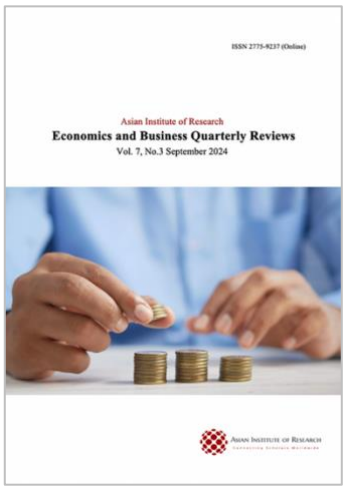

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Bitcoin Adoption Strategy as a Company Asset in Indonesia

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Abstract
This research investigates the strategic adoption of Bitcoin as a corporate asset in Indonesia, focusing on its potential as an inflation hedge and its impact on enhancing shareholder value. Employing a mixed-method approach combining qualitative interviews and the Analytical Hierarchy Process (AHP), the study explores the challenges, risks, and opportunities associated with integrating Bitcoin into corporate financial strategies. The findings reveal that risk mitigation emerges as the primary priority for companies considering Bitcoin adoption, underscoring the need for robust strategies such as investment diversification, hedging, and scenario analysis. Stakeholder acceptance, encompassing investors, regulators, and market sentiment, is identified as the second most crucial factor, highlighting the importance of a supportive regulatory environment and investor confidence. The research also highlights the significance of analyzing price trends and optimizing asset allocation strategies. The AHP analysis identifies the Strategic Diversification approach as the most preferred alternative, aligning with Modern Portfolio Theory principles. Additionally, the study addresses accounting and financial reporting challenges associated with Bitcoin adoption, emphasizing the need for clear guidance and standards. The implementation plan outlines key aspects such as infrastructure development, education initiatives, risk management frameworks, and regulatory collaboration to facilitate the responsible integration of Bitcoin into Indonesian corporate finance strategies.

Keywords: Bitcoin, Corporate Asset, Inflation Hedge, Shareholder Value, Risk Mitigation, Stakeholder Acceptance

1. Introduction

Globally, inflation poses a serious threat to businesses as it reduces money's purchasing power and raises the cost of capital due to increased interest rates, which affects both debt and equity (Cochrane, 2022; Eren & Malamud, 2022). Businesses like MicroStrategy, who have to manage these economic conditions to sustain growth and profitability, are especially affected by this difficulty. Due to its decentralized structure and limited quantity, Bitcoin has recently gained attention from businesses looking to diversify their investment portfolios and protect money (Nakamoto, 2009). Furthermore, as demonstrated by the addition of Bitcoin to the treasury reserves of Tesla and MicroStrategy, the acceptance of Bitcoin has an impact on corporate financial strategy. The long-term value of Bitcoin influences this strategic choice, which may have an impact on financial risk management, shareholder value, and the cost of capital (Dahlquist & Pénasse, 2022).
The laws governing Bitcoin and other cryptocurrencies are changing in Indonesia. Bappebti Regulation 13/2022, which describes the rules for cryptocurrency trading and related activities, governs Bitcoin, which is acknowledged as a commodity but not as legal tender (Bappebti, 2022). Businesses that want to trade cryptocurrencies have to

get certain licenses and adhere to strict AML regulations (BAPPEBTI, 2019). With a strong increase in its cryptocurrency market, Indonesia has adopted digital payment trends to the extent that it ranks 20th internationally in the Cryptocurrency Adoption Index for 2022. The establishment of a cryptocurrency exchange with state backing intends to improve investor protection and transparency, demonstrating the government's commitment to regulating this rapidly expanding industry. The nation's cryptocurrency market experienced a significant rise in transaction value and is predicted to gain over $1 billion by 2023, proving its durability even during a down market. For companies in Indonesia, integrating cryptocurrency has several advantages, such as lower operating costs, more access to new markets, and more financial inclusion. Platforms like CEX.IO, which offer a safe entry point for purchasing, selling, and trading cryptocurrencies, encourage this adoption and help Indonesia's cryptocurrency ecosystem flourish. By entering new markets and enhancing payment systems, firms can utilize bitcoin strategically to cut out middlemen, decrease corruption through increased transparency, and promote economic progress. With the establishment of a national cryptocurrency asset exchange and other proactive regulatory measures, the government has established Indonesia as a major player in the global cryptocurrency market, spurring innovation and providing lucrative investment opportunities.

Cloud-based services, mobile software, and business analytics are the areas of expertise for MicroStrategy (MSTR), a Tysons Corner, Virginia-based global leader in corporate software solutions. The business was founded in 1989 and provides the MicroStrategy Analytics platform, which is well-known for its scalability, flexibility, and capacity to manage massive data volumes. Its clientele includes a wide range of sectors, such as retail, banking, healthcare, and telecommunications. MicroStrategy made the strategic decision to embrace Bitcoin as its principal treasury reserve asset in August 2020. CEO Michael Saylor highlighted the cryptocurrency's potential as a hedge against inflation and a store of value because of its limited quantity. This choice not only set MicroStrategy apart from its competitors but also demonstrated its innovative position at the nexus of technology and finance, allowing it to successfully navigate the rapidly changing domains of blockchain technology and digital assets. The company has demonstrated its innovative approach to capital management by strategically using convertible note issuances to fund its initiatives, including Bitcoin acquisitions. This aligns with the company's long-term vision and positions it as a leader in the incorporation of digital assets into corporate finance strategies.

In the turbulent world of blockchain and cryptocurrencies, convertible bonds are a valuable financial tool that allow businesses to acquire capital with minimal stock dilution and appeal to a wide range of investors thanks to bond coupons and conversion opportunities. These bonds are especially helpful in sectors like blockchain, where businesses need a lot of capital to grow and innovate. In Indonesia, for example, legal frameworks from organizations like Bappebti, which has set up a national cryptocurrency exchange and futures clearing house, support the integration of cryptocurrencies as acceptable corporate assets. The incorporation of digital assets into corporate plans has been accelerated by the government's encouragement and regulatory support of 229 cryptocurrencies. One example of this is the partnership between Binance and Telkom Indonesia's venture capital arm to launch a new digital asset exchange.

In this encouraging environment, the research goals center on investigating how Indonesian business executives view and feel about integrating Bitcoin into their corporate strategies, outlining risk management techniques for doing so safely, and evaluating how the price volatility of Bitcoin affects the financial stability and market perception of businesses that are thinking about adopting cryptocurrencies. The purpose of these studies is to determine how prepared Indonesian executives and financial specialists are for the use of cryptocurrencies in corporate operations, as well as what worries them.

2. Literature Review

2.1. Cryptocurrency

The cryptocurrency market runs on a decentralized network based on blockchain technology, providing strong security and resistance to counterfeiting. Bitcoin leads the way, with assistance from other cryptocurrencies like Ethereum, Ripple, and Litecoin (Manjula et al., 2022). With its peer-to-peer, safe, and transparent transactions that are independent of central financial authorities, Bitcoin—which was first introduced in 2008 under the pseudonym

Satoshi Nakamoto—has played a significant role in upending established financial institutions (Lee et al., 2018). Referred to as "digital gold" because of its limited supply of 21 million coins, Bitcoin is a desirable long-term investment that provides stability and an inflation hedge, much like precious metals (Rauchs, 2018) The global regulatory discrepancy is reflected in the fact that some nations have banned cryptocurrencies, while others have welcomed them as valid means of exchange (Rajesh et al., 2022). The cryptocurrency market is growing despite obstacles like security, privacy, and regulatory uncertainty. This growth is being driven by the technology's ability to lower transaction costs and speed up transactions, making it a competitive alternative to traditional fiat currency systems (Li & Whinston, 2020).

Because they provide a more solid option to more established cryptocurrencies, stablecoins—digital currencies linked to reliable assets like fiat currencies—play a crucial role in the cryptocurrency market. According to a study conducted by Ante et al., (2021) that examined 1,587 stablecoin transfers between April 2019 and March 2020, these transfers had a significant impact on Bitcoin's trading volumes and returns. The effects of the transfers varied depending on the sender-recipient dynamics, suggesting that different transfer motives and information asymmetries were perceived by the market. Moreover, a study conducted on 565 stablecoin issuance events during the same time frame revealed that although market downturns usually precede issuances, there are notable positive abnormal returns shortly after, which promote price discovery and improve market efficiency (Ante et al., 2021). Four primary stabilization techniques are used to classify stablecoins, which can be issued by central banks or private organizations. This highlights the crucial role stablecoins play in promoting a reliable and effective trading environment amongst the volatility of the cryptocurrency market (Fantacci & Gobbi, 2021).

2.2. Modern Portfolio Theory (MPT)

Harry Markowitz developed Modern Portfolio Theory (MPT) in the 1950s and suggests diversifying investment portfolios to maximize the ratio of risk to return. By using Mean-Variance (MV) research, MPT highlights market interactions and holistic assessment by encouraging investors to see assets as a component of an overall portfolio. According to Messica, (2018), investor behavior should transition towards a more complete approach to asset management by giving priority to risk concerns above prospective returns when making investment decisions. MPT is particularly relevant in the developing world of cryptocurrencies, offering methods for incorporating virtual assets such as Bitcoin into portfolios to minimize risk and optimize returns. This approach, which emphasizes the crucial role that risk management and diversification play in maintaining long-term investment goals, is still essential for investors navigating the intricate and dynamic world of digital finance (Chen, 2024).
The potential importance of Bitcoin in augmenting diversification and maximizing risk-adjusted returns on corporate balance sheets is underscored by its relevance in the context of MPT. Portfolio diversification techniques can be greatly impacted by the features of Bitcoin, such as its low correlation with traditional asset classes and its potential as an inflation hedge. Because of its extreme volatility and unpredictability in the regulatory landscape, integrating Bitcoin into investing strategies based on MPT principles might be challenging, but it also presents a special chance to improve portfolio efficiency. Because of its low correlation with traditional financial assets, empirical research suggests that adding Bitcoin to diverse portfolios could enhance expected returns and efficiently manage risk (Kajtazi & Moro, 2019). But as Guesmi et al., (2019) point out, adding such erratic assets necessitates thorough risk assessment and a calculated approach to preserve portfolio balance.

2.3. Convertible Bonds

For businesses like MicroStrategy, convertible bonds are a strategic financial tool that combine elements of debt and equity to improve capital structure and lower capital expenses. Due to the attractive conversion feature, issuers are able to offer lower interest rates than those on standard bonds. These bonds have the dual benefits of fixed-income earnings and the potential for equity gains if the stock value rises Finnerty, (2015). Hedge funds, which are adept at managing the risks associated with the dual nature of convertible bonds in the face of credit, interest rate, and stock market fluctuations, are drawn to the bonds' intricate terms, such as conversion ratios and maturity dates (Batten et al., 2018). Convertible bonds also match bondholders' interests with equity investors', which makes them a desirable choice for businesses going through major capital expenditures or strategic transitions like mergers and acquisitions (Dutordoir et al., 2014).

2.4. Cost of Capital

In corporate finance, the Weighted Average Cost of Capital (WACC) is a critical metric that combines the costs of debt and equity financing to calculate an organization's total financing costs. WACC represents the required return rate from all capital sources and is used as a standard for assessing investment prospects. This helps to inform decisions about new initiatives (Cacciafesta, 2015). WACC is a discount rate that is used in capital budgeting to determine the present value of future cash flows (Johnston et al., 2018). Its application in multivariate regressions to assess potential returns highlights its analytical power in market dynamics (Sultana et al., 2019). Conversely, the cost of debt has a direct impact on borrowing costs, which in turn affects a company's capital structure and the proportion of debt to equity (Choi & Lee, 2015; Lemmon & Zender, 2019). Due to its comparatively lower cost, companies may favor debt; nonetheless, a significant dependence might raise the risk of financial distress. Determining loan costs and maximizing capital structure are crucial processes that depend on variables such as interest rates and creditworthiness. The perceived risk of purchasing a company's stock, which is impacted by a number of variables like market volatility and company-specific hazards, is what drives investors' expectations of return, which is reflected in the cost of equity (Cao et al., 2015; Mokhova et al., 2018).

2.5. Company Valuation

In the field of corporate finance, sound company valuation techniques are essential for figuring out a company's intrinsic value, which guides important investment choices and long-term financial planning. Financial experts employ a multidimensional strategy that combines methods like Discounted Cash Flow (DCF) Analysis, which takes growth projections and the time value of money into account while discounting expected future cash flows to present value. Furthermore, Market Multiples Valuation evaluates a company's worth by contrasting it with other companies in the same industry using important financial criteria such as the price-to-earnings (P/E) ratio. The industry, development stage, data accessibility, and valuation goal are some of the variables that influence the choice of valuation techniques. In addition to these techniques, financial ratio analysis provides information about the performance and health of a business, including ratios related to profitability, liquidity, solvency, and efficiency.

2.6. Bitcoin Market Analysis and Valuation Techniques

Because of its finite quantity and decentralized character, Bitcoin poses special valuation issues that call for different analytical frameworks. PlanB's Stock-to-Flow (S2F) Model, which forecasts price increases as supply tightens, highlights Bitcoin's scarcity as a value driver. However, it has drawn criticism for oversimplifying market dynamics. Although it lacks forecasting precision, the Power Law Model is able to discern patterns in the very erratic price movements of Bitcoin, pointing to a distribution with frequent small fluctuations and few large changes. The Bitcoin Cycle Index predicts market movements using cyclical patterns, but its accuracy depends on past trends continuing. Because the market is unpredictable, statistical techniques like the Bitcoin Log Regression, which integrate several data sets to model long-term price movements, are not infallible. The Bitcoin Energy Gravity Model (BEGM) bases price on the assumption that the network's security cost equals its market worth. However, this assumption may be called into question by emerging, less energy-intensive solutions. The Pi Cycle Top Indicator also makes use of the mathematical constant Pi to forecast market peaks, yet its usefulness is questioned because of the scarcity of historical data and other market factors.

2.7. Framework Development

The strategic integration of Bitcoin into MicroStrategy's financial strategy is assessed using the Analytical Hierarchy Process (AHP), which offers a structured framework for decision-making with an emphasis on market perception, risk management, and capital structure optimization (Figure 1). This method evaluates possible effects on the cost of capital by statistically assessing Bitcoin's function as an inflation hedge and its compliance with Modern Portfolio Theory concepts (Chen, 2024). Drawing on research on cryptocurrency risk management, it also examines methods for addressing the volatility and market risks related to Bitcoin (Batten et al., 2018) Furthermore, the methodology uses insights from cryptocurrency market behavior and valuation tools to investigate how the adoption of Bitcoin impacts MicroStrategy's financial stability and investor perception

(Guesmi et al., 2019; Kajtazi & Moro, 2019). AHP facilitates the identification of the most prudent strategic courses of action by means of a weighted analysis, guaranteeing a comprehensive assessment that integrates theoretical understandings and real-world consequences of implementing Bitcoin in corporate finance.

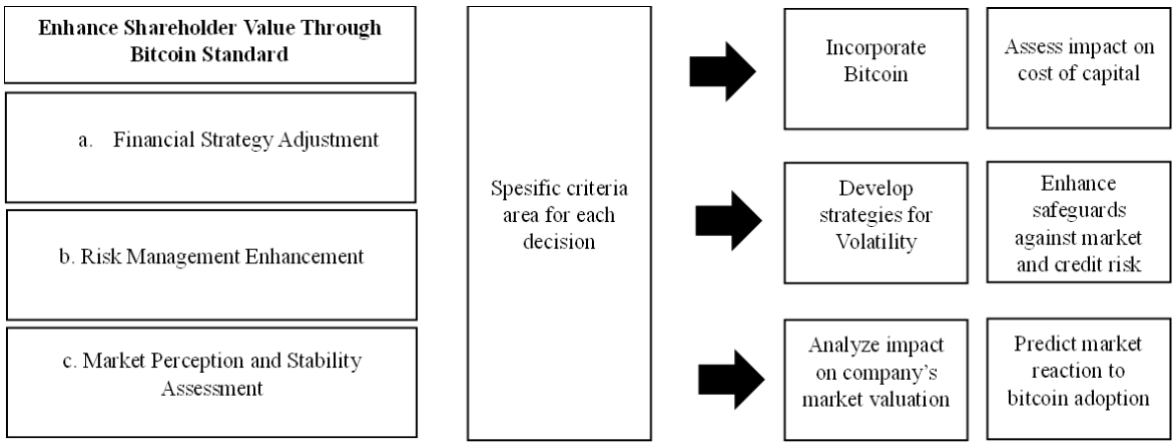

Figure 1: Framework Development

3. Research Methodology

3.1. Research Design

The Analytical Hierarchy Process (AHP) and a qualitative case study approach are used in this study to investigate how Bitcoin might be incorporated into corporate finance strategy as an inflation hedge in the Indonesian context. The qualitative method captures the challenges of integrating this financial technology by offering a thorough analysis of business executives' perspectives and tactics regarding Bitcoin's place in corporate capital structures. Concurrently, AHP is utilized as a numerical instrument to measure and rank the many hazards and advantages linked with Bitcoin, enabling strategic decision-making by ascertaining the relative significance of every criterion via professional evaluations and data gathering.

By contrasting AHP results with important stakeholder interviews, including those with executives and financial analysts at MicroStrategy in Indonesia, this mixed-method approach is further confirmed. This validation guarantees that the results accurately capture the variables influencing the decisions made about the adoption of Bitcoin, giving a strong basis for assessing financial policies in the face of economic uncertainty and useful information for maximizing shareholder value with Bitcoin.

3.2. Data Collection

Purposive sampling is used in the research on the strategic adoption of Bitcoin in Indonesian corporate finance to concentrate on MicroStrategy (MSTR) as a case study. The persons chosen for this study have particular knowledge of how Bitcoin is incorporated into corporate structures (Leavy, 2020). Semi-structured interviews with seven business owners from various industries, including digital software and FMCG, as well as corporate finance specialists were used as data collection techniques. The target companies were those with market capitalizations between USD 1 million and USD 10 million. The purpose of these interviews is to collect a range of viewpoints regarding the justification, advantages, dangers, and effects of Bitcoin on capital structure and shareholder value. The study also examines past stock market and Bitcoin prices in addition to MicroStrategy's financial reports. This adds a quantitative element by highlighting trends and correlations related to the strategy's ability to reduce inflation risks and increase shareholder value. With a comprehensive framework that guarantees findings are grounded in stakeholder perspectives and empirically validated, this combination of qualitative and quantitative data collection methods offers practitioners and researchers studying corporate finance and cryptocurrency adoption practical insights.

3.3. Data Analysis

Primary data is carefully tabulated and coded in the research on the strategic adoption of Bitcoin inside corporate finance in order to make the Analytical Hierarchy Process (AHP) via the Expert Choice Decision Analyst software easier to use. This method organizes the investigation to pinpoint and balance important variables impacting business financial plans about the use of Bitcoin. First, important variables are extracted from the data and arranged in a hierarchical structure that is unique to the incorporation of Bitcoin into corporate finance. After determining the geometric mean of these components, the study ranks the factor weights using the Eigen Vector approach within the AHP, guaranteeing consistency with a Consistency Ratio (CR) less than 0.01. In addition, the study makes use of econometric modeling to investigate how macroeconomic policies, including government expenditure, affect economic indicators over time, such as inflation rates, and how they correlate with business cash flows (Agarwal & Kimball, 2015). In the context of Bitcoin adoption, this quantitative analysis looks for causal correlations between business financial success and economic policy. The study combines results from econometric and AHP analysis to examine how Bitcoin might be used in practice to reduce costs associated with inflation on business balance sheets. In order to thoroughly assess how factors like government expenditure and the adoption of Bitcoin affect business financial strategies against inflation, the final phase synthesizes insights from both models. Its goal is to make clear these relationships and the effects they have on corporate financial resilience.

4. Results And Discussion

The research employs purposive sampling to investigate the strategic adoption of Bitcoin within corporate finance in Indonesia. Purposive sampling is particularly useful in cases where a specific population segment can provide the most pertinent information regarding the research topic. According to Leavy (2017), purposive sampling allows researchers to selectively choose individuals who possess specific experiences or insights relevant to the issue being investigated. The author employed a purposive sampling method to select the respondents for this study. Purposive sampling is a non-probability sampling technique in which the researcher relies on their judgment when choosing members of the population to participate in the study (Etikan, 2016). This sampling method is often used when the research requires a specific set of expertise or knowledge from the respondents (Palinkas et al., 2015). The author purposefully selected respondents based on their expertise, experience, and involvement in the fields of blockchain technology, cryptocurrency, and digital finance. The selection process was not random but rather targeted individuals who could provide valuable insights and contribute to a comprehensive understanding of the research topic.

Educational background was one factor, with respondents having academic expertise in relevant fields, such as those from the Bandung Institute of Technology and the University of Indonesia, chosen to provide theoretical and research-based insights (Campbell et al., 2020). Professional experience was another factor, with respondents having practical experience in the cryptocurrency and digital finance industry, such as co-founders, CEOs, and leaders of startups and established companies, selected to offer hands-on knowledge and understanding of the challenges and opportunities within the field (Margareth, 2017). The author also aimed to include respondents from various institutions, including universities, research centers, startups, and corporations, to ensure a diversity of perspectives and experiences (Robinson, 2014). The inclusion of a researcher from Monash University, Australia, suggests that the author sought to incorporate international perspectives and access to global research in the field (Maxwell & Aggleton, 2016). By purposefully selecting respondents based on these criteria, the author aimed to gather a rich and diverse set of data that would contribute to a thorough understanding of the research topic, ultimately strengthening the validity and reliability of the study's findings.

No.	Respondent Name	Position	Institution
1.	Respondent 1	Lecturer, Inventor of US index	Bandung Institute of Technology
2.	Respondent 2	Entrepreneur, co-founder	Kickavenue & Gongcha.id

No.	Respondent Name	Position	Institution
3.	Respondent 3	Researcher	Blockchain Research Joint Lab, Monash University, Australia
4.	Respondent 4	Co-Founder	Bitcoin Indonesia
5.	Respondent 5	Researcher	University of Indonesia
6.	Respondent 6	CEO	MDI Ventures Singapore
7.	Respondent 7	Co-Founder	Cryptowatch
8.	Respondent 8	Chief Digital startup, E-commerce & Fintech (DEF)	PT. Sharing Vision Indonesia
9.	Respondent 9	Co-Founder	Bull Whale

4.1. Qualitative Analysis

a. Thematic Analysis

The thematic analysis results, derived from interviews with several stakeholders, reveal diverse insights into the strategic use of Bitcoin. A variety of perspectives on how to incorporate Bitcoin into business financial strategies are revealed by the thematic analysis of interviews centered on the strategic usage of the cryptocurrency by businesses, most notably MicroStrategy. Important discoveries show that businesses like MicroStrategy have modified their capital structures to use Bitcoin as a hedge against inflation by employing special debt-financing techniques like "comfortable bonds," which are better understood by professionals in the field. Convertible bonds are used in these tactics as adaptable financial tools that fit a company's debt capacity, which is essential for maintaining creditworthiness and overseeing Bitcoin investments. Because of MicroStrategy's large investment in Bitcoin, changes in the price of the cryptocurrency have a direct impact on the performance of its stock. The possibility of implementing comparable Bitcoin investment tactics in Indonesia is examined, with an emphasis on risk mitigation and optimal Bitcoin allocation to account for local market quirks. Furthermore, the governance structure of a company—which includes voting privileges and stock classification—influences financial strategy and investment decision-making in a big way. The analysis highlights the challenges of incorporating such cutting-edge financial strategies within well-established corporate frameworks by indicating that using a company's balance sheet to manage a Bitcoin investment portfolio could have a significant impact on the portfolio's performance, leverage, and overall valuation.

b. Root Cause Analysis

One of the main obstacles to Bitcoin's limited acceptance in Indonesia, according to the root cause analysis (Table 2), is regulatory ambiguity. According to interviews, corporations are hesitant to use cryptocurrencies because they are unsure of the compliance requirements and possible liabilities resulting from the lack of a complete regulatory framework. The absence of cooperation between different regulatory organizations, such as the financial, tax, and technological authorities, exacerbates this uncertainty by leading to a fragmented regulatory strategy. Further impeding Bitcoin's integration into the Indonesian market are issues including misinformation-fueled unfavorable public opinion, inadequate financial and technological infrastructure, and the perception of Bitcoin's technological limits in comparison to other cryptocurrencies.

Table 2: Root Cause Analysis

Theme	Symptom	Potential Root Cause
Regulatory Uncertainty	- Unclear regulatory framework for cryptocurrencies in Indonesia - Lack of clear compliance requirements for companies	- Absence of comprehensive cryptocurrency regulations and guidelines - Lack of coordination among regulatory bodies (e.g., financial, tax, and technology authorities)
Infrastructure Readiness	- Underdeveloped infrastructure and support systems for integrating cryptocurrencies into the Indonesian financial ecosystem - Lack of custody, custody, and security solutions tailored to the Indonesian market	- Limited investment and development in cryptocurrency-related financial and technological infrastructure - Absence of specialized service providers catering to the needs of Indonesian companies
Stakeholder Perceptions	- Negative public sentiment and lack of awareness/understanding about the benefits and risks of Bitcoin - Reluctance among Indonesian companies to adopt Bitcoin due to potential stakeholder backlash	- Prevalence of negative media coverage and misinformation about cryptocurrencies - Lack of comprehensive educational initiatives to inform the public and business community about Bitcoin and its applications
Technological Limitations	- Perception of Bitcoin's technological stagnation compared to other cryptocurrencies - Lack of confidence in Bitcoin's long-term viability and use cases	- Insufficient innovation and development within the Bitcoin ecosystem - Limited understanding of Bitcoin's technical capabilities and potential use cases
Legal and Fiscal Complexities	- Ambiguity in the legal and tax treatment of Bitcoin and other cryptocurrencies in Indonesia - Uncertainty around compliance and potential liabilities for companies adopting Bitcoin	- Lack of clear guidelines and alignment on the legal and tax classification of cryptocurrencies - Insufficient guidance on accounting, reporting, and tax implications for corporate Bitcoin holdings

Businesses are discouraged from embracing Bitcoin due to legal and fiscal complications, including unclear tax and legal treatment. A more favorable environment for Bitcoin and other cryptocurrencies in Indonesia could be created by addressing these underlying causes through the creation of clear regulations, better infrastructure, public education, and improved technological offerings from Bitcoin. This would mirror strategic adoptions like MicroStrategy's use of Bitcoin as a corporate asset.

4.2. Quantitative Analysis

Applying the Analytical Hierarchy Process (AHP) provides a methodical way to analyze the complex problem of Bitcoin acceptance in Indonesia. AHP allows for weighted comparisons to determine the relative relevance of various variables by organizing them into categories such as risk management, stakeholder views, technology readiness, legal and budgetary considerations, and regulatory environment. This approach, which takes into account the opinions of regulators, business leaders, and decision-makers, makes it easier to comprehend the factors that encourage and hinder the adoption of Bitcoin. By means of comprehensive interviews and AHP analysis, well-informed suggestions for improving the assimilation of cryptocurrencies into Indonesia's financial environment can be developed.

a. AHP Analysis

A structured framework with four main criteria—Stakeholder Acceptance, Optimal Allocation, Risk Mitigation, and Price Trends—has been developed based on insights from interviews to evaluate the adoption of Bitcoin in Indonesian businesses (Table 3). Stakeholder Acceptance sub-criteria include remarks made by decision-makers, investment backing, market reaction, and regulatory framework. Market volatility, diversity, liquidity, risk-reward ratio, and credit rating impact are all examined by optimal allocation. The main components of risk mitigation criteria include diversification, insurance, scenario analysis, and hedging techniques. Price Trends measures how well Bitcoin performs in comparison to market sentiment, price trends, and indexes.

Table 3: Establishment Criteria and Sub Criteria

Theme	Sub-Criteria	Relevant Quotes
Stakeholder Acceptance	Public Statements	"For corporations, it involves many people, both inside the corporation itself and from the outside. Inside the corporation, of course, includes employees, shareholders, and so on." - Chris
	Investor Support	"Given that in Indonesia itself, the adoption of Bitcoin on the retail side is still questioned. So if it's done from a corporate side, in my opinion, it shouldn't be suitable yet." - Chris
	Market Reaction	"MicroStrategy's situation is like an 'infinity money glitch.' They can create debt. And when the price of Bitcoin goes up again, then they can raise new funds." - Chris
	Regulatory and Legal Environment	"The legal and tax complexities related to crypto assets are major considerations for companies in Indonesia before adopting an investment strategy similar to MicroStrategy's." - Overview
Optimal Allocation	Market Volatility	"Speaking from a financial statement perspective, it's actually unhealthy for the company, because the calculation mode is quite biased. When high, it can significantly increase, thus raising its valuation, but when it drops, like what happened to Tesla, it drops a lot." - Jupaka
	Asset Diversification	"Investing in Bitcoin and other crypto assets like Ethereum and NFTs can be part of a diversification strategy to reduce risk." - Dimaz
	Liquidity	"Bitcoin is, in my opinion, the most liquid asset. So, I can sell it to everyone in the whole world..." - Marius
	Risk/Reward Ratio	"Initially, I was into NFTs, then started taking Bitcoin seriously, because it's one of the investment instruments. Now, I consider Bitcoin as one of the digital investment instruments." - Jupaka
	Impact on Credit Rating	"MicroStrategy's situation is like an 'infinity money glitch.' They can create debt. And when the price of Bitcoin goes up again, then they can raise new funds." - Chris
Risk Mitigation	Hedging	"To reduce risk, companies can use contracts or staking, by setting upper and lower limits for when to sell their crypto assets." - Dimaz

Theme	Sub-Criteria	Relevant Quotes
	Digital Asset Insurance	"...if possible, split into 10 wallets, some on exchanges, some in cold wallets, some in resorts, and others, to be safe..." - Jeff
	Scenario Analysis	"MicroStrategy being the first company that issues a bond for their company and buying Bitcoin with those new cash inflow has a risk of leveraging too much...what MicroStrategy is doing has not really a high risk." - Marius
	Investment Diversification	"Investing in Bitcoin and other crypto assets like Ethereum and NFTs can be part of a diversification strategy to reduce risk." - Dimaz
Price Trends	Comparison with Market Indexes	"MicroStrategy, with a Bitcoin supply of 20 million, holds 1 percent of it, and it significantly affects their stock performance. Like what Robert Kiyosaki said, the business of McDonald's isn't selling burgers; it's real estate..." - Jupaka
	Long-term and Short-term Trends	"...next month is the Bitcoin halving, usually the following year is still busy and then it will drop and the year after that it will rise again." - Jeff
	Market Sentiment Analysis	"Major players like MicroStrategy can influence Bitcoin's market price through their speculative actions." - Dimaz

The extensive framework—which was developed through interviews—defines requirements, sub-requirements, and substitute tactics for the adoption of Bitcoin in Indonesian businesses. With thorough explanations and comments from participants, it offers a reliable foundation for assessing the variables influencing Bitcoin integration. While alterantive strategies (Table 4)—from Conservative Allocation to Aggressive Expansion—cater to varying risk appetites and outlooks, criteria such as Stakeholder Acceptance, Optimal Allocation, Risk Mitigation, and Price Trends offer a nuanced approach.

Table 4: Establishment Alternative

Alternative Strategy	Definition
Conservative Allocation	Maintain a cautious approach by allocating a smaller portion of the company's assets to Bitcoin (e.g., 10-20% of cash reserves). This strategy minimizes exposure to Bitcoin's volatility while still positioning the company to benefit from potential upside.
Strategic Diversification	Allocate a moderate portion of assets to Bitcoin (e.g., 20-40% of cash reserves) while also investing in other cryptocurrencies and blockchain technologies to diversify risk. This strategy balances between leveraging Bitcoin's potential and mitigating risk through diversification.
Aggressive Expansion	Significantly increase Bitcoin holdings (e.g., 50% or more of cash reserves), positioning the company as a leader in cryptocurrency adoption among publicly traded companies. This strategy bets on Bitcoin's long-term value proposition and potential for substantial returns.

Based on the provided information, a strategic evaluation of the Bitcoin investment decision has been conducted using the Analytical Hierarchy Process (AHP) method. The criteria considered include Stakeholder Acceptance (23.1%), Optimal Allocation (19.2%), Risk Mitigation (38.1%), and Price Trends (19.5%). The AHP analysis results show that the highest priority is given to Risk Mitigation, followed by Stakeholder Acceptance, Price Trends, and Optimal Allocation. With a Consistency Ratio (CR) of 1.6%, it indicates a reasonably consistent assessment. Overall, the Bitcoin investment decision is considered to have a low level of importance (AHP group consensus: 52.0% low), with the primary focus on mitigating the risks inherent in this investment.

According to the AHP analysis, the most important factor for Bitcoin investments in Indonesian enterprises is risk mitigation (38.1%), which is followed by stakeholder acceptance (23.1%), price trends (19.5%), and optimal allocation (19.2%). The overall perceived relevance of Bitcoin investment is low (AHP group consensus: 52.0% low), with a heavy emphasis on managing associated risks, despite the Consistency Ratio (CR) of 1.6% indicating decent consistency. Meanwhile, Regulatory and Legal Environment (27.8%), Market Reaction (22.8%), Public Statements (17.9%), and Investor Support (31.5%) rank top among Stakeholder Acceptance's sub-criteria, with a CR of 0.2%. Securing investor backing is a top priority, along with addressing regulatory concerns and comprehending market reactions, despite its low importance (AHP group consensus: 52.5% low).

Risk/Reward Ratio (26.7%) is the most important aspect when evaluating investment considerations. Other important factors include Asset Diversification (24.5%), Liquidity (22.7%), Market Volatility (17.5%), and Impact on Credit Rating (8.5%). The importance of prudent risk management and asset allocation is emphasized by this prioritization. Investment diversification (35.3%) is the most prioritized strategy for mitigating risk, followed by hedging (27.7%), digital asset insurance (19.9%), and scenario analysis (17.2%). The AHP group consensus indicates moderate to low agreement on these risk mitigation techniques, even though the CR is still low at 1.8%. The most important factors in price trend analysis are Market Sentiment Analysis (40.7%), Comparison with Market Indexes (33.9%), and Long-term and Short-term Trends (25.4%). Participants' preferences exhibit a large variation (AHP group consensus: 57.7% extremely low) despite a steady CR of 2.3%. This disparity reflects varying reliance on different techniques for interpreting price changes (Figure 2).

Alternative Result

With 51.2% of the total preference, Strategic Diversification is the preferred option in the decision-making framework. This suggests a significant preference for dispersing opportunities and risk through a variety of avenues. Aggressive Expansion, on the other hand, only receives 19.3%, indicating a cautious attitude toward high-risk, high-reward projects. At 29.5%, Conservative Allocation falls in the middle and represents a substantial but cautious approach to resource allocation and capital investment. Overall, this distribution shows that diversity is clearly preferred over aggressive expansion and conservative preservation measures.

Conservative Allocation

The data provided appears to be a set of weighted values assigned to various factors under a "Conservative Allocation" strategy at Level 2, which suggests a hierarchy or a multi-tiered decision-making process. Each factor, ranging from Public Statements to Long-term and Short-term Trends, has been assigned a numerical value, presumably representing its relative importance or weight in the context of a conservative strategic approach. For instance, factors such as the Impact on Credit Rating (0.413194444) and Regulatory and Legal Environment (0.40625) have been assigned higher weights, indicating they are of substantial importance in the conservative allocation framework, likely due to their significant implications for stability and compliance. In contrast, Asset Diversification (0.175694444) and Long-term and Short-term Trends (0.186805556) hold lower weights, suggesting they are considered less critical within this conservative paradigm. Digital Asset Insurance and Hedging also receive a high emphasis, marked at 0.4 and 0.390972222 respectively, pointing towards a risk-averse attitude that prioritizes safeguards against potential financial uncertainties

Decision Hierarchy			
Level 0	**Level 1**	**Level 2**	**Glb Prio.**
Strategic Evaluation of Bitcoin Decision	Stakeholder Acceptance 0.231	Public Statements 0.179	4.1%
		Investor Support 0.315	7.3%
		Market Reaction 0.228	5.3%
		Regulatory and Legal Environment 0.278	6.4%
	Optimal Allocation 0.192	Market Volatility 0.175	3.4%
		Asset Diversification 0.245	4.7%
		Liquidity 0.227	4.4%
		Risk/ Reward Ratio 0.267	5.1%
		Impact on Credit Rating 0.085	1.6%
	Risk Mitigation 0.381	Hedging 0.277	10.5%
		Digital Asset Insurance 0.199	7.6%
		Investment Diversification 0.353	13.4%
		Scenario Analysis 0.172	6.5%
	Price Trends 0.195	Comparison with Market Indexes 0.339	6.6%

Figure 2: Decision Hierarchy

Strategic Diversification

The values outlined under "Level 2 Strategic Diversification" suggest a tiered approach where varying degrees of importance are assigned to each financial and market consideration within the context of a strategic diversification framework. Notably, Asset Diversification is emphasized the most with a weight of 0.432638889, aligning with the core tenet of strategic diversification which aims to spread exposure across various assets to mitigate risk. Investment Diversification and Long-term and Short-term Trends also receive considerable weightings, at 0.365972222 and 0.396527778 respectively, indicating a focus on a broad investment spectrum and an emphasis on understanding market dynamics over time. Conversely, elements such as Hedging, Digital Asset Insurance, and the Risk/Reward Ratio are assigned relatively lower values, suggesting a lesser focus on these areas within the diversification strategy at this level. The moderate weights given to Public Statements, Liquidity, and Scenario Analysis reflect a balanced consideration of market perceptions, financial flexibility, and predictive planning.

Aggregate Expansion

The "Level 2 Aggressive Expansion" data presents a framework for allocating importance to various market and investment factors within an aggressive growth strategy. Categories like Risk/Reward Ratio (0.133333333) and Market Sentiment Analysis (0.11875) are given relatively higher emphasis, suggesting a key interest in the potential high returns associated with higher risks and a keen sense of how the market's mood may present opportunities for rapid growth. Conversely, elements such as Public Statements and Investor Support are assigned the lowest weights (0.072916667 and 0.070138889, respectively), indicating that while these factors are still considerations, they may take a backseat to more direct growth indicators in the aggressive expansion model. Hedging, although typically a defensive strategy, has been given a moderate weight (0.125694444), which could reflect a necessity to manage the increased risks inherent in aggressive expansion pursuits

4.3. Discussion and Implementation Plan

The regulation of Bitcoin in Indonesia has evolved through various laws and regulations. For instance, BAPPEBTI Regulation No. 5 of 2019 states that although Bitcoin is not recognized as a legal means of payment, it is recognized as a crypto asset that can be traded on the Physical Market for Crypto Assets. Additionally, BAPPEBTI Regulation No. 11 of 2022 mandates that crypto assets like Bitcoin must be supervised and guarded by BAPPEBTI through special inspections at least once a year. These regulations reflect the Indonesian government's efforts to regulate the trading and management of Bitcoin, despite the limitations in its use as an official means of payment. Despite the evolving regulations, the adoption of Bitcoin as a corporate asset in Indonesia is still in its early stages, with many companies just becoming aware of the opportunities and challenges associated with managing digital assets (Suraya et al., 2022; Susanto et al., 2021). Factors such as the lack of clear regulations, the perceived complexity of managing digital assets, and limited understanding of the technology among decision-makers have contributed to the slow adoption rate. However, as awareness of Bitcoin's potential benefits increases and the regulatory environment becomes clearer, it is expected that more Indonesian companies will start to consider integrating Bitcoin into their corporate asset portfolios (Wicaksono, 2023).

The quantitative AHP method reveals that risk mitigation emerges as the primary priority (38.1%) for companies considering Bitcoin adoption in Indonesia (Analytical Hierarchy Process Analysis). Companies in Indonesia need to implement robust risk mitigation strategies, such as investment diversification, hedging, and scenario analysis, to minimize the risks inherent in holding Bitcoin. The AHP analysis underscores the importance of strategies like diversification (35.3%), hedging (27.7%), digital asset insurance (19.9%), and scenario analysis (17.2%) in mitigating risk (Analytical Hierarchy Process Analysis). However, the literature suggests that the effectiveness of these strategies may depend on factors such as the company's risk tolerance, investment horizon, and the overall regulatory environment in Indonesia (Symitsi & Chalvatzis, 2018; Suraya et al., 2022). This finding aligns with the literature that highlights the price volatility of Bitcoin and the challenges associated with managing digital assets (Karabulut & Sari, 2022; Susanto et al., 2021).

Stakeholder acceptance, encompassing investors, regulators, and market sentiment, is identified as the second most crucial factor (23.1%) in Bitcoin adoption in Indonesia (Analytical Hierarchy Process Analysis). This resonates with the literature emphasizing the need for investor support (Wicaksono, 2023) and a supportive regulatory environment in Indonesia (Suraya et al., 2022). The AHP analysis highlights the importance of factors such as regulatory and legal environment (27.8%), market reaction (22.8%), public statements (17.9%), and investor support (31.5%) within the stakeholder acceptance criteria in Indonesia (Analytical Hierarchy Process Analysis). Companies in Indonesia must convince stakeholders of Bitcoin's potential and address concerns related to legal and accounting complexities, which are particularly relevant in the Indonesian context due to the lack of clear guidance from accounting standards like PSAK (Anthony et al., 2022).

Bitcoin price trends (19.5%) and optimal asset allocation (19.2%) are also significant considerations in the adoption decision for Indonesian companies, as identified by the AHP analysis (Analytical Hierarchy Process Analysis). The literature acknowledges Bitcoin's potential for long-term growth (Ramadhani, 2022), which could be attractive for Indonesian companies looking to increase their overall return on investment. The importance of

analyzing price trends and market sentiment is also highlighted (as cited by Dimaz in the data), which is particularly relevant in the Indonesian context, where Bitcoin adoption is still in its early stages (Suraya et al., 2022). The AHP analysis further emphasizes the relevance of factors like market sentiment analysis (40.7%), comparison with market indexes (33.9%), and long-term and short-term trends (25.4%) in assessing price trends for Indonesian companies (Analytical Hierarchy Process Analysis). Indonesian companies need to closely monitor price trends and optimize asset allocation by considering factors such as diversification, liquidity, and risk/reward ratios.

The AHP analysis identifies the Strategic Diversification strategy as the most preferred alternative (51.2%) for Bitcoin adoption among Indonesian companies (Analytical Hierarchy Process Analysis). This finding aligns with the diversification principles of Modern Portfolio Theory (MPT) (Kajtazi & Moro, 2019; Messica, 2018) and the literature advocating asset diversification to manage risk (Guesmi et al., 2019), which could be particularly relevant for Indonesian companies navigating the volatile cryptocurrency market. The AHP analysis further emphasizes the importance of factors such as asset diversification (43.3%), investment diversification (36.6%), and long-term and short-term trends (39.7%) within the strategic diversification approach for Indonesian companies (Analytical Hierarchy Process Analysis). Indonesian companies can consider allocating a portion of their assets to Bitcoin while investing in other cryptocurrencies to spread risk.

Although not explicitly discussed in the AHP results, the literature highlights the accounting and financial reporting challenges associated with Bitcoin as a significant hurdle for Indonesian companies (Anthony et al., 2022; Ramadhani, 2022). The lack of clear accounting guidance from PSAK (Indonesian Financial Accounting Standards) can cause Indonesian companies to hesitate in integrating Bitcoin into their financial statements, fearing its impact on reported financial performance. As suggested by (Karabulut & Sari, 2022), the absence of clear accounting standards can reduce comparability between companies and potentially mislead investors, underscoring the need for a comprehensive framework to address this issue in the Indonesian context. The development of consistent accounting standards and regulatory guidance is crucial to ensure transparent financial reporting for Indonesian companies adopting Bitcoin.

The implementation strategy addresses important aspects like infrastructure, education, risk management, legislation, and real-world testing with the goal of promoting the use of Bitcoin among Indonesian firms. Cooperation with financial regulators such as OJK and Bank Indonesia is essential in order to determine Bitcoin's legal status and create tax regulations. Partnerships with industry groups and accounting bodies ensure sectoral alignment. Knowledge transfer initiatives and international custody alliances are necessary to provide secure infrastructure. Education initiatives clear up misconceptions, and accredited training courses and forums facilitate stakeholder awareness. Companies may overcome risks and acquire useful insights by utilizing real-world pilot projects and robust risk management systems. Continual enhancement, overseen by a specialized task force, guarantees flexibility in response to worldwide developments.

While the adoption of Bitcoin as a corporate asset is still in its early stages in Indonesia, other countries have shown a more progressive approach. For instance, in the United States, companies like MicroStrategy and Tesla have made significant investments in Bitcoin, with MicroStrategy holding over 130,000 BTC as part of its corporate treasury strategy (Saundal, 2021). Similarly, several publicly listed companies in Canada, such as Galaxy Digital Holdings and Hut 8 Mining Corp, have also embraced Bitcoin as a strategic asset (Férdeline, 2022). These examples showcase a more advanced level of Bitcoin adoption and provide a benchmark for Indonesian companies to consider as the regulatory and market conditions evolve.

Furthermore, countries like Singapore and Switzerland have established themselves as crypto-friendly jurisdictions, with clear regulatory frameworks and supportive policies for businesses dealing with digital assets. In Singapore, the Payment Services Act provides a licensing regime for crypto businesses, enabling greater transparency and investor protection (Alekseenko, 2022). Switzerland has also taken steps to incorporate blockchain and cryptocurrencies into its legal and regulatory framework, positioning itself as a hub for crypto and fintech innovation (Pavlidis, 2021). These examples demonstrate how a supportive regulatory environment can foster the adoption of cryptocurrencies like Bitcoin within the corporate sector.

5. Conclusion

The world has taken notice of MicroStrategy's courageous decision, spearheaded by CEO Michael Saylor, to use Bitcoin as its main treasury reserve asset. The corporation uses debt instruments such as convertible bonds to allocate cash reserves to Bitcoin in a deliberate manner, citing its superior store of value. MicroStrategy's strategy has drawn mixed reviews, but it may establish a precedent for corporate Bitcoin adoption, which might have an effect on stock price and performance. This plan provides Indonesian businesses with a template for capital restructuring as a means of battling inflation. Improving shareholder value and protecting against inflation are two advantages of customizing it for the local market. In order to successfully implement and establish Indonesian firms as leaders in the invention of digital assets, collaboration among stakeholders is essential.

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