011, 2020) and Ratten and Jones (2020). These studies have shown the importance of the stakeholders in developing the industry. Sport-entrepreneurship essentially emphasizes the importance of value creation in innovating the industry. This paper will contribute positively to sport-based entrepreneurship by answering this question: How can stakeholders help transform the potential of Indonesia's football into better football achievements and high-growth businesses?

2. From creativity to innovation

As Davidsson (2020) suggested, entrepreneurship is a process that includes both intention and action. He further explains that "those who express a dream, ambition, aspiration, willingness, or intention to start a business without ever doing anything to bring this to realization hardly deserve to be included in a sample of new venture creation processes" (p. 368). In line with this viewpoint, Mazzarol and Reboud (2020) emphasized the importance of creativity in the entrepreneurship process, for example, by ensuring entrepreneurs can benefit from networks. Put differently, the entrepreneurship process starts from intention and the right mentality, followed by action based on creativity and networks or partnership. In a broader sense, these conceptualizations align with the sport-based entrepreneurship suggested by Ratten (2011, 2020), who understands sport-based entrepreneurship as value creation shaped by stakeholders in the sports industry and government as policymakers. Indonesia has 270 million people, and most of them are football fans made up of kids, and adults. It is important to seek out what could be done to transform such demographic advantage into fruitful innovation.

Innovation implementation requires consistency and a supportive innovation climate. As mentioned above, the Indonesian national football team could easily outperform the Japanese national team in the 1970s. In a way, this suggests that Indonesian players have the potential in terms of talent and skills. So, what has gone wrong? Sin Tae Yong, the coach of Indonesia's national team from South Korea, shared his opinion on this. He recently has shown some progress for the national team by successfully taking the Indonesian football team to the Asian Cup after defeating Kuwait in 2022. In his professional opinion, Indonesian footballers, past and present, have no significant differences in talent and skills. The problem is that Indonesian footballers cannot compete because they lack stamina. This is what is lacking in both Liga 1 and Liga 2 in Indonesia, thus resulting in their low quality. In terms of endurance, Sin Tae Yong stated that his players had difficulties following his instructions and strategies because they could only play well for no more than sixty minutes. This disadvantages Indonesian footballers as football is a physical sport that requires endurance. Jose Mourinho, one of this era's most famous football coaches, shared his dislike of this type of player. He said, "In the end, he wasn't considered because he has no stamina, no physical impact and isn't a big-game player." (Dickenson, 2017). He further said (Bate, 2022):

"The key to success remains the same - it's all about the strategy. You cannot predict everything but the more prepared you are, the more you can put into the training. You can reduce that unpredictability and that gives the feeling of making your choices and decisions easier. You know that football games have some risk of course, but you have to try to reduce that risk by preparing the best you can."

Similarly, entrepreneurial strategy can only be implemented if the resource needed is available (Mazzarol and Reboud, 2011), in this case, the player's stamina. This capital is very basic, and most observers and football actors in Indonesia will strongly agree with it. It is interesting to know why this has happened from an entrepreneurship perspective. I would argue that there are at least two reasons why players do not possess such basic capabilities as footballers. First, Indonesian footballers are not prepared mentally to become professional players. They do not have self-confidence, personal ambition, and strategic paths that they believe can lead them to become professional footballers. Their environments also do not support their aspirations as they do not think football can become high-earners. In short, these footballers have had no support system. As a result, they remain amateur. As such, they do not find it entirely necessary to follow the standard of being a footballer, such as nutrition, discipline, or basic skills. This is in contrast to footballers in developed nations. In Australia, for example, those who aspire to become professional footballers are fully supported by the education system. (As a matter of fact, football is considered the least favorite national sport in Australia compared to Australian Rules Football, Rugby, Swimming, and Cricket). I personally have witnessed some young Australians in Years 9 and 10 who were committed to becoming future professional footballers and have created career paths for themselves. I have never seen such systematic efforts in the context of young talented footballers in Indonesia.

Secondly, I would argue that the root of all problems is the short-term perspectives in implementing sport-based entrepreneurship in Indonesia. For example, while Indonesia's football league has been well established since 1994, it has not been able to raise the standard of the football stadiums. In general, these stadiums are old and poorly managed. Several accidents have resulted from such a failure. Several years ago, two supporters of Persib Bandung (the elite team in the Liga 1) lost their life because of overcapacity, causing a chaotic situation for the supporters queuing in the stadium. Moreover, the owners of football clubs prefer to invest in foreign players that presumably can lead the club to win trophies or build a political reputation instantly.

The investment in football clubs for political reasons is gaining currency in Indonesia. Since football is the most popular sport in the country, it makes it easier for the owners to attract fans by buying existing football clubs. Erick Tohir, the current Minister of State-Owned Enterprises, gained popularity after he bought Inter Milan-the elite club of Serie A, although he then sold it. Buying the football club has advantaged him in initiating his political career begins. Recently, he, together with Kaesang, son of current Indonesia’s president, bought Persis football club, a club competing in Liga 2 in Indonesia. While investment is not unusual, it can be seen as a political move to increase his popularity even more. It is worth noting that recently some young entrepreneurs followed Mr. Tohir’s footsteps by investing in football clubs as the club owners. One of them is Raffi Ahmad. He is the most famous celebrity endorser in Indonesia, with 24 million subscribers to his YouTube channel. He bought the Cilegon FC from Liga 2. One year later, the club was successfully promoted to Liga 1 in 2022. This is again to see how young entrepreneurs have seen football as a way to strengthen their imperial businesses as a whole. It remains to be seen whether they can create a balance between business logic, political logic, and football logic in order to effectively implement sport-based entrepreneurship in football (see fig. 1)

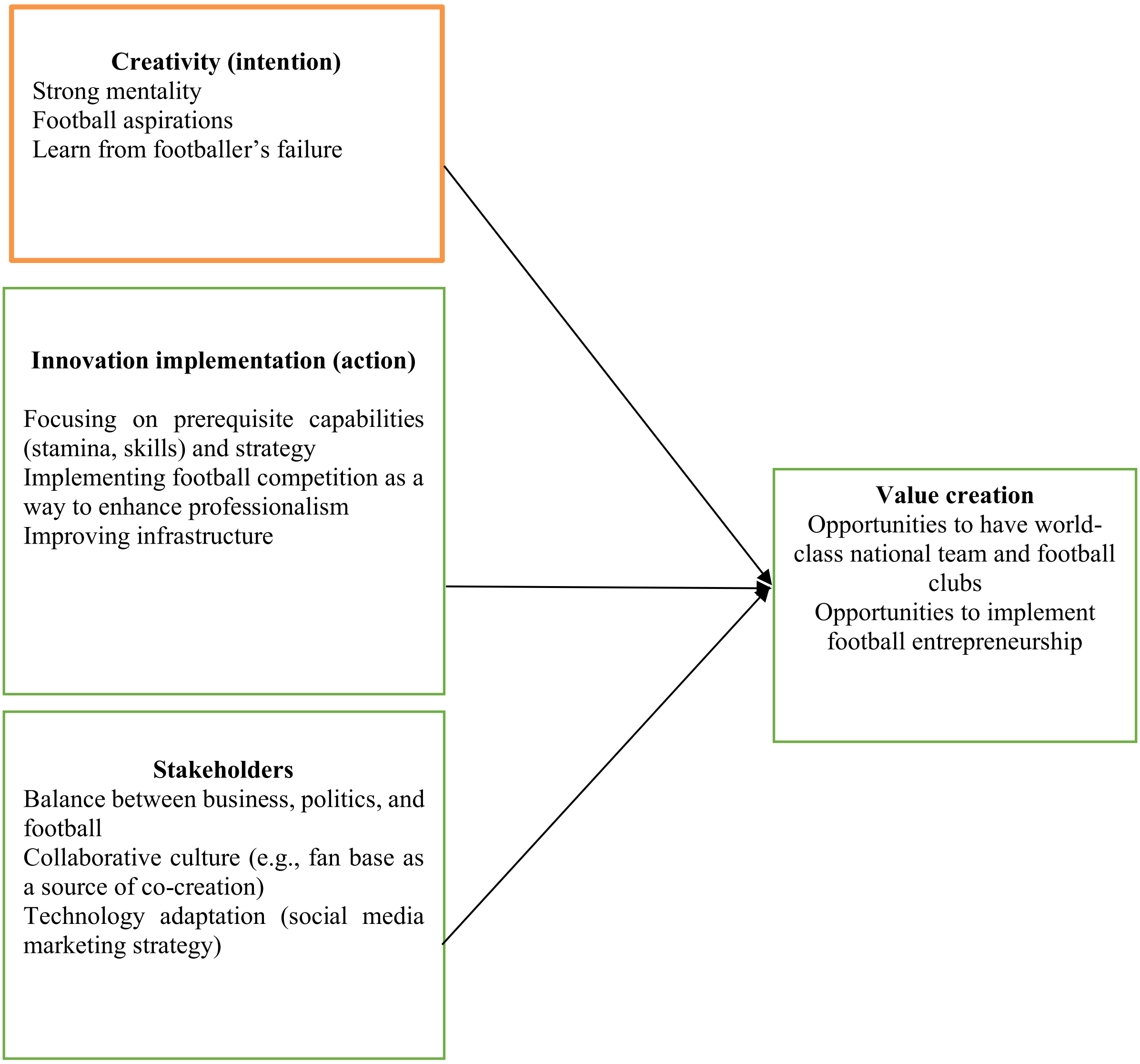

Figure 1: Dynamic aspects of football entrepreneurship in Indonesia

Fig. 1 is based on the conceptualization of sport-based entrepreneurship by Ratten (2011, 2020) and entrepreneurship as a process (Davidsson, 2020). I used their figure to divide football entrepreneurship in the context of Indonesia. These concepts include creativity (intention), innovation implementation (action), and the role of stakeholders. As Ratten (2020) suggested, all of them are expected to lead to value creation. Although creativity and innovation are closely linked, they show differences. While creativity focuses on producing new insights, ideas, or solutions to problems, innovation focuses on the adoption, implementation, and successful implementation of the ideas, insights, and solutions (Amabile, Conti, Coon, Lazenby, & Herron, 1996).

I also think that stakeholders can play a greater role in football entrepreneurship. They may include football club owners with little or no knowledge about football as a sport, but they can imprint entrepreneurial spirit into the football organizations. They may have their own agenda outside football, or they can use football as their stepping stone for political purposes, but they need to consider football beyond business logic. In other words, these entrepreneurs can contribute positively in terms of business logic, but at the same time, they also need to learn more from football logic. Football legend like Paolo Maldini of Milan symbolizes not only the club but also football itself. With this in mind, it is never a mistake to include football logic from someone like him.

We cannot also ignore the fan base as the ultimate reason why football clubs exist. They are part of stakeholders equipped with football logic and are not reluctant to contribute positively to monetary and non-monetary support. For example, Bali United, the champion of Liga 1 in 2022, was the first Indonesian football club that has offered its shares through the Indonesia Stock Exchange from June 2019. Ever since its fans have enthusiastically funded their club by buying its shares. Regarding this, McCarthy, Rowley, and Keegan (2022) have suggested that it is imperative for football clubs to closely interact with fans by implementing an effective social media marketing strategy. They pointed out that this strategy should be based on trust, representing a mutually beneficial relationship between the club and fans. This means technology adaptation by clubs essentially will not reduce the importance of fans as the heart of football clubs. In the near future, clubs can benefit from the distinctive role of fans in value co-creation (Kolyperas, Maglaras, & Sparks, 2019), which signifies such mutually beneficial relationships.

3. Conclusion

Following the conceptualization of sports entrepreneurship (Ratten, 2011, 2020) and the entrepreneurship process (e.g., Davidsson, 2020), this paper has identified football entrepreneurship in the context of Indonesia manifested in three concepts: intention, action, and the role of stakeholders. Regarding intention, footballers need to have a strong mentality as they are similar to entrepreneurs: they are dealing with a high-level uncertainty without a support system in Indonesia. In terms of action, it is important to focus on core issues such as football's basic capabilities and strategy, better infrastructure, and professional leagues. The latter should be seen not only from business logic but also from football and community, particularly fans' logic. Stakeholders can contribute positively to football entrepreneurship, especially by showing the balance between their entrepreneurial strengths and football knowledge. The recent phenomena in Indonesia suggest that successful young entrepreneurs eagerly purchase the existing football clubs. Such an investment may create added value as long as the new owners can incorporate the non-business logic in football. By combining football and entrepreneurship, we can expect, sooner rather than later, that the countries in Southeast Asia in general and Indonesia, in particular, will be able to translate their passion for football into great achievements in football and entrepreneurship.

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Good Corporate Governance and Integrated Reporting Implementation of Rev. 4.0

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Abstract
This study aims to analyze the implementation of integrated reporting associated with corporate governance. The research method used is quantitative with a total sample of 20 companies listed on the Indonesia Stock Exchange during the 2018-2020 period and uses a multiple regression analysis tool to test the hypotheses in this study. The results of the study show that corporate governance, which consists of indicators on the size of the board of directors, the number of audit committees and gender diversity, has an effect on the implementation of integrated reporting. Companies that have implemented integrated reporting in their annual reports show good corporate governance, so that governance can improve when companies implement integrated reporting in their annual reports. The results of this study can be used as input for the relevant regulators as a material consideration in making decisions regarding the implementation of the integrated reporting framework in Indonesia.

Keywords: Implementation, Integrated Report, Governance, Value of the Company

1. Introduction

The Industrial Revolution 4.0 (Rev. 4.0) requires companies to quickly keep up with technological and social changes. In Rev.4.0 it indicates that the scope of financial reporting is getting wider and the need for information is increasing. Integrated reporting (IR) emerged as a result of the global financial crisis in 2008/2009 which caused an increase in demand for non-financial reporting (Utami, 2016). IR plays a key role in management control and stakeholder relations. As a consequence of "integrated thinking" IR combines traditional financial accounting with sustainability and issues related to corporate governance to increase the decision usefulness of modern business reporting (Velte & Stawinoga, 2017). Transparency over disclosure is becoming increasingly important, as a result of demands for higher accountability in the context of corporate governance and non-financial information (Wulf et al., 2014).

South Africa as the first country that implemented IR as mandatory disclosure for companies listed on the Johannesburg Stock Exchange since 2010. In 2013 the International Integrated Reporting Council (IIRC) supported by the Global Reporting Initiatived (GRI) issued an Integrated reporting framework as a guide in preparing reports IR-based annual. With the publication of these guidelines, it has led to an increase in the number of companies that have implemented reporting in the form of IR (Velte & Stawinoga, 2017). This provides evidence that it is time for companies to switch from traditional financial reporting to integrated reporting. However, regulations vary from country to country regarding the application of IR in corporate reporting. Thus, this raises the question of whether IR is required as mandatory or voluntary disclosure.

Integrated Reporting (IR) emerged as the latest approach in corporate reporting which is used as a new accounting practice that can help companies understand the value creation process and communicate effectively to external stakeholders (Cooray et al., 2020; Perego et al., 2016). IR involves reporting financial and non-financial, environmental, social and governance information in a single reporting document and explains company performance based on a broader concept of integration (Pistoni et al., 2018). Although IR is considered as a solution to overcome the problem of misleading information in company annual reports, not many companies have reported financial and non-financial information in the form of IR (Utami, 2016). This could be due to regulations in each country related to the application of company reporting in the form of IR, which are mandatory and voluntary. However, until now there has been an increase in the application of corporate IR in several countries (Churet & Eccles, 2014; Havlová, 2015; Velte & Stawinoga, 2017). This indicates a positive signal from stakeholders that reporting is needed in the form of an IR.

Related to previous research, Ivan (2019) revealed that corporate reporting is one of the main topics discussed by academics and professionals. Scientific debates are fueled by events and the resulting changes at the global socioeconomic level. The global economic crisis in recent years has prompted regulators to raise questions about the relevance and reliability of the conceptual framework used to prepare financial reporting. In this regard, several studies have documented the relationship between corporate governance and the application of IR in corporate reporting (Ahmad & Sari, 2017; Cooray et al., 2020; Roxana-Ioana & Petru, 2017; Suttipun & Bomlai, 2019; Wulf et al. al., 2014; Zambon et al., 2019).

Cooray et al., (2020) investigated governance mechanisms in influencing IR quality. This study is the first to develop an index to assess the quality of IR in public companies in Sri Lanka. Based on agency theory, the results of this study indicate that there is limited support from corporate governance systems to provide quality information to stakeholders about value creation processes through IR, except for the size of the board and the availability of a separate risk management committee. These results suggest that directors pay limited attention to providing quality information through voluntary disclosure practices such as IR. Other research also shows that the quality of the resulting IR is low, this is due to the scarce information disclosed on aspects of capital, business models, and strategic priorities that companies do not disclose in IR (Pistoni et al., 2018). Havlová, (2015) states that companies that adopt IR early are more likely to have a lower number of IR disclosures. This is in line with the requirements of the IIRC which tries to reduce the volume of disclosure by publishing more information which is primarily focused on future technological developments.

Several theoretical approaches have explained the link between governance and IR. Legitimacy theory is one of the clearest theories in explaining this relationship, by assuming that voluntary disclosure is intended to model conformity with public values and expectations, legitimacy theory offers great potential in explaining the relationship between corporate disclosure strategies and factors such as public disclosure. information in corporate reports, strategic implications and capital markets (Kannenberg & Schreck, 2019). In addition, if it is related to agency theory, disclosures made by companies can be used as a solution in dealing with agency problems. With the application of IR in company reporting, it can integrate all adequate information for all stakeholders (Perego et al., 2016; Pistoni et al., 2018).

In accordance with the explanation of the theory and the results of previous research, this study focuses on indicators on corporate governance that can affect the quality of IR implementation in state-owned companies in Indonesia. The indicators used are the size of the board of directors, the size of the board of commissioners, the independence of the audit committee, gender diversity, gender of CEO, independent ownership, institutional ownership.

2. Literature Review

Related to the previous research, Ivan (2019) revealed that corporate reporting is one of the main topics discussed by academics and professionals. Scientific debates are fueled by events and the resulting changes at the global socioeconomic level. The global economic crisis in recent years has prompted regulators to raise questions about the relevance and reliability of the conceptual framework used to prepare financial reporting. In this regard, several studies have documented the relationship between corporate governance and the application of IR in corporate reporting (Ahmad & Sari, 2017; Cooray et al., 2020; Roxana-Ioana & Petru, 2017; Suttipun & Bomlai, 2019; Wulf et al. al., 2014; Zambon et al., 2019).

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In addition, Wulf et al., (2014) found that the proper implementation of IR will affect some traditional structures and business processes which means it can assist companies in meeting governance requirements which can pose new challenges to address the main principles of IR. This is consistent with (ahmad & Sari, 2017; Suttipun & Bomlai, 2019) who found that internal governance has a positive impact on the implementation of IR. This shows that IR gives a positive signal to the company from stakeholders regarding the information disclosed in IR.

Havlová, (2015) states that with the application of IR, information technology (IT) will be more widely used. Companies that adopt IR at the beginning, still have low quality and low number of disclosures. From these results, Havlová, (2015) concluded that integrated reporting changes the volume and extent of disclosure and use of information technology. This means bringing benefits to adopters as it makes reporting easier. It is also an opportunity for IT companies to gain higher profitability connected with tailor-made IR solutions, for users who can more easily orientate reports. Apart from that, Auditors can also increase profits as there will be more work related to the new way of reporting, they ask for higher fees and advisors as they can offer services related to IR adoption.

Several theoretical approaches have explained the relation between governance and IR. Legitimacy theory is one of the clearest theories in explaining this relationship, namely by assuming that voluntary disclosure is intended to model conformity with public values and expectations, legitimacy theory offers great potential in explaining the relationship between corporate disclosure strategies and factors such as public disclosure. information in corporate reports, strategic implications and capital markets (Kannenberg & Schreck, 2019). In addition, if it is related to agency theory, disclosures made by companies can be used as a solution in dealing with agency problems. With the application of IR in company reporting, it can integrate all adequate information for all stakeholders (Perego et al., 2016; Pistoni et al., 2018).

In accordance with the explanation of the theory and the results of previous research, this study focuses on indicators on corporate governance that can affect the quality of IR implementation in state-owned companies in Indonesia. The indicators used are the size of the board of directors, the size of the board of commissioners, the independence of the audit committee, gender diversity, independent ownership and institutional ownership. The hypothesis in this study consists of the following:

Hypothesis 1: The size of the board of directors has an effect on the implementation of integrated reporting
Hypothesis 2: The size of the board of commissioners has an effect on the implementation of integrated reporting
Hypothesis 3: The audit committee independence affects the implementation of integrated reporting
Hypothesis 4: Gender diversity affects the implementation of integrated reporting
Hypothesis 5: The Independent ownership affects the implementation of integrated reporting
Hypothesis 6: The Institutional ownership affects the implementation of integrated reporting

3. Method

This research was conducted on state-owned companies in Indonesia which are listed on the Indonesia Stock Exchange. The sample selection was carried out by purposive sampling with the aim of obtaining a sample that could represent the criteria specified as follows:

1. BUMN companies listed on the Indonesia Stock Exchange
2. BUMN companies that publish annual reports for 2018 – 2020
3. State-owned companies reporting financial and non-financial information either in the form of sustainability reports or integrated reports during 2018-2020.

This study uses quantitative methods to analyze and answer research questions. The use of quantitative data is obtained by calculating the disclosure scoring of IR elements in company reports as well as data related to corporate governance indicators.

The variables used in this study consist of independent and dependent variables. The independent variable used in this study is good corporate governance (GCG). The dependent variable in this study is the application of integrated reporting. The measurement of each of these variables can be explained in detail in the following description, and briefly can be seen in table 1 below.

3.1. Integrated Reporting

Integrated reporting is a form of communication between the company and all stakeholders that is formed in a financial report. Integrated reporting is a communication tool between company management and stakeholders regarding the process of creating corporate value. Integrated reporting quality refers to how much information is disclosed by the company in its financial reporting in accordance with the integrated reporting framework issued by IIRC (2013) with eight (8) reporting element content.

The integrated reporting measurement instrument used in this study refers to the integrated reporting framework formulated by IIRC (2013). The integrated reporting framework classifies integrated reporting information into eight (8) categories, namely Organizational overview and external environment, governance, business model, risk, opportunities and internal controls, strategy and resource allocation, performance, outlook and basis of preparation and presentation. The total items of integrated reporting disclosure will be different for each company, depending on the information presented in its annual report. The total information that must be disclosed in the annual report according to the integrated reporting framework is 150.

The approach used to calculate integrated reporting is a dichotomous approach. Each integrated reporting item in this research instrument is given a value of 1 if the company discloses the information referred to in the annual report. Information presented in the moderate category will be given a value of 2 and information disclosed in detail will be given a value of 3. Information that is not disclosed at all will be given a value of 0. The score of each item will be added together to get the overall integrated reporting score and divided by the total information which should be disclosed according to the integrated reporting framework issued by the International Integrated Reporting Council (IIRC).

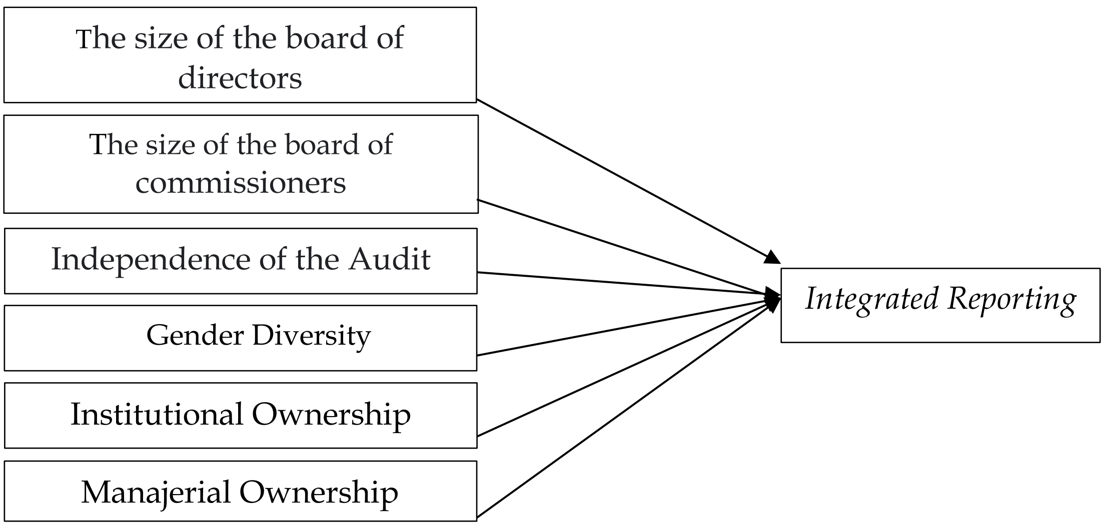
3.2. Good Corporate Governance

Good corporate governance mechanism is the implementation of corporate governance mechanism in a company. The implementation of good corporate governance mechanisms can be divided into two types, namely with a single measure and a checklist of corporate governance indicators that apply within the company. Various studies have used various approaches to measure this corporate governance quality variable with a single measure, for example the number of audit committees, the number of boards of directors, the number of committees under the board of commissioners and the number of independent commissioners. Another measure used is content analysis on the indicators of good corporate governance disclosed in the company's annual report. This study uses indicators of good corporate governance consisting of the size of the board of directors, the size of the board of commissioners, the independence of the audit committee, gender diversity, independent ownership and institutional ownership.

Table 1: Definition of Variable Operational

No		**Variable**	**Operational Definition**	**Formula**	**Measuring scale**
1	**Y**	***Integrated Reporting* (IR)**	Financial report of company that is related with *integrated reporting framework*	*Integrated reporting* index is the total of item disclosed by the company in the annual report in accordance with *integrated reporting*.	Ratio
2	**X_1**	***Good Corporate Governance (GCG)***	The elements of supervisiion that must be owned by the company and disclosed in the annual report as a form of protection for the interests of all *stakeholders*	- Number of directors (SDD) - Number of commissioners (SDK) - Number of auditor committee (IKA) - *Gender diversity* (GD) - Manajerial Ownership (KM) - Institutional Ownership (KI)	Ratio

The analytical method used to answer research questions uses multiple regression analysis. Before the regression analysis was carried out, the researcher tested the classical assumption which is a requirement that the regression model used meets the BLUE (Best Linear Unbiased Estimator) requirements. The results of the classical assumption test on all models in this study indicate that the entire model meets the BLUE requirements. The following is a picture of this research model which explains the direction of the relationship between good corporate governance and integrated reporting.



Picture 1: Model of the study

3. Results and Discussion

Testing the hypothesis in this study is to test empirically the effect of good corporate governance and corporate value on the application of integrated reporting. The test results can be seen in the following table.

Table 2: The Hypothesis Result Test (IR as Dependent Variable)

	Coefisien (B)	t Statistics	P_{value}
Const	41.351	4.367	0.000
SDD	5.748	2.155	0.036
SDK	3.338	.887	0.379
IKA	8.559	3.315	0.002
GD	-22.693	-3.640	0.001
KI	-12.438	-1.451	0.153
KM	41.071	0.970	0.336
N	60		
F (Sig)	4.993 (0.000)		
Adj R^2	0.289		

Source: the data processed

Description: IR: Application of integrated reporting company I in year t; SDD: Size of company I board of commissioners in year t; SDK: size of company I board of commissioners in year t; IKA: Independence of the Audit Committee I company in year t; GD: Gender Diversity company I in year t; KI: Institutional Ownership of company I in year t; KM: Managerial Ownership of company I in year t.

Based on the results of the multiple regression analysis shown in table 2, it shows that Good Corporate Governance (GCG) as measured by indicators of board size, audit committee independence, and gender diversity as a whole has a significant influence on the implementation of IR which can be seen from the P-value value is smaller than 0.05, except for indicators of institutional ownership, managerial ownership and board size. Thus the hypothesis which states that GCG has a significant effect on the implementation of IR in BUMN companies is acceptable.

3.1. Good Corporate Governance on applying IR

Good corporate governance is expected to be able to encourage management to apply all applicable rules so that companies will carry out financial reporting in accordance with what is required by the regulator. The results of this study indicate that good corporate governance influences integrated reporting. In line with agency theory, the results of this study indicate that good corporate governance can improve the quality of financial reporting in accordance with the framework created by the regulator in the form of implementing integrated reporting. The results of this study are in line with the results of research conducted by Stacchezzini, et.al. (2016) which shows that good corporate governance tries to always encourage management to carry out financial reporting according to the format made by the regulator.

The board of directors indicator has a positive effect on the implementation of integrated reporting, this shows that the existence of a board of directors in a company has a major role in carrying out corporate governance. The board of directors can play a role in determining company policy and providing security for investors in the future (Agyei-Boapeah et al, 2019). OJK Regulation Number 33 of 2014 which regulates the existence of a board of directors in a company is an executor in a company that has authority and responsibility in a public company for its own benefit. This study also supports the research of Setia et al. (2015) which states that the size of the board of directors influences the implementation of integrated reporting.

The audit committee independence indicator also has a significant effect on the implementation of integrated reporting, which means that the higher the independence of the audit committee, the larger the company is to implement integrated reporting. The audit committee has the duty to provide advice to the company's commissioners, especially matters related to financial reporting prepared and submitted by the directors to the commissioners. That is, the existence of an audit committee can support companies in publishing integrated reporting. Based on its duties the audit committee can support management to disclose and improve company reporting disclosures, including in integrated reporting disclosures. In line with research by Agyei-Boapeah et al. (2019) that the audit committee can influence annual reports that use an integrated reporting pattern.

The results of the study also show that the application of an integrated reporting framework in companies is information that must be disclosed to the public immediately and this is the basis of signaling theory. Companies feel the need to immediately show stakeholders that they are following the development of information in the world. Good corporate governance is considered to be a booster for corporate financial reporting in accordance with existing developments and in line with legitimation theory. Company legitimacy can be maintained and improved when the good corporate governance mechanism succeeds in encouraging management to carry out financial reporting in accordance with what is required by stakeholders. The results of this study are in line with the results of research conducted by Frias-Acetuino (2012) where the main goal of companies to carry out financial reporting is mainly to maintain their legitimacy, so that the board of directors will try to encourage management to report their annual reports in accordance with the integrated reporting framework.

4. Conclusion

Based on the results of the analysis and explanations made in this study, a concept of good corporate governance is generated which can be influenced by integrated reporting. Special attention is paid to management in preparing financial reports that follow an integrated reporting framework. Implementation of the mandatory integrated reporting framework also puts pressure on management to prepare annual reports in accordance with the integrated reporting framework, this is what is meant by integrated reporting implementation. The choice of implementation, whether mandatory or voluntary, of a rule in a country will make company management have different considerations. The results of this study can be used as input for the relevant regulators as a material consideration in making decisions regarding the implementation of the integrated reporting framework in Indonesia. The results show that integrated reporting is influenced by indicators of board size, audit committee independence, and gender diversity which are indicators of good corporate governance. It is necessary to pay attention to the integrated reporting framework in the preparation of annual reports so that all stakeholders can read the entire process of establishing corporate value.

The limitation in this study is that there are other variables that are not included in the research model which are expected to have a greater influence on the implementation of IR, for example intellectual capital and internationalization. In addition, the results of this study only focus on state-owned companies in implementing IR, so they cannot be generalized to other types of companies. Subsequent research can classify the application of IR in companies separated by type of industry, so they can find more diverse results based on the type of industry in applying IR in their annual reports. This research has implications for researchers who wish to conduct further research on firm value in annual reports. It is recommended to use market capitalization data, with a larger number of samples and use institutional share ownership in companies, stock returns, company size and dividend policy as research variables. The addition of research variables in this research model is expected to increase the R-square value so that the model becomes better. In addition, future researchers can compare the implementation of IR in Indonesia which is still voluntary with other countries whose annual reporting regulations have implemented mandatory IR, such as countries in Europe.

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The Influence of Farmer Groups, the Role of Cooperatives, and Derivative Products on the Income of Farmers (A Survey on Smallholder Oil Palm Farmers)

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Abstract
This research examined the influence of farmer groups, the role of cooperatives, and derivative products on the income of farmers of palm oil in East Aceh Regency. There were 100 oil palm smallholders appointed to represent all oil palm smallholders in East Aceh Regency using convenience sampling. The data were collected using questionnaires distributed by research assistants. The question items were based on the indicators of each variable and analyzed using multiple linear regression. The results indicated that farmer groups significantly and positively affected the income of farmers. The role of cooperatives and derivative products had no significant effect on the income of farmers. The results provide theoretical implications about the substantial roles of farmer groups formed based on adjacent plots of land in increasing the income of oil palm farmers. Oil palm smallholders need to build local community cohesion, values, and principles of togetherness among farmer members, between cooperatives and cooperative members to realize higher welfare for oil palm smallholders.

Keywords: Farmer Groups, The Role of Cooperatives, Derivative Products, Income of Farmer, Smallholder Oil Palm Farmers

1. Introduction

Oil palm plantations play a substantial role in a country's economy, which appears from the contribution of the palm oil sector to the increase in Gross Regional Domestic Product (GRDP). In addition, oil palm plantations create many jobs for the community and contribute to the country's foreign exchange. Because of its strategic roles, oil palm plantations continue to grow and develop in various regions in Indonesia. New planting and replanting of oil palm plantations continue to occur but always ignore biodiversity sustainability aspects. Despite having a negative impact, oil palm has contributed to the national economy and local community economic development (Rist et al., 2010; and Budidarsono et al., 2013).

In Aceh, the growth of oil palm plantations has also continued to increase. The wider the oil palm plantation, the higher its contribution to Aceh's economic growth and employment. The palm oil sector supports 30% of Aceh's economic growth and the number of workers absorbed in this sector in Aceh in 2017 reached 75,030 people (Basyah, 2019). Table 1 presents the development and production areas of three primary smallholder plantation commodities in Aceh during 2018-2020.

Table 1: The area of development and production of the three largest community plantation commodities in Aceh

Commodity	2018		2019		2020	
	Planted area (ha)	**Production (ton)**	**Planted area (ha)**	**Production (ton)**	**Planted area (ha)**	**Production (ton)**
Oil palm	237,769	440,087	240,368	441,603	242,819	444,436
Coconut	102,203	63,500	102,951	63,772	103,568	63,769
Rubber	129,028	64,926	123,124	45,420	121,551	63,854

Source: Statistics of Aceh Province, 2019, 2020 & 2021

East Aceh Regency is the third largest smallholder oil palm plantation in Aceh, after Nagan Raya and Aceh Singkil Regency. This research was carried out in East Aceh Regency because this area is an area with a large number of smallholder oil palm farmers, reaching 16,525 farmers (Statistics of Aceh Province, 2020). Table 2 presents the development and production areas of smallholder oil palm plantations in East Aceh Regency.

Table 2: The area of development and production of the three largest community plantation commodities in East Aceh Regency

Commodity	2018		2019		2020	
	Planted area (ha)	**Production (ton)**	**Planted area (ha)**	**Production (ton)**	**Planted area (ha)**	**Production (ton)**
Oil palm	26,177	31,300	26,307	31,534	26,353	31,415
Coconut	6,972	6,100	6,980	6,110	7,190	6,110
Rubber	22,400	14,789	22,521	2,355	22,520	14,901

Source: Statistics of Aceh Province, 2019, 2020 & 2021

There have been many previous studies on the factors that affect the income of oil palm farmers, such as those by Kurniawan (2014), Andriyani (2021), Aswan & Tanjung (2021). These studies are more focused on production, land area, experience, age, and participation of family members. This research is different from previous studies on the aspects of the role of farmer groups, cooperatives, and palm oil derivative products. These variables are thought to contribute to increasing the income of oil palm farmers. Farmer groups are significant for realizing individual and group welfare. Jelsma et al. (2017) document that to maintain high income, the group structure monitors activities on the plantation through rules determined together. Farmer groups are institutions that play a role in increasing the income of farmer families (Arsyad et al., 2018). Cooperatives play a role in improving the welfare of their members (Wanyama, 2016). Cooperatives contribute to increasing production volume, reducing the risk of production failure, and increasing farmers' income (Djuwendah et al., 2019). Oil palm derivative products are another substantial variable that contributes to improving the incomes of oil palm farmers. The more derivative products produced, the more sources of income for oil palm farmers. The diversity of palm oil derivative products positively influences the income of farmers (Hore & Anitha, 2015).

This research provides additional empirical evidence about the effect of farmer groups, the role of cooperatives, and derivative products on increasing the income of oil palm farmers. This research has implications for the need to build cooperation between smallholders based on shared values and principles, both within farmer groups on adjacent plots of land and within farmer cooperatives as a larger group. Cooperatives must build the trust of members to contribute to oil palm farmers.

2. Literature Review

2.1. Farmer Groups and Income of Farmers

Several individual farmers can form specific farmer groups and work together to achieve certain goals. Baldasari (2015) argues that cooperation built on a pattern of repeated reciprocal relationships positively influences individuals and groups. Farmer groups are groups formed jointly by oil palm smallholders located on adjacent plots of land. This group builds shared value standards that aim to achieve shared prosperity. Group cooperation allows oil palm smallholders to gain mutual benefits. Individual farmer income increases if group members work well (Jelsma et al., 2017). The findings of Yunus et al. (2019) in Aceh show that cooperation between oil palm smallholders and other farmers can improve the welfare of farmers and the majority of oil palm farmers in Aceh cooperate with each other. Other findings prove that group work increases family productivity and livelihoods, reduces transaction costs, and increases access to financing sources (Glenday & Paoli, 2015). The shared values and principles of smallholder groups in adjacent plots of land force individual smallholders to carry out their duties properly in oil palm plantations management, which leads to shared standards (Jelsma et al., 2017). Thus, farmer groups affect increasing the income of oil palm farmers.

H1: farmers group affects increasing the income of farmers

2.2. The Role of Cooperatives and the Income of Farmers

Cooperatives are very important for sustainable development goals and can reduce poverty. Cooperatives can identify economic opportunities for their members, provide security to the poor by converting individual risks to shared risks, and mediate members to access assets that can help their lives (Wanyama, 2016). Cooperatives prevent poverty by increasing the productivity and income of small-scale farmers (Karthikeyan & Karunakaran, 2018). Cooperatives empower cooperative members by providing training, counseling, and accommodating or assisting market access to sell fresh fruit bunches to their consumers. Cooperatives bear most of the responsibilities for providing services to smallholder farmers and their groups (Jelsma et al., 2017). In addition, cooperatives can increase the professionalism of small oil palm farmers (Suharno et al., 2013). The presence of cooperatives in oil palm plantations can improve the welfare of oil palm farmer families and the sustainability of the oil palm planting business (Sukiyono et al., 2022). Mina (2019) proves that cooperatives play an important role in improving the standard of living of coffee farmers. Suharno et al. (2013) researched oil palm smallholders and proved that farmers who take shelter in cooperatives obtain higher yields per hectare of palm than oil palm-independent smallholder farmers. Thus, the role of cooperatives can increase the income of oil palm farmers.

H2: The role of cooperatives affects increasing the income of farmers

2.3. Derivative Products and the Income of Farmers

Palm oil is a multi-purpose raw material in the world and is used as a food ingredient and medicine. Therefore, many derivative products are from palm oil. Diversification of palm oil derivative products opens up wider employment opportunities, increases farmers' income, and promotes economic growth (Hore & Anitha, 2015).

Smallholder oil palm farmers have low human resource expertise and limited capital, which makes them low innovation in producing derivative products from palm oil. Minimal expertise and organizational skills are the main challenges for smallholder farmers (Haykal & Yunus, 2021). Previous research has documented that the diversification of derivative products is limited by a marketing network system and limited capital (Sihombing et al., 2018). In addition, the need for immediate cash to finance family needs also limits farmers from developing palm oil derivative products.

H3; derivative products do not affect increasing the income of farmers

3. Research Methods

3.1. Sampling and Data Collection

Smallholder oil palm farmers were selected by convenience sampling method. The minimum sample size was determined based on the approach used in previous studies where the number of variables was multiplied by ten (10) (Aziz et al., 2013). This study had four variables. So, the required minimum sample size was 40. There were 100 questionnaires distributed to smallholder oil palm farmers in East Aceh Regency to ensure the minimum number of responses. East Aceh Regency was selected because this area has a large number of smallholders. The research sample includes smallholder oil palm farmers who own private land. The research samples are all males ranging in age from less than or equal to 35 years to more than 50 years, with the highest percentage being between 36 to 50 years (72 percent), and all respondents are married.

This research collected the data by distributing questionnaires by research assistants to smallholder oil palm farmers from September to October 2022. Data from all samples met the requirements for analysis

3.2. Operational Variables

Researchers used a 5-point Likert scale to measure respondents' answers to each question item from strongly disagree =1 to strongly agree =5. The dependent variable was the income of farmers as assessed by family needs, children's education, and savings (Setyawan et al., 2020). The independent variables were farmer groups, the role of cooperatives, and derivative products. Farmer groups were measured by cooperation (Jelsma et al., 2017) and access to funding sources (Glenday & Paoli, 2015). The role of cooperatives was measured by training, counseling, and marketing (Candemir et al., 2021). and derivative products were measured by motivation, technology, and derivative product variety.

3.3. Data Analysis Methods

Before analyzing, the researchers tested the main linearity assumptions; normality, multicollinearity, and heteroscedasticity tests. To empirically test the effects of farmer groups, the role of cooperatives, and derivative products on oil palm smallholders' income, researchers used SPSS with multiple linear regression models and the following model equations:

$$INC \quad = \beta_0 + \beta_1 FG_{11} + \beta_2 RC_{12} + \beta_3 DP_{13} + \ \varepsilon.$$

Where INC is income of farmers, FG is farmers group, RC is role of cooperatives, DP is derivative products, β_0 *is* constant, β_1 to β_3 the parameter coefficient of the derivative product diversification, the role of farmer groups, and the role of cooperatives, and ε is the error term.

3.4. Validity and Realibility Tests

Research questionnaires used validity and reliability tests. Construct validity was proven through the significance of the Pearson Correlation, and there were 15 valid questionnaires to be analyzed. The reliability scale used Cronbach's alpha. The scale is internally consistent and reliable if Cronbach's alpha value > 0.6 (Nunally, 1975).

4. Results and Discussions

4.1. Validity and Reliability tests

The questionnaire was tested for validity and reliability to obtain valid and reliable estimation results, as shown in Table 3. All question items were valid with a high significance of Pearson Correlation (p=0.000). Cronbach's alpha value for all research variables starting from 0.658 to 0.830, indicated that the scale used was consistent and reliable internally (Nunally, 1975).

Table 3: Validity and Reliability tests

Variables	Question Items	Validity		Reliability
		Pearson Correlation	Sig. (2-tailed)	Cronbach's Alpha
Income of farmers	(Q1) Palm oil yields are sufficient to meet household needs	.538**	.000	.738
	(Q2) Palm oil yields can meet other than basic household needs (vehicles and other supporting facilities)	.676**	.000	
	(Q3) Palm oil yields can pay for children's basic education	.756**	.000	
	(Q4) Palm oil yields can send children to college	.645**	.000	
	(Q5) Some of the palm oil yields are deposited in the bank	.647**	.000	
	(Q6) Some of the palm oil yields are used to purchase for precious metals (gold, silver, etc)	.707**	.000	
Farmers Group	(Q7) Collaboration between farmers increases the production of fresh fruit bunches (FFB)	.823**	.000	.708
	(Q8) Collaboration between farmers increases the ability to manage oil palm	.811**	.000	
	(Q9) Access to funding sources is easier if done together	.796**	.000	
The Role of Cooperatives	(Q10) The cooperative provides regular counseling on efforts, strategies and development of oil palm	.839**	.000	.830
	(Q11) The cooperative provides training on how to use palm oil derivative products	.889**	.000	
	(Q12) The cooperative helps market the production of palm oil	.863**	.000	
Derivative products	(Q13) Due to the need for immediate cash and limited capital, farmers have low motivation to produce derivative products	.839**	.000	.658
	(Q14) Farmers have simple technology to produce derivative products	.784**	.000	
	(Q15) Farmers is utilizing fresh fruit bunches to produce simple derivative products (palm oil bread, confectionary fat, etc.)	.688**	.000	

4.2. Descriptive statistics

The explanation of descriptive statistics of the research variables in table 4 revealed that several question items of all variables had an average value higher than 4 (Q1, Q2, Q7, Q8, and Q9), which indicated that the respondents answered agree (somewhat agree) for questions asked with a standard deviation higher than 0.5. Other question items had an average value higher than 3 and less than 4, with a standard deviation between 0.631 to 0.914. It indicated that the majority of respondents answered neutrally to the questions asked.

Table 4: Descriptive Statistics of all Variables

Variables	Indicators and Question Items	Mean	Min	Max	Std	N
Income of Farmers	Family needs					
	(Q1)	4.09	2	5	0.534	100
	(Q2)	4.39	2	5	0.665	100
	Child education					
	(Q3)	3.95	2	5	0.914	100
	(Q4)	3.21	2	5	0.856	100
	Savings					
	(Q5)	3.38	2	5	0.648	100
	(Q6)	3.32	1	5	0.634	100
Farmer Groups	Cooperation					
	(Q7)	4.36	3	5	0.503	100
	(Q8)	4.53	4	5	0.502	100
	Access to funding sources					
	(Q9)	4.46	2	5	0.731	100
The Role of Cooperatives	Counseling					
	(Q10)	3.57	2	5	0.879	100
	Training					
	(Q11)	3.61	2	5	0.898	100
	Marketing					
	(Q12)	3.58	1	5	0.912	100
Derivative Products	Motivation					
	(Q13)	3.48	1	5	0.870	100
	Technology					
	(Q14)	3.68	1	5	0.695	100
	Product Diversity					
	(Q15)	3.81	2	5	0.631	100

Notes: Min is minimum, Max is maximum, Std is standard deviation, N is number of respondents.

4.3. Estimation Results

The estimation results from the multiple linear regression model on the effect of farmer groups, the role of cooperatives, and derivative products on oil palm smallholders' income appear in table 5. Farmer groups significantly and positively affected the incomes of oil palm farmers at a significance level of 1%. Thus, the H1 hypothesis was accepted (farmer groups influenced increasing the income of oil palm farmers). Collaboration between farmers on adjacent plots of oil palm land can increase the production of fresh fruit bunches (FFB) and encourage an increase in farmers' income. In addition, farmer groups made it easier for farmers to access funding sources for plantation management needs. This finding is in line with Jelsma et al. (2017) that the incomes of individual farmers increase with group cooperation because groups force individual farmers to carry out their duties properly based on shared standards. Also, farmer groups' work increased productivity, reduced transaction costs, and increased access to funding sources (Glenday & Paoli, 2015). Farmers will gain additional communal benefits by forming groups with fellow farmers in adjacent plots.

The role of cooperatives insignificantly ad positively affected the income of oil palm smallholders at a significance level of 10% (sig. value 0.693). Thus, the H2 hypothesis was rejected. These findings indicated that cooperatives played less of a role in educating and helping to market oil palm production, so they did not significantly influence increasing the income of oil palm farmers. These findings proved that cooperatives are still a big challenge for oil palm smallholders. Suharno et al. (2014) argued that building cooperatives requires local community cohesion, values, principles, and the dishonesty issue of cooperative management has reduced oil palm farmers' trust in cooperatives. The findings of this study indicated that cooperatives lacked efforts to improve the welfare of their members, such as providing training, counseling, and helping farmers to sell oil palm at prices that benefit farmers. On the other hand, cooperatives were more dominant in acting in the interests of a small number of cooperative administrators.

Oil palm derivative products had an insignificant positive effect on the income of oil palm farmers at a significance level higher than 0.1 (sig. value 0.362). These results concluded that the H3 hypothesis "derivative products did not affect increasing the income of oil palm farmers" has been supported. There were several reasons for palm oil derivative products not to increase farmers' income. First, farmers had low motivation to use fresh fruit bunches (FFB) to produce derivative products. Farmers chose to sell FFB to collectors or final buyers (CPO mills) to get cash immediately to meet household needs, children's education costs, and maybe also for savings. Second, smallholder oil palm farmers did not have simple technology to produce simple palm oil derivative products such as palm oil bread and confectionary fat. As a result, smallholder oil palm farmers did not take advantage of palm oil production to produce derivative products that could provide additional income for farmers. Third, farmers had low skills and experience that made them unable to utilize fresh fruit bunches to create derivative products. It is in line with the findings of Haykal & Yunus (2021), which prove that minimal expertise and organizational skills are the main challenges for smallholder plantation farmers.

Table 5: Coefficient Estimation

Variables	**Unstandardized Coefficients**		**Sig**
	Beta	**Std. Error**	
Constant	1.833	.497	.000
Farmer Groups	.346	.099	.001
The Role of Cooperatives	.023	.059	.693
Derivative Products	.073	.080	.362

5. Conclusions and Suggestion

This study focused on the effect of farmer groups, the role of cooperatives, and palm oil derivative products on the income of oil palm farmers. The results proved that farmer groups significantly and positively affected the income of oil palm farmers. The role of cooperatives and palm oil derivative products did not influence increasing the income of oil palm farmers. Based on the findings of this study, cooperation between farmers in adjacent plots of land plays a significant role in increasing farmers' income. Another implication of this finding is the need to build local community cohesion, shared values, and principles between cooperative members, cooperatives, and members so that cooperatives can run well and benefit oil palm smallholders. In addition, cooperative management needs to build member trust through honest behavior.

This study is limited in the sampling technique used, where Convenience sampling is a non-probability sampling technique whose results cannot be generalized. Subsequent studies need to consider probability sampling so that the results can be generalized. Subsequent research also needs to consider groups of smallholder plantation farmers who are independent and managed by cooperatives so that they can test the determinant drivers of oil palm smallholder income in two groups of smallholder oil palm farmers.

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The Effect of Tax Planning and Profitability on Equity (Empirical Study in the Consumer Goods Industry in Indonesia)

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Abstract
This study aims to determine the effect of partial and simultaneous tax planning and profitability on equity. Tax planning and profitability are used as independent variables—Equity as a dependent variable. The population in this study is all companies in the consumer goods industry listed on the Indonesia Stock Exchange from 2018 to 2021. Sample number 28 consists of 7 companies multiplied by four years of research. A sampling method is purposive sampling. The analysis method used to test hypotheses uses multiple linear regression analysis. The multiple linear regression analysis tests performed on the F test on the third hypothesis obtained an F value of 27,441 and a significance of 0, which means that tax planning and profitability simultaneously affect equity. The result of testing for the first hypothesis showed a t-value of -2.327 and a significance level of 0.028. Based on this result, the conclusion is tax planning partially had a significant adverse effect on equity. The second hypothesis test indicates a t-value of 7.334 and a significance level of 0.00. We can explain that profitability had a significant positive impact on equity.

Keywords: Tax Planning, Profitability, Equity

1. Introduction

1.1 Tax Planning and Profitability

The tax definition in Law Number 16 of 2009 concerns General Provisions and Tax Procedures, which are mandatory contributions to the state owed by coercive individuals or entities. Taxpayers do not get compensation directly. The purpose of paying taxes is to meet the needs of the state. Taxes are used as much as possible for the prosperity of the people. Taxes are people's contributions to the state treasury based on the law (force under law) with no direct reciprocal services that can be shown and used to pay public expenses. Then he corrected this definition which reads as follows: Taxes are the transfer of wealth from the people to the state treasury to finance recurring costs. The government will use the surplus for public savings, the primary source for funding public investment (Hidayat and Nurdin, 2017). Taxes are compulsory contributions to the state by individuals or entities that are coercive by law, by not getting compensation directly and used for the needs of the state for the greatest prosperity of the people (Diana and Setiawati, 2010).

Tax planning is a way taxpayers can use to manage their business or income taxation. Taxpayers can plan their tax planning without violating the constitution or applicable tax laws (Mustofa, 2016). Tax planning is the first step in tax management. At this stage, management collects and analyzes tax regulations to select tax-saving measures. Tax planning is generally focused on manipulating the business and transactions of taxpayers so that the obligation to pay taxes is in the lowest possible amount but still within the scope of tax regulations (Erly 2008). Tax planning is organizing a taxpayer's business or their group of taxpayers to reduce income tax and other taxes (Zain, 2007) so the profit increase.

Profit in the company's operational activities is an essential element to ensure the company's future survival. The company's success can be seen from the company's ability to compete in the market. Every company expects maximum profit, a measure of the success of a company. Profitability is the result of several policies and decisions made by the company. Profitability is the company's ability to generate profits with all the capital working in it (Sutrisno 2009). Profitability describes the company's ability to earn profits through all existing capabilities and resources such as sales activities, cash, capital, number of employees, number of company branches, and so on (Harahap 2009). Profitability indicates the company's ability to generate profits during a specific period (Munawir 2014) and generally in a ratio.

According to Kasmir (2011: 196), the profitability ratio assesses a company's ability to make a profit. Profitability ratios show the combined effects of liquidity, asset management, and debt on operating results (Brigham and Houston, 2009). This ratio includes the profit margin on sales, the essential ability to generate a profit ratio, the rate of return on total assets, and the rate of return on common stock equity. This ratio measures management effectiveness based on the returns generated from sales and investments (Weston and Copeland, 2010). In general, there are four main types of analysis used to assess the level of profitability (Kasmir, 2008: 199):

a. Net Profit Margin (NPM)

Net Profit Margin is a ratio that measures net profit per rupiah of sales and compares net operating income and net sales. Net Profit Margin is the ratio used to calculate profit margin on sales (Riyanto, 2013: 336). This ratio will describe the company's net income based on total net sales.
NPM = Profit After Tax/Sale.

b. Return On Assets (ROA)

According to Kasmir (2012: 201), ROA is the ratio that shows the results of the total assets used in the company. ROA aims to measure a company's ability to utilize assets to earn profits and measure total returns for all creditors and shareholders as providers of funding sources. This ratio measures the profit level of the assets used in generating the profit (Prihadi, 2008). The following formula expresses this percentage:
ROA = Profit After Tax/Total assets

c. Return On Equity (ROE)

According to Brigham & Houston (2010), ROE is the ratio of net income to ordinary equity, which measures the rate of return on shareholder investment. ROE describes the extent to which the company's ability to generate profits that shareholders can obtain. This ratio shows the area to which a company manages its capital, effectively measuring the level of profit from investments that owners have made of their capital or company shareholders (Sawir, 2009: 20). The following formula expresses this percentage:
ROE =Profit After Tax/Owner's Equity

d. Earning Per Share (EPS)

Earning per share is a ratio that describes the amount of rupiah rated for each common share (Syamsuddin, 2009:66). EPS is a ratio that shows how much ability per share is to generate profits (Harahap 2008: 306). In

general, management and prospective shareholders are very interested in EPS because of an indicator of the success of a company.
EPS = Profit After Tax/Number of Outstanding Shares

In addition to examining the factors that partially affect the company's equity, this study also tries to simultaneously determine the effect of the above factors, namely the impact of tax planning and profitability on company equity. Research by Rahmatul, Ruwanti, & Manik (2017) shows that tax planning and profitability affect company equity. So the hypothesis can be formulated as follows:
H1: Tax planning and profitability simultaneously affect company equity in the consumer goods industry.

1.2 Tax planning and equity

Equity in individual companies is as capital. For companies, the term equity (shareholders' equity) reflects more on the meaning it wants to contain. The term capital is often used as a synonym for the word Equity, even though capital is closer in meaning to the term capital. The Indonesian Institute of Accountants (IAI) defines equity in the Basic Concepts of Preparing and Presenting Financial Statements; Equity is the residual right to the company's assets after deducting all liabilities. Equity is the owner's share of the company, namely the difference between existing assets and liabilities, and thus does not constitute a measure of the selling value of the company. Equity comes from the owner's investment and the results of the company's operations. Equity will decrease mainly with the withdrawal of participation by the owner, profit sharing or because of losses. Equity consists of owner deposits often called capital or principal savings of members for cooperative legal entities, retained earnings, and other elements (Irwansyah , 2009).

Equity or capital is the right or part-owned by the company owner. In the financial statement, equity consists of capital account (share capital), surplus, and retained earnings. Equity is the excess value of the assets owned by the company over all of its debts (Rendy, 2011). Tax planning is one-way taxpayers can use to manage their business or income taxation. Tax planning is tax management without violating the constitution or applicable laws (Mustofa, 2016). Efendi (2014), in manufacturing companies, Lestari (2014), in industrial companies, and Dian Annggaerni (2017), in all companies listed on the IDX, find that tax planning has a significant effect on company equity. Tax planning happens because companies can correctly, efficiently and effectively fulfill their tax obligations under tax regulations by carrying out tax planning efforts. The increase in net profit caused by the company carrying out tax planning also increases the company's equity, both in increased share capital and reserve funds remaining from company activities in the accounting year. So the hypothesis can be formulated as follows:
H2: Tax planning has a significant positive effect on company equity in the consumer goods industry.

1.3 Profitability and Equity

Profitability is the result of a series of policies and management decisions. These policies and decisions concern the source and use of funds in running the company's operations which is in the balance sheet and elements in the balance sheet (Silvia, 2013). Rachawati and Pinem (2015), Nurmida et al. (2017), Sudarman and Darmayanti (2017), Chumaidah and Priyadi (2018), Safitri et al. (2018), and Magdalena (2019), argue that profitability has a positive effect on company equity if profitability is high. The company stakeholders will pay attention to how the company generates much profit and investment results. Based on the description above, the hypothesis is:
H3: Profitability has a significant positive effect on company equity in the consumer goods industry sector.

2. Method

2.1 Sample

This study uses a quantitative method with a descriptive approach obtained from financial reports on the Indonesia Stock Exchange. This study aims to determine the effect of the independent variable on the dependent variable, with the independent variable being Tax Planning and Profitability, while the dependent variable is equity. The population includes all characteristics or properties of the subject or object of research. The population in this study is the financial statements of the consumer goods industry listed on the Indonesia Stock Exchange for 2018-2021. The sampling technique is purposive sampling, which was selected based on specific criteria. The sampling criteria in this study are:

1. Companies in the consumer goods industry listed on the Indonesia Stock Exchange in 2018 – 2021.
2. Companies use the rupiah currency in their financial statement.
3. The company did not suffer losses.
4. The required data is available in full, including financial reports and notes to financial statements.
5. Companies that publish complete annual reports on both the Indonesia Stock Exchange and on the company's website continuously during 2018 -2021.

2.2 Variables

Tax Planning

Tax planning is organizing a taxpayer's business or a group of taxpayers so that their tax debt, both income tax and other taxes, is in a minimal position, as long as this is allowed by the provisions of the applicable laws and regulations. Measurement of corporate tax planning is the ratio of accounting profit with fiscal profit. The accounting profit is in the income in the company's annual financial report. Companies can analyze the taxable profit from the fiscal reconciliation report. Income tax calculations use income tax rates according to Law no. 36 of 2008 article 2b. The domestic corporate taxpayers in the form of public companies or go public are at least 40% of the total number of paid-up shares traded on the Indonesia Stock Exchange and meet specific other requirements; the rate is 5% lower than should. The formula for tax planning is:

ETR = Tax expense/Income before Tax

Where :

ETR = Effective Tax Rate

Profitability

The purpose of establishing a company is to make a profit (profit), so it is only natural that profitability is the primary concern of analysts and investors. A consistent level of profitability will be able to survive in its business by obtaining adequate returns compared to the risks (Toto, 2008). According to Saidi (2004), profitability is the company's ability to earn profits. Investors invest shares in companies to get returns, which consist of yields and capital gains. The higher the ability to earn profits, the greater the return expected by investors, thus improving the company's value. In this study, profitability is proxied through Return on Assets (ROA) as a measure of company profitability. The formula for profitability is:

ROA = Net Income/Total Assets

Where :

ROA = return on assets
Net income = Net Profit
Total Assets = Total Assets

Equity

Equity is defined as the residual interest in the company's total assets after deducting all liabilities. Equity measurement can be done by looking at the total equity on the balance sheet in the company's annual financial report.

How to calculate equity is as follows:

Eq = TA – TL

Where :

Eq = Equity
TA = Total Assets
TL = Total Liabilities

2.3 Data collection

The type of data used in this research is secondary data, namely information obtained from other parties. The data source in the study was annual financial reports issued by the companies of consumer goods industry listed on the Indonesia Stock Exchange (IDX) in 2018 – 2021.

2.4 Technique of Analysis

Classic assumption test

The classic assumption test includes normality, multicollinearity, heteroscedasticity, and autocorrelation. The normality test aims to test whether a regression model for the dependent and independent variables has a normal distribution. The regression equation is said to be good if it has data on the independent and dependent variables that are normally distributed or close to normal. The normality test also aims to see the contribution of the dependent (bound) and independent (independent) variables (Ghozali, 201 8 :1 11). The multicollinearity test aims to test whether the regression model correlates with independent (independent) variables. A good regression model should not contain multicollinearity or no correlation between independent variables. We use tolerance value to detect the presence or absence of multicollinearity in the regression model. If it has a VIF value = 10 and a tolerance value = 0.1, then the regression model can be said to be free from multicollinearity symptoms (Ghozali, 2018: 107).

The heteroscedasticity test tests whether there is an inequality of variance and residual variables from one observation to another. A good regression model does not have heteroscedasticity. The test is carried out with the Glejser test which regresses the independent variables on the absolute residual variables with a significance of > 5% (0.05) if there are no statistically significant variables, then the regression does not contain heteroscedasticity (Ghozali, 2018: 142). To detect whether there is autocorrelation, use the Durbin-Watson (DW) test to look at the Durbin-Watson numbers. According to Ghozali (2018: 112), they are taking whether there is autocorrelation.

Multiple Linear Regression Analysis

The data analysis technique used in this research is the multiple regression. Multiple linear regression analysis is a statistical analysis tool to examine the variables that influence the independent variables on the dependent variable. The formulation of the model used in this study is: Y= a + b 1 TP + b 2 Prof + e

Information :

Y = Equity

a = Constant

b1 = Coefficient of Tax Planning

b2 = Profitability Coefficient

X1 = Tax Planning

X2 = Profitability

e = Errors

3. Results

3.1 Descriptive statistics

The results of the descriptive statistics of each variable are as follows:

Table 1: Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Equity	28	4,81910	75,78130	22,76716	17,55172340
Tax Planning	28	,69278	,80866	,7613825	,02525565
Profitability	28	,03674	,46660	,1546335	,11203065
Valid N (listwise)	28				

Source: SPSS Output, 2021

Based on table 1 it can be seen that the sample used was 28 samples. Thus the table above shows an average total Equity i of 2 2.7 6716 with a standard deviation of 17.55172340, the maximum value is 7 5.78130 while the minimum value is 4.81910 . The average amount of tax planning is 0.7613825 with a standard deviation of 0.02525565 , the maximum value is 0.80866 while the minimum value is 0.69278. Average amount of P rofitability is as big 0.1546335 with a standard deviation of 0.11203065, the value maximum of P rofitability is equal to 0.46660, while the minimum value is 0.03674.

3.2 Classic Assumption Test

Normality test

The normality test aims to test whether a regression model for the dependent and independent variables has a normal distribution. The regression equation is said to be good if it has data on the independent and dependent variables that are normally distributed or close to normal. The normality test also aims to see the contribution of the dependent (bound) and independent (free) variables (Ghozali, 201 8 :1 11).

Table 2: Normality

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		28
Normal Parameters[a,b]	Mean	,0000000
	Std. Deviation	9,82269910
Most Extreme Differences	Absolute	,133
	Positive	,133
	Negative	-,097
Kolmogorov-Smirnov Z		,703
Asymp. Sig. (2-tailed)		,706

a. Test distribution is Normal.

b. Calculated from data.

Source: SPSS Output, 2021

Based on the table above, the asymp sig value of 0.706 is greater than 0.05. So the conclusion is a normal distribution of the regression model. Thus it can proceed to the next stage, namely hypothesis testing.

Multicollinearity Test

The multicollinearity test aims to test whether the regression model correlates with independent (independent) variables. A good regression model should not contain multicollinearity or no correlation between independent variables. The result of the multicollinearity test is below:

Table 3: Multicollinearity

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	142,686	59,810		2,386	,025		
	Tax Planning	-184,056	79,086	-,265	-2,327	,028	,967	1,034
	Profitability	130,748	17,829	,835	7,334	,000	,967	1,034

a. Dependent Variable: Equity

Source: SPSS Output, 2021

Based on the results, Tax Planning (X1) has a Tolerance of 0.967 > 0.1 and a VIF value of 1.034 <10 so it is free from multicollinearity. The profitability (X2) has a tolerance value of 0.967 > 0.1 and a VIF value of 1.034 <10, so it is free from multicollinearity.

Heteroscedasticity Test

The heteroscedasticity aims to determine the inequality of variance and residual variables from one observation to another in the regression model. A good regression model does not have heteroscedasticity. The result of the Glejser test indicates a significant value for each variable, namely tax planning, with a sig value of 0.337 and a sig profitability value of 0.225 greater than 0.05, so heteroscedasticity did not occur.

Autocorrelation Test

The autocorrelation test aims to test whether there is a correlation between confounding errors in period t and errors in period t-1 (previously) in a linear regression model. The Durbin – Watson test (DW test is to diagnose autocorrelation in a regression model. The result of the autocorrelation test is as below:

Table 4: Autocorrelation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,829[a]	,687	,662	10,20804835	1,887

a. Predictors: (Constant), Tax Planning, Profitability

b. Dependent Variable: Equity

Source: SPSS Output, 2021

Based on the test results, the DW value was 1.887, with 28 observations and a total of 2 independent variables. A dL value is 1.26 and a dU of 1.56. The DW value of 1.887 is greater than the upper limit, namely dU, which is 1.56 and less than (4-dU) 4-1.56 = 2.44, so there is no autocorrelation.

3.2 F Test

The simultaneous significance test often called the F test, is used to determine whether the model consisting of all independent variables has a combined effect on the dependent variable. To test the accuracy of the model, determine using a significant level of 5%, if the sig value ≤ 0.05, it means that the independent variable (X) simultaneously affects the dependent variable (Y) (Ghozali, 201 8:98). The test results is as follows:

Table 6: F Test

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5712,595	2	2856,297	27,411	,000[a]
	Residual	2605,106	25	104,204		
	Total	8317,701	27			

a. Predictors: (Constant), Tax Planning, Profitability

b. Dependent Variable: Equity

Source: SPSS Output, 2021

Based on the results of the parameters in the table above, the calculated F value is 27.411, while the F table value is 3.385. The estimated F value is greater than the F table (27.411 > 3.385) H1 is accepted, means Tax Planning and Profitability simultaneously affect equity.

3.3 Hypothesis Testing

Multiple regression analysis predicts the dependent variable's condition (rise and fall) if two or more independent variables as predictor factors (the value is increased or decreased). The results of Multiple Linear Regression are as follows:

Table 5: Multiple Linear Regression

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	142,686	59,810		2,386	,025		
	Tax Planning	-184,056	79,086	-,265	-2,327	,028	,967	1,034
	Profitability	130,748	17,829	,835	7,334	,000	,967	1,034

a. Dependent Variable: Equity

Source: SPSS Output, 2021

The regression equation formed is:
Equity = 142.686 – 184.056(Tax Planning) + 130.748(Profitability) + ε

A constant value of 142.686 states that if all independents are considered stable or have a value of 0, then equity (eq) will be 142.686. The tax planning coefficient is -184.056, indicating that a decrease will follow each addition of tax planning by one unit in the equity value of -184,056. The profitability coefficient of 130.748 indicates that each increase in the tax burden by one unit will decrease in the equity value by 130.748.

The results of the t-test for tax planning (X1) to Equity (Y) show a significance value of 0.0 28, and this value is less than 0.05 (0.0 28 <0.05) and the calculated t value is smaller than t table (-2.327 > 2.060) means planning taxes have a significant adverse effect on equity. The results of the t-test for Profitability (X2) to Equity (Y) show a significance value of 0.000, this value is less than 0.05 (0.000 <0.0 5), and the calculated t value is greater than t table (7.334 > 2.060) meaning that profitability has a significant positive effect to equity.

3.5 Correlation

The results of the regression output obtained an R square (R^2) value of 0.662 as below:

Table 8: Coefficient of Correlation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,829a	,687	,662	10,20804835

a. Predictors: (Constant), Tax Planning, Profitability
b. Dependent Variable: Equity

Source: SPSS Output, 2021

This value indicates that the influence of the independent variable on the dependent variable is 0.662 or 66.2%. A value close to one means that the independent variables provide almost all the information needed to predict the variation of the dependent variable. At the same time, the remaining 33.8% is explained by other variables not included in the regression model.

4. Discussion

4.1 Effect of Tax Planning on Equity.

Based on the results of multiple linear regression tests in the first hypothesis, the t value is -2.327. The calculated significance value is 0.028 is smaller than the specified significance value (0.028 <0.05), then H2 is rejected. The test results of the first hypothesis of the ETR variable show that tax planning has a negative and significant effect on company equity. The negative result is suspected because ETR is a way to measure the impact of tax rates on profit before tax; this is related to tax aggressiveness taken by companies, namely how aggressively companies respond to the effect of the tax burden on profits. If the ETR is higher, the company is more aggressive. The company is profit-oriented, so they want maximum profit and do not want the increased tax burden. If the company's tax burden is high, they take tax planning actions. ETR cannot directly measure tax planning actions, but ETR only shows how aggressive a company is in dealing with taxes. This study's results align with the research conducted by Nor Shaipah Abdul Wahab and Kevin Holland (2012) and Hanlon and Slemrod (2009), who found a negative effect of tax planning on company equity. While these results are controversial with the research conducted by Lestari (2014) industrial companies and Dian Annggaerni (2017), all companies listed on the IDX found that tax planning significantly affects company equity.

4.2 Effect of Profitability on Equity.

Based on the results of multiple linear regression tests in the second hypothesis, the t-value is 7.334. Because the calculated t value is greater than the t table (7.334 > 2.060), profitability affects equity. The calculated significance value is 0. The significance value is smaller than the specified significance value (0 <0.05), and H3 is accepted. The tax burden variable has a significant positive effect on equity. Based on the test results of the second hypothesis, it shows that there is a positive and significant effect on the profitability on company equity. Profitability is the company's profit level in a certain period. The better the profitability ratio, the company can obtain high profits. The higher the profitability, the higher the company's equity. The higher the company's ability to generate profits, the higher the company's value, which is indicated by an increase in the stock price.

The company can use profitability to evaluate the effectiveness of the management of the business entity. Companies with a high level of profitability obtained from sales can be used as additional capital to launch operational activities, significantly increasing sales. Increasing sales have resulted in the company being reluctant to take the trouble to seek outside funding (external funding) because it already has adequate internal funding. So the higher the profitability the higher the company's equity. Thus every business entity will always try to increase its profitability because the higher the level of profitability of a business entity, the survival of the business entity will be more guaranteed. The results of this study are in line with the results of research conducted by Rachawati and Pinem (2015), Nurmida, et. al (2017), Sudarman and Darmayanti (2017), Chumaidah and Priyadi (2018), Safitri (2018) and Magdalena (2019) , found a positive effect of profitability on company equity. These results do not follow the research conducted by Dinata (2014), concluding that profitability does not significantly affect company equity.

4. Conclusion

Based on the results of data analysis on tax planning and profitability of the equity of consumer goods industry c listed on the Indonesia Stock Exchange in 2018-2021, the conclusions are first, based on the results of the t-test, the calculated t value is smaller than t table (-2.325 <2.060). The calculated significance value is smaller than the determined significance value (0.029 <0.05), meaning that tax planning partially negatively affects equity. The negative result is suspected because ETR is a way to measure the impact of tax rates on profit before tax; this is related to tax aggressiveness taken by companies, namely how aggressively companies respond to the impact of the tax burden on profits. ETR cannot directly measure tax planning actions; ETR only shows how aggressively a company deals with taxes.

Second, based on the t-test results, the calculated t value is greater than the t table (7.331 > 2.060). The calculated significance value is smaller than the specified significance value (0 <0.05), meaning that partial profitability has a significant positive effect on equity. These results illustrate that the greater the value of profit, the greater the value of the company's equity. Because high yields will indicate that the company is in good condition so that it can increase investor interest which of course, also increases interest in stocks. The demand for high and many shares will increase in the company's equity value. Third, based on the results of the F test, the calculated F value is greater than the F table (27.389 > 3.385). The computed F significance value is smaller than the specified significance value (0 <0.05) means tax planning and profitability have a significant simultaneous effect on equity

Suggestions for further research are better for tax planning variables, using more detailed measuring items, for example, by adopting GRI version 4 so that the results are more accurate and relevant, and using other proxies to measure the level of company equity. Future researchers can add or replace other variables such as tax evasion, tax evasion, tax saving, etc. Subsequent research can also study a different research object.

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Service Quality, Customer Trust, and Company Image on Customer Satisfaction of Indonesian Government Banks

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Abstract
Today, the growth of monetary objects is accelerating. It is really beneficial to understand the characteristics contained inside. The purpose of this study was to find out the effect of Service quality, Customer Trust, and Corporate Image on Customer Satisfaction at Bank Rakyat Indonesia in Samarinda. The study used quantitative approach. Data were obtained through questionnaires and were quantitatively analyzed to test the research hypotheses. The number of research samples was 120 respondents. The approach used in this study is structural equation modeling. Analytical tool used were validity, reliability, autocorrelation test, multiple linear regression analysis, T, F, determination test (R2). The research findings indicated that in order to ensure excellent customer experience, banks must invest in customer education in addition to service enhancements. Additionally, customer commitment will increase as customer education increases, and banks must support growth by communicating the benefits of saving to the public in order to impact consumer interest.

Keywords: Service Quality, Customer Trust, Corporate Image, Customer Satisfaction

1. Introduction

The rise of developments in the world of today's economy, makes economic actors play an important role in economic growth. Where economic actors become a benchmark for a country's prosperity. In order to encourage economic growth, the banking industry has an important role in the economy, by providing and distributing funds for the economic development of the community. According to the banking law no. 10 of 1998, the Bank is a business entity that collects funds from the public in the form of deposits and distributes them to the public in the form of credit or other forms in order to improve the standard of living of the community. Therefore, the role of banking greatly affects the economic activities of a country.

Banking is increasingly dominating the economic development of a country, not only in developed countries but also in developing countries. Developments in the era of globalization have caused competition in the banking world to become more stringent, with intense competition between banks there has been a change in the banking business. This is due to the growth of banking financial institutions, which are marked by the establishment of a number of banks, which causes competition between banks to win customers to become increasingly tight. Banks that want to develop must be able to provide good service quality and provide a sense of security to customers, because this is one of the determining factors for the success of a bank, if customers feel that the quality of service they receive is good and as expected, it will lead to satisfaction for customers. and vice versa. The same thing happened to PT Bank Rakyat Indonesia Samarinda 1 Branch Office.

PT Bank Rakyat Indonesia Samarinda 1 Branch Office is one of the banking services. BRI's vision is to become a leading commercial bank that always prioritizes customer satisfaction (https://bri.co.id/info-corporate). In order to achieve the Vision, Bank BRI always strives to provide excellent service. However, the increasing number of customers often causes a decrease in service quality. The increasing number of customers if it is not balanced with the improvement in the quality of both Human Resources (HR) and Science and Technology (IPTEK) will make customers disappointed with the services provided. For this reason, Bank BRI Samarinda Unit is required to be able to optimize services and give trust to customers so that customers will feel satisfied. Therefore, customer satisfaction will be created, if a bank can provide more than what is expected and needed by customers.

Based on the results of research conducted by Bastiar (2012) that the factors that can affect customer satisfaction in choosing the products and services of a bank are consumer trust and service quality. Apart from the quality of service, the trust factor is an important factor, because without trust, the public will not deposit their funds in the bank. Therefore, banks must be able to maintain public trust that the funds deposited are safe. Customer trust is a kind of emotional reflection for trading. It depends on the level of fulfillment of the expected product or service benefits, as well as the level of consistency of expectations and actual results. If the customer expects a service at a certain level, and feels that the service received is higher than what is expected by the customer and continues to use the product or service, then the customer can be said to believe. Likewise, if the customer expects a certain level of service, and in fact the customer feels that the service he receives is in line with expectations, then the customer can be said to be satisfied. Conversely, if the quality of service received is lower than the expected service quality, then the customer can be said to be a dissatisfied customer so that the customer will not believe in a service or in other words disappointed (Stefanus, 2008).

Corporate image is a consumer's perception or view of reality (a particular brand or organization), which is based on considerations and comparisons of several other companies, on the same type of product (Wasesa, 2006:13). Banks need to maintain and improve their customers by maintaining a positive image in the eyes of the public. Maintaining the bank's image can be built through product quality, service quality, and orderly security as well as preparing employees who are able to handle the needs of their customers. A good corporate image is also the target of investors who will automatically be more confident in the competitiveness and performance of the bank.

PT Bank Rakyat Indonesia Samarinda 1 Branch Office is a company engaged in services. As a regional company managed by the government, this company is expected to be able to spur economic growth and move the real sector so that its presence can bring prosperity and prosperity to all the people of East Kalimantan in general, where this company must continue to maintain the service performance that has been owned by taking into account the needs and trust. customers so that they are satisfied. This happened at PT Bank Rakyat Indonesia Samarinda 1 Branch Office, East Kalimantan as the research site. Based on data on the number of customers of PT Bank Rakyat Indonesia Samarinda 1 Branch Office in 2018-2020 it is still volatile. The number of customers can be seen in the following table:

Table 1: Number of Customers of PT Bank Rakyat Indonesia Samarinda 1 Branch Office

No	Year	Total
1	2017	54.731
2	2018	60.120
3	2019	62.882

Data source: PT BRI, Tbk Samarinda Branch Office I

Table 1. shows that there is a growth in the number of customers at PT Bank Rakyat Indonesia Samarinda 1 Branch Office. In 2018-2019 it increased by 9.6%, while in 2019-2020 it increased by 4.4%.

Based on the results of previous studies, it indicates that there is a research gap from the variables of service quality, customer trust, company image to customer satisfaction. Research conducted by Mulyaningsih (2016) with the results that service quality and company image have a positive and significant effect on customer satisfaction. Research by Mawey and Ogi (2018) shows that partially trust has no significant effect on customer satisfaction, partially service quality has a significant effect on customer satisfaction, simultaneously trust and service quality has a significant effect on customer satisfaction. Gaspul's research (2014) shows that service quality and trust have a significant influence on customer satisfaction, but the more dominant variable affecting customer satisfaction is the service quality variable. Mulyani's research (2020) shows that service quality and trust simultaneously have a positive and significant effect on customer satisfaction. Research Pontoh, Kawet, and Tumbuan (2014) with the results that service quality has a significant effect on customer satisfaction, company image has no significant effect on customer satisfaction, trust has a significant effect on customer satisfaction, while service quality, company image, trust simultaneously affect customer satisfaction.

Based on the phenomenon of the data, it can be concluded that not every empirical event is in accordance with the existing theory. This is reinforced by the existence of a research gap in previous studies. The various studies above show that there are different influences of service quality, customer trust and company image variables on customer satisfaction.

This has prompted researchers to be interested in carrying out further research entitled "The Influence of Service Quality, Customer Trust and Company Image on Customer Satisfaction at PT Bank Rakyat Indonesia Samarinda 1 Branch Office"

Based on the background described above, the formulation of the problem in this study is as follows:

1. Does Service Quality have a significant effect on customer satisfaction at PT Bank Rakyat Indonesia Samarinda 1 Branch Office?
2. Does customer trust have a significant effect on customer satisfaction at PT Bank Rakyat Indonesia Samarinda 1 Branch Office?
3. Does Corporate Image have a significant effect on customer satisfaction at PT Bank Rakyat Indonesia Samarinda 1 Branch Office?
4. Do Service Quality, Customer Trust and Company Image simultaneously have a significant effect on customer satisfaction at PT Bank Rakyat Indonesia Samarinda 1 Branch Office?

Based on the formulation of the problem above and to expand the discussion in this study, this research is limited to focusing only on the variables of service quality, customer trust, and company image on customer satisfaction PT Bank Rakyat Indonesia Samarinda 1 Branch Office.

2. Method

Structural equation modeling (SEM) is a technique for generating and validating hypotheses about a system's interactions (Grace, 2006, Van Acker and Witlox, 2010). SEM is a general term that refers to a collection of multivariate statistical techniques, which include factor analysis, regression, route analysis, and simultaneous equation modeling (Hou et al., 2014). SEM has a number of advantages when it comes to causal analysis. To begin, a variable can be both a dependent and an independent variable in one set of relationships and an independent variable in another set of relationships. Second, it can manage both observed and so-called latent variables, which cannot be directly assessed. Latent variables are, in general, a combination of observed variables (Sheykhfard and Haghighi, 2020).

The implementation of SEM entails the following stages in order to obtain the relationship network. To begin, various hypotheses about the correlations between variables are established based on a survey of the literature or on prior knowledge, and then a graphical conceptual model is constructed to test these assumptions. The conceptual model is then transformed into a mathematical model using SEM. Calibration of the mathematical model is accomplished using either experimental or observational data. Inadequate model fitting may indicate that the conceptual model should be revised and the mathematical model re-specified. The final SEM model is constructed if the model fitting is adequate.

According to Sugiyono (2014: 134), the hypothesis is a temporary answer to the research problem formulation, where the research problem formulation has been stated in the form of a question sentence. It is said to be temporary, because the answers that have been given have only been based on relevant theories, not based on empirical facts obtained through data collection (Sugiyono, 2014:134-135). So, the hypothesis can also be stated as a theoretical answer to the research problem formulation, not yet an empirical answer (Sugiyono, 2014: 135). The hypotheses proposed in this study are:

H_1: Service quality has a significant effect on customer satisfaction at PT Bank Rakyat Indonesia Samarinda 1 Branch Office.

H_2: Customer trust has a significant effect on customer satisfaction at PT Bank Rakyat Indonesia Samarinda 1 Branch Office.

H_3: Corporate image has a significant effect on customer satisfaction at PT Bank Rakyat Indonesia Samarinda 1 Branch Office.

H_4: Service quality, customer trust and company image simultaneously have a significant effect on customer satisfaction at PT Bank Rakyat Indonesia Samarinda 1 Branch Office.

The object of this research is PT Bank Rakyat Indonesia Samarinda 1 Branch Office. The population in this study is all customers of PT Bank Rakyat Indonesia Samarinda 1 Branch Office and uses a sampling technique, namely incidental sampling and gets a sample of 120 respondents. The data analysis method used is a test instrument; validity test and reliability test, multiple linear regression analysis, hypothesis testing in the form of; partial test (P), simultaneous test (F), and coefficient of determination (R2) with IBM SPSS Statistic 23 analysis tool.

3. Results

3.1 Instrument Test

3.1.1 Validity test

According to Ghozali (2018: 51), states the validity test used to measure the validity of a questionnaire. A questionnaire is declared valid if the questions on the questionnaire are able to reveal something that will be measured by the questionnaire. The validity test is carried out by comparing the value of r count with r table for degree of freedom (df) = n-2, with a significance of 5% of degree of freedom (df), in this case is the sample.

Table 2: Bootstrapping Total Indirect Effects

No	Variable	Indicator	r count	r table	Description
1	Quality of Service (X1)	1.Reliability	0,745	0,793	Valid
		2 Response	0,737	0,793	Valid
		3 Guarantee	0,713	0,793	Valid
		4 Empathy	0,684	0,793	Valid
		5. Physical Evidence	0,737	0,793	Valid
2	Trust (X2)	1.Integrity	0,682	0,793	Valid
		2. Policy	0,782	0,793	Valid
		3. Competence	0,746	0,793	Valid
3	Corporate Image (X3)	1. Personality	0,756	0,793	Valid
		2. Reputation	0,726	0,793	Valid
		3. Value	0,805	0,793	Valid
		4. Company Identity	0,745	0,793	Valid

4	Customer Satisfaction (Y)	1. Needs and wants	0,673	0,793	Valid
		2. Past Devotion	0,66	0,793	Valid
		3. Friends Experience	0,641	0,793	Valid
		4. Communication	0,636	0,793	Valid

Based on the results of the validity test in table 2 above, it can be seen that each item has an r count greater than r table (0.1793). So, the questions can be said to be valid.

3.1.1 Reliability Test

Reliability test is a tool to measure a questionnaire which is an indicator of a variable or construct. A questionnaire is said to be reliable or reliable if a person's answer to the statement is consistent or stable from time to time. The reliability test was carried out simultaneously on all questions. If > 0.60 then it can be said to be reliable (Ghozali, 2018: 45).

Table 3: Bootstrapping Path Coefficients

No	Variable	Indicator	cronbach's (Alfa)	Minimum Value	Description
1	Quality of Service (X2)	1. Reliability	0.831	0,6	Reliable
		2. Response	0.835	0,6	Reliable
		3. Guarantee	0.836	0,6	Reliable
		4. Empathy	0.841	0,6	Reliable
		5. Physical Evidence	0.832	0,6	Reliable
2	Trust (X2)	1.Integrity	0.844	0,6	Reliable
		2. Policy	0.840	0,6	Reliable
		3. Competence	0.841	0,6	Reliable
3	Corporate Image (X3)	1. Personality	0.834	0,6	Reliable
		2. Reputation	0.839	0,6	Reliable
		3. Value	0.830	0,6	Reliable
		4. Company Identity	0.839	0,6	Reliable
4	Customer Satisfaction (Y)	1. Needs and wants	0.841	0,6	Reliable
		2. Past Devotion	0.837	0,6	Reliable
		3. Friends Experience	0.842	0,6	Reliable
		4. Communication	0.636	0,6	Reliable

Based on the results of the reliability test in table 3 above, it can be seen that all variables in this study have Cronbach's Alpha which is greater than the minimum value or 0.60. This shows that each indicator of the variable can be said to be reliable.

3.2 Multiple Linear Regression Analysis

Multiple linear regression is a tool that can be used to predict future demand based on past data or to determine the effect of one or more variables (Independent) on one independent variable (Depends) (Suyono, 2018: 99-100). The multiple linear regression equation used is as follows:

$$Y = a + b1X1 + b2X2 + b3X3 + e \quad (1)$$
$$Y = 6.495 + 0.223X1 + 0.221X2 + 0.216X3 + e \quad (2)$$

Based on the results of the multiple linear regression test above, it can be said that:

1. The constant value is 6.495, this means that if the service quality (X1), trust (X2), company image (X3) are worthy 0, then customer satisfaction (Y) is worth 6.495.
2. The regression coefficient of the service quality variable (X1) is 0.223, meaning that if the other

independent variables have a fixed value and the service quality variable (X1) has increased by 1%, then customer satisfaction (Y) will increase by 0.223. On the other hand, if the service quality variable (X1) decreases by 1%, then customer satisfaction (Y) will decrease by 0.223. The positive value coefficient means that there is a positive relationship between the service quality variable (X1) and customer satisfaction (Y), the higher the service quality variable (X1), the higher the customer satisfaction variable (Y) and vice versa.

3. The regression coefficient of the customer trust variable (X2) is 0.221, meaning that if the other independent variables have a fixed value and the trust variable (X2) has an increase of 1%, then customer satisfaction (Y) will increase by 0.221. On the other hand, if the trust variable (X2) decreases by 1%, then customer satisfaction (Y) will decrease by 0.221. The positive value coefficient means that there is a positive relationship between the trust variable (X2) and customer satisfaction (Y), the higher the trust variable (X1), the higher the customer satisfaction variable (Y) and vice versa.
4. The regression coefficient for the corporate image variable (X3) is 0.216, meaning that if the other independent variables have a fixed value and the corporate image variable (X3) has increased by 1%, then customer satisfaction (Y) will increase by 0.216. On the other hand, if the corporate image variable (X3) decreases by 1%, then customer satisfaction (Y) will decrease by 0.216. The positive value coefficient means that there is a positive relationship between the corporate image variable (X3) and customer satisfaction (Y), the higher the corporate image variable (X3), the higher the customer satisfaction variable (Y) and vice versa.

3.3 T Test (Partial Test)

The t test is used to see the effect of each independent variable individually on the dependent variable (Ghozali, 2011). The magnitude of the number t table with the provisions = 0.05, n = 120 respondents, and k = 4, so that the t table can be formulated as follows:

t table = t (α / 2 ; n – k)
 = t (0.05 / 2 ; 120 – 4)
 = t (0.025 ; 116)

So that the t table value is 1.98063. Based on the table of t test results above, it can be seen that the effect of each variable is as follows:

1. Service Quality Variable (X1) towards visitors (Y) from the table coefficient obtained the value of t count = 3.733 which means t count > t table (3.733 > 1.98063) with a significance of 0.000 <0.05. Partially there is a significant influence between Service Quality (X1) on visitors (Y).
2. Customer Trust Variable (X2) towards visitors (Y) from the table coefficient obtained the value of t count = 2.254, which means t count > t table (2.254 > 1.98063) with a value of 0.026 < 0.05. Partially there is a significant influence between Customer Trust (X2) on visitors (Y).
3. Variable Corporate Image (X3) towards visitors (Y) from the table coefficient obtained the value of t count = 2.898 which means t count > t table (2.898 > 1.98063) with a significance of 0.004 < 0.05. Partially there is a significant influence between Corporate Image (X3) on visitors (Y).

3.4 F Test (Simultaneous Test)

The F test was conducted to test whether the model used was significant or not, so that it could be ascertained whether the model could be used to predict the effect of the independent variables together on the dependent variable (Ghozali, 2011). If Fcount>Ftable then the path coefficient can be continued or accepted. The test was carried out with a significance level of 95% or = 0.05.

The test was carried out with a significance level of 95% or = 0.05. It is known that the F test or simultaneous test of independent variables, namely the known significance value for the effect of Service Quality (X1), Customer Trust (X2) and Company Image (X3) simultaneously on visitors (Y) is 0.000 < 0.05 and the calculated F value is 22.501 > Ftable 2.68. The magnitude of F table with the provisions (k ; n-k) or (3; 120-3) = F (3; 117) so that the value of Ftable is 2.68. So, the keywords can be that the Service Quality Variables (X1), Customers (X2) and Company Image (X3) simultaneously or simultaneously with visitors (Y).

3.5 Coefficient of Determination Test (R2)

According to Ghozali (2018: 97), the coefficient of determination (R2) measures how far the model's ability is in dependent variation. The coefficient of determination or Adjust R Square of the three independent variables, namely Service Quality, Trust, and Company Image towards or customers is 0.352 35.2%. This means that 35.2% or 0.352 dependent variation (bound), namely satisfaction can be explained by 3 independent variables (free), namely the variable Service Quality, Trust, and Company Image.

4. Discussion

Based on the results of the analysis of the research described above, further discussion of the analysis will be carried out. This discussion is made by looking at the relationship that occurs as a proof of the hypothesis raised in this study. The theories or results of empirical research that have been carried out by researchers will be used in conducting the previous discussion, whether the theories or results of empirical research support or contradict the results of hypothesis testing carried out in the study and the limitations of this study will also be stated. The following is a discussion of the results of hypothesis testing in this study.

4.1 The effect of service quality (X1) on customers satisfaction (Y)

Based on the results of the data processing in the t-test results table, it shows that the regression coefficient of the service quality variable is positive, meaning that service is directly proportional to the customer satisfaction variable and the results of the t-test statistic (Partial Test) shows that the service quality value is 0.000, which is smaller than 0.05. , So there is a significant influence between Service Quality (X1) on customers (Y). Research on customers of PT Bank Rakyat Indonesia Branch Office Samarinda 1 assesses the quality of services provided meets client expectations, as evidenced by answers that are close to strongly agree with the statement of service quality. This will foster customer satisfaction at PT Bank Rakyat Indonesia Samarinda 1 Branch Office. The results of this study are in accordance with the results of previous studies Mulyaningsih, et al (2016), Mawey, et al (2018), Gaspul (2014), Mulyani (2020), Pontoh et al. (2014), with research results saying that service quality has a significant influence on customer satisfaction.

4.2 Effect of Trust (X2) on customers satisfaction (Y)

Based on the results of the data processing in the t-test results table, it shows that the regression coefficient of the trust variable is positive, meaning that trust is directly proportional to the customer satisfaction variable and the t-test statistic (Partial Test) shows a significance value of service quality of 0.026 which is smaller than 0.05. Then there is a significant influence between Trust (X1) on customers (Y), Trust is an advantage for the company PT Bank Rakyat Indonesia Samarinda 1 Branch Office to achieve customer satisfaction. 1. trust in us to provide customer benefits or benefits in the form of economic benefits, or services from PT Bank Rakyat Indonesia Samarinda Branch Office, this study is not in accordance with research conducted by et al. (2018) which states that trust has no significant effect on customers. The results of previous supported research conducted by Gaspul (2014), Mulyani (2020), Pontoh, et al. (2014), with research results saying that trust has a significant influence on customer satisfaction.

4.3 Effect of corporate image (X3) on customers satisfaction (Y)

Based on the results of data processing in the t-test results table, it shows that the regression coefficient of the corporate image variable is positive, meaning that the company's image is directly proportional to customer satisfaction and the results of the t-test statistic (Partial Test) shows the significance value of the company's image is 0.004 which is smaller than 0.05. Then there is a significant influence between corporate image (X3) on customer satisfaction (Y), based on the results of respondents' answers it can be said that the company's image in the eyes of its customers will make customer satisfaction at PT Bank Rakyat Indonesia Samarinda 1 Branch Office higher, in this case the customer considers that PT Bank Rakyat Indonesia Samarinda 1 Branch Office is well-known, trusted, has a good name, and has a good attitude. The results of this study are not in accordance with the research conducted by Pontoh, et al. (2014) which states that the company's image partially has no significant effect on visitors. The results of previous research conducted by Mulyaningsih, et al. (2016) with research results which said that corporate image had a positive and significant effect on visitors.

5. Conclusion

Based on the discussion on the effect of service quality, trust and corporate image on customers at PT Bank Rakyat Indonesia Samarinda 1 Branch Office, it can be said as follows:

1. Service quality (X1) has a significant effect on customer satisfaction (Y) at PT Bank Rakyat Indonesia Samarinda 1 Branch Office.
2. Customer trust (X2) has a significant effect on customer satisfaction (Y) at PT Bank Rakyat Indonesia Samarinda 1 Branch Office.
3. Company image (X3) has a significant effect on customer satisfaction (Y) at PT Bank Rakyat Indonesia Samarinda 1 Branch Office.
4. Service quality (X1), trust (X2) and corporate image (X3) simultaneously have a significant effect on customers (Y) at PT Bank Rakyat Indonesia Samarinda 1 Branch Office.

Suggestions that need to be followed up include:

1. Research with service quality variable is the most dominant variable affecting customer satisfaction at PT Bank Rakyat Indonesia Samarinda 1 Branch Office and customers often make service quality the main consideration in determining their choice of something they specify such as banking services. Good service quality can be used as a tool to retain old customers and attract new customers.
2. for further researchers to be able to further develop this research by examining other factors that can affect customer satisfaction, as well as adding independent variables that can affect customer satisfaction such as customer loyalty variables and increasing the number of respondents.

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Analysis of the Allocation of Priorities for the Use of Government Spending in Underdeveloped Regions in Indonesia

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Abstract
Indonesia is a developing country with one of the most substantial economic growths in the Asian region, in 2021, it will be able to register a growth reaching 5.44%. With rapid economic growth, it turns out that in Indonesia, many areas are still considered underdeveloped. The government continues to pursue various policies to support the development of Indonesia, one of which is Permendes number 13 2021, which explains that the use of village funds in 2021 is a priority to manage the covid pandemic and n is not permitted for the development of village infrastructure. This needs to be considered whether its application is appropriate or not. This study uses the Sem-PLS method, which examines the use of village funds against three criteria: the Facilities/Infrastructure, Economy, and HR. The results are that the village banks have the most significant effect on HR criteria, with a percentage of 20%, followed by economic criteria, with a ratio of 15%. Meanwhile, village funds have no significant effect on the facilities/infrastructure criteria, with a percentage of only 11.5%. The Facilities/Infrastructure criterion has little impact because, in disadvantaged regions, there is the problem of the uncertainty of the documents, leading to delays in the verification process. The government can overcome this by developing organizational strategies in underdeveloped areas so that such incidents do not occur. The government can use the results of this study to see what influence village funds have spent on underdevelopment criteria in underdeveloped areas.

Keywords: Sem-PLS, Underdeveloped Regions, Economic Development

1. Introduction

At the height of the Sriwijaya Kingdom, Indonesia was once known as the Asian Tiger. Still, this nickname has yet to be adequately carried by Indonesia today compared to other countries. In this modern era, the handle has changed to a Sleeping Asian Tiger as Indonesia is still considered to have everything it takes to return to glory and become the true Asian Tiger. (Kominfo RI, 2015)

The factors that make Indonesia the sleeping Asian tiger are many, one of which is the quality of the Indonesian people. According to a 2019 Program for International Student Assessment (PISA) survey, Indonesia ranks 62th in literacy out of 70 countries. These data show that the Indonesian people's interest in reading/literacy is relatively minimal compared to other countries. (Larasati Dyah Utami, 2021)

Human resource development efforts have also been carried out intensively by the community and researchers. Such as books with the titles Human Resource Management (Priyono, 2010), Human Resource Management in Public Organizations (Wirman Syafri & Alwi, 2014), Human Resources (Sofyan Tsauri, 2017), Human Resource Management (Larasati Sri, 2018), Human Resource Development (Bukit Benjamin et al., 2017), and Human Resource Management (Hasmin & Nurung Jumiaty, 2021). Many articles have also already been published all over the world, analyzing HR like Promoting economic development in the inner city: The importance of Human Resources (Robinson-Barnes, 1996), A gap analysis between current and desired situation of economic factors affecting human resources development in Iran (Fallah Haghighi & Bijani, 2019), A cross-country review of strategies of the German development cooperation to strengthen human resources (Windisch et al., 2009), Training of human resources in science and technology in Brazil: The importance of a vigorous post-graduate program and its impact on the development of the country (Guimarães & Humann, 1995), The development of FFMD Pyramid: Fuzzy Family_Marriage Deployment as decision support method to improve human resources performance (Rika Fatimah, 2012). However, the data shows that Indonesia's literacy ranking has declined year after year, leading to a decline in the quality of Indonesia's human resources.

This is what drives the government to aggressively seek to improve the quality of Indonesia's human resources in several ways, one of which is to prioritize using village funds in deprived areas. Village funds from the APBD are used to finance government administration, development implementation, community development, and empowerment of village communities. Village funds are divided into two categories, namely regular and independent. The category is determined based on the results of an assessment conducted annually and determined by the Ministry of Villages, Disadvantaged Areas Development and Transmigration(PP Nomor 60 Tahun 2014, 2014).

Analysis of Village Fund Utilization has been studied to utilize the village funds more efficiently where it is most needed. Such as Village fund, village-owned-enterprises, and employment: Evidence from Indonesia (Arifin et al., 2020), Impacts of village fund on post disaster economic recovery in rural Aceh Indonesia (Nugroho et al., 2022), Green finance and sustainability development goals in Indonesian Fund Village (Ronaldo & Suryanto, 2022), Analysis of Village Fund Utilization during the Covid-19 Pandemic In Nagari Talang Anau Regency of Fifty Cities (Valentina Tengku Rika et al., 2020), Analysis of the use of village funds in increasing the community economy (Alexandro Rinto et al., 2021), Analysis of the case study on the management of village funds in the district of Tatapaan, South Minahasa Regency (Tumbelaka et al., 2020), Analysis of Village Fund Financial Management (Rano et al., 2018), Analysis of Village Fund Management in Improving the Case Study on Village Development in Cibitung Wetan Village (Septianingsih, 2021), The Influence of Education on Lowering Unemployment and Increasing Society Economy in East Java (Suyanto, Purnomo, & Standsyah, 2019), Impact of education and health on the unemployment rate and the economy of East Java (Suyanto, Purnomo, & Erma Standsyah, 2019). But in Indonesia, there are still many areas classified as underdeveloped areas,

Underdeveloped areas are districts whose territories and people are less developed than other nationwide regions (PERPRES RI NO. 63, 2020a). Development analysis of underdeveloped areas has been done by many Indonesian scholars, such as Development of Local Economic Potentials of Disadvantaged Regions as an Effort to Overcome Inter-Regional Income Disparities in Central Java Province (Oktavilia, 2011), Strategies for Development of Disadvantaged Regions in Efforts to Accelerate Rural Economic Development (Syahza & Suarman, 2013), Development Strategy for Disadvantaged Areas in Garut Regency (Djuwendah et al., 2013), Development of Disadvantaged Areas in Seruyan Regency, Central Kalimantan Province (Agus Sandra et al., 2020), Strategy for

Development of Disadvantaged Areas in Efforts to Accelerate the Rural Economy In Baduy Banten (Rachmah Wahidah et al., 2022) Strategy for the Development of Disadvantaged Villages in Nagari Batu Banyak, Lembang Jaya District, Solok Regency (Elsa, 2014) Proliferation Pattern in Underdeveloped Region: Is it the Real Solution to Solve Underdeveloped Region's Problem in Decentralized Indonesia? (Faoziyah & Salim, 2016). With these different studies, in Indonesia, quite a few areas are still considered underdeveloped.

Not only in Indonesia, the Underdeveloped region also appears in another developing country, even developed countries. Many researchers also have studied this case from a health perspective, HR, economics, etc. Such as Regional ecological security and diagnosis of obstacle factors in underdeveloped regions: a case study in Yunnan Province, China (Ou et al., 2017), Innovative and entrepreneurship education in underdeveloped Western regions of China (Lu et al., 2013), Identification of rural regional poverty type based on spatial multi-criteria decision-making—taking Gansu Province, an underdeveloped area in China, as an example (Dou et al., 2021), How can quality regional spending reduce poverty and improve human development index? (Masduki et al., 2022), Assessment and key factors of urban liveability in underdeveloped regions: A case study of the Loess Plateau, China(Xiao et al., 2022). With the developed country having the same problem as developing countries, we need to find the factor causing underdeveloped regions.

This research will examine how the use of village funds against the criteria for underdeveloped areas in Indonesia reduces the existence of underdeveloped regions. This research is intended to help the government maximize the use of village funds to improve the economy and the quality of human resources in the village. This research uses the SEM-PLS method, which will produce the most influential variables for the priority use of village funds. With this, the government can make the best use of the research results for the progress of the Indonesian nation.

2. Materials and Methods

2.1. Disadvantaged Regions Indicator

Disadvantaged regions are regions whose territories and communities are less developed than other regions at the national level. (PERPRES RI NO. 63, 2020).
A region can be measured as a disadvantaged region based on some criteria :

a. Economic
b. Human Resource
c. Facilities and Infrastructure
d. Regional Financial Capability
e. Accessibility
f. Regional Characteristics.

2.2. Priority for the use of Village Funds

Determining the priority of use of village funds is done through an assessment of the list of village development programs/activities to focus on efforts to restore the national economy, national priority programs, and the adaptation of new village habits that support the village SDGs. The Regulation of the Minister of Villages, Development of Disadvantaged Areas and Transmigration of the Republic of Indonesia number 13 of 2020 regarding the priority of use of village funds in 2021 explains that the use of village funds in 2021 is given priority for implementing the provisions on State Financial Policy and Stabilization of the Financial System to manage the Corona Virus Disease 2019 (COVID-19) within the framework of the fight against threats that endanger the national economy and the stability of the financial system in the law, the construction of infrastructure for the headquarters of the village, the village hall and places of worship are not allowed. (PERMENDES PDTT NO. 13, 2020)

According to the explanation, it can be concluded that the priority for the use of village funds in 2021 should not be allocated to the construction of facilities/infrastructure. And with this research, it is hoped that it will be clear why the government established the regulations. Furthermore, will also know the priority of optimally using the most used village funds for which sector.

2.3. SEM-PLS Method

The PLS method is powerful because it does not rely on many assumptions. The data need not have a multivariate normal distribution, and the sample need not be significant. Although PLS can also be used to confirm a theory, it can also be used to explain whether or not there is a relationship between latent variables. Compared to CBSEM, SEM-PLS can avoid two serious problems: inadmissible solutions and factor indeterminacy. (Ghozali Imam, 2017) PLS can analyze formed constructs with reflective and formative indicators, which is impossible in CBSEM because there will be an unidentified pattern. Since the PLS algorithm uses serial ordinary least squares analysis, pattern identification is not a problem in recursive models, nor does it assume some form of variable measurement distribution. (Jaya I Gede Nyoman Mindra & Sumertajaya I Made, 2008)

2.4. Data Source

This study uses data in the form of underdevelopment indicators for regencies/cities in Indonesia, which consists of 62 regencies/cities which are included in underdeveloped areas (PERPRES RI NO. 63, 2020b). Data was obtained from the website of BPS Indonesia.

2.5. Research Variable

Using predefined standards, lagging criteria and indicators to identify a lagging district/city can be measured. Indicators of underdeveloped areas include:

Table 1: Variable divided by its criteria

Facilities/Infrastructure Criteria	Economics Criteria	Human Resource Criteria
1.Average distance to the district capital (Km)	1. Number of Poor Population	1.Life Expectancy (Th)
2.Eligible Water Users (%)	2.Population Per-Capital Expenditure (%)	2.Average Years of school (Th)
3.Self Sanitation Users (%)		3.Literacy Rate (%)

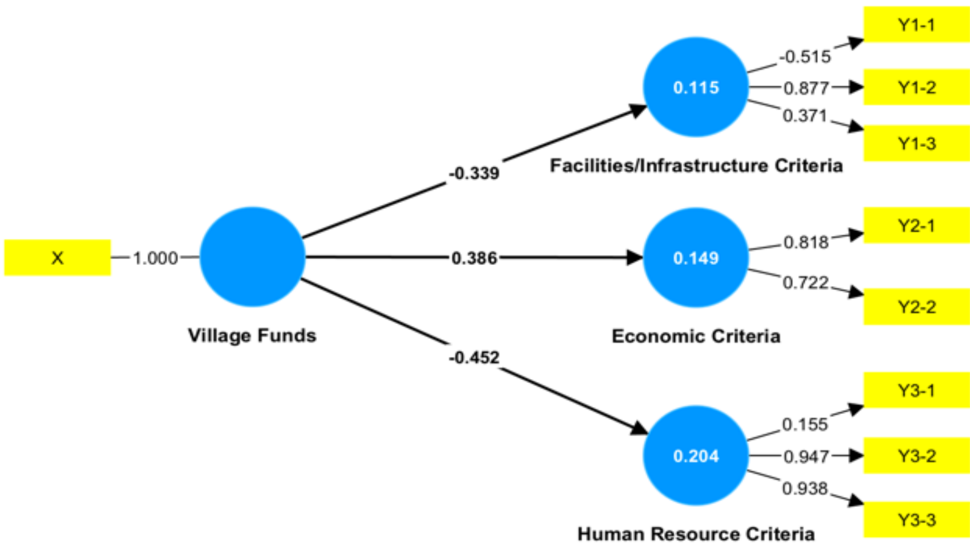
2.6. SEM-PLS Analysis

2.6.1.Outer Model

Evaluation of measurements on the outer model through factor loading is carried out to determine the validity of indicators in forming a latent variable by looking at the value of indicator reliability, composite reliability, dan convergent validity.

Indicator reliability shows how much the latent variable can explain the indicator variance. In the reliability indicator, a reflective indicator must be eliminated from the measurement model when the absolute value of the loading factor (λ) is less than 0.4. Here are the results of the loading factor obtained.

Based on **Picture 1** shows that all indicators of the absolute value of the loading factor value are more than 0.4 except for the X3-1 variable. So that all indicators except Y3-1 can explain the latent variables well, and because the value of Y3-1 is less than 0.4, it can be eliminated.



Picture 1: Loading Factor value

The following criteria are composite reliability and convergent validity measured from the Average Variance Extracted (AVE). Composite reliability shows how well the construct is measured by predetermined indicators, which is said to be reliable if the value is above 0.7. From
, the Facility/Infrastructure Criteria variable has a value of less than 0.7, which means the indicator cannot measure

Indicator	Composite Reliability
Economic Criteria	0.75
Human Resource Criteria	0.78
Facilities/Infrastructure Criteria	0.23

latent variables correctly. Meanwhile, other indicators can measure latent variables well.

Table 2: Composite Reliability Value of Latent Variables

Indicator	Composite Reliability
Economic Criteria	0.75
Human Resource Criteria	0.78
Facilities/Infrastructure Criteria	0.23

Convergent validity, where the better this value is shown, the higher the correlation between the indicators that make up a construct. The AVE value shows the average percentage of variance that the construct item can explain. A minimum AVE value of 0.5 indicates that the convergent validity measure is good.

Table 3: Value of AVE

Indicator	Average Variance Extracted (AVE)
Economic Criteria	0.595
Human Resource Criteria	0.601
Facilities/Infrastructure Criteria	0.391

Indicator	Average Variance Extracted (AVE)
Economic Criteria	0.595

Human Resource Criteria	0.601
Facilities/Infrastructure Criteria	0.391

Table *3* shows that the latent variable for the Facilities/Infrastructure Criteria has an AVE value of less than 0.5, indicating that the latent variable's convergent validity for the Facilities/Infrastructure Criteria is not good. On the other hand, the Economic Criteria and HR Criteria variables have an AVE value greater than 0.5, which means these variables have good convergent validity.

2.6.2. Inner Model

Evaluation of the structural model (inner model) in SEM-PLS can be seen from the value of R-Square (R^2). In theory, it is explained that the value of R^2 more than 0.67 is said to have a substantial contribution of exogenous variables to endogenous, between 0.33 to 0.67 is said to have sufficient or moderate assistance, and between 0.19 to 0.33 is said to have a weak contribution. (Vinzi Esposito Vinzi et al., 2010)

Data processing analysis is obtained in **Table 4** R-Square Value of each indicator. The R^2 value for the Facilities/Infrastructure Criteria is 0.115, indicating that village funds affect the Facilities/Infrastructure Criteria by 11.5%. In comparison, the R^2 value for the Economic Criteria is 0.15, which means that village funds affect the Economic Criteria by 15%. Moreover, finally, the R^2 value for HR criteria is 0.2, which means that village funds affect the HR criteria by 20%, which is the largest compared to the other two indicators.

Table 4: R-Square Value

Indicator	R-Square (R^2)
Economic Criteria	0.15
Human Resource Criteria	0.20
Facilities/Infratructure Criteria	0.115

3. Results and Discussion

By using the SEM-PLS method with the variables that have been determined earlier, the results of the analysis include the following:

3.1. The Effect of Village Funds on Economic Criteria

The results for village funds against the Economic Criteria obtained 0.386, which means there is a positive influence of village funds on the economic criteria. Based on calculations using bootstrap, obtained a P-Value of 0.000 where the value is 0.05, meaning village funds significantly affect the Economic Criteria.

We see that the economic criterion is a significant variable with a positive value. It is that in 2021 the Covid 19 pandemic is raging in Indonesia and even around the world. This caused Indonesia's economic conditions to fluctuate, prompting the government to prioritize the economy of the underprivileged by disbursing BLT funds to stabilize the declining economy. (Peraturan Menteri Keuangan Republik Indonesia, 2021)

3.2. The Effect of Village Funds on Human Resource Criteria

Analysis for village funds against HR criteria obtained -0.452, which means there is a negative effect of village funds on HR. The results of calculations using bootstrapping obtained a P-Value of 0.000, where the value is less than 0.05, so village funds significantly affect HR criteria.

The HR criteria have a negative value and a significant effect because, in 2021, the Covid pandemic increased the death rate, especially for the lower middle class who have no money for treatment. This affects one of the HR criteria variables, namely life expectancy. Moreover, the development of the HR plan is a long-term plan that will significantly affect the state of Indonesia in the future, so the effect on the data only for 2021 will not be noticeable. (Abdul Sani, 2017)

4. The Effect of Village Funds on Facilities/Infrastructure Criteria

The score for village funds against the Facilities/Infrastructure Criteria is -0.339, which means there is a negative effect of village funds on the Facilities/Infrastructure Criteria. Based on bootstrap calculations, obtained a P-Value of 0.319 where the value is more than 0.05, so that village funds have no significant effect on the Criteria for Facilities/Infrastructure.

Village funds do not affect facilities and infrastructure as there are problems in using village funds for development. In the implementation of the construction of facilities and infrastructure in underdeveloped areas, there is a problem where the uncertainty of the proposal documents of the regions slows down the verification process, slows down, and even delays the development. This problem still occurs every year, so it is hoped that each regional government designated as a disadvantaged area will prepare the necessary documents to improve facilities and infrastructure development. (Kementerian Desa, 2018)

Table 5: P-Values each indicator

	P values
Village Funds -> Economic Criteria	0.000
Village Funds -> Human Resource Criteria	0.000
Village Funds -> Facilities/Infrastructure Criteria	0.319

5. Conclusion

By studying the results of this analysis, we see that the village funds have the most significant effect on HR criteria, with a percentage of 20%, followed by economic criteria, with a rate of 15%. And also, we can understand that the village funds positively affect the economic criteria, and conversely, the village funds harm the human resources and equipment/infrastructure criteria.

It can be concluded that the decision of the government to stipulate the Regulation of the Minister of Villages, Development of Deprived Areas and Transmigration of the Republic of Indonesia number 13 of 2020 regarding priorities for the use of village funds in 2021 with the content not to allocate funds for Facilities/Infrastructure is correct because the use of village funds for infrastructure development at that time proved to have no significant effect on managing disadvantaged areas.

The results of this study can be further explored using more complete data with panel data. Using panel data over ten years, the analysis of village funds obtained will be more credible because some underdeveloped criteria variables can only be measured for long-term effects.

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Personal Selling Strategies by Relationship Managers in the Indonesia Banking Sector

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Abstract
This research was conducted to identify the stages in the personal selling process carried out by Relationship Managers in the Banking Sector in the Digital Age. With a qualitative approach, the data collection method is to conduct interviews with four RM practitioners at private and government banks in Salatiga City. The results of this study show that RM practitioners apply a personal selling strategy in marketing banking products, including the prospecting, the approach, the sales presentation, overcoming objection, closing and follow-up service stages. In this study, it can be concluded that RM practitioners still carry out face-to-face approaches and use e-sales kits as a form of using technology in the digital era.

Keywords: Marketing Communication, Personal Selling, Banking Sector

1. Introduction

The development of the banking world is currently moving rapidly along with economic growth in Indonesia. This is shown in the Indonesian Banking Statistics (SPI) issued by the OJK, which is a publication media for presenting data on Indonesian banking.

Table 1: Statistics on the development of bank assets in Indonesia

Kelompok Bank / *Group of Banks*	2019	2020	2021							2022					
			Jun	Jul	Agt	Sep	Okt	Nov	Des	Jan	Feb	Mar	Apr	Mei	Jun
- Bank Persero / *State Owned Banks*	3.574.130	3.818.584	3.882.056	3.904.455	3.944.993	4.089.249	4.119.770	4.153.435	4.251.749	4.137.435	4.147.641	4.169.874	4.202.861	4.145.327	4.231.772
- BPD / *Regional Development Banks*	717.518	763.879	821.902	804.880	809.648	840.158	877.369	867.904	861.329	841.962	868.149	880.006	884.372	881.471	907.559
- Bank Swasta Nasional / *Domestic Private Banks*	3.819.813	4.159.829	4.262.866	4.262.123	4.316.640	4.349.980	4.390.509	4.454.580	4.562.817	4.580.877	4.590.000	4.602.409	4.622.146	4.675.680	4.687.196
- Kantor Cabang Dari Bank Yang Berkedudukan Di Luar Negeri / *Branch Offices of Foreign Banks*	451.514	435.602	444.340	440.730	451.376	456.002	436.851	437.750	436.409	446.895	455.879	479.171	463.152	478.285	482.040
Total	**8.562.974**	**9.177.894**	**9.411.164**	**9.412.187**	**9.522.658**	**9.735.389**	**9.824.498**	**9.913.669**	**10.112.304**	**10.007.168**	**10.061.669**	**10.131.460**	**10.172.531**	**10.180.763**	**10.308.568**

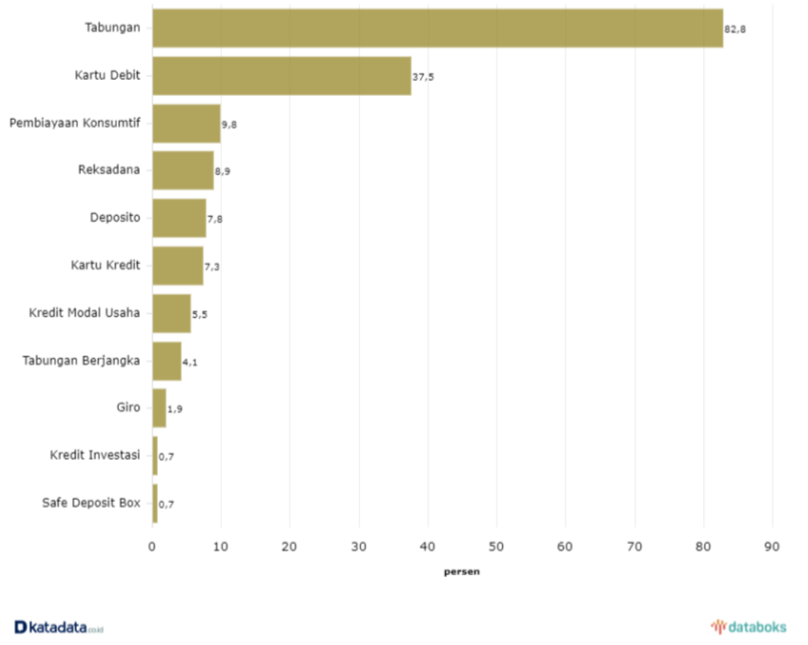
Source: Indonesian Banking Statistics (SPI), ojk.go.id

The statistics show a significant increase in numbers from month to month, year to year which illustrates the rapid development of banking in Indonesia. This economic growth was followed by developments in technology and science. Rapid technological changes affect people's behavior. Now it is easier for people to access information about banking, thus making people more observant in choosing products or programs offered by various banks in Indonesia. This makes the bank carry out marketing communications in marketing its products.

Marketing communication strategies in the business world have an important role for banks. This activity that can create a relationship between a bank and its customers is a planning and management to achieve certain objectives in its operational practices in an effort to expand the market for a product, with the aim of creating knowledge, understanding, understanding, awareness, interest and support from various parties to gain an image for the institution or organization it represents. According to Kotler (Kotler, 2015) face to face selling (personal selling) is defined as follows “personal selling is face to face interaction with one or more prospective purchase for the purpose of making presentations, answering questions, and procuring sales orders.” "Face to face sales are oral presentations in a conversation with one or several potential buyers with the aim of making sales"

In the digital era, banking products and services are increasingly diverse and competitive. The following is development data on the types of banking sector products used in Indonesia

Table 2: Statistics on the use of banking products



Source: Statistic of Banking product by katadata.co.id (2022)

In carrying out marketing communications, there is personal selling in it. Personal selling is personal presentation of a company's sales strengths for the purpose of making sales and building customer relationship (Kotler, 2015) there are several elements which include, Advertising which is all non-personal presentation, promotion of ideas, promotion of products or services carried out by certain paid sponsors, Sales Promotion where various short-term incentives to encourage the desire to try or buy a product or service, Public relations and publicity with various programs to promote and protect the company's image or, its individual products, Personal Selling which is direct interaction with or more prospective buyers to make a presentation, answer directly and receive orders, Direct marketing with the use of mail, telephone, facsimile, e- mail and other non-personal contact tools to communicate directly with, and get an immediate response from specific customers and potential customers.

Personal selling is one of the marketing communication strategies carried out in the banking world. This personal selling activity is carried out through marketing personnel such as Relationship Managers. The problem that is the focus of this research is from several promotional mixes from Kotler, why is this personal selling marketing strategy still being used, dominantly used in the marketing of a product, especially in the world of banking. This research will examine how the personal selling process is carried out by relationship managers in marketing banking products.

2. Method

The research method used in this research is qualitative. Qualitative research is also called naturalistic research because it is natural or what it is and without using measuring instruments. In qualitative research there is no absolute truth and the data obtained is soft data because the data obtained can still change (Rahma, 2013). Through this qualitative approach, researchers seek to examine personal selling strategies by relationship managers in the banking sector in the digital era. According to (Suharsaputra, 2012), qualitative research produces data that interprets the findings of researchers. With this method, researchers collect data through interviews to find facts in the field regarding the personal selling strategy used by RM practitioners.

The target informants in this study are Relationship Manager (RM) practitioners at2 private banks and 2 government banks namely Mayapada, UOB, BNI and BRI. Data collection was carried out by conducting interviews with 4 informants. Four informants were selected because they met the specified criteria from several potential informants who responded to the researcher's request along with their willingness to share the experience and background of the informants. The selection of previous informants was based on several criteria that were taken into consideration to be able to meet the data needs in this study, namely, the length of time the informant became a Relationship Manager practitioner (3-15 years), male and female gender, and bank origin, namely private and government. The four informants included, Informant one RM bank BNI with 3 years of service, namely Mr. Aditya, informant two, Mrs. Dhyka of BRI bank with 8 years of service, third informant namely Mr. Aries RM UOB bank with 15 years of service,

The data sources used by researchers in this study are: (1) Primary data obtained directly from interviews with informants including information regarding the use of personal selling strategies in marketing banking products in the digital era; (2) Secondary data obtained to support primary data and sourced from books, journals, and literature studies related to the topic under study.

3. Results

Based on data collection conducted by interviewing the four informants, all informants are RM practitioners who implement personal selling strategies in marketing banking products in the digital era.
Personal Selling Strategy by RM

The steps taken by RM in conducting personal selling include:

a. Prospecting (Search)

This stage is the first thing a RM does in personal selling. The search for customers is carried out by going directly to the field and conducting face-to-face meetings. In the first research informant, informant one RM bank BNI said,

“I usually come directly to the field, enter the market. For example, going to the Johar market, then one on one meeting the traders there. I also go door to door to people's homes. For old customers, they are usually on the lead list given by the center. From that list, we will offer new programs and products or extend the previous programs that have been participated in.”

The search phase was also carried out by RM from BRI bank, namely informant two. He said that the search for customers was carried out through collaboration with the village, then obtained population data that contained monographs in it (community business profiles) which would then be approached to meet face to face with prospective customers. By doing face to face with customers, Informant Two also obtained referrals or other customer recommendations from customers he met. This he gave the term word of mouth due to word of mouth information. In addition, the second informant also said that he made a search through the data list from the head office which was then contacted by telephone.

This was also carried out by Informant Three as RM from UOB bank. He said that the search for customers was also carried out face to face or door to door from house to house or to traders. In addition, he also said that the prospective customers he got were through the circle of closest friends and old customers who were then contacted return to be introduced to new products and programs or to extend programs previously attended.
At this stage the search was also carried out by RM from Mayapada bank, namely Informant four, he said that the search for customers was carried out door to door as well as from a list that had been given by the head office and then could be contacted by telephone to be visited. Informant four said that,
"Most of the old customers who were contacted again wanted to join the new program or extend the program period. We also get referrals from our old customers which can later become a prospect list."
From what was conveyed by Informant four, it can be seen that he carried out other searches door to door, he also got recommendations from old customers.

Of the four informants above, it shows that at the search stage the method used is by door to door then meet in person face to face with potential customers. Apart from that, the four informants above had something in common, namely they also contacted old customers to offer new products and programs or to be able to extend programs that had been previously attended.

b. The approach

At this approach stage, Informant one as RM bank BNI also said that, the approach was carried out by opening a direct chat as if in a market with a trader, Informant one started by buying merchandise first then started introducing himself and slowly introducing the product. After that, he started exchanging phone numbers. Usually, this approach is carried out in several meetings.

In addition, informant two RM BRI said that he had started to mingle with the community by communicating directly. Starting from sharing needs or constraints regarding their business, then offering programs or products that suit the needs of prospective customers.

This was also carried out by Informant three as the RM of UOB bank that, the approach was carried out by opening a direct chat such as with a closest friend, he asked his friend's needs regarding finances. If the customer is a new person, he starts the conversation by asking about business developments to the business owner and then offers profitable programs or products to potential customers. Informant three also took a more intense approach with customers such as acting as a friend, so it was not uncommon for him to take part in hobbies and other activities with customers. This was considered more effective because the informal meeting would make it easier for informant three to offer the program or product being offered.

Furthermore, the fourth informant, informant four RM bank Mayapada said that,
"Usually if a lending or loan customer comes to us first, then we don't have to look outside the office. It's different with funding, usually we are looking for it through a data list that is called one by one or comes to the place of business".

From what was conveyed by Informant four, apart from visiting the prospective customer in person, he also said that the customer had visited Informant four first.

From the four informants above, it shows that at this stage of the approach the four informants did the same thing, namely asking about their needs or constraints regarding their business, then offering programs or products that fit the needs of prospective customers.

c. The sales presentation

At this stage, the first informant said that the first informant as RM bank BNI explained that product explanations were usually done with printed brochures to explain the product or program to prospective customers. In this digital era, informant one feels facilitated by the existence of an e-sales kit or brochure in the form of a soft file that can be sent via message which can be accessed at any time, and can be updated at any time.

The same thing was also done by RM bank BRI but by dividing into two segments, namely the Millennial segment, by explaining products and programs via smartphones using e-sales kits and the Gen X and Boomers segments, explaining by physical print out.

Furthermore, the next informant said that, Informant three as the RM of UOB bank explained the products and programs with the e-sales kit via his cellphone which he then sent via WhatsApp.

At this sales presentation stage, the fourth informant, namely Informant four as Mayapada bank RM, said that the sales presentation was carried out using material in the form of print-outs. Informant four said that he had an e-sales kit in the form of a soft file that could be sent online, but for him it was easier to print out product descriptions.

d. Overcoming objection

At the stage of overcoming this objection, the first informant, Informant one RM bank BNI, said that to overcome objections or problems that arise, Informant one prefers to anticipate this by explaining the product or program clearly at the beginning.

Furthermore, the second informant, namely informant two RM bank BRI, said that informant two was trying to offer other products or programs that were more suitable. Informant two said that he was trying to explore the needs of customers and find what suits the needs of the relevant customers.

Informant RM UOB did a different thing in that, in order to overcome objections from prospective customers, Informant three usually involved related divisions in order to be able to explain in more detail such as when offering bancassurance he invited the insurance division to meet the customer.

Furthermore, the fourth informant, namely Informant four RM bank Mayapada said that, to overcome objections he chose to keep trying to offer other products that were more suitable. However, if the customer still has objections to the offer he made, Informant four will give the potential customer time to consider and will be contacted again another day to offer the product.

e. Closing

At this stage, what was done by Informant one RM bank BNI at this stage was conveying the advantages it had compared to other banks, such as offering lower loan interest, faster processing by offering disbursement of funds in 3 days.

Furthermore, the next informant, namely Informant two RM bank BRI also said that by telling the advantages of the products and programs owned by the bank, besides that, Informant two also told the experiences of other customers as an illustration to attract the hearts of prospective customers to be able to close right away. Offer sweepstakes, giveaways and other promotions. If it doesn't close right away, the two informants will exchange phone numbers so they can close on another occasion.

The next informant, namely informant three RM bank UOB, said that at the closing stage, he explained the long-term benefits that customers would get. In addition, he also conveyed interesting events or promos that could entice customers to immediately close the purchase of the products or programs offered.

Furthermore, the fourth informant, informant four RM Mayapada bank, said that he compared with other banks and offered cheaper administration fees. Apart from that, he also offers product bundling. In addition to providing benefits to customers, product bundling is a way to carry out up selling which makes customers buy or use more than one type of product or program.

f. Follow-up service

At this stage, the first informant RM bank BNI, namely Informant one, said that, sending messages and asking questions once a month, monitoring financial activity through the system, visits were not always made but with the advancement of current digital technology, follow-up was easier with whatsapp.

Furthermore, the second informant, Informant two as the BRI bank RM, said that, if he happened to pass by the customer's place, the second informant would stop by. At BRI, RM is required to master the work area ecosystem, where each RM needs to carry out maintenance of the area by visiting directly or contacting customers in their work area.

The next informant, namely informant three RM of UOB bank, said that he sent a message once a month and asked about the customer's business development or just asked news. In addition, he also visits customers to maintain good relations with these customers.

4. Discussion

Personal selling carried out by Relationship Managers in private banks and government banks is analyzed using a personal selling strategy according to Kotler (2015). The first thing a RM does in personal selling is Prospecting or searching for customers. The search for customers is carried out by going directly to the field and conducting face-to-face meetings. Direct meeting is a personal selling technique as suggested by Donni Juni Priansa (2017) a number of tools in personal selling that are often used by companies include "Meetings, sales, incentive programs, giving samples or samples and trade shows". The same thing was done by all RM who became informants in this study. As stated by Informant one as RM from bank BNI that he did a direct search for customers by going directly to the field. So, it can be concluded that what was done by Informant one was in line with findings Bimantoro (2019). Searching for consumers will be effective if sales meetings are held directly with prospective customers or in this study are prospective customers.

The search was also carried out by RM from BRI bank, namely informant two. He said that the search for customers was carried out through collaboration with the village and then carried outface to face direct. This is in line with research owned by Dellamita (2014) that determines an approach that is more in the form of visits or by telephone to customers or prospective customers.

In research conducted by Yanie (2016) about persuasive personal selling communication strategies in increasing customers on general insurance products at PT. Jasaraharja son of the Pekanbaru branch, there were findings that getting new customers would be easy to get with the help of customers or existing partners. There is no arrogant impression, continuous communication, or regular visits will make customers trust the company more and not turn away from competitors. This was also carried out by Informant Three as RM from UOB bank. He said that the search for customers was also carried out in the circle of closest friends who were old customers.

So, it can be seen that the search for customers is carried out directly face to face and also through old customers. This is considered effective because meeting directly with customers will bring greater opportunities because through these meetings it will bring other meetings with other prospective customers as said by Informant two who gave the term getok tular in searching for customers which can provide opportunities to find other customers. In the next stage of the approach stage, According to Priansa,(2017) "Sales people meet and greet consumers to get a relationship or a good start. This step involves the appearance of a sales person, interesting opening words and further explanations. This is in line with what has been done by the respective private and government bank RMs. As stated by the second informant, he began to mingle with the community by communicating directly. Starting from sharing needs or constraints regarding their business, then offering programs or products that suit the needs of prospective customers.

In addition, Informant one as RM bank BNI also said that, the approach was carried out by opening a direct chat as if in a market with a trader, Informant one started by buying merchandise first then starting to introduce himself and slowly introducing the product. After that, he started exchanging phone numbers. Usually, this approach is carried out in several meetings. This was also carried out by Informant three as the RM of UOB bank that, the approach was carried out by opening a direct chat such as with a closest friend, he asked his friend's needs regarding finances. If the customer is a new person, he starts the conversation by asking about business developments to the business owner and then offers profitable programs or products to potential customers. Informant three also took a more intense approach with customers such as acting as a friend, so it was not uncommon for him to take part in hobbies and other activities with customers. This was considered more effective because the informal meeting would make it easier for informant three to offer the program or product being offered.

In the next stage, namely the sales presentation, where the communicator begins to explain the product or program that will be offered to the communicator. This can be seen from personal activities as marketing staff or in this research what is meant by Relationship Manager (RM) when dealing directly with consumers, a marketing staff can communicate interactively to explain products in detail both regarding specifications, functions, benefits, types, prices, methods of payment, delivery and others. The specialty of personal selling lies in the ability of a RM practitioner to communicate directly with customers. If you pay attention to several forms of existing marketing communications, personal selling is an important partner that cannot be replaced by other forms of marketing communications, even in the era of internet marketing in this modern century. Personal selling ability is able to improvise from sales with person to person communication. The strength of personal selling is being able to explain the company's products in detail, informing new products, product advantages and deals with customers. This is in line with the findings Herman (2012) that, personal selling is direct interaction with one or more prospective buyers to make presentations, answer questions, receive orders. Personal selling is direct (face to face) communication between sellers and potential customers to introduce a product to potential customers and form customer understanding of the product so that they will then try and buy it. Personal selling is the most cost-effective tool at later stages of the buying process, especially in building buyer preference, conviction and action. This is also done by RM practitioners in private and government banks. As explained by Informant one as RM bank BNI that, Product explanations are usually done in the form of printed brochures to explain the product or program to potential customers. In this digital era, informant one feels that it is made easier by having an e-sales kit or a brochure in the form of a soft file that can be sent via message. In addition, RM from UOB bank, namely Informant three, also said that Informant three explained the products and programs with the e-sales kit via his cellphone which he then sent via whatsapp. The explanation is done directly and face to face with the hope of minimizing miss communication because the explanation can be done in detail and directly. In addition, if you have questions, you can ask directly during the face-to-face meeting. The same thing was also done by RM bank BRI but with the division of two segments, namely the Millennial segment, by explaining products and programs through smartphones and the Gen X and Boomers segments, explaining with physical print outs. From what was explained by the informants of this study, there are similarities, namely the use of e-sales kits in presenting products. The use of e-sales kits in the form of soft files that can be shared via messages is considered quite practical because they can be accessed at any time and can be easily updated.

After making a presentation, the next step is overcoming objections. At this stage an RM shows. Things that can be used in the overcoming objection stage are providing special handling of questions asked by potential customers, avoiding or delaying direct answers, or passively accepting objections without debating potential new customers, accepting objections, showing testimonials from previous customers, providing comparisons with competitors. , or other compensation from the program or product offered, directly or indirectly or through demonstration, showing the prospect of two or more products and the benefits that will come from a product, and if the prospect rejects it the sales person replaces it with another product or service (Apriyani, 2018). This is in line with what RM practitioners do, in order to overcome objections or problems that arise, Informant one prefers to anticipate this by explaining the product or program clearly at the beginning. The same thing was also done by Informant three as RM bank UOB that, to overcome objections from prospective customers, Informant three usually involved related divisions so that they could explain in more detail such as when offering bancassurance he invited the insurance division to meet the customer. Another thing that was done by the second informant, namely RM bank BRI, was that he first discussed the main needs of prospective customers, if the customer objected to the product or program offered at the beginning, he will accommodate the rejection which he then adjusts to the needs and desires of prospective customers and then tries to offer other products that are more in line with the needs of these customers. This is in line with research (Bimantoro, 2019), that at the stage of solving the problem, the thing to do is to discuss what the potential customer's objections are in terms of price, design and features. Marketing communication realizes that not all application features, designs and prices can be accepted by potential customers. Then marketing communication accommodates what the prospective customer objected to, to then be discussed again, what the solution looks like.

So that this process is a process that requires caution because if the problem solving cannot be resolved at the beginning, then there is fear that the problem may appear at the end of the closing or deal. This is implemented by the RMs to explain clearly at the beginning or invite other divisions for a more detailed explanation and get proper treatment according to the related problems.

Next is the closing stage, at this stage where the marketer asks the consumer or customer to make a decision to buy the company's product or service. Methods or indicators that can be used in the closing stage are clarifying the benefits of the product by demonstrating it, as well as comparisons, or testimonies of satisfied customers, increasing the emotions of prospective customers or creating a sense of importance in buying products or services for potential new customers, asking for approval of minor decisions related with a purchase, leading to a major purchase decision (Apriyani, 2018). What was done by Informant one RM bank BNI at this stage was conveying the advantages it had compared to other banks, such as offering lower loan interest, faster processing by offering disbursement of funds in 3 days. Informant two RM of BRI bank also said that by telling the advantages of the bank's products and programs, besides that, informant two also told the experiences of other customers as an illustration to attract the hearts of prospective customers to be able to close at that time. Offer sweepstakes, giveaways and other promotions. If it doesn't close right away, the two informants will exchange phone numbers so they can close on another occasion.

So, it can be concluded that at this stage, giving a broad picture to prospective customers by giving comparisons is an effective step. In addition, telling and showing evidence of other customer experiences can be an illustration for making decisions in buying or using banking products and programs offered.

In the next stage, namely follow-up service, at this stage RM practitioners build relationships with consumers or customers after the process of purchasing the company's products or services. Methods or indicators that can be used in the follow-up service stage are when a policy is conveyed, ensure that it is in order to increase customer satisfaction, answer customer questions if necessary, periodically check or contact customers to ensure that customers are satisfied with their purchases, try to rebuild or maintain customer confidence in making purchasing decisions, explain company billing procedures and interpret company policies and practices, send letters of thanks and appreciation to customers.

The second informant as the BRI bank RM said that, if he happened to pass a customer's place, the second informant would stop by. At BRI, RM is required to master the work area ecosystem, where each RM needs to carry out maintenance of the area by visiting directly or contacting customers in their work area. In addition, RM bank BNI, namely Informant one, also said that, sending messages and asking questions once a month, monitoring financial activity through the system, visits were not always made but with the advancement of today's digital technology, follow-up was easier with WhatsApp. The informant of three UOB bank RMs also said that he sent messages and asked occasionally and made visits. What was unique was done by the fourth informant, RM bank Mayapada, that at this follow-up stage he applies it to important moments such as holidays and also when the customer has a birthday. This is a way to strengthen the relationship between RM and customers, so from that way RM can give the good quality service. This statement is related with the research by Assessment (2022) if quality of service has a significant effect and fully assists in increasing customer value.

The things done by the informants at this follow-up stage are the stages that are considered to be able to support the development of the seller or in this study RM practitioners. This is in line with research (Wongso & Secapramana, 2019) that at the follow-up stage it supports the performance of the sales force in the banking industry.

So, it can be concluded that the follow-up stage is an important stage in customer management so that it can run harmoniously between the customer and the bank. In this stage, it is currently facilitated by technological developments such as communication by phone and also monitoring of financial funds which is carried out through the banking system which can be accessed by each RM.

The banking product marketing strategy carried out by the RM of each bank has several similarities, one of which is a direct face-to-face approach with customers directly. Even though currently technological advances can make it easier for RM to communicate with customers by telephone, the direct face-to-face approach cannot be replaced because it is considered quite effective in interacting with customers. Another thing that is common to RM banks who are the sources of this research is the presence of e-sales kits that replace brochures to make it easier for RMs to explain the banking products offered. This e-sales kit is a form of digitalization that is present in banking marketing communications. This e-sales kit can be distributed easily, can be updated at any time and can be accessed at any time.

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