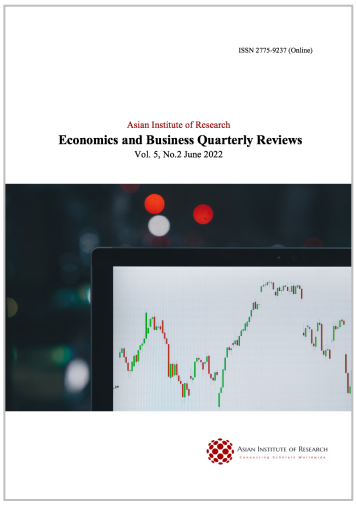

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Corruption and Demography during the COVID-19 Pandemic in Indonesia

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Abstract
COVID-19 pandemic dramatically changed the face of the world, including Indonesia. With more economic relief packages injected into public spending, corruption opportunities have risen, especially under the weakening corruption monitoring system. This article presents significant findings from the survey on the practice of corruption during the pandemic that can paint an understanding of corruption in Indonesia. Two survey rounds were conducted with respondents around Indonesia starting mid-to-end 2020, gathering 2,093 responses. The ordinary least-square (OLS) regression unveils that people who live in rural areas or spend less than the common people tend to commit or be involved in the practice of corruption. People who live in the rural areas or receive less income tend to perform corruption to close the income gap. It is also found that people with higher education levels tend to perform corruption. Higher corruption rents and broad opportunities for power abuse promote corruption in a well-educated society.

Keywords: Corruption, Demography, COVID-19, Indonesia

1. Introduction

The practice of corruption has attracted the interest of academia due to its richness and complexity. While there are still limited studies in Indonesia to comprehend the nature of corruption, many scholars around the world have tried to answer the origin of corruption and its impacts on every segment of life. The practice of corruption can happen both at the national and local level impacting the current socio-economic institutions. Most of the time, the practice of corruption can be treated as a crime, even extraordinary crime in some cases, and may bring severe consequences to society. The phenomenon is not merely a transfer of income from one group of people to another but also a problem based on legality, injustice, and inequality (Monteverde, 2020). Explain using institutional economics paradigm where the corruption is purely rational act to maximize the economic benefits is facing challenges and critics (Hellmann, 2017). Richard Thaler, 2017 Nobel Laureate, unveils another side of behaviour economics where decision making in economy is not purely logical (Barberis, 2018). In his recent work, Zimelis

(2020) suggests using an integrated approach between micro- and macro-level perspectives to understand corruption, rather than a traditional single model.

Corruption behaviour is a global phenomenon and traditionally rooted in the culture of each country. In Greece, the wording of fakelaki translated into a small envelope can refer to the giving of insignificant amount of money, while the same practice is known as pot-de-vin in France that is literally translated as a cup of wine (Alfikala, Sofia, & Henderowati, 2019). From the anthropology viewpoint, Torsello and Venard (2015) suggest that the practice of corruption is not always destructive due to its dependency on morality. For some societies, the practice of corruption is acceptable and socially cohesive. They further argue that moral judgements are culture-dependent, while cultures are diverse and plural. Placing this discourse in a broader context of globalization and neoclassical economics is very challenging for scholars. Legal, ethical, and practical ambiguities are common in understanding the source of corruption (Magyari, 2018).

Albeit very limited studies with the case of corruption in Indonesia, there are notable findings to understand the practice of corruption in the country (Alfikala, Sofia, & Henderowati, 2019; Hamdani, Kumalahadi, & Urumsah, 2017; Ibrahim, Yusoff, & Koling, 2018; Prihanto and Gunawan, 2020; Setyaningrum, Wardhani, & Syakhroza, 2017; Sudibyo & Jiangfu, 2015). Setyaningrum, Wardhani, and Syakhroza (2017) conclude that improving public governance, enforcing transparency, and promoting accountability iareessential to combat the practice of corruption in Indonesia. They suggest that increasing public welfare may increase wealth misallocation and inefficiency in the absence of effective corruption strategies. Sudibyo and Jiangfu (2015) find that the task environment (information and international resources) and institution environment (transparency, fairness, and rules complexity) statistically affects the trend of corruption in Indonesia public sector. Their results confirm the underlying institutional theory that has been widely used in many studies where dysfunction institution would more likely allow individuals to act corruptly. Prihanto and Gunawan (2020) also find almost a similar conclusion that public institutions' quality is a determinant factor for Indonesia's corruption level.

On the other hand, Simonović (2018) also suggests that it is not possible to exclusively observe the practice of corruption in developing countries with deep historical, social, and economic roots (i.e., Indonesia) using the lens of institutional dysfunction. The interactions and interrelations between principal and agent normally found in traditional societies should be used to understand the origin of corruption. Ibrahim, Yusoff, and Koling (2018) observe that the "forgiving" and "forgetful" character in Indonesia culture may impede the eradication efforts for corruption. Communities tend to ignore the track record of their leaders.

This research paper will reveal significant findings from the national survey for corruption conducted in 2020. This survey is the first corruption survey conducted in the time of COVID-19 in Indonesia. The number of respondents for this survey is 2,093, with almost equally distributed around Indonesia. The paper will provide new insights into the practice of corruption during the outbreak in Indonesia and how demographic/economic parameters affect the tendency towards corruption act. Despite of the given definition of corruption in the following section, it should be noted that the respondents will define it very differently. To answer this research's objective, this paper will start by providing a comprehensive literature review outlining the recent studies related to the practice of corruption during the pandemic. It is followed by the hypothesis for this study. Section 2 will show the study methodology, along with the model and its estimation technique. Section 3 will present and discuss the results. And Section 4 will discuss and address some possible research ideas for future works.

1.1 Literature Review

Corruption has several definitions. In classical definition explained by Senturia (1931) who notes that corruption is the misuse of public power for private profit. Same with Senturia, another definition of corruption is the practice of using the power of office for making private gain in breach of laws and regulations nominally in force (Andreski, 1968). Another definition argues that corruption is behavior of public officials which deviates from accepted norms in order to serve private ends (Huntington, 1968). On the other hand, Nye (1978) defines that corruption is behavior which deviates from the formal duties of a public role because of private-regarding (i.e., personal, close family,

and private clique) pecuniary or status gains; or violates rules against the exercise of certain types of private-regarding influence.

In current definition, corruption is the breaking of a rule by a bureaucrat or an elected official for private gain (Banerjee et al, 2012). Based on Indonesia Law No. 31 of 1999 on Corruption Eradication, Corruption is defined as anyone who is categorized as against the law, doing self-enriching, profitable deeds of self or another person or a corporation, abusing the authority or opportunity or means available to him because of the position that can cause financial loss for the country or the country's economy (UU 31/1999, Sec. II).

According to Transparency International, Indonesia's Corruption Perception Index (CPI) plunged from 40 in 2019 to 37 in 2020. Systematic corruptions amid the growing health and economic crisis from COVID-19 pandemic have brought damages to essential public services and inefficient resource allocation (Vrushi & Kukutschka, 2021). Mietzner (2020) observes that COVID-19 crisis in Indonesia has shredded the democracy level leading to poor leadership handling the crisis at the national level. The practice of corruption had injured the public health sector before the crisis and continued to harm the sector during the breakout. Slow and fragmented crisis responses cost Indonesia people their lives. He further argues that deteriorated institutions and weakening controls allow persistent practice of corruption in Indonesia especially for the country's economic relief package for the COVID-19 crisis. The role of monitoring procurement systems for health infrastructure and budget spending is essential to avoid the use of people in power to take advantage of the crisis for their private benefits (Steingrüber et al., 2020). Anti-corruption policies should be designed using specific sector-based intervention so that unpleasant experiences from the Ebola outbreak will not be recurring during the COVID-19 crisis in the low-income countries.

With a total of 695 trillion IDR or 46 billion USD reserved for handling COVID-19 in the country in 2020, 60% were allocated for social assistance, business assistance, and public healthcare (Tempo, 2021). Transparency International observed that monitoring the procurement process was compulsory amid the relaxation of the government's procurement requirements for the public sector during the pandemic. The fact that KPK issued a circular letter No.8/2020 regarding the use of state budget for implementing the procurement process to accelerate the handling of COVID-19 related to the prevention of corruption did not halt the corruption acts completely in the public sector. As early as mid-2020, Indonesia Police had investigated 92 corruption cases on COVID-19 assistances and aids across the countries (Jakarta Post, 2020A). Initial investigation suggested that the main motive was to earn economic benefits from government budgets embezzlement.

Is it a purely economic motive? Hellman (2017) explains that the neo-institutionalist paradigm is best used to describe individuals' preference for corruption in developing and newly industrialized countries in East Asia. Degree of organization, risk profile, and key actors are among the independent variables in institutionalizing corruption acts. Indonesia, his argument, is a playground for "official moguls" corruption. Abuse of power draining public resources and excessive private assets extortion are typical behaviours of corruption behaviour in Indonesia. In 2020, Juliari Batubara, Social Affairs Minister, was alleged the suspect in the corruption of social assistance for COVID-19. The corruption involved his subordinates and costscostnd 12 billion IDR or 0.8 million USD (Jakarta Post, 2020B). Due the fact that Julian Batubara was a member of a political party, journalists alleged that the profits from the corruption flew to other members of the party (Tempo, 2020; Tempo, 2021). Mietzner (2020) observes that Indonesia's vulnerability in handling COVID-19 situation is worsened by the elite's manipulations allowing institutionalized leakage of public expenditure under the weakening controls from the government.

Leadership in Indonesia governmental institutions has not yet been able to prevent and suppress the rate of corruption (Prihanto & Gunawan, 2020). Leaders and government officials are prone to abuse of power leading them to act corruptly for their own benefit. Hamdani, Kumalahadi, and Urumsah (2017) interviewed suspects in corruption. They observed that some suspects performed more than one type of corruption acts. The acts include conflict of interests, bribery, illegal gratuities, and economic extortions. There is no evidence that governmental officials tend to be more corrupt than people working in private sectors. There is not yet a body of research in Indonesia to comprehend the individual motivation for practicing corruption. At the same time, it is evident that macro- or institutional-level perspective shapes the magnitude of corruption in Indonesia.

1.2 Hypothesis

Drawing upon background and theoretically discussed previously, this study tries to understand how demographic/economic parameters, especially for domicile, education, and spending; affect the tendency towards corruption act. Therefore, the following hypotheses are assumed. First, people who live in the urban area are more likely to commit to involving in a corruption. Second, people who have higher education level tend to involve in corruption. Higher corruption rents and more opportunities for power abuse promote the corruption of higher-class society. Third, when it comes to the level of spending, people who spend less are more likely to commit and involved in the practice of corruption. The poverty gap is getting wider during this crisis, especially in lower-class society in Indonesia.

2. Method

This study uses questionnaire data distributed around Indonesia, starting mid- to end of 2020. The data consists of two survey rounds, gathering a total of 2,093 responses. There is no questionnaire received without incomplete information as such that this study used all 2,093 questionnaires for further analysis. The first round gathers 1,560 responses with the respondent's name as one of the variables. Out of 1,560 received responses, 66 questionnaires (4.23%) responds that the respondent has ever committed or been involved in the corruption act during the pandemic. The mean score is 1.95 with a standard deviation of 0.20. Due to the low response rate of committing or being involved in the corruption act, the study conducts the second round and was able to collect 533 anonymous responses. Out of 533 respondents, 41 people (7.69%) confirm committing or being involved in the corruption act during COVID-19. The mean score is 1.92 with standard deviation of 0.27. There is a slight increase in response rate committing or being involved in the corruption rate between these groups – around 3.46%. The result for descriptive statistics is shown by Table 4 for non-anonymous survey and Table 5 for anonymous survey. This suggests that people tend to reveal more of the information if the questionnaire is anonymous. This finding confirms the study of Kasakowskij et al. (2018), that observes that anonymity may provide respondents with an avenue to express themselves without being afraid of social judgment or legal suppression. In most countries, corruption can be regarded as a breach of the rule of law.

2.1 Data

Non-anonymous questionnaires were distributed using surveyors covering all 34 provinces in Indonesia, while anonymous questionnaires were distributed using social media (i.e., WhatsApp Group or Twitter). Therefore, there is an apparent difference in the geographical coverage of the respondents. The percentage of non-anonymous respondents in most provinces is 2.6%, except for Sumatera Utara (5.1%), Jawa Barat (7.7%), Jawa Tengah (5.1%), and Jawa Timur (5.1%). On the other side, there is no anonymous respondent from Maluku Utara. Most anonymous respondents reside in Jawa Barat (14.6%), DKI Jakarta (12.6%), and Riau (10.3%). The survey is designed to target any individual irrespective of their rural or urban domicile, age, education, marital status, or spending yet sufficient to represent each province in Indonesia. That said, this article aims to seek any empirical evidence that can reveal which demographic parameter from an individual that can motivate a corruption act.

Table 1: Distribution of respondents based on the geographic location (province) for both non-anonymous and anonymous survey

Province	Non-anonymous	Anonymous
Aceh	2.6%	2.1%
Sumatera Utara	5.1%	1.9%
Sumatera Barat	2.6%	3.6%
Riau	2.6%	10.3%
Jambi	2.6%	1.7%
Sumatera Selatan	2.6%	0.6%
Bengkulu	2.6%	0.4%
Lampung	2.6%	0.2%

Kep. Banga Belitung	2.6%	0.2%
Kep. Riau	2.6%	3.0%
DKI Jakarta	2.6%	12.6%
Jawa Barat	7.7%	14.6%
Jawa Tengah	5.1%	0.9%
DI Yogyakarta	2.6%	2.4%
Jawa Timur	5.1%	9.9%
Banten	2.6%	2.3%
Bali	2.6%	0.6%
NTB	2.6%	1.7%
NTT	2.6%	2.1%
Kalimantan Barat	2.6%	0.2%
Kalimantan Tengah	2.6%	2.3%
Kalimantan Selatan	2.6%	1.3%
Kalimantan Timur	2.6%	8.1%
Kalimantan Utara	2.6%	0.8%
Sulawesi Utara	2.6%	0.2%
Sulawesi Tengah	2.6%	1.7%
Sulawesi Selatan	2.6%	9.9%
Gorontalo	2.6%	0.2%

Both surveys use the same questions. The difference is the media where the questions are published. The written responses from non-anonymous question were collected. Consequently, the responses gathered the names of the respondent. The remaining eight questions are the same as those for the second survey, but without the respondents' name. Table 2 presents the questions to understand the relation between the practice of corruption and demographic parameters of the respondent.

Table 2: Survey questions for both non-anonymous and anonymous survey

No	Questions	Answers	Variable (Label)
1	Where do you stay?	1 = Urban 2 = Rural	Domicile (DOM)
2	How old are you?	Number	Age (AGE)
3	What is your gender	1 = Male 2 = Female	Gender (GDR)
4	What is the highest degree you have completed?	1 = Never attended formal school 2 = Elementary school 3 = Junior high school 4 = Senior high school 5 = D1/D2/D3 (college) 6 = D4/S1 (bachelor's degree) 7 = S2/S3 (Master's/Doctoral degree)	Education (EDU)
5	What is your marital status?	1 = Single 2 = Married 3 = Divorce 4 = Widow/widower	Marital status (MAR)
6	How much money do you spend monthly?	1 = More than 10 million IDR 2 = 9 – 10 million IDR	Spending (SPD)

		3 = 9 – 8 million IDR 4 = 8 – 7 million IDR 5 = 7 – 6 million IDR 6 = 6 – 5 million IDR 7 = 5 – 4 million IDR 8 = 4 – 3 million IDR 9 = 3 – 2 million IDR 10 = less than 2 million IDR	
7	Have you committed or been involved in the practice of corruption during COVID-19?	1 = Yes 2 = No	Corruption (CORR)

2.2 Unpaired Student's Test

To evaluate whether both data sets can be combined, this research used the unpaired Student's t-test to find the t-value (the difference between the group and population means) of the two data sets (Niroumand, Zain, & Jamil, 2013). It is assumed that there is no dependency between the first and the second surveys - the respondents involved in the first survey did not participate in the second survey. The t-value is statistically calculated using the following formula (Stata, 2015),

$$t = \frac{\underline{x} - \underline{y}}{\left(\frac{s_x^2}{n_x} + \frac{s_y^2}{n_y}\right)^{1/2}} \qquad (1)$$

The null hypothesis (H_0) is that there is no difference between the two data sets. Our alternative hypotheses show that the difference is less than zero (Ha_1), not zero (Ha_2), and more than zero (Ha_3). The result given in Table 3 shows that we can reject the null hypothesis and accept the alternative hypothesis that the difference is not zero ($p<0.001$) and more than zero ($p<0.001$). The first survey data is not a statistically identical data set as the data from the second survey. From this point forward, the study uses two data sets with the non-anonymous data called the non-anonymous survey, and the anonymous data called the anonymous survey.

Table 3: Result of t-test for non-anonymous and anonymous survey

Data set	N	Mean	Std. Err.	Std. Dev.
1 = non-anonymous	1,560	1.95	0.01	0.20
2 = anonymous	533	1.92	0.01	0.27
Difference (diff)		0.03	0.01	
H_0: diff = 0				
Ha_1: diff < 0		Pr (T<t) = 0.9991		
Ha_2: diff != 0		Pr (|T| > |t|) = 0.0017		
Ha_3: diff > 0		Pr (T>t) = 0.0009		

2.3 Model Specification

Corruption in this study is modelled as a relation between demographic parameters of the respondent. The independent variables of our interest include the domicile, age, gender, education, marital status, and level of spending. The linear model is specified as follows:

$$CORR_i = \beta_0 + \beta_1 DOM_i + \beta_2 AGE_i + \beta_3 GDR_i + \beta_4 EDU_i + \beta_5 MAR_i + \beta_6 SPD_i \qquad (2)$$

where $CORR_i$ is the dependent variable measuring the count of individual i who commits or is involved in corruption act, DOM_i is the location where the individual i stays, AGE_i is the age of the individual i, GDR_i is the gender of individual i, EDU is the education level of individual i, MAR_i is the marital status of individual i, and SPD_i is the spending level of individual i.

The regression model using Ordinary Least Square (OLS) regression using two data sets (non-anonymous and anonymous) will be evaluated. Many studies for corruption have used linear model because the results are easy to conclude, and the model allows to evaluate important statistical features such as autocorrelation or causality (Dridi, 2014; Farzanegan & Witthuhn, 2014; Prihanto & Gunawan, 2020; Setyaningrum, Wardhani, & Syakhroza, 2017; Sulemana & Kpienbaareh, 2018).

3. Results

3.1 Descriptive Analysis

Table 4 and Table 5 summarize the descriptive statistics of variables in the study. For the non-anonymous questionnaires, there are more female respondents than male respondents. The mean score is 1.54 with a standard deviation of 0.49. As much as 50.43% of the respondents are female. However, 3.35% of the female respondents have committed or been involved in the practice of corruption during the pandemic. This number is higher (5.25%) for male respondents. For the anonymous questionnaires, as much as 50.47% of the respondents are male. The mean score is 1.49 with standard deviation of 0.50. Although the participation number of female respondents is lower in the anonymous survey than in the non-anonymous survey, this study finds that the percentage of female respondents who commit or are involved in the practice of corruption is lower than male respondent for both surveys.

Table 4: Descriptive statistics for non-anonymous survey

Variable	Value	N	Mean	Std. Dev.	Min.	Max
Domicile	1 if urban, 2 if rural	1,560	1.13	0.33	1	2
Age (in years)	According to the respondent's age	1,560	38.99	13.26	17	81
Gender	1 if male, 2 if female	1,560	1.54	0.49	1	2
Education	1 if less educated, 7 if more educated	1,560	4.24	1.17	1	7
Marital status	1 if single, 2 if married, 3 if divorce, 4 if death divorce	1,560	1.91	0.65	1	4
Spending	1 if more spending, 10 is less spending	1,560	8.27	1.83	1	10
Corruption	1 if yes, 2 if no	1,560	1.95	0.20	1	2

Table 5: Descriptive statistics for anonymous survey

Variable	Value	N	Mean	Std. Dev.	Min.	Max
Domicile	1 if urban, 2 if rural	533	1.22	0.41	1	2
Age (in years)	According to the respondent's age	533	32.08	11.63	17	81
Gender	1 if male, 2 if female	533	1.49	0.50	1	2
Education	1 if less educated, 7 if more educated	533	5.56	1.09	1	7
Marital status	1 if single, 2 if married, 3 if divorce, 4 if death divorce	533	1.53	0.62	1	4
Spending	1 if more spending, 10 is less spending	533	6.83	3.05	1	10
Corruption	1 if yes, 2 if no	533	1.92	0.27	1	2

The survey also finds that the participation of respondents in urban area is higher than in rural area both for non-anonymous and anonymous survey. 87.24% of non-anonymous respondents reside in urban area such as the capital of the province or large city of municipality (kotamadya) or regency (kabupaten). The mean score is 1.13 with a standard deviation of 0.33. The participation of urban respondents is slightly lower for anonymous survey, 78.42%. The mean score is 1.22 with a standard deviation of 0.41. As a matter of fact, this trend is likely to be the same

with the statistics reported by Worldometers that urban population in Indonesia will be 56.37% of total population of Indonesia in 2020 (Worldometers, 2020).

3.2 Correlation Matrix

Table 6 summarizes the correlation matrix for non-anonymous survey while Table 7 for anonymous survey. The matrix includes all demographic variables (domicile, age, gender, level of education, marital status, and level of spending) and the practice of corruption during COVID-19 pandemic. The table for non-anonymous survey shows the level of education is negatively correlated (β=-0.13, $p<0.001$) with the domicile of respondents in both surveys. That said, urban respondents are more likely to be more educated than rural respondents. Due to the fact that economic activities are mostly concentrated in urban areas, it is legitimate to conclude that people with education mostly work in the urban areas. Such identical trend of urban-rural divide is also found in Africa, where the difference determines education inequality (Shan & Stifel, 2003). The domicile of the respondent is positively correlated (β=-0.22, $p<0.001$) with the level of spending (low is more spending, high is less spending) in table for anonymous survey. It means that higher class-society is associated with people living in the urban areas while lower class society with people living in rural areas. Disparity income and spending between urban and rural areas is also found in many studies (Dominik et al. 2017; Nguyen et al. 2020; Ma et al. 2018; Megbowon 2018; Sicular et al. 2008). Various factors ranging from public policy to international trading affect the magnitude of income inequality between urban and rural inhabitants.

Also, this study observes that the level of spending (low is more spending, high is less spending) is negatively correlated with the level of education (low is less education, high is more educated), either both for the non-anonymous survey (β=-0.35, $p<0.001$) and anonymous survey (β=-0.36, $p<0.001$). It means that the more educated the respondents are, the more spending they have. This finding somehow satisfies the classical economic theory of the distribution of earnings by considering that the level of earning is proportional with the level of spending (Becker & Chiswick, 1966). More recent studies considering biases and intertwined between demographic parameters suggest that better education yields a positive impact on the level of earning (Checci & van de Werfhorst, 2018; Heckman, Humphries, & Veramendi, 2019; Wiborg & Hansen, 2018). Thus, it incurs more spending.

Table 6: Correlation of non-anonymous survey

	Domicile	Age	Gender	Education	Marital Status	Spending	Corruption
Domicile	1.0000						
Age	-0.03 0.21	1.0000					
Gender	-0.02 0.2450	-0.12 0.0000	1.0000				
Education	-0.13 0.0000	-0.08 0.0020	-0.05 0.0000	1.0000			
Marital status	0.04 0.1048	0.51 0.0000	0.15 0.0000	-0.08 0.0000	1.0000		
Spending	0.06 0.0102	-0.03 0.1916	0.01 0.6319	-0.35 0.0000	0.0161 0.5255	1.0000	
Corruption	-0.14 0.0000	0.02 0.3587	0.04 0.0631	-0.02 0.3414	-0.01 0.6133	-0.07 0.0031	1.0000

Note: p-values in second row

Table 7: Correlation of anonymous survey

	Domicile	Age	Gender	Education	Marital Status	Spending	Corruption
Domicile	1.0000						
Age	-0.19 0.0000	1.0000					
Gender	0.05 0.2041	-0.08 0.0494	1.0000				
Education	-0.23 0.0000	0.47 0.0000	-0.04 0.5978	1.0000 0.0000			
Marital status	-0.11 0.0094	0.74 0.0000	0.02 0.5978	0.34 0.0000	1.0000		
Spending	0.21 0.0000	-0.55 0.0000	0.08 0.0556	-0.36 0.0000	-0.45 0.0000	1.0000	
Corruption	-0.01 0.9516	0.05 0.2113	0.03 0.4540	-0.01 0.7755	0.07 0.0737	-0.04 0.3191	1.0000

Note: p-values in second row

3.3 Regression Result

The regression results using Ordinary Least Square (OLS) are shown in Table 8 for non-anonymous survey with r-squared value of 3.44%. Independent variables in the model are domicile, age, gender, level of education, status of marriage, and level of spending. The location where respondents stay has an influence on the practice of corruption for the non-anonymous group. The null hypothesis that people who live in the urban area are more likely to commit to involve in a corruption can be rejected. Regression result shows that respondents in the rural area tend to commit or be involved in the practice of corruption during pandemic (β=-0.09, $p<0.001$). This study observes that economic motive can be held accountable to such behaviour especially during COVID-19 pandemic. Their source of income may be reduced or even halted due to lower economic activities.

Table 8: Ordinary Least-Square Regressions of non-anonymous survey

Independent variable	Coefficient	Standard Deviation	p-values
Domicile	-0.09	0.01	0.000
Age	0.01	0.01	0.239
Gender	0.02	0.01	0.055
Education	-0.01	0.01	0.006
Marital status	-0.01	0.01	0.208
Spending	-0.01	0.01	0.001
Constant	2.16	0.04	0.000
No. of observation	1,560		
Prob > F	0.0000		
R-squared	0.0344		
Adj. R-squared	0.0306		

The result of the non-anonymous survey also shows that people with a higher level of education tend to practice corruptions (β=-0.01, $p<0.001$). The null hypothesis that the coefficient that people with high level of education will be likely to practice corruption cannot be rejected. This study cannot, however, find such observation in the correlation matrix as shown in Table 6. It is suggested that well educated people tend to have more access to economic activities as such that the opportunity of doing corruptions is higher. A good quality of education cannot reduce the practice of corruption in Indonesia. Eicher, García-Peñalosa, and van Ypersele (2009) argue that education has twofold impacts on the practice of corruption. An increase in the level of wealth due to a better education can increase corruption rents. On the other side, a better education leads to better efficacy of political participation. It will reduce the tendency of people to re-elect corrupt parties in the government. This sounds

obvious in the resource-rich countries with higher corruption rents. Another study concludes a contrary finding in Thailand. People with higher education attainments are more likely to think that routine corruption is unacceptable (Punyaratabandhu, 2008). Sociocultural aspects can paint this difference despite one can conclude that both Indonesia and Thailand are resource-rich countries.

Another interesting finding is that there is a negative association between the practice of corruption and the level of spending (β=-0.01 $p<0.005$). Corrupt respondents are associated with lower spending. Therefore, the null hypothesis for the coefficient of spending level cannot be rejected. It is observed that the motivation to engage in corruption is purely due to economic reason – to fulfill the respondent's needs because of his lower earned level of income. This study argues that it leads to income inequality. Such income inequality trap is also found in an empirical study for Asian countries (Dwiputri, Arysad, & Pradiptyo, 2018). Higher-income inequality significantly affects the practice of corruption as being observed in the previous studies.

Table 9: Ordinary Least-Square Regressions of anonymous survey

Independent variable	Coefficient	Standard Deviation	p-values
Domicile	-0.01	0.03	0.894
Age	0.01	0.01	0.853
Gender	0.02	0.02	0.470
Education	-0.01	0.01	0.300
Marital status	0.03	0.03	0.256
Spending	-0.01	0.01	0.677
Constant	1.93	0.10	0.000
No. of observation	533		
Prob > F	0.5691		
R-squared	0.0092		
Adj. R-squared	-0.0021		

Surprisingly, no conclusion can be drawn from the anonymous survey (see Table 9). The null hypotheses for the independent variables of domicile, education and spending can be tested. Neither do other independent variables show the same association. The regression result has the r-squared value of 0.92%, lower than the r-squared value for non-anonymous survey. Thus, it is expected to have less association between dependent variable and its independent variables for anonymous survey. However, the association of the coefficient for significance demographic variables identical with the non-anonymous survey. The survey shows negative coefficients for domicile, level of education (low is less education, high is more educated), and level of spending (low is more spending, high is less spending). Despite the respondents have disclosed their identity, the null hypothesis of this study cannot be tested. It is expected that the respondents will be likely to give unbiased feedback as the survey gives them a sense of trust and respect.

4. Discussion

COVID-19 outbreak has worsened the trend of corruption in Indonesia. The study is the first survey to analyse the practice of corruption in the country during the pandemic. Even though it is impossible to reveal the differences before and after the pandemic, this study sheds light on the relationship between demographic parameters and corruption. It is expected that the findings can offer insights and comparisons for future Indonesian corruption studies.

The distortion from response bias in this study is reduced by conducting an anonymous survey. Even though so, this study cannot ensure that the same respondent of one survey does not participate in another survey. The responses from the respondents are higher in the anonymous survey than the non-anonymous survey, 7.69% compared to 4.23%, accordingly. Using Ordinary Least Square (OLS) regression, this study shows three main findings from the survey using the regression model with independent demographic variables. The first finding is that rural respondents tend to commit or be involved in the act of corruption. Secondly, respondents with a higher

level of education are most likely to corrupt. The last finding suggests that a lower level of spending tends to promote the practice of corruption.

Income inequality between rural and urban remains the main force for corruption. Regardless of negative association between education and spending in both surveys (β=-0.35, $p<0.001$ and β=-0.36, $p<0.001$, accordingly), people living in rural areas or with lower spending might commit corruption to close their income gap. Many households might have lost their income during the pandemic. They need to be able to survive through the pandemic. It seems that the effect of government's support to resolve multi-dimensional problems due to COVID-19 pandemic is not yet effective enough by the time this survey is conducted. As concluded by Mietzner (2020), practice corruption cannot be slowed down. There might be a greater interest from the corrupted elites to benefit from the economic relief packages making Indonesia more vulnerable during the time of pandemics. The farther the location is from urban areas where the government is sitting, the weaker the corruption monitoring will be.

This article argues that more educated Indonesians have more access to economic activities that involved high corruption rents. Corrupt officials, either public or private, misuse their power for private gains and perform corruption. There is no doubt that those officials are not well-educated. Hellmann (2017) mentions that those corrupt officials (official moguls) regime makes the corruption in the country more institutionalized. Even though they have with different political views, they share the same strength which comes from their close connection and access from the former 1966-1988's regime to the parliament and government. The practice of corruption is not easy to be eradicated even in such fragmented political landscape like in Indonesia.

It is unexpected that the anticipated response bias in the non-anonymous survey does not provide significant finding. The anonymous survey is expected to eliminate response bias in the non-anonymous survey. The regression result for anonymous survey has weaker strength of association than for non-anonymous survey. Considering that the number of respondents is higher in the non-anonymous survey than in the anonymous survey, it is expected that higher responses in any future studies can effectively resolve such response bias. Respondent participation needs also to be controlled. This research cannot inspect the respondent participation as such that a respondent may participate in both surveys, non-anonymous and anonymous. For further research, it is recommended adjusting model specification with more grounding approaches to describe the origin of corruption and eliminate the distortion of the biases' results. Due to the complex nature of corruption, interdisciplinary studies need to be conducted to understand the intertwined relationship between social, economic, and cultural aspects of corruption in Indonesia.

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