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Jurnal Ekonomi dan Keuangan Islam

EDITORIAL BOARD

Contents

EDITORIAL NOTES
Perspectives on the Islamic Economic and Financial System in the Contemporary World

Covid-19 has been rapidly expanding over the world during the past two years. We have felt and witnessed the effects on our lives and our economy. Not only did we see several nations working together to combat the pandemic, but we were also witnesses to their successes. The more we work together to lessen the damage and stop the spread of new strains, the more confident we get. Let us pray that Allah SWT keeps you and your loved ones safe and healthy. Despite the fact that the pandemic is not yet over, work must continue. The same is true for academic work, such as ensuring that fresh scientific articles are continually available.

The majority of submissions for this issue focused on the challenges faced by IBFIs as a result of the global spread of Covid-19. They discuss the trends in Islamic economics research, the importance of Islamic economics and finance to the modern economy, the performance of institutions and their employees, financial stability, waqf institutions, and the role of Islamic economics and finance in society. Only 12 of the dozen papers submitted for consideration were eventually chosen for publication.

As usual, each manuscript will have to pass an initial review from our editor(s) before forwarding it to suitable reviewers. Some manuscripts would have to go through several rounds before being accepted. The reviewers' feedback was taken into consideration to provide the final decisions. Following that, the manuscripts would have to pass the editing stages, including proof-reading and layout, where our editor(s) will intensely communicate with the authors if needed. It is to ensure that each published manuscript has undergone a quality check.

This issue cover a wide range of topics in Islamic economics and the modern financial system. The first article examines the impact of the Bank Indonesia Certificate *(Sertifikat Bank Indonesia - SBI)* and the Bank Indonesia Sharia Certificate *(Sertifikat Bank Indonesia Syariah - SBIS)* as monetary instruments on the Indonesian economy. The data suggest that the SBIS variable has a considerable impact on economic growth, but the SBI has little effect on the Indonesian economy. This conclusion shows that the Indonesian monetary authorities should explore using SBIS as a tool to assist economic growth rather than SBI.

The second article examines the gender norms of a marginal community in Aceh, Indonesia, using their economic adaptability as traditional female parking attendants. It makes an effort to specifically refute the framing of previous studies, which frequently claim that the regular gender practices of the marginal Muslim community do not provide sufficient opportunities for a woman's autonomy. The essay demonstrates how women from a marginal community use agency concept to create and reinterpret gender relations in their

sociocultural space. The findings also highlight the ambivalences and contributions of gender practice within the marginal Acehnese group to the expansion of gender equality discourse in Muslim communities.

In the following row, Latief and Sandimula study the accountability of the National Zakat Agency *(Badan Amil Zakat Nasional - BAZNAS)* in managing zakat in North Sulawesi's three chapters and sub-chapters. The findings indicate that the institutions have not fully met the accountability requirements for zakat administration outlined in Law No. 23/2011, as evidenced by the failure to fulfill four areas of accountability. The findings could be used to improve BAZNAS in North Sulawesi and throughout Indonesia.

In the next row, Munandar et al. explore how Muslim lecturers' feelings of privacy and security influence their e-trust and e-loyalty when using video conferencing. The mediating effects of e-trust and the moderating effects of consumer creativity on the link between e-trust and e-loyalty are also investigated. Individuals' perceptions of their own online privacy and security were found to have a significant and positive impact on e-trust. E-privacy, like e-trust, has a significant positive impact on e-loyalty, but e-security has no impact. Moreover, e-trust may mitigate the impact of privacy concerns on e-loyalty, but not the impact of security concerns. Customer innovation, on the other hand, was unable to control the relationship between e-trust and e-loyalty. The research findings have implications for e-trust and consumer creativity in the e-loyalty model.

The following paper by Akbar et al. analyze the efficiency of Indonesia's national zakat groups. This data was collected from publicly available financial records at DMU. In this work, Data Envelopment Analysis (DEA), an output-oriented method, was utilized to optimize output given a fixed input. The researchers did a literature review to decide which factors to employ. Tobit regression was employed in accordance with the results of Maximum Likelihood (ML) to examine the factors involved since the efficiency value (dependent variable) is a score between 0 and 100. The data show a small shift in the effectiveness of zakat institutions across the observation period. Size and population density are two more major criteria in determining efficacy. As a result, zakat groups must sustain and extend their patrons' support. The findings are intended to help with zakat literature study.

In a review of Islamic values-based digital ethics, Saputra et al. strive to explain the problem of pervasive consumer data theft and the significance of online consumer data privacy. This study takes a qualitative approach, studying a range of books, journals, papers, and other credible sources before examining them with content analytic methods. According to the findings of this study, good cybersecurity will first and foremost secure consumer data. Second, ethical behavior based on Islamic values has the potential to curb criminal activity and data breaches against consumers. According to Islam, data privacy is a fundamental right that must be protected collectively. The precautionary

principle of stakeholders is thus the key to combatting crime and breaches in the digital environment.

Next, Setiawan and Alim present an additional topic regarding Islamic charity. In this essay, the authors analyze the role of Islamic charitable organizations in Indonesia and offer advice on how to spot signs of fraud. According to the ACR technique, the likelihood of fraud is greater at Badan Amil Zakat Nasional (BAZNAS), Dompet Dhuafa (DD), Institut Zakat Indonesia (IZI), Lazis Muhammadiyah (Lazismu), and Baitul Maal Muamalat (BMM) (11-30 percent). The evaluation of disbursement speed is outside the scope of this study because there is insufficient information from online searches and financial reports. Using the RHA method, RZ (RHA 13.8%) was the only institution with a RHA greater than 12.5%; this suggests a higher risk of fraud due to the institution's responsibility being skewed more toward its own interests than those of non-amil *mustahik*. This study helps to fill a gap in the literature by providing an overview of how money is used in Islamic charitable organizations and fraud indicators.

In the subsequent section, Widarjono et al. discuss how sectoral financing concentration affects the profitability of Indonesia's Islamic banks. The findings support the cointegration evidence, which shows that the dependent and independent variables have been linked for a long time. The findings demonstrate unequivocally that sectoral financing concentration makes Islamic banks more profitable. Furthermore, Islamic banks lose money because they lend too much and have a large number of defaulted loans. As a financial sector, the success of Islamic banks is dependent on favorable economic and macroeconomic conditions, such as high economic growth and low inflation. Based on these findings, Islamic banks must hire skilled workers who are experts in related economic sectors. This is one of the primary goals of Islamic bank financing.

Following this, an article by Huda et al. that asses the Islamic stock index's returns and performance both before and after the outbreak. From April 2019 to March 2020 (pre-Covid-19) and April 2020 to June 2021 (post-Covid-19), data was gathered from the Jakarta Islamic Index (JII), the Indonesian Sharia Stock Index (ISSI), and the Jakarta Islamic Index 70. (JII70). According to the statistics, these indicators performed better in Covid-19 than in previous years. The independent sample test revealed that there was only a statistically significant difference between the ISSI index returns before and during the Covid-19 periods. The findings imply that the sharia indices analyzed in this study could gain an increase in average return and a reduction in risk by adopting Covid-19. Analysts projected that rising prices would boost the profitability of sharia stocks, beginning with those of BRI and extending to ANTM, INCO, EMTK, and the banking industry.

Subsequently, Novrizal et al. investigate whether financial leverage, management ownership, profitability, business size, and the Islamic Social Reporting Index impact the firm value of Jakarta Islamic Index firms. All of the

financial leverage, managerial ownership, profitability, business size, and Islamic Social Reporting Index factors had a positive influence on firm value at the same time. Furthermore, the partial test revealed that each independent variable had a positive influence on firm value. The research suggests and represents the importance of Islamic social reporting not only in achieving social responsibility for enterprises but also in improving their value, especially for those listed on the Islamic index.

Meanwhile, Khalilurrahman and Mubarrak employ a *maqashid* technique to analyze the structure and performance of retail green sukuk (Sukuk Tabungan) in Indonesia. The results suggest that Sukuk Tabungan may help in the pursuit of the SDGs since it is fashioned in line with *maqashid*, which sidesteps Sharia-compliant methods in order to carry out *mashlahah*. Since the revenues would be used only to support green initiatives in an effort to speed up the SDGs, it has a strong possibility of being issued despite having a lower coupon rate and being smaller in size than Sukuk Ritel. Furthermore, the five targeted projects of the *sukuk al wakalah* seem to place the issuance of this Sukuk squarely within the imperative level, or *dharuriyat*, of the *Maqashid* framework, in line with the Islamic legal maxims "harm is to be eliminated" and "avoidance of harm takes precedence over the attainment of benefit."

Lastly, Hamsa and Romly examine the factors that influence the preference of the Acehnese for Micro-Wakaf Bank, using literacy level, personal preference, religious affiliation, and financial motivation as research variables. The results show that Islamic financial literacy is significantly influenced by individual choice, religious belief, and the presence of a business incentive. Despite 52 percent Islamic financial literacy for micro-waqf banks and their involvement in the expansion of micro-scale enterprises, public support for micro-waqf banks remains low as compared to Islamic banks. The result will have the practical repercussions for micro-waqf banks in the sense that the general public will be more inclined to choose micro-waqf banks for their commercial activities as literacy rates continue to rise.

I would like to take this occasion to convey my appreciation to everyone who has contributed in any manner to the journal's daily operations, including the editors, reviewers, and administrative staff. I would also like to invite practitioners and scholars working on Islamic economics and finance to submit innovative research articles. For questions or inquiries, please contact us at: jurnal.share@ar-raniry.ac.id.

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THE EFFECT OF SBI AND SBIS AS MONETARY INSTRUMENTS ON THE INDONESIA ECONOMY

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ABSTRACT - As a developing nation, Indonesia uses Gross Domestic Product (GDP) as a measure of economic expansion. To maintain a high GDP, however, it is necessary to address a number of issues, including inflation, interest rates, and exchange rates. In an effort to resolve the issues, monetary operations, including the use of the Bank Indonesia Certificate *(Sertifikat Bank Indonesia - SBI)* and the Bank Indonesia Sharia Certificate *(Sertifikat Bank Indonesia Syariah - SBIS)* instruments, were carried out. These instruments should theoretically provide a positive effect on the economy. This study aims to determine the impact of the SBI and SBIS instruments on the economy of Indonesia. Data were obtained in a time series format from the Statistics Indonesia *(Badan Pusat Statistik - BPS)* and Bank Indonesia websites. It was interpolated on a monthly basis and analyzed using the VAR VECM method to determine short-term and long-term effects. The findings show that the SBIS variable has a significant impact on economic growth, whereas the SBI has no effect on the Indonesian economy. This result suggests that the Indonesian monetary authorities should consider using SBIS as a tool to support economic growth rather than SBI.
Keywords: GDP, Indonesia, monetary policy, SBI, SBIS

ABSTRAK – Pengaruh SBI dan SBIS Sebagai Instrumen Moneter terhadap Ekonomi Indonesia*. Indonesia sebagai negara berkembang menjadikan Produk Domestik Bruto (PDB) sebagai indikator pertumbuhan ekonomi. Namun untuk mempertahankan PDB yang tinggi, terdapat beberapa masalah diantaranya inflasi, suku bunga maupun nilai tukar. Untuk mengatasi persoalan tersebut secara moneter, dilakukan operasi moneter diantaranya dengan menggunakan instrument SBI dan SBI. Secara teoritis, kedua instrument harus memberikan dampak positif terhadap pertumbuhan ekonomi. Karenanya penelitian ini bertujuan untuk mengetahui dampak instrument SBI dan SBIS terhadap perekonomian Indonesia. Data penelitian dikumpulkan dalam bentuk time series dari situs BPS dan BI. Data tersebut diinterpolasi secara bulanan dan dianalisis dengan metode VAR VECM untuk menemukan dampak SBI dan SBIS pada periode jangka pendek dan jangka panjang. Hasil penelitian menunjukkan adanya dampak yang signifikan variabel SBIS terhadap pertumbuhan ekonomi, sementara SBI tidak berdampak signifikan terhadap perekonomian Indonesia. Implikasi temuan ini adalah otoritas moneter harus lebih mempertimbangkan SBIS dibandingkan SBI sebagai instrumen operasi moneter guna mendukung pertumbuhan ekonomi.*
Kata kunci: PDB, Indonesia, kebijakan moneter, SBI, SBIS

INTRODUCTION

A country's economic development is typically characterized by economic growth, with GDP (Gross Domestic Product) serving as the indicator. The goal of development is to achieve economic prosperity through full employment and an optimal growth rate (Chapra, 2000) so that it may achieve prosperity (*falah*) in this world and the hereafter.

GDP measures the quantity of goods and services consumed or produced as an indicator of economic growth. However, in order to achieve a high GDP, several macroeconomic issues must be addressed, including high interest rates, high inflation, rupiah (exchange rate) depreciation, and low economic growth (Boediono, 2014). These various macroeconomic issues require a variety of policies, both fiscal and monetary, aimed at achieving economic stability.
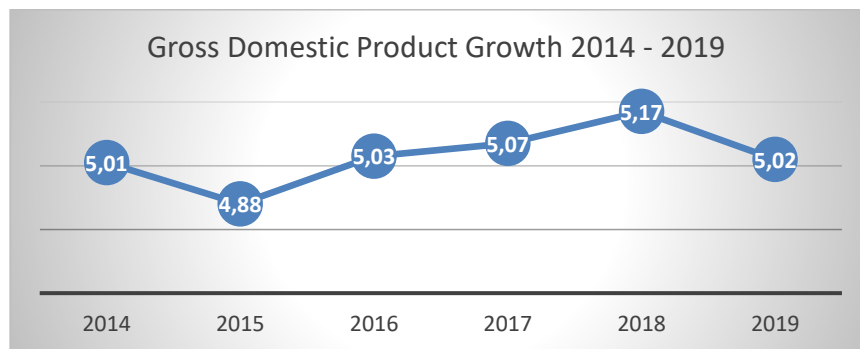
Figure 1 GDP Growth in 2014-2019
(Source: Official Statistics News BPS)

According to the BPS's Official Gazette of Statistics, Indonesia's economy grew 5.02 percent in 2019, which is clearly lower than the 5.17 percent growth achieved in 2018 (Badan Pusat Statistik, 2020).

According to the World Bank's Indonesian economic report, the slowdown in Indonesian economic growth was caused by, among other things, a significant decline in commodity prices, political uncertainty prior to the announcement of the new cabinet, and total consumption also slowed, including a significant slowdown in government consumption and also weak domestic demand due to large import volume contraction. The weakening of the Indonesia economy is also caused by the deterioration of the global trade exchange rate, with many challenges confronting the global economy (Bank Dunia, 2019). However, as

shown in the graph above, the Indonesian economy remains stable despite GDP growth rates in the 5% range. This demonstrates that the government has implemented various policies aimed at achieving economic stability in Indonesia.

The Indonesian government employs economic policies to maintain economic stability. The government's intervention in terms of affecting economic growth, in which Indonesia adheres to monetary policy with the Dual Banking System, namely conventional and sharia monetary policy. Monetary operations with instruments such as the BI rate as the interest rate issued by BI, Open Market Operations (OPT) as the buying and selling market for government securities, and Bank Indonesia Certificates (SBI) as debt recognition securities are used for implementation. Meanwhile, sharia monetary policy exists in the form of Sharia Monetary Operations (CSOs), which include instruments such as sharia open market operations (OPTS), a market for government securities with sharia principles, sharia term deposits, and Bank Indonesia Certificates with Sharia Principles (SBIS), which are also securities with sharia principles as a benefit.

SBI and SBIS are monetary instruments that are frequently used to assess the impact of Indonesian monetary policy on economic growth. Ayuniyyah and Ascarya (2010) proved the negative influence exerted by SBI and SBIS on the pace of the Indonesia economy. It's just that SBIS has a significant effect, but not with SBI. Ascarya (2012) revealed that for the national economic growth, the negative influence was owned by SBI while the positive influence was owned by SBIS. Likewise, Asnuri (2015) revealed that SBIS had a significant negative impact on short and long-term economic growth.

Syapriatama (2017) stated that Islamic monetary policy and Islamic banks have a significant impact on economic growth. He used SBIS to represent Sharia monetary policy, and he believed that the bonus level of this SBIS indicated a shift toward Bank Indonesia policy, either loose or tight. Tambunan and Nawawi (2018) revealed that through the granger causality test, GDP and SBIS have a two-way causality relationship that influences each other, and SBIS as a monetary policy instrument significantly influences the economy. Whereas Wibowo and Mubarok (2018) stated that SBI and SBIS had a negative effect on economic growth. According to this, the monetary and banking authorities must pay close attention to enhancing national economic growth through monetary instrument policies (Ibrahim, 2011).

This research is necessary because there are some differences in the results of research between SBI and SBIS on the rate of economic growth and little empirical research on the effect of SBI and SBIS on economic growth. The VAR VECM method was used in this scientific study. This method is appropriate for testing monthly time series data and can see the long-run stability of the SBI and SBIS variables on economic growth.

LITERATURE REVIEW

Economic Growth

A country that increases its output can be defined as economic growth, which is characterized by an increase in the number of goods and services as measured by the value of its Gross Domestic Product. Based on current and constant prices, this output value is a percentage measure of economic growth. A change in GDP value reveals a particular period of output quantity with the concept of economic growth in one period, as follows:

$$Gt = \frac{(GRDPt - GRDP\ t-1)}{GRDP - 1} \ x \ 100\% \tag{1}$$

Classical and Neoclassical Economic Growth Theories

Classical economic growth theory regarding the optimal population has explained the link that exists between the number of employees and the level of output, or GDP, where the best circumstances of growth will occur when total production grows as the number of workers increases. As a refinement of these classical theories, Solow's neoclassical growth theory assumes that the level of technology and the rate of depreciation are constant, as well as a constant rate of population growth, and that there is no export-import, no government sector, and that the entire society in the region has jobs. According to Romer, the technology factor is also an endogenous component of economic growth since individuals may possess and use technology without paying expenditures. Schumpeter also argued that entrepreneurship truly defines a region's economic progress. He went on to say that among business individuals who have the capability and creative stability to execute innovations and fresh and new ideas in terms of production, varied procedures, and management. According to Harrod-Domar, increasing capital investment is crucial since it increases production (Jhingan, 1996).

Monetary Policy

The government adopts monetary policies in the monetary sector in terms of monetary stability as well as economic growth through measures that impact interest rates and money supply in order to manage the money supply in society. There are three sorts of money circulation principles in the offer: M1, M2, and M3. M1 is a small range of money supply that comprises banknotes and coins, demand deposits or savings in commercial banks, and checks. M2 is considered a wide money supply, which includes M1 and quasi money, which include commercial bank deposits and time deposits. For M3 this is a term for money that has a wider circulation with M2 coverage and term deposits contained in other financial institutions outside of commercial banks (Melitz & Martin, 1971).

Classical Thoughts about Monetary Policy

The classical figures say that real interest rates cannot be influenced by monetary policy, but are influenced by real investment and real savings (Melitz & Martin, 1971). According to the classics, the central bank regulates the circulation of money through monetary policy by printing new money or boosting the most significant financial institutions in trade banks, lowering credit interest rates so that loans grow huge. Price hikes, nominal wage rates, nominal interest rates, and nominal national income will all be affected. Nonetheless, as a price impact defined by inflation, this money printing program has no effect on the value of real wage rates, real interest rates, and real income in society. This strategy can raise the money supply in the economy, which boosts aggregate demand and prices. While interest rate policy will have an impact on savings and nominal investment, the real value still has no effect.

Keynes's Thoughts about Monetary Policy

According to Keynes, the basis of economic issues is quite complicated, with money playing a significant part in driving economic activity, but also other elements. According to him, active monetary policy easing or tightening will have an impact on short-term real economic growth, while price developments would be impacted in the medium to long term (Twinoburyo & Odhiambo, 2018; Ibrahim, et. al, 2021).

The existence of a policy of decreasing interest rates to zero percent will result in an endless condition on the elasticity of money demand. In this instance, the public has no motivation to retain securities as a result of future profit speculation. They will believe that as a result of this approach, interest rates would surely rise and will never go below zero percent. As a result, no one will buy since they want to keep their cash. This results in perfect elasticity in the demand for money, resulting in the Liquidity Trap.

This event gave rise to monetary policy as a means of stabilizing the economy which was considered better than fiscal policy for the following reasons (Melitz & Martin, 1971):

a. The monetary policy does not cause crowding out problems
b. The decision making the time needed to implement the policy is not too long and adjusted to the economic problems at hand
c. The policy imposes a burden on the community in terms of interest and debt payments made by the government.

The variables that have changed in the implementation of monetary policy are interest rates and money supply. The central bank carries out open market operations and makes revisions to the minimum reserve ratio in terms of having an effect on the money supply or called money supply. For interest rates, the central bank uses the Bank Rate as its instrument. The determination of these two policies both interest rates and the money supply cannot be carried out at once because each of these policy variables will have an impact on other policy variables. It is the central bank's responsibility to choose between interest rates and money supply under its control and supervision. In reality, sustaining interest rates through the money supply would result in huge changes in national revenue as well as swings in economic activity (Twinoburyo & Odhiambo, 2018). However, if the money supply is controlled through monetary policy, it will have a large impact on economic stability.

The main instruments used by central banks in monetary policy, namely:

a. Open market operations, where this policy comprises easy and tight money policies;
b. Discount rate;
c. Reserve requirement;
d. Moral suasion.

Iqtishoduna's Thought: Islamic Monetary Policy

This flow views that there is a perfect elasticity in the money circulating among the people. The government in this case who holds the monetary authority cannot give effect so monetary policy is not needed. This viewpoint is based on the early history of Islam, when the financial system was essentially non-existent and money was used infrequently. Only the government and traders employ credit as promissory notes, which are also used as an instrument of agreement, rendering the system incapable of realizing the function and formation of money. These newly issued securities will be utilized in product transactions and to raise additional cash, making loans impossible. Even though the creditor sells these securities, the debtor who purchased them is not permitted to sell them. This is when money does not generate speculation or financial markets. In Islam, the balance between money flows and genuine flows (goods and services) can be maintained by outlawing gambling, usury, and superficial promissory note trade operations. The existence of this regulation has an impact on the balance of the goods and money markets, resulting in the automatic creation of monetary policy instruments as a result of the government's application of the system to the activities of consumption, savings, and investment, as well as trade transactions and, ultimately, social welfare. According to this flow, the community conducts economic activity due to the reward of Allah SWT so that many people invest and distribute wealth through Islamic philanthropies (Karim, 2010).

Mainstream Islamic Economic Thought: Islamic Monetary Policy

Metwally, a prominent person in this school of thought, stated that money in circulation was completely controlled by the state as a monopoly power in creating official money, in this case, the central bank. The Baitul Mal was the precursor of a modern central bank during the Prophet's time. The central bank is in charge of creating currencies and keeping exchange rates constant under stable price levels. And this monetary control is carried out in order to increase the leverage of current resources on economic production. They suggest that the idle fund's dues may be utilized as an instrument to affect aggregate demand, which attempts to promote the pace of growth of national income.

Monetary instruments in organizing monetary regulations, namely (Chapra, 2000):

a. Growth Target of Money Supply and Primary Money. This target must be re-analyzed at a predetermined time based on the performance of the economic performance and also the trend of other important variables that are trending. The growth of money circulation is closely related to the growth of base money (high-powered money) as a currency in circulation as well as central bank deposits, so that the availability of base money is also the growth must be regulated by banks. The base money is used productively;

b. *Giral* Money, where the use of demand deposits by the government in terms of financing projects for social;

c. Reserve requirements, where these reserves will assist the banking system in ensuring the security of deposits in the form of deposits and liquidity security;

d. Credit Restrictions, where credit limits are required by commercial banks to ensure the consistency of total credit creation in accordance with the monetary target so that prudential principles need to be carried out for the realization of a healthy bank;

e. Credit Allocation has an orientation to the value of the social benefit;

f. Moral Suasion, which is very important to work together between commercial banks so that power can be maintained and banking problems can be resolved.

Alternative-Critical Thinking of Islamic Economy: Islamic Monetary Policy

According to these figures, the monetary policy system is executed through a *syuratiq* process, in which the monetary authority and real authority deliberate on a decision or policy in order to develop a monetary instrument as a kind of harmonization between the two authorities. Given that monetary policy is a recurring game in game theory in the shape of a supply and demand curve for money, which has a positive slope as a result of knowledge created by the process and the exchange of information extremely effectively. The existence of harmonization between policies in the monetary sector and the real sector, according to Choudhury, will show an interaction of the demand curve and supply of money and then it harmonizes with the growth of national income (Karim, 2010).

METHODOLOGY

The method used in this study is a quantitative research method with a Vector Autoregressive (VAR) VECM model. This VAR method was first proposed by Sims in around 1980 (Gujarati, 2003). This model was chosen because it is thought to be capable of capturing economic events in this study. The extent of the influence of the short-term and long-term relationship between SBI, SBIS, and GDP as indicators of Indonesian economic development from 2014 to 2019 may be examined using the VAR VECM approach. The data utilized are time-series data taken from BPS and BI statistics reports, with data interpolated into monthly intervals. This approach is appropriate for assessing monthly time series data and determining variable stability over time. EViews 10 was utilized to do the cointegration test with the VAR VECM technique.

The testing stages of the VAR VECM method for this analysis test are:

1. Stationary test as a proof of the stability of each variable used with the value of Augmented Dickey-Fuller as the value of the test criteria;
2. Test to determine the optimal lag length to determine the length of the period duration of a variable that is influenced by the previous period variable and other variables;
3. The cointegration test is used to get the possibility of a long-term equilibrium relationship between variables. This test is carried out as a further test from the stationary test. This test is using Johansen's co-integration test;
4. Granger causality test to check whether there is a causal relationship between two variables (Tanjung & A. Devi, 2013). In this study, namely between SBI, SBIS, and GDP.

The flowchart of this analysis using the VAR VECM method can be seen in the figure as follows:
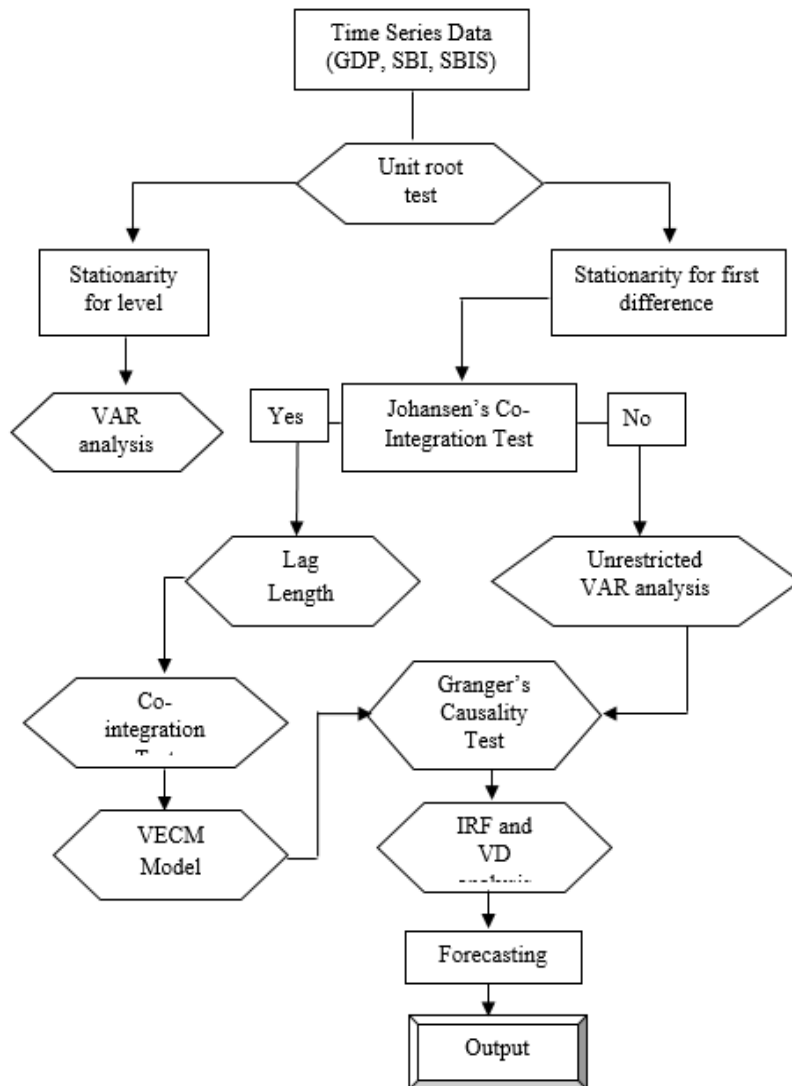
Figure 2. Flowchart of the VAR VECM method

Equation models that can be built to see the effect of SBI and SBIS on Indonesia's economic growth in this study can be seen as follows:

$$GDP = \propto + \beta_j \sum_{j=1}^{60} GDP_{t-j} + \gamma_j \sum_{j=1}^{60} SBI_{t-j} + \delta_j \sum_{j=1}^{60} SBIS_{t-j} + \mu_{1t} \qquad (2)$$

Where:

GDP   = Indonesia's Gross Domestic Product as an indicator of economic growth in percent

SBI   = the growth value of Bank Indonesia Certificates in percent units

SBIS = the value of the growth of Bank Indonesia Certificate in Sharia principles in percent

RESULTS AND DISCUSSION

Progression of Indonesia's Economy

Indonesia, being one of the most populous countries in Southeast Asia, has a relatively consistent economic development. This is demonstrated by the growth rate, which is in the 5% range. The graph below shows the country's rate of growth:
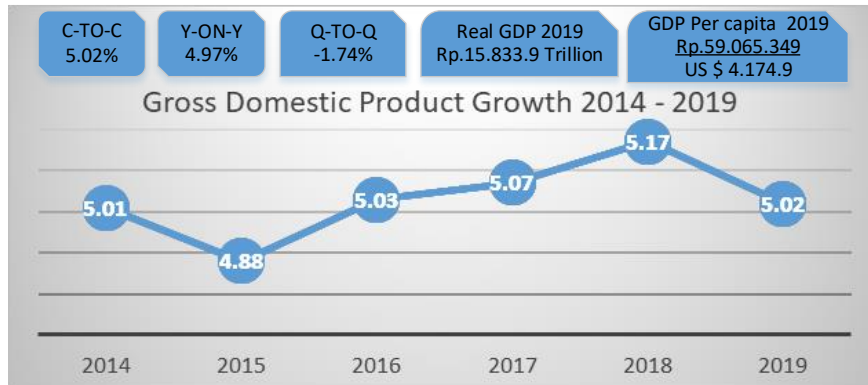
Figure 2. Indonesia's GDP growth in the 2014-2019 period
(Source: Badan Pusat Statistik)

The graph above shows that the Indonesian economy's growth rate has increased from 2014 to 2019. This indicates that the Indonesian economy has been steadily growing. From 2016 to 2018, Indonesia's economic growth rate was in the 5% area, indicating economic stability. The Indonesian economy is expected to contract in 2019. This is due to both internal and external forces. Global geopolitical conditions, international commodity prices, national agendas such as General Elections, and changes in the harvest season, as well as the presence of macroeconomic variables such as the rupiah exchange rate, which experiences shocks or depreciates, all have a significant impact on the Indonesian economy. The global economy also affects the condition of the Indonesia economy, such as the uncertainty surrounding US-China trade tensions, as stated by the World Bank.

Progression of SBI and SBIS in Indonesia

The SBI and SBIS, as monetary policy instruments, play a key role in the country's economic development. Indonesia, in particular, features a dual banking system, namely the conventional system and the sharia system. SBI is a monetary tool for traditional policies that serves as a model for banks using traditional methods. SBIS, on the other hand, is a monetary instrument for sharia monetary policy that serves as a reference for banks that employ the sharia system. According to Widodo (2017), Islamic monetary policy in the context of a dual monetary policy can help to reduce price level volatility in Indonesia.

The SBI and SBIS exist to control the quantity of money in circulation in the society. If the quantity of money circulating in the community is substantial and would have an influence on growing inflation, the BI, as the monetary policy authority, will intervene through banks using the SBI and SBIS instruments. It is one way to raise the role of Islamic banking in the economy if this policy becomes an economic policy that may positively improve the assets of Islamic banks (Mifrahi & Theory, 2020; Nadia, Ibrahim, & Jalilah, 2019). The following is the development of the SBIs and SBIS in Indonesia.

	2014	2015	2016	2017	2018	2019
— Sertifikat Bank Indonesia Syariah	8.130,0	6.280,0	10.787,6	10.017,0	8.215,0	10.436,0
— Sertifikat Bank Indonesia	88.898,5	32.300,0	94.581,5	-	47.826,0	71.180,0
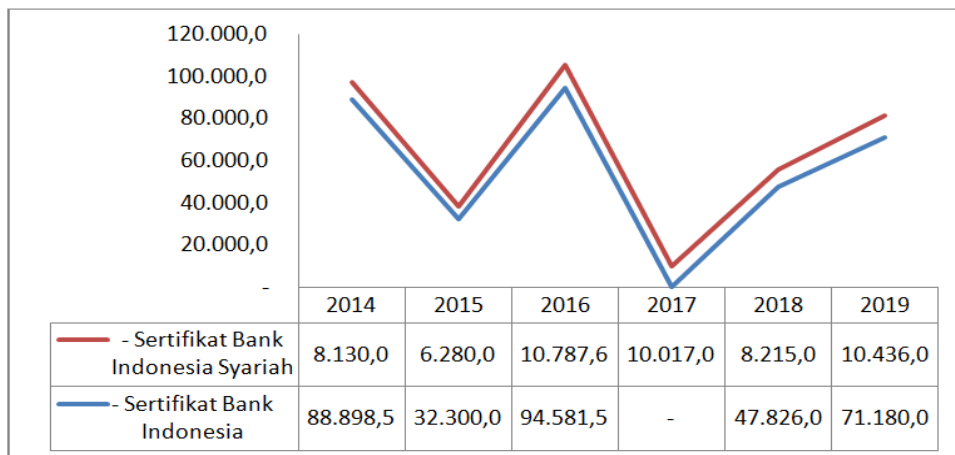
Figure 3. The Progress of SBI and SBIS in the 2014 - 2019 period
(Source: SEKI Bank Indonesia data processed)

We can notice a growth in the value of SBI and SBIS in the graph above. This shows that people are beginning to trust SBI and SBIS as monetary measures to help the economy recover. For the movement of SBI itself in 2017, it is equivalent to zero due to the BI policy to deactivate SBI at that time due to a

significant number of foreign investors in SBI, which is feared to have an influence on market instability, both monetary and real. As a result, the Bank of Indonesia (BI) released a Certificate of Bank Indonesia Deposit (SDBI) for domestic investors. However, around mid-2018, BI revived SBIs in order to preserve market liquidity (Nisak & Ibrahim, 2014).

Research Results

Time series data is declared to be stationary if it does not contain unit-roots. According to Gujarati, the time series data is said to be stationary with the condition that it has a constant average and variance throughout the period and will move stably without seeing the movement of positive or negative trends (Tanjung & A. Devi, 2013). This stationary test was performed using the Augmented Dickey-Fuller method, which compared the calculated ADF value with the Mackinnon critical value. The data to be tested is at the first level of differentiation. The following are the ADF test output results in a broad outline:

Table 1. Stationary Test Results

Variable	Unit Root	Augmented Dickey-Fuller test statistic	MacKinnon 5% Critical Value	Probability	Concl.
PDB	Level	-0,611877	-2,910019	0,8598	No stationary
	First Difference	-10,966540	-2,910019	0,0000	stationary
SBI	Level	-3,644236	-2,903566	0,0072	stationary
	First Difference	-9,699431	-2,904198	0,0000	stationary
SBIS	Level	-5,491900	-2,904848	0,0000	stationary
	First Difference	-13,976530	-2,904198	0,0001	stationary

(Source*:* Data processed by EViews 10)

The components of GDP, SBI and SBIS, and zakat are stationary at the 1st difference level with alpha 5% seen as stationary. The interpretation of stationary results is as follows:

a. In the GDP variable, it can be seen that the probability value at the 1st level difference value is 0.0000 smaller than alpha 5% so it is concluded that the GDP is stationary.
b. The SBI variable can be seen as the probability value at the level of 1st difference, which is 0.0072 smaller than alpha 05% so it can be concluded that the SBI is stationary.

c. In the SBIS variable, it can be seen that the probability value at the level
    of 1st difference, which is 0.0000 smaller than the alpha value of 5%, so it
    is concluded that the SBIS is stationary.

The next stage is determining the optimal lag with the following results:

Table 2. Optimum Lag Length Test Results

Lag	LogL	LR	FPE	AIC	SC	HQ
0	0	243,9674	NA	1,21E-07	-7,414381	-7,314025
1	1	286,6597	80,1302	4,29E-08	-8,451068	-8,049642*
2	2	294,404	13,82066	4,47E-08	-8,412432	-7,709938
3	3	310,7035	27,5837	3,59E-08	-8,630731	-7,633467
4	4	319,0095	13,28965	3,70E-08	-8,615678	-7,311045
5	5	336,2382	25,97549	2,91E-08	-8,868867	-7,263165
6	6	359,2227	32,53194*	1,94e-08*	-9,299160*	-7,392389

(Source: Data processed by EViews 10, 2020)

In this method, the optimum lag length test is determined by suggesting the
smallest values in FPE, AIC, SC, and HQ in the presence of asterisks. The
optimum lag test acquisition shows the optimal lag length is 6. The asterisks
are seen in almost all criteria in lag 6. This means that the influence of SBI and
SBIS variables on economic growth will experience the optimum point at lag
6.

The next stage is the cointegration test to find out the existence of long-term
relationships in non-stationary components. This shows that, although each
component is not stationary, a linear combination of all variable components
will produce a stationary residual. Johansen's cointegration method was used
in this test with the following results:

Table 3. Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0,05 Critical Value	Prob.**
None*	0,435742	48,76662	29,79707	0,0001
At most 1	0,124932	12,14304	15,49472	0,1502

Trace test indicates 1 cointegrating eqn(s) at the 0,05 level

*denotes rejection of the hypothesis at the 0,05 level

**MacKinnon-Haug-Michelis (1999) p-values

(Source: Data processed by Eviews 10, 2020)

This can be seen from the test results that the probability trace statistic is 0.0001 which is smaller than the alpha level of 5%. So, it can be concluded that there is cointegration among SBI, SBIS, and GDP.

Table 4. Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0,05 Critical Value	Prob.**
None*	0,435742	36,62358	21,13162	0,0001
At most 1	0,124932	8,541039	14,2646	0,3263

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0,05 level

*denotes rejection of the hypothesis at the 0,05 level

**MacKinnon-Haug-Michelis (1999) p-values

(Source*:* Data processed by EViews 10, 2020)

It can be seen that the maximum probability Eigenvalue is 0.0002 which is smaller than the confidence level α = 5%. So, it can be concluded that there is cointegration among SBI, SBIS, and GDP.

Johansen's cointegration test shows that there is a long-term relationship between variables (cointegrated) that form a linear relationship. The results show that the SBI, SBIS, and GDP used in this study have a cointegration relationship. It can be said from the results of the cointegration test that SBI, SBIS, and GDP have a stable or balanced relationship even the similarity of movement in the long run. Every short-term period, SBI, SBIS, and GDP tends to adjust to each other in achieving their long-term equilibrium. Because it was cointegrated, the test was continued with the VECM method.

Based on stationary and cointegration tests, the relationship between SBI, SBIS, and GDP is stationery and equilibrium in the long term so that causality analysis can be carried out and will show valid and reliable results. This causality analysis uses the Granger method. The results of the causality test in this study are as follows:

Table 5 Granger's Causality Test

Null Hypothesis	F-Statistic	Prob.	Remarks
SBI does not Granger Cause GDP	3,04703	0,0239	It has a one-way causality from SBI to GDP
GDP does not Granger Cause SBI	2,2517	0,0745	
SBIS does not Granger Cause GDP	2,56625	0,0475	It has a one-way causality from SBIS to GDP
GDP does not Granger Cause SBIS	1,93508	0,1167	

SBIS does not Granger Cause SBI	1,6238	0,1805	It has no causality
SBI does not Granger Cause SBIS	1,49086	0,2168	

(Source*:* Data processed by EViews 10, 2020)

The results of the above can be known:

1. SBI probability value on GDP is 0.0239, and the value is smaller than α = 5%. While the probability value of GDP on SBI is 0.0745 and the value is greater than the level of confidence α = 5%. Then it can be concluded that SBI and GDP have unidirectional causality, i.e. there is causality from SBI to GDP. It can be seen from the results that the SBI variable is statistically significant in influencing GDP. On the other hand, GDP is not significant in influencing SBI. Therefore, it is concluded that there is a one-way causality from SBI to GDP;

2. SBIS probability value on GDP is 0.0475 and the value is smaller than the level of confidence α = 5%. While the probability value of GDP in SBIS is 0.1167 and the value is greater than the level of confidence α = 5%. Then it can be concluded that SBIS and GDP have directional causality in which the direction of causality from SBIS to GDP. Also, the results above show that the SBI variable statistically significantly influences GDP. However, on the contrary, GDP did not significantly affect SBI. Thus, it is concluded that there is one-way causality from SBIS to GDP;

3. The probability value of SBIS on SBI is 0.1805, and the value is greater than the level of confidence α = 5%. And the SBI probability value on SBIS is 0.2168 and the value is higher than the confidence level α = 5%. Then it can be concluded that there is no causality between SBIS and SBI.

VECM Estimation Result

Table 6 VECM Estimation Result

Variable	Coefficient	Standard Error	T Statistics
SBI	-0.044892	0.02609	-1.72054
SBIS	-0.791886	0.12052	-6.57084
C	0.002707		

(Source*:* Data processed by EViews 10, 2020)

Based on the estimation results for the long term, SBI has a negative but not significant relationship to GDP. Whereas SBIS has a significant influence with a negative relationship to GDP. In times of rising SBIs and SBIS, this will reduce Indonesia's GDP. This result is certainly in accordance with research by

Wibowo and Mubarok research that SBI and SBIS have a negative influence on economic growth, therefore, the need for the seriousness of attention by monetary and banking authorities needs to be given to monetary instrument policies to support increasing national economic growth (Wibowo & Mubarok, 2018).

Discussion

The findings indicate that SBIS has a considerable impact on Indonesia's GDP. It shows the impact of the SBI and SBIS on the economy across short and long time periods. As a result, the importance of SBI and SBIS as monetary policy instruments can have an impact on GDP, which is an indication of economic growth. The government's monetary policy should be on target in order for the economy to stabilize and society to thrive. With the negative association between SBI and SBIS factors on the Indonesian economy, public money are shifting from the monetary to the real sectors. It may be concluded that individuals prefer to invest in the actual sector rather than the monetary sector. It is necessary for government policy to provide fresh air to the public to invest funds in the monetary sector and to move the Indonesia economy in the hope of economic stabilization.

The conformity of these results with research by Asnuri, Tambunan, and Nawawi shows SBIS has a significant effect (Asnuri, 2015; Tambunan & Nawawi, 2018). Menawhile, 'Ayuniyyah shows that SBI and SBIS have a negative influence on Indonesia's economic, where SBIS has a significant influence but differs from SBI (Ayuniyyah, Q. & & Ascarya, 2010). Although, the results are also in accordance with Ascarya showing that SBI has a negative influence on economic growth, the discrepancy of this study with the results for the variable SBIS in which the results of this study SBIS has a negative influence on economic growth even though the Ascarya shows SBIS has a positive influence on economic growth (Ascarya, 2012). Even Asnuri from his research found that SBIS has a negative effect on economic growth in the short and long term (Asnuri, 2015). This result was also shown by Syapriatama's research in which SBIS responded negatively to the economy (Syapriatama, 2017).

CONCLUSION

This research was conducted by showing that the most influential factor between the Bank Indonesia Certificate and Bank Indonesia Sharia Certificate on Indonesia's economic growth in the period from 2014 to 2019. From the tests conducted, there was a negative influence of SBI but not significant to the Indonesia economy and there was a negative influence of SBIS which is significant to Indonesia's GDP. This proves that sharia monetary instruments are more influential than conventional monetary instruments. As a result, there is a need for government monetary policy that may pique the public's interest in investing in the monetary sector, so accelerating economic growth.

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SUBALTERN AGENCY AND ECONOMIC RESILIENCE OF MARGINALIZED COMMUNITY IN ACEH

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ABSTRACT - This article examines the gender practices of a marginal community based on economic resilience among traditional women parking attendants in Aceh, Indonesia. It specifically aims to challenge the framing of prior scholarship, which generally states that the daily gender practice of the marginal Muslim community does not provide ample room for a woman's autonomy. The data was collected using semi-structural interviews and non-participatory observations of ten traditional women parking attendants in Langsa, Aceh. Using the concepts of agency, the article shows the way the women of marginal community formulate and redefine gender relations in their socio-cultural sphere. Finally, the finding shows the ambivalences and the contribution of the gender practice within the marginal community in Aceh over the enrichment of gender equality discourse in Muslim societies.

Keywords: Agency, gender practice, women resiliency

ABSTRAK – Agensi Subaltern dan Resiliensi Ekonomi Kaum Marginal di Aceh. *Artikel ini membahas praktik gender komunitas marjinal berdasarkan resiliensi ekonomi perempuan petugas parkirt radisional di Aceh, Indonesia. Secara spesifik, studi ini bertujuan menantang pembingkaian kesarjanaan terdahulu yang mayoritas menyatakan praktik gender sehari-hari komunitas Muslim marjinal tidak memberi ruang memadai terhadap otonomi perempuan. Data dikumpulkan melalui wawancara semi terstruktur dan observasi non-partisipatoris terhadap sepuluh petugas parkir perempuan tradisional di Langsa, Aceh. Hasil analisis dengan konsep agensi, tulisan ini memperlihatkan cara dimana perempuan pada komunitas marjinal memformulasi dan meredefinisirelasi gender dalam ruang sosio-kulturalnya. Temuan kajian juga memperlihatkan ambivalensi dan kontribusi praktik gender dalam komunitas marjinal di Aceh terhadap pengayaan wacana kesetaraan gender dalam masyarakat Muslim.*

Kata Kunci: *Agensi, praktik gender, resiliensi perempuan.*

INTRODUCTION

This paper examines the gender practices of marginalized communities based on everyday form of economic resilience among Muslim women's traditional parking attendants in Langsa, Aceh, Indonesia. The paper starts from the argument that women's gender practices describe the articulation of agencies that are formed through the intersectional relationship between agents and structures (Archer 2017; Misra and Akins 1998; Sewell Jr 1992; Stacki 2008). In line with Anthony Giddens (1984), the gender practices of women is not only formed by the structures, but also formed the social structures. The agency's articulation reflects their socio-economic position in their social environment (Ahmed 2019). Articulated agencies besides reflecting empowerment, (Briones 2009; Kabeer 1999; Mishra and Tripathi 2011), submission, (Chapman 2016; Mahmood 2005, 2006) critical compliance (Rinaldo 2014) as well as resistance (Ansor and Amri 2020; Bilge 2010; McNay 2000, 2008) towards the surrounding structures, also describes their strategy to resilient in overcoming the challenges they faced (Ibrahim, 2012).

The gender practice of traditional parking attendant challenges the framing of scholars who argue that Muslim women in marginalized communities are subordinated to patriarchal culture (Barlas 2002; Mir-Hosseini 2006; Mohanty 1984; Okin 1999). The women are considered to have less autonomy over themselves. Socio-cultural conditions and economic pressures experienced are considered to make them weak in dealing with patriarchal culture (Nussbaum 2000). The subordination occurs in multi-layered aspects (Al-Amin and Mathbor 2019). Therefore, Okin (1998, 1999), Butler (1997, 2004), Benhabib (1992) and McNay (2000, 2004), state that women's autonomy can only be obtained if women are able to resist the shackles and social structures that restrain them.

While some of these views are accepted, this paper presents a different argument. Although the majority of women in Muslim societies live in a patriarchal culture, they always have a way of articulating agency and resilience when faced with adversity (Mohanty 1984; Spivak 1988). According to Willemse (2007) women are active subjects in compiling the narrative of their respective lives and social practices. Although they cannot avoid the pressure of a patriarchal structure, they have resilience either through adaptation, negotiation, resistance or a combination of the various variants of the agency.

As stated by Siapno (2000), agency ambiguity is something that cannot be denied by its role in shaping women's gender practices.

The gender practice among Muslim women as parking attendants in Langsa demonstrates the experience of economic resilience. The concept of resilience is broadly understood as the capability of individuals to imitate, adapt or mobilize their resources to overcome a crisis, or even in an effort to remove obstacles in achieving the desired goals (Hutcheon and Lashewicz 2014; Nystad 2014). The concept of resilience in this discussion is combined with the concept of agency and explores aspects that influence the formation of gender practices for marginalized women and show their capability to overcome their problems.

It is recognized that the profession of parking attendants in most cities in Indonesia is identical to men's job. Parking management in malls, hotels, or even apartments in big cities is relatively not facing the problem of gender segregation. However, traditional parking jobs in some small towns are dominated by men. Aniningsih (2015) identifies parking attendance with images of masculinity, thuggery, or conflict and violence due to struggles for territory. Therefore, the everyday narrative of the traditional female parking attendants in Langsa is useful for re-discussing the construction of gender relations among Muslim communities (Kamri, Ramlan, & Ibrahim, 2014).

This paper uses the concept of positional identity to discuss gender practices and the formation of women's identities in marginalized communities. According to Hollandet.al. (1998) the concept of positional identity refers to situations where daily routines and interactions in certain social spaces form individual identities. Positional identity is something that is fluid, temporary (Appiah 1994; Korsgaard 2009) and strongly influenced by the style of power relations that occur in it (Lefebvre 1991). Discourse on power, status, and privilege systematically circulate among individuals in interacting with the surrounding environment. At any time, the individual always renews his position and identity as a form of self-negotiation on a dynamic structure (Hoffman, Tierney, and Robertson 2017).

In line with Willemmse (2007), Holland et al. (1998) state that the individual is an active subject in "drawing the world" and reproducing the "third space". According to them, "drawing the world" means that someone connects his experience to a wider context, that is the events that occur in other parts of the

world. At the same time, a person also holds his experience, agency, and individual awareness as something unique, that is a response to what happens in the context of his locality (Usman et al., 2020). In other words, drawing the world is an individual's capacity to reproduce social identity according to the spatial context on the one hand and the capability to relate it to other events that occur in the world on the other hand. Positioning social practices as part of events that occur in the world is one form of agency articulation (Rinaldo 2014).

The concept of third space is used to discuss the convergence of various histories in which personal history cannot be articulated in its original version but forms a new knowledge (Bhabha 1994, 1998). The actor redefines his position in the spatial context in which he is located. The third space is a hybrid identity formed as a result of negotiations between the self in an imagined version by considering the empirical reality and the surrounding structure (Bhabha 1998). The women's narrative identity of marginalized communities in this study is analyzed by emphasizing how women imagine the ideals that are expected and negotiate with the reality of the patriarchal space to form gender practices as hybrid identities according to their social environment.

RESEARCH METHOD

Qualitative methods are used to explore the problems posed in this article (Creswell 2007; Maykut and Morehouse 1994). In line with that, an ethnographic approach was chosen to detail observations on empirical data which were then used as the basis for arguing (Ariff 2012; Spradley 1979). As stated by Berger and Luckmann, knowledge is often understood according to the social, historical, and cultural context surrounding it (Berger 1969; Berger and Luckmann 1966). This paper acknowledges that the meaning of social practice is derived according to its socio-cultural context: the social environment in which the subject under study performs daily activities. Therefore, the practice of marginalized women's gender is trying to be understood as a social interaction that takes place continuously in creating meaning, negotiating mainstream understanding, and promoting new conceptions that are adapted to the personal experiences of participants that take place in their respective work environments (Ansor and Amri 2020; Okin 1998, 1999).

This research was conducted in Langsa, an administrative city located about 434 kilometers from Banda Aceh, the capital of Aceh province, and about 166

kilometers from the city center of Medan, the capital city of North Sumatra province (Ansor 2014a, 2014b). The places where women work as parking attendants at Langsa dominate some parking areas, such Merdeka Square, Mayor's Hall Area, Teuku Umar Street, and Ahmad Yani Street. It should be added that although the recruitment of women as parking attendants at Langsa is carried out at the local government's initiative, women's participation in this work occurs voluntarily. The phenomenon in Langsa is relatively different from several other cities in Aceh where traditional parking attendants are dominated by men. Based on information from CV Trans Langsa (a company that manages traditional parking), the number of traditional parking attendants in Langsa during 2022 is 166 persons consisting of 83 men and 83 women. Women parking attendants in Langsa generally come from marginal economic backgrounds, the aged rank to 20 and 60, are married or ever been married, and rely on income as traditional parking attendants for their basic livelihood.

The primary ethnographic data were collected in 2017, and additional data were completed in 2019-2022 through semi-structured interviews (Smith 2001), on-participatory observations (Gillham 2008) as well as casual group conversations (Emerson, Fretz, and Shaw 2001). The sampling technique used to select ten women as participants in this study is a purposive method, that is, by targeting sample diversity based on specific variables such as age diversity, duration of work as traditional parking attendants, social background (ethnicity or regional origin). Non-participatory observations were carried out by observing the daily activities of several female parking attendants during their work. Meanwhile, casual group conversations were conducted with 2-5 parking attendants to chat casually on the sidelines of work activities in a relatively short duration, about thirty minutes to one hour. The topics of discussion include but are not limited to research issues.

All participants were informed that the interviews were part of an academic study and were open to publication (Bernard 2006). We are do not hide our identities as researchers. Before the interviews, they also received sufficient information regarding the freedom to continue and discontinue their participation in this study. We recorded the interviews with the permission of the informants. In addition, all the names of the female study participants were withheld (Creswell 2007, 141–42). Likewise, other social identities presented in this study were disguised to ensure that participants were not affected by things not needed (Dawis 2010).

Data analysis was carried out thematically guided by research questions that had been used in interviews. Although the thematic analysis adopted in this study is usually used in research that uses the realism paradigm in exploring the experiences of the subjects studied (Aronson 1994; Roulston 2001), Braun and Clarke (2006) argue that the same method can be used in both essentialist and constructionist research. According to Braun and Clarke (2006), thematic analysis in a constructionist framework is still used to assemble theoretical interpretations of the socio-cultural and structural contexts that shape the individual social practices studied.

RESULTS AND DISCUSSION

The research results are presented in several subdiscussions. First, the researcher explores the biographical narrative of female participants related to the background of being a female parking attendant. The author tries to show the intersection between structures and agents in influencing the course of their lives, so they choose this profession. The second subdiscussion identifies gender practice as a form of women's capability in redefining identity in their new social space. The third sub-discussion explores how female research participants negotiate between their domestic roles as mothers or wives and their professions as parking attendants. The author also explores their efforts to ensure that 'all pearls' (family and work) remain within their grasp.

Research Participant and the Making of Subaltern Agency

The social practice of female parking attendants shows an intersectional relationship with the surrounding structure. Becoming a parking attendant is not an option without a bargaining process. The said social practice reflects a model of agency formed in its social space (Lucas 2018). As it will be shown, their background in pursuing the profession of parking attendant is not motivated merely by the economic needs but also as an effort to gain autonomy or recognition in their respective socio-cultural environment.

The participant's decision to become a female parking attendant, according to Michel Foucault's perspective indicates the practice of "discursive resistance" to gender construction that has been established in society (1980). They reject the mainstream framing of women's jobs, like cooking, or jobs that are limited to females. They choose jobs that they think are more appropriate, though it is against gender segregation and normality in society. The chosen profession implies a rejection of the definition of some people regarding the dichotomy of

gender identity based on work, especially the framing of the traditional parking attendance as a male profession.

They show various ways of expressing their rejection of the framing that the profession of parking attendance profession is a male monopoly. NL (27 years old), a wife with three children, rejects this view. Even though she works as a parking attendant at the fish market area in Langsa, she considers this profession more appropriate for her than working as a household assistant. NL does not deny that the job assessment as a household assistant is more suitable for women in general. However, she prefers a job as a parking attendant over a household assistant, because apart from ensuring more independence in time management, it can also generate daily incentives. According to him, "working as a parking attendant can earn you money every day, but being a household assistant must wait at the beginning of the month after the employer gets a salary" (interview with NL). Independence over time and daily income are one of NL's ways of the articulating agency.

The ethnographic data show that even though the reason for pursuing the profession of female parking attendance is due to the urgency of economic conditions, they still have autonomy over their decisions, they still have autonomy over the decisions they make (Musa et al., 2021). To the writer, ML (40 years old) told that she has been working as a female parking attendant for a decade and a half. In 2003, her husband passed away, leaving three children. Her economic condition worsened after she lost a figure who previously became the backbone of the family's economy. The job as a daily laundry worker is not sufficient for daily needs. Therefore, to a connection who works as a staff at the transportation service, she asked for a job as a parking attendant. Leaving her old job to pursue a profession as a parking attendant is a way in which ML renegotiates the boundaries of gender segregation.

Other participants, MR (45 years old) and RT (34 years old), had a similar experience: becoming a parking attendant was an independent decision without coercion, despite realizing that the decision had limitations. Both have a husband, but the husband's income is insufficient to meet the family's economic needs. It is prompting him to choose a job as a parking attendant. MR, a wife with five children, said that her husband was a casual daily laborer and had no fixed income. Sometimes, her husband does not get any money at all after a hard day's work. MR chose a job as a parking attendant on her own initiative so that her children could go to school and eat properly. Meanwhile, RT, who

has a husband with two children, stated that economic factors were the main reason for her to work as a traditional parking attendant. Her husband works outside Langsa and is only able to send money for the family's needs on an irregular basis. Often their basic needs cannot be met from the remittances. Like MR, RT took up the parking attendant profession as an initiative to increase her family's economic income.

It has been mentioned that all research participants come from lower economic groups. They choose the profession of parking attendants due to the pressure of the family's economic needs. The majority of them are middle-aged (over 50 years old) and have a basic educational background or a maximum of junior secondary level. NL, MR, ML, and RT, to varying degrees, corrected the assumption of some Western liberal feminists that women from the east (Muslims) are weak figures and always depend on other parties (especially husbands) (Ansor and Amri 2016).

Although it is against the stereotype of women's dependence on their husbands, the women who participated in this study had very limited options. They are pressed for the economic needs of the family either because of the death of the husband, the limitation of the husband's income, divorce, or because the husband's job is out of the city. Of course, other options can be used as solutions to overcome the problems, but the research participants chose the parking attendant profession as a solution that was considered the most appropriate amid their limitations. The limited resources, skills, and education reduce their chances of getting a job in the formal sector (Mahmood 2005).

Gender Identity Negotiation in the Public Spaces

Ethnographic data found a phenomenon that Michel Foucault (1977) conceptualized as disciplinary power is a strategy in which women articulate power through the internalization process within the individual concerned. Disciplinary power is a more broad-based strategy than other modes of the exercise of power due to its anonymous and invisible nature. Disciplinary power is a process of individual internal control that results in body discipline accepting the normative prescriptions in society (McHoul and Grace 1993, 68–70).

Research participants have various ways of interpreting the profession of a parking attendant. Social background and previous experience quite influence the process of creating meaning (Broch 2011; Henrickson et al. 2013). The

majority of them, for example, perceive the parking attendant profession as a lawful job that does not conflict with their religion. Therefore, they have nothing to worry about when pursuing this profession. A research participant assessed that parking attendants are a noble profession because they do not interfere with other people's property. Another informant likens the profession of a parking attendant to selling a service. According to him, parking attendants are selling a service as well, not only by tidying up parked vehicles but, more importantly, ensuring the vehicle's safety while the owner leaves it.

We also met participants who said that the profession is not merely a legal job but also a job managed by local government institutions to empower women from marginalized communities. Another participant stated that the job of a parking attendant is a suitable profession for the lower class because there is no need to spend a large economic capital, but only with a piece of cardboard that has been split open, a handkerchief, uniforms, or other attributes that are used when on duty. In essence, the participants assessed that parking attendants are one of the professions that are equivalent to other professions. A person has the freedom to choose or not to choose the profession according to their respective situations and conditions.

The process of adaptation of research participants to their social environment shows that gender practices cannot be separated from the surrounding structure (Hemmings and Kabesh 2013; Kennelly 2009; Madhok 2013; Uppalury and Racherla 2014). An informant, ML, pseudonym (51 years old), admitted that at first, it was difficult for him to work as a parking attendant because of his status as a woman, although he later became used to it. KD (47 years old) initially felt awkward when wearing a vest and parking attributes. In the first three months, she admitted that she still felt shy about appearing with her new social identity, but then she got used to it. Adaptation is done by forcing oneself to wear a parking vest then, followed by other attributes. He also always pays attention to the other parking attendants at work. KD experienced the same thing. Although at first the parking attributes seemed foreign to him, after studying the surrounding environment (copying strategy), he admitted that he could adapt to his new environment and culture.

This study found a variety of adaptation patterns of research participants to a patriarchal social environment. Sometimes participants appear by imitating the performance of men to overcome people who lack respect for their profession (Johnstone, Bhagwanjee, and Bobat 2016). MY (46 years old) admitted that she

had scolded a resident who seemed to underestimate the parking attendant profession by not paying a fee. Another parking attendant, ML, recounted that she had once encountered a man who paid a parking fee by the coin of a hundred Rupiah. ML refused the payment and scolded the man since the smallest denomination was hard to use unless in certain places. According to him, such an attitude is expected to be a lesson for residents to respect the profession of parking attendants and pay parking fees.

It is recognized that there are a small number of community members in the research location who still demean the parking attendant profession, equate it with begging, or even consider them 'prostitutes' because they often return home from work at night. An informant, JD, 35 years old, expressed his negative assessment of the parking attendants. JD said:

> "I never liked those parking attendants. In a moment we park the motorcycle they have come [asking for money]. To me, they are no different from beggars. They need no capital for this job. That's why when I park the motorcycle and then they put a cardboard box on my motorcycle [to cover it from sun heat], I take the cardboard with me and run away. I don't want to pay. What the hell!"

The majority of research participants are individuals who have had different work experiences before becoming parking attendants. Previous experience is also believed to influence the adaptation process. This study found that there were at least two directions of gender identity negotiations, those are negotiations in the work environment and on the social environment. In the work environment, a number of participants experience various forms of negative treatment, such as the behavior of vehicle owners who refuse to pay parking fees. In contrast, in the social environment, they are faced with stigma from community members who equate their profession with scrounge or even prostitution.

NH, 45 years old, said that at the beginning of being a parking attendant around 2003, she often experienced unpleasant treatment, both in the work environment and in the community. In her work environment, for example, she is often yelled at by vehicle owners who don't want to pay for parking, while in society she is stigmatized as 'a bad woman'. As a woman who works far away from her residence, this assessment has a negative impact on her domestic life. NH says:

> "The parking attendant profession is often considered negatively by the public. Even once considered a 'lady of the night'. For me, this is not a problem, but I am very sad that the accusations against me by society also affect my husband. My own husband also thinks of me as being accused by society. I was very hurt, I immediately said to my husband: 'You don't trust me anymore, you believe what people say instead, please come to Langsa to see what I'm doing. Above all, you have not been able to provide a living for me.'"

JM (45 years old) also feels a negative stigma from some members of the community because she works as a parking attendant. JM said the profession of parking attendant is considered a deviant job for women. The negative assessment is partly because female parking attendants sometimes return to their homes late at night. JM said:

> "The challenge I faced in my society is that I often labeled negative. They think that I'm a bad woman since I often come home late at night. Some even say that I am a prostitute. I don't really care about this comment. I assume that they are narrow-minded people who never go anywhere and just keep their large nose on other people's business."

JM's experience shows that the negative perception of society on female parking attendants is because they often go home late at night. In some societies in the Muslim world, women are considered abnormal when they are out of the house at night (Listerborn 2015; Phillips 2015; van der Schyff and Overbeeke 2011). Likewise, in the community where JM lives, women who often go home late at night are considered to have bad behavior. Sometimes these conditions also affect the harmony of family life of research participants. At least, that's what happened to JM and her husband. Her husband suspects JM of having an affair because she often goes home late at night. JM said:

> "What makes me a little bit sad is that people's assessment of me turned out to affect my husband. My husband once suspected me of having an affair with a rickshaw driver. I said to him, don't let it influenced you! Don't be jealous! I may quit my job if you provide me ample earnings. I only ask for two thousand Rupiahs a day apart from daily expends. My husband said he couldn't. Well then don't be jealous. If you don't believe me, you may investigate my activities in Langsa whether the hearsay true? I believe my husband watches me when I work in Langsa."

The negative judgment of the community towards JM has an impact on her comfort at work. For this reason, JM and other research participants make efforts to negotiate and adapt to the social environment in which she lives. The ethnographic data found many resilience strategies of the research participants for being accepted in society. *First*, building a positive community response to

them. To build a positive response, female parking attendants do not necessarily fight against the community. Whatever bad the public's attitude towards them, they accepted it without open resistance (Scott 1985, 1990). According to JM, taking open resistance against the community will cause new problems. The pattern they carried out is quite good, polite, and friendly towards the community, even though some people do not accept us, it's not a problem, because gradually the whole community will accept our condition as parking attendants.

Second, establishing close friendships with members of the community. It is done by building interpersonal connections through mutual respect. They make time for various social activities with the community. For example, attending a wedding party, participating in social activities such as *Serikat Tolong Menolong* (Collective Help Union), attending religious lectures, participating in reciting Surah Yasin collectively *(Yasinan)*, etc. When a local community member passes away, the female parking attendant takes the time to attend the funeral until the procession is over. Eventhough sometimes certain nosy woman quips, they don't take care. To them, the important thing is that they don't do what they were accused of.

Third, disseminating understanding to the public about the profession of being a parking attendant. This stage is a cultural dimension, where the public's negative view of "women often go home at night" is attached to the mind and trusted by all people. To change this perspective, female parking attendants take a cultural approach to the community. Persuasively they build an understanding in the community that the profession of parking attendant is not as bad as assumed by the community. To clarify this, female parking attendants do not directly justify themselves and their profession, but they do this indirectly. The story about the parking attendant is not made in an exclusive story but inserted in another story. The goal is to make people aware without having to judge and justify themselves.

The three resilience strategies described above are part of the research participants' efforts to be accepted in their social environment. The community's negative response, friendship in separatist relations, and their misinterpretations and judgments are expected to change for the better. This study found that these efforts ultimately made the presence of parking attendants in the community more acceptable without any subjective judgments. Several informants said that during the implementation period of

this research, parking attendants and the community had an attitude of mutual understanding and respect for each other's existence.

Practicing Gender in Domestic Sphere

This section discusses gender practices in the domestic arena. The discussion explores the extent to which the economic incentives obtained by women through the profession as parking attendants contribute to increasing their independence and autonomy; or how much the economic contribution affects the pattern of relations between wife and husband. In the following section, the author shows the gender experiences of research participants in the domestic sphere in more detail.

Several studies on the gender practices of the wife that have an economic contribution to the family show the diverse articulation patterns of agency (Ahmed 2019; Nussbaum 2000). Martha C. Nussbaum (2000) shows that the gender practice of working women has a higher level of autonomy than women who are economically completely dependent on their husbands. Sarah Ahmed (2019) refutes Nussbaum (2000) by showing that the economic contribution of women participating in the microcredit program in Pakistan is not correlated with their independence and autonomy. Ahmed's study shows that women's economic contribution has only a limited effect on the expansion of their autonomy in the domestic arena.

The experiences of research participants reveal a more varied pattern. For some participants, the economic contribution does not have a significant impact on the autonomy of gender practices. However, it should be mentioned that the majority of participants stated that they had more flexibility in spending the money they earned from their activities as parking attendants. One of the research participants said that the profession of parking attendant is positioned only as a substitutive activity among the main roles as a housewife. NL is working as a parking attendant, not as a main source of income. NL decided to become a parking attendant after leaving her job as a household assistant since the job allowed her to provide more time to take care of her children. According to her:

> "Working as a parking attendant is much easier because you only manage the position of motorbikes in a line. At first, the work felt heavy because we weren't used to it, but now it's easy. Likewise, the time, I just work until 12.00 at noon, after that, I can deal with my children and take them to school. If you are a

household assistant, you have to work from 8 in the morning until the afternoon. Who will take care of the children and take them to school? Moreover, working as a parking attendant can earn money every day, on the contrary, being a household assistant have to wait for the beginning of the month after the employer gets his salary."

The interview excerpts show that NL chose the parking attendant as her profession was not only for economic reasons but also for saving her time so that she may have more time for her children. To her, being a parking attendant is better than being a household assistant. NL viewed that her job as a parking attendant promises an economic incentive that can solve various problems she faces while still being able to carry out her main role as a wife and mother to her children. NL's behavior shifts control of her actions in the parking profession to maximize profits. NL continues to rely on her husband's income for the family's economic needs. In other words, even though, at a certain level, the profession as a parking attendant increases independence, as a wife, NL still depends upon her husband as the head of the household.

JM, another participant, told a relatively different experience. The job as a parking attendant contributes to increasing her flexibility in managing her family's economy, although at the same time, it also contributes to worsening her family life. The society where JM lives tends to judge the habit of coming home late at night as deviant social behavior. Society's stereotype of JM also affects her husband's assessment of her. He was suspected of having an affair with a pedicab driver in the city where he worked. To overcome this problem, JM made several attempts to convince her husband about the untruth of this assumption. For example, JM gave an understanding of the profession she was working on and the untruth of the accusations against her. JM managed to improve her household life.

The experiences of JM and NL show the way women [research participants] articulate agency and resilience to overcome life's problems. Both show the attitude of a housewife and a good wife during her role as a parking attendant. The job as a parking attendant is not placed in a position that goes beyond the role of a wife or mother of their children. Therefore, as found in the experiences of other respondents, some research participants choose the profession of parking attendant over other jobs that require more time. It is part of the way they articulate agency and overcome the limitations they face.

The biographical narratives of some research participants show that their efforts to ensure the 'pearl stays in hand' are always on the agenda. The search for a balance between domestic roles and work has demonstrated how the agency and resilience of women in subaltern communities are articulated. In contrast to Ahmed's findings (2019) that view the correlation between economic contribution and women's autonomy, this study finds that the economic contribution of research participants to the economic life of the family does not necessarily reduce their domestic role. In line with the findings of Md. Al-Amin & Mathbor (2019) their domestic role did not experience a significant shift after their contribution to the economy of the family. Exchanging experiences is one of their strategies to strengthen solidarity among fellow community members. They realize the necessity of the support from fellow female community members in building a balance between their domestic roles and work as parking attendants.

CONCLUSION

This article has discussed the agency and resilience of marginalized communities in Langsa based on the experiences of female parking attendants. The writings have shown that these women choose the profession of a parking attendant in addition to fulfilling their economic needs as well as a way for them to increase their economic independence and self-autonomy in their social environment. The profession of a parking attendant opens a space for women's interaction to adapt to a new social environment. Challenges and obstacles that arise in the new environment and social identity require capabilities in adaptation and resilience. This paper shows at least two domains that influence the gender practices of female parking attendants, those are the public sphere (workplace environment and community), and the domestic sphere. This study finds that the gender practice of research participants in the public and domestic spheres are formed through the intersection between agents and the structure that surrounds them.

The paper finds that at the individual level, research participants articulate agency in a social structure that tends to be patriarchal through various patterns and strategies, whether carried out in the work environment, social space, or domestic arena. They do imitation, habituation, and exchange strategies with fellow community members in dealing with the social urgency they face. Their efforts to find a balance between the roles of parking workers and domestic roles signify the prevalence of women's gender practices in Muslim societies.

In the end, this study shows that women's agency in shaping gender practices is essentially a reflection of experience in their respective social environments.

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HOW ACCOUNTABLE IS ZAKAT MANAGEMENT IN INDONESIA? AN EVIDENCE FROM BAZNAS OF NORTH SULAWESI

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ABSTRACT - This study was motivated by some zakat management accountability issues discovered in preliminary studies conducted in several zakat agencies throughout the North Sulawesi province. This study investigates zakat management accountability in three chapters/sub-chapters of the National Zakat Agency *(Badan Amil Zakat Nasional – BAZNAS)* in North Sulawesi province: the BAZNAS provincial chapter, the BAZNAS of Manado City sub-chapter, and the BAZNAS of Kotamobagu City sub-chapter. Data were collected using documentation studies and in-depth interviews with zakat administrators from the zakat institutions using purposive and snowball sampling techniques. To analyze the data, this study employed an Action Research (AR) approach, while the results were interpreted using a four-stage qualitative analysis: domain analysis, taxonomic analysis, componential analysis, and theme analysis. The findings indicate that zakat management in the targeted institutions has not fully met the accountability standard outlined in Law No. 23/2011, specifically in terms of 1) the absence of certain accountability indicators, 2) inefficient use of websites, 3) ineffective use of social media, and 4) the absence of an internal audit unit (SAI). The findings have implications for improving BAZNAS in North Sulawesi province and throughout Indonesia. In particular, this study suggests optimizing institution websites and social media by integrating them with provincial zakat institutions. Consequently, it is crucial to employ an IT expert who specializes in in-out information from/to society. The establishment of SAI and the employment of shariah auditors are also noteworthy. Collaboration with Islamic universities could be a first step towards a solution.
Keywords: Accountability, BAZNAS, Management, Zakat

ABSTRAK – Seberapa Akuntabelkah Pengelolaan Zakat di Indonesia? Kajian pada BAZNAS Sulawesi Utara. *Kajian ini dilatarbelakangi oleh beberapa persoalan akuntabilitas pada pengelolaan zakat di beberapa BAZNAS dalam lingkungan provinsi Sulawesi Utara. Tulisan ini bertujuan untuk mengkaji akuntabilitas pada tiga BAZNAS di provinsi Sulawesi Utara, yaitu BAZNAS provinsi, BAZNAS Kota Manado, dan BAZNAS Kota Kotamobagu. Selain dari studi dokumentasi, data juga dikumpulkan melalui wawancara mendalam administrator zakat dari ketiga BAZNAS terkait yang dipilih berdasarkan teknik sampling purposif dan bola salju* (snowball)*. Untuk menganalisis data, kajian ini menggunakan metode Action Research (AR), yang kemudian diinterpretasikan dalam empat tahapan analisis kualitatif, yaitu analisis domain, analisis taksonomi, analisis komponensial, and analisis tema. Kajian ini menemukan bahwa pengelolaan zakat di objek penelitian tersebut belum sepenuhnya memenuhi kriteria akuntabilitas sebagaimana disebutkan dalam UU No. 23/2011, terutama dalam hal: 1) kealpaan dari dari beberapa indikator akuntabilitas, 2) websitenya belum optimal, 3) sosial media belum dimanfaatkan dengan baik, dan 4) ketiadaan dari satuan audit internal (SAI). Hasil kajian ini berimplikasi pada perbaikan institusi BAZNAS di Sulawesi Utara secara khusus dan Indonesia secara umum. Kajian ini merekomendasikan adanya optimalisasi website dan media sosial dengan pengintegrasian ke dalam website BAZNAS provinsi. Oleh karenanya, diperlukan seorang profesional di bidang IT yang khusus mengelola segala informasi dari luar ke dalam dan sebaliknya. Selain itu, membangun SAI dan merekrut tenaga audit syariah juga sangat penting untuk dilakukan. Pada tahap awal, hal ini dapat ditindaklanjuti melalui kerjasama dengan PTKIN.*
Kata Kunci: *Akuntabilitas, BAZNAS, Pengelolaan, Zakat.*

INTRODUCTION

The website function of the National Zakat Agency *(Badan Amil Zakat Nasional - BAZNAS)* is crucial for facilitating public access to zakat management reports in the current era of digitalization. It is a collection of web pages containing information about BAZNAS-related activities and zakat as part of its report to the public as the actual owner of the zakat funds. It is accessible on a variety of devices, including desktop computers, laptops, tablets, and mobile phones. In addition, the use of social media as interactive technologies that facilitate the creation and sharing of information, ideas, interests, and other forms of expression via virtual communities and networks is also essential (Kietzmann, Hermkens, McCarthy, & Silvestre, 2011; Obar & Wildman, 2015). In financial literature, an organization is required to provide such information as part of its accountability (Ibrahim, Fitria, & Majid, 2021). It is especially pertinent to the accounting practices an organization employs when preparing financial reports for all stakeholders. A company cannot maintain the trust of its customers, regulators, or markets in the absence of checks and balances and consequences for wrongdoing. Thus, accountability is the assurance that an organization's performance or conduct in relation to something they are responsible for will be evaluated (Gary, Owen, & Adams, 1996).

Accountability is the condition of accepting assigned responsibilities, explaining and demonstrating compliance to stakeholders, and correcting failures to act appropriately (Papanikolaou & Pearson, 2013). Responsibility can be derived from the law, social norms, agreements, organizational values, and ethical duties (Lucas, 1995). This concept is refined by the accountability attributes (Nunez, Fernandez-Gago, Pearson, & Felici, 2013), which refer to 1) transparency - the property of a system, organization, or individual to provide visibility of its governing norms, behavior, and compliance of behavior to the norms; and 2) responsiveness - the property of a system, organization, or individual to consider input from external stakeholders and respond to queries from these stakeholders. 3) responsibility - the property of an organization or an individual with regard to an object, process, or system of being obligated to take action to conform to the standards 4) remediability - the capacity of a system, organization, or person to take corrective action and/or provide a remedy for any party harmed by noncompliance with its governing norms (WHO, 2015; Ibrahim, Fitria, & Dianah). For a non-profit organization like

BAZNAS, the concept of accountability is applied in accordance with the social concept.

Social accountability refers to community-based initiatives that aim to increase transparency and access to information by holding the government and its agents accountable (Gaventa & McGee, 2013). Social accountability has the potential to lead to poverty reduction, improved service delivery, people-centered policies, citizen empowerment, and a strengthening of democratic processes over the long term (Abbas & Ahmed, 2016). The Affiliated Network for Social Accountability (ANSA) provides a compact framework for social accountability comprised of the following four pillars: 1) organized and competent public groups; 2) accountable government; 3) access to information; 4) sensitivity to culture and context. Civic engagement is of utmost importance for achieving efficient and effective demand-side mechanisms and functions (Rahman, 2018).

Preliminary research, however, revealed that the BAZNAS had not been transparent enough in disseminating information to the public. Its website, for example, does not provide sufficient information about zakat management on a regular basis, particularly financial reports containing the flows of zakat funds collection and distribution. Similarly, BAZNAS lacks personnel to fill the Internal Audit Unit positions in its organizational structure. This situation will have an impact on overall institutional performance because it interferes with encouraging public engagement and responsiveness. Because of this distinction, social accountability is an especially relevant approach for organizations whose primary function is to manage public funds. As a result, it will have a long-term impact on zakat funds received from *muzakki* (zakat donors) and their distribution to *mustahik* (zakat beneficiaries). As a result, a comprehensive study of accountability implementation in BAZNAS is required.

To the best of the researcher's knowledge, there are not many studies on zakat management that specifically analyze the application of accountability in a social organization like the BAZNAS. Many prior studies on zakat management concentrated on a single topic or area. Mubtadi (2019), for example, describes the ideal concept of Islamic governance and accountability in zakat organizations but does not provide any practical data. Previously, Mutmainah (2015) and Riani (2012) investigated zakat governance in Yogyakarta, with the goal of identifying a plan to strengthen the trust of

muzakki and all stakeholders, as well as the relationship between accountability in zakat management and the intention to pay zakat. Similarly, Hakim (2014) concentrated on determining the association between factors in Semarang. Meanwhile, Kuncaraningsih (2014) concentrated on researching the association between GCG and *muzakki* satisfaction. Finally, Perbawa and Abdullah (2016) investigated the variables of *muzakki* awareness in zakat payment at BAZNAS. As a result, it is vital to remedy these existing gaps by investigating the accountability processes of a zakat agency such as BAZNAS. As a result, the purpose of this study is to scientifically investigate and examine the implementation of the accountability principle in BAZNAS. The findings of this study are expected to help improve the accountability concept in zakat management at BAZNAS throughout Indonesia. The outcomes are especially important for BAZNAS in building a better public image and obtaining the trust of *muzakki*.

The remainder of this study is organized as follows: Section 2 examines chosen theories and works of literature on accountability and zakat administration. Section 3 focuses on data and research methodologies, whereas Section 4 presents empirical evidence and discusses it. Section 5 concludes with conclusions and recommendations for additional research.

LITERATURE REVIEW

The Concept of Accountability

As previously stated, the concept of accountability is tied to stakeholders' obligations in resolving any failures and acting appropriately. According to Raba (2006), accountability is responsible for the events that can be held accountable, whereas Mardiasmo (2006) stated that accountability is concerned with something that is successful or fails on a regular basis in implementing the institution's mission to achieve targets and objectives. The traits of accountability consist of transparency, responsiveness, responsibility, and remediability. Its purpose is connected with verifiability, which is the extent to which norm compliance can be assessed.

Accountability characteristics are used to capture a significant part of the deployment of an acceptable and effective measure that meets technical, legal, and ethical compliance standards and serves as the following indicators: 1) appropriateness, which is the amount to which the technical and organizational measures employed are capable of contributing to accountability; and 2)

effectiveness, which is the extent to which the technical and organizational measures used contribute to accountability (Abbas & Ahmed, 2016; Ibrahim et al., 2020). Responsibility in a non-profit organization refers to its social rules, which are referred to as social responsibility. The World Bank describes social accountability as a demand-side good governance endeavor. It discusses how communities should best connect with local governments, service providers, and state actors to demand greater service delivery in areas such as education and health (Malena, Forster, & Singh, 2004). The success of social accountability techniques is strongly dependent on how they are begun and utilized. The National Institute of Administrative Research relates the effectiveness and success of social accountability mechanisms to their institutionalization in their study; indirectly, social accountability mechanisms attempt to improve government officials' and politicians' work efficiency and performance (Abbas & Ahmed, 2016).

As seen in Figure 1, the concept of accountability in managing zakat includes both accountability to Allah and accountability to the community. This example can be implemented by producing a report on zakat collection and distribution actions that is accountable and transparent (N. Mustaffha, Yusuf, & Kasim, 2020). It will guide the growth of *muzakki* and stakeholder confidence and contribute to a rise in accountability and transparency (Johari, Mustaffha, & Hameed, 2012).
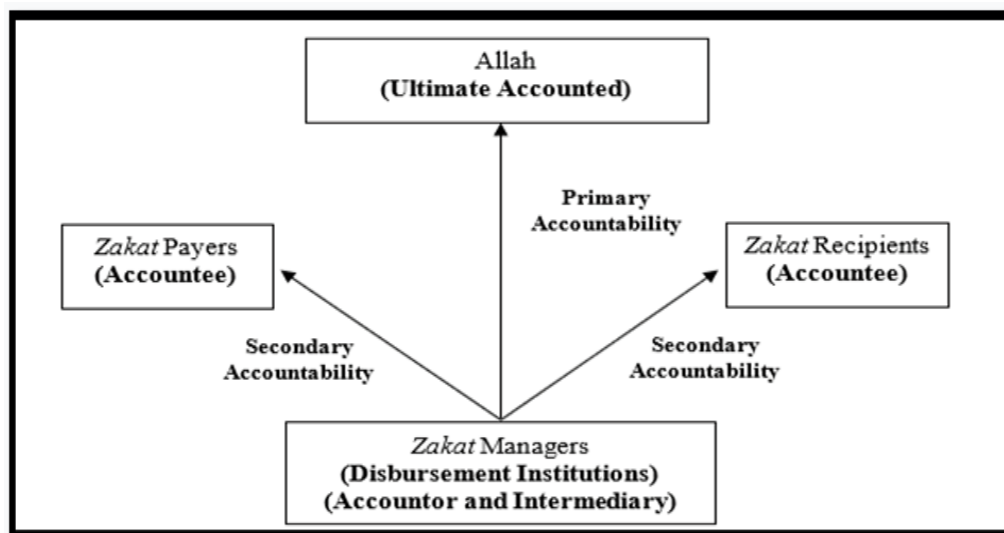
Figure 1. Zakat accountability concept
(Source: N. B. Mustaffha, 2007)

Based on the description mentioned above, the accountability indicators in zakat management institutions could be modified as follows:

1. Honesty and regulations are needed in the following areas: avoiding corruption, collusion, and nepotism in zakat administration, adherence to laws, whether civil or sharia law, including socio-ethics, and transparency in zakat distribution reporting.
2. Adhere to the following procedures: responsive in terms of the zakat collection from *muzakki* and its distribution to *mustahik*, accuracy in terms of interchangeable status between *muzakki* and *mustahik,* and affordable costs.
3. Create programs that provide an optimal result in addition to traditional programs such as socialization of productive zakat and transparency in its reporting through an official site.
4. Provide a policy that involves *muzakki* in order to be responsible closely related to the form of responsibility regarding policies in the decisions chosen, where policies related to zakat also affect *muzakki*.

Zakat

Zakat is one of the five pillars of Islam. The fundamental principle of zakat in Islam is to be blessed by Allah, to keep one's property and soul clean, and to collect rewards for the hereafter. The following are some authoritative figures and scholars' perspectives on the meaning of zakat. (Asnaini & Oktarina, 2020):

1. From a linguistic and technical perspective, al-Qaradhawi (1999) states that zakat is an infinitive of the verb zakah, meaning 'to grow' and 'to increase.' In *Lisan al Arab*, Ibn Manzur (1990) reveals the root of the word zakah in Arabic means cleanliness, growth, blessing, and praise. All these meanings of the word are used in Qur'an and Hadith.
2. Al-Qaradhawi (1999) further stated that "the word zakat refers to the determined share of wealth prescribed by Allah to be distributed among deserving categories." It is also used to mean the action of payment of this share.
3. According to al-Nawawi's report from al-Wahidi (t.t.), this share of wealth is called zakat because it increases the funds from which it is taken and protects them from being lost or destroyed. According to al-Wahidi and Imam Nawawi, zakat means at-*thahuru* (cleansing or purifying).

4. Ibn Taymiyyah (2011) stated, "the soul of a person who gives Zakat will be clean, and his wealth will be neat, clean, and have an increased meaning."

5. Al-Imam Muhammad ibn Ismail Al-Kahlany (nd) argues that "zakat is a compulsory charity, also stress *ṣadaqah,* or voluntary almsgiving, which, like zakat, is intended for the needy."

6. According to Indonesian Law No. 23/2011, zakat is part of assets that must be issued by a Muslim or business entity to be distributed to those entitled to in accordance with Islamic law.

Based on the previously mentioned opinions on zakat, it can be concluded that zakat is a form of obedience and worship to Allah SWT, obligatory for every Muslim by allocating a certain amount from their properties to the entitled beneficiaries. Paying zakat has an economic impact on several dimensions, including aggregate consumption, savings and investment, the aggregate supply of labor and capital, eradicating poverty, and improving the economy (Nur Barizah and Abdurahim, 2011 in Ram, Norazita, Norfaiezah, 2014).

Based on the explanation in Law No. 23/2011, article 4 paragraph 1, zakat consists of:

1. Zakat on wealth *(zakah al-maal).*

    Zakah al-maal can be defined as the obligation upon every Muslim man and woman having a certain amount of wealth kept for a (lunar) year to pay a certain amount to deserving people (al-Qaradhawi, 1999). Zakat is, therefore, the amount to be paid (obligation) calculated upon the savings (*nisab*) held for a year and to be paid to the needy people whether in monetary terms or the form of commodities. Zakat al-mal is applicable on all financial belongings such as currency, gold, silver, property, and vehicles if these are either held with the intentions of trading or savings, i.e., zakat is not applicable over things that are necessities life (islamicmarkets.com, 2022). Zakat on wealth is based on the value of all of one's possessions (Shoufani, 1973). It is customarily 2.5% (or $\frac{1}{40}$) (Sarwar, 2015) of a Muslim's total savings and wealth above a minimum amount known as *nisab*, but Islamic scholars differ on how much *nisab* is and other aspects of zakat. The gathered money, according to Islamic theology, should be paid to the poor and needy, zakat collectors, recent converts to Islam, those to be liberated from slavery, those in debt, in the cause of Allah, and to help the stranded traveler (al-Qaradhawi, 1999).

2. Zakat Fitrah

Zakat al-Fitr is a modest charity requirement that is obligatory for all Muslims — male or female, minor or adult, as long as they have the means — and is generally paid at the end of the Islamic holy month of Ramadan (Buehler, 2008). The collected amount is used to pay zakat collectors and poor Muslims so that they can celebrate *Eid al-Fitr* (the celebration of breaking the fast) with the rest of the Muslims after Ramadan (Al-Hamar, Dawson, & Guan, 2010).

Zakat al-Fitr is a modest charity obligation that is obligatory for all Muslims — male or female, minor or adult, so long as they have the means — and is typically paid at the conclusion of the Islamic holy month of Ramadan (Buehler, 2008). The funds are used to pay zakat collectors and poor Muslims so that they can celebrate *Eid al-Fitr* (the holiday marking the end of Ramadan) with the rest of the Muslim community (Al-Hamar, Dawson, & Guan, 2010).

Zakat al-Fitr is assessed as a fixed amount per person, whereas zakat al-mal is based on personal income and property (Buehler, 2008). The amount of zakat is the same for everyone, regardless of income: one *sa'* (four double handfuls) of food, grain, or dried fruit for each family member, or an amount of money equivalent (von Benda-Beckmann & von Benda-Beckmann, 2007) to the basic food consumed in a country/region. Examples include rice in the majority of Indonesia, corn in Madura, sago in Papua, and others. Abu Sa'eed al-Khudree, a companion of the Prophet Mohammed, remarked, "During the Prophet's time, we used to give *(Zakatal-Fitr)* as a sa' of food, such as dried dates, barley, raisins, or dried cheese" (al-Bukhr, 1997). According to the majority of scholars, 1 sa' is roughly 3,1 liters or 2.5 kilograms. In most schools, with the exception of the Hanafis, gifts other than basic food are not permitted, such as clothing, electronic goods, vehicles, or money.

In Islam, people who are entitled to pay zakat are called *muzakki*. The general assumption is that if a person qualifies to pay zakat, they are not permitted to receive it. Based on the *ijmak*, zakat is required for 1) Muslim only; zakat is a form of worship related to property for a Muslim as a means to do *taqarrub* (get closer) to Allah SWT, and the deeds of worship of a disbeliever will never be until he embraces Islam, as stated by Allah in the Qur'an Surah At-Taubah:

54) whose translation reads: "And what prevents their expenditures from being accepted from them but that they have disbelieved in Allah and His Messenger…"; 2) Be independence – therefore, an enslaved person was not subject to zakat obligation as their property belongs to their master; 3) Be *baligh* (has attained the age of puberty) and sane; 4) Full ownership – Another requirement is a Muslim has full and legal ownership of an asset; 5) Assets that exceed a minimum value (*nisab*) – the assets that exceed a minimum value which is termed *nisab*; and completed of *haul, which* is defined as the completion period for a zakah asset (one *Hijrah* year or 12 months).

While the pillars of the property to be eligible for zakat are as follows; (1) has reached the *nisab* amount); (2) the property right to be released; (3) the ownership switch to the needy (*mustahik*); (4) Distribute directly to *mustahik* or via *amil*. The property that is eligible for zakat are: 1) livestock, 2) agricultural goods, 3) precious metals, including money, 4) trade goods; 5) honey and animal production; 6) minerals and marine products; 7) earning from investment; 8) earning from professions and livelihoods; (9) earning from stocks and bonds.

There are two methods in calculating the *nisab* of zakat; *first*, it is calculated based on income and the type and value of one's assets/possessions, which is imposed when it has reached above a minimum amount (*nisab*). There is no obligation for paying zakat if the income has not met the *nisab*. Therefore, in reality, zakat will only be imposed for high-income employees, who are usually middle to upper-class professionals. Second, the method of summing up all income ranging from salary to additional revenue from professional services obtained in the adjacent terms.

According to the Quran's Surah Al-Tawba, there are eight categories of people (*asnaf*) who qualify to benefit from zakat funds: "Alms are for the poor and the needy, and those employed to administer the (funds); for those whose hearts have been (recently) reconciled (to Truth); for those in bondage and debt; in the cause of Allah; and for the wayfarer: (thus is it) ordained by Allah, and Allah is full of knowledge and wisdom." — *Qur'an, Sura 9 (Al-Tawba), verse 60,* Islamic scholars have traditionally interpreted this verse as identifying the following eight categories of Muslim causes to be the proper recipients of zakat (Sabiq, 1991; Salih, 2004):

1. Those are living without means of livelihood (*al-fuqarā'*), the poor

2. Those who cannot meet their basic needs (*al-masākīn*), the needy
3. To zakat collectors (*al-āmilīyn 'alihā*)
4. To persuade those sympathetic to or expected to convert to Islam (*al-mu'allafatu qulūbuhum*), recent converts to Islam, and potential allies in the cause of Islam.
5. To free from slavery or servitude (*Fir-Riqāb*), slaves of Muslims who have or intend to free from their master by means of a *kitabah* contract.
6. Those are incurring overwhelming debts while attempting to satisfy their basic needs (*Al-Ghārimīn*), debtors who incurred a debt to pursue a worthy goal.
7. Those are fighting for a religious cause or a cause of God (*fī sabīlillāh*), or *jihad* in the way of Allah by means of pen, word, or sword, or for Islamic warriors who fight against the unbelievers but are not salaried soldiers.
8. The wayfarers, stranded travelers (*ibnu al-sabīl*), those are traveling with a worthy goal but cannot reach their destination without financial assistance.

Zakat Management

In Indonesia, the basis for implementing zakat management is Law No. 23/2011 and the Government Regulation *(Peraturan Pemerintah – PP)* No. 14 of 2014. According to Qadir (2001), the zakat funds that is managed by an authorized institution have several advantages, among others as follow:

(1) it provides assurances in the form of certainty and discipline in distributing zakat;
(2) it protects the *mustahik* from the feeling of humility as when the *muzakki* directly distributed the zakat;
(3) it strives for the realization target that can be adjusted depending on priority scale of a region efficiently and effectively;
(4) it pictures as the *shiar* symbols in terms of enthusiasm in implementing an Islamic pillar;
(5) it facilitates related agencies in coordinating and consolidating the data of *muzakki* and *mustahik*; and
(6) it simplifies providing reports and accountability to the public; (7) it manages zakat professionally.

Zakat management is an activity of planning, organizing, coordinating, and monitoring the zakat resources efficiently and effectively. It aims to achieve the zakat vision and mission under sharia guidelines and related regulations. The quality of the zakat agencies should be measurable and fulfilling the following key indicators: 1) *amanah* (trustworthy), every agency that is appointed to be an amil must have *amanah* in nature; 2) professional, in addition to the *Amanah*, a zakat agency is also required to have professionalism in its organizational culture; 3) transparent, this attitude could optimize the monitoring mechanism, where every party publicly announces their involvement or hold a role in the internal and external organization. This could diminish the suspicious feeling, and doubt can be minimized with this transparent attitude.

RESEARCH METHOD

This study employs a qualitative approach as it aims to picture the accountability condition of zakat management in three chapters/sub-chapters of the National Zakat Agency *(Badan Amil Zakat Nasional – BAZNAS)* in North Sulawesi province, which are BAZNAS provincial chapter, BAZNAS of Manado City sub-chapter, and BAZNAS of Kotamobagu City sub-chapter. Data were gathered through in-depth interviews with the zakat administrators from the selected agencies determined using purposive and snowball sampling techniques. In addition, data were also collected through documentation studies of related literature and also observation of BAZNAS daily operations. The requirements for being an informant for this study were 1) the head in each of the selected chapter/sub-chapters of BAZNAS or an official in charge of administrating zakat; 2) actively involved in collecting and distributing administration, 3) willingness to participate. In analyzing data, this study employs a modified Action Research (AR) approach; and they are interpreted using the Spradley four-stage qualitative analysis: domain analysis, taxonomic analysis, componential analysis, and theme analysis. The domain analysis captures an overview of the socio-religious situation of zakat management in the BAZNAS of North Sulawesi. The taxonomic analysis describes more detail of the selected domain becomes more detailed to find out its internal structure. Next is componential analysis, which compares the phenomenon with existing concepts and theories. Lastly, analysis of cultural/cultural themes looking for phenomena seen in the field.

RESULTS AND DISCUSSION

The findings suggest that the three BAZNAS actively used their websites to deliver information to the public as part of their reporting responsibilities regarding zakat funds management. However, the information is not regularly updated based on the reporting period, as evidenced by the North Sulawesi Province BAZNAS website at this URL: https://pid.baznas.go.id/sulawesi-utara/. The website, in theory, is one of the simplest and quickest tools for submitting reports and delivering information on zakat management, collecting data, or distributing evidence with images. Because of limited human resources, the zakat administrator at these three BAZNAS institutions chose the manual method of reporting and delivering information to the public. Another reason is that the *muzakki* is used to receiving the official accountability report *(Laporan Pertanggung Jawaban - LPJ)* in the form of a printout/note.

From this perspective, one of the accountability aspects of zakat management, transparency in reporting, has not been fulfilled. As the *accountee*, *muzakki* needs to be informed on how and where the zakat funds have been distributed. These days where people are living in a digital world, a reporting process that is conducted manually is considered to be ineffective and inefficient. It is due to the barriers of time and place that cause the information is not conveyed correctly. In reporting zakat funds, religious values are necessary as the BAZNAS institution plays a vital role in implementing zakat, one pillar in Islam.

Consequently, it becomes the responsibility of the zakat administrator *(amil)* as a form of "*hablum minan naas*" (human to human relationship or horizontal accountability). By increasing the disclosure of necessary information, it is expected that the level of public trust can be improved so that it may change its zakat payment behavior through zakat organizations, especially BAZNAS, as highlighted by Nurfadhilah and Sasongko (2019) and Karim, Sasanti, Lenap, and Sari (2019). Meanwhile, the form of vertical accountability is at first submission the reports to the local governments, such as provinces or cities/districts, and then most importantly, the submission of the report to Allah SWT as the ultimate owner of everything in the heavens and on earth, by reporting it honestly, and recording it correctly and delivering properly on a regular basis. Verily, Allah SWT always sees what his servants are doing without ever being missed.

Based on an interview with the informants, the second finding is that the supervisory function in zakat management has not yet fully complied with Law No. 23/2011. This is also evidenced by direct observation of the three BAZNAS organizational structures that do not seem to have the Unit of Internal Audit *(Satuan Audit Internal - SAI).* The position of SAI within the BAZNAS structure should be between the Head and Deputy Heads of BAZNAS. The missing of this unit could lead to unethical practices in zakat management. In these selected locations, the supervision function only relies on the direct supervisor of the staff/amil, which is in most cases without proper assessments to evaluate to what extent the work has been performed. According to the Heads of BAZNAS in the selected locations, it is difficult to find Muslim auditors in these locations, unlike the non-Muslim auditors. Professional auditor services have not been a priority due to unaffordable services fees, while the operational budgets of BAZNAS of North Sulawesi Province, Manado City, and Kotamobagu City, including the resources available in the regions, are still minimal. Therefore, the SAI position at the three BAZNAS institutions is still vacant until this research is completed.

These conditions are relevant to Hafidhuddin (2002) study that found that lack of trust of zakat institutions due to unprofessionalism and the report of zakat management are not publicly accessible to the public. Another factor is that financial statements are not constantly available in each reporting period. Several studies such as Mubtadi (2019), Firmansyah and Devi (2017), Saad, Aziz, and Sawandi (2014), and Wahab and Rahman (2011) also produce similar results concerning the unprofessionalism of zakat management in each observed institution. These conditions influence the *muzakki's* trust in zakat institutions and thus affect their intention in paying zakat, as highlighted in several previous studies such as Jayanto and Munawaroh (2019), Ikhwandha and Hudayati (2019), Mukhibad, Fachrurrozie, and Nurkhin (2019), Hasrina, Yusri, and Agusti_Sy (2018), and Muhammad and Saad (2016).

Given the preceding information, it is evident that incorporating SAI into the hierarchical structure of BAZNAS is an essential step. In fact, the existence of this unit could prevent the possibility of fraud in their financial reporting and allow them to release the information without reservation. The implementation of a SAI within a zakat institution ensures the institution's transparency and accountability; as a result, the decision made is both rational and accountable. Accountability practices will reassure the public that administrative institutions, such as BAZNAS, adhere to the standards of transparency,

participation, rational decision-making, and legality, and provide a valuable review of the rules and decisions.

Action and Offers

This study utilized a modified form of Action Research to find solutions to research issues and social issues. This study suggests that BAZNAS in the province of North Sulawesi optimize their websites by establishing policies regarding the use of the internet and websites in each BAZNAS chapter to report zakat-related information as a means of addressing the first problem identified in the study. This study also suggests that the institutions collaborate with BAZNAS from other provinces that have effectively integrated their websites into their daily operations. Both organizing workshops and conducting comparative research are viable strategies for achieving this objective. In addition, BASNAZ in the province of North Sulawesi is required to socialize or disseminate their websites to the larger community. This is necessary so that the general public can utilize the websites to monitor and obtain information about zakat, whether it be the collection or distribution of zakat. This study recommends that the chosen BAZNAS establish a SAI and integrate it into their organizational structure in order to address the second issue. This unit could assist institutions in monitoring the various management budgets and distributing zakat to *mustahik*. To make up for the lack of human resources, the selected BAZNAS could expedite their collaboration with State Islamic Universities in the surrounding area, such as the Institut Agama Islam Negeri (IAIN) in Manado, which has some available human resources.

Regarding the action, the findings of this study have been provided to the heads of each chapter and sub-chapter, who have then forwarded them to their respective deputy heads and zakat administrators. In addition, follow-up actions, such as a Focus Group Discussion (FGD), assistance in preparing financial reports, and collaboration with IAIN Manado lecturers with a professional accountant degree will be carried out to establish the SAI so that the organizational structure of the three BAZNAS can be completed. To complete the organizational structure of the three BAZNAS, all of these tasks will be carried out.

CONCLUSION

This study reveals that zakat administration in the BAZNAS of North Sulawesi Province, Manado City, and Kotamobagu City has not fully met the

accountability standard outlined in Law No. 23/2011, particularly in terms of: 1) the absence of some accountability indicators; 2) ineffective use of websites; 3) ineffective use of social media; and 4) the absence of an Internal Audit Unit (SAI). The findings have implications for BAZNAS improvement in North Sulawesi and throughout Indonesia. This study, in particular, suggests that the institution's websites and social media be optimized by integrating them with provincial zakat institutions. As a result, it is critical to hire an IT professional who specializes in in-out information from/to society. Furthermore, the establishment of SAI and the recruitment of shariah auditors are critical. As an initial step, collaboration with Islamic universities could be a solution.

This study proposes that future research should expand its scope to encompass all provinces. Other possible studies could be undertaken by comparing the administration of zakat in North Sulawesi to that of other provinces. In addition, future research might examine the effects of accountability measures on *muzakki* faith in institutions and, consequently, on the intention to pay zakat via BAZNAS in North Sulawesi.

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WHAT DETERMINES E-LOYALTY AND E-TRUST OF INDONESIAN MUSLIM LECTURERS USING VIDEO CONFERENCE?

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ABSTRACT - This study examines the effect of perceived privacy and perceived security on e-trust and e-loyalty of Muslim lecturers using video conference media in Indonesia. Additionally, the role of e-trust as a mediator in this relationship and the role of consumer innovativeness as a moderator of the relationship between e-trust and e-loyalty are investigated. The samples consisted of 250 respondents selected using a purposive sampling technique. The data was collected by a questionnaire survey and analyzed in AMOS using Structural Equation Modelling. The results indicate that perceived privacy and security considerably and favorably influenced e-trust. Similarly, e-trust and perceived privacy have a strong positive effect on e-loyalty, although perceived security has no effect. Moreover, e-trust could moderate the impact of perceived privacy on e-loyalty, but not the impact of perceived security on e-loyalty. Meanwhile, consumer innovation could not regulate the link between e-trust and e-loyalty. The findings have implications for establishing the concept of e-trust and customer innovativeness in the e-loyalty model.
Keywords: Privacy, Security, e-Trust, e-Loyalty, Consumer Innovativeness

ABSTRAK – Apa Determinan E-Loyalitas dan E-Kepercayaan Dosen Muslim Indonesia dalam Menggunakan Video Conference? *Penelitian ini menguji pengaruh persepsi privasi dan keamanan yang dirasakan terhadap e-kepercayaan dan e-loyalitas dosen muslim dalam menggunakan media video konferensi dan juga menguji peran e-kepercayaan sebagai mediasi dalam hubungan ini dan peran keinovatifan konsumen sebagai moderasi hubungan antara e-kepercayaan dan e-loyalitas. Sampel yang diambil sebanyak 250 responden dengan pendekatan purposive sampling dan metode analisis data yang digunakan adalah Structural Equation Modelling menggunakan AMOS. Hasil penelitian menunjukkan bahwa persepsi privasi dan persepsi keamanan berpengaruh positif dan signifikan terhadap e-kepercayaan. Persepsi privasi memiliki pengaruh positif dan signifikan terhadap e-loyalitas, persepsi keamanan tidak berpengaruh terhadap e-loyalitas, dan e-kepercayaan berpengaruh positif dan signifikan terhadap e-loyalitas. E-kepercayaan dapat memediasi efek privasi yang dirasakan pada e-loyalitas tetapi tidak memediasi pengaruh keamanan yang dirasakan pada e-loyalitas. Demikian juga, inovasi konsumen tidak dapat memoderasi hubungan e-kepercayaan terhadap e-loyalitas. Penelitian ini berimplikasi pada pengembangan konsep e-kepercayaan dan keinovatifan konsumen dalam model e-loyalitas.*
Kata Kunci: *Privasi, Keamanan, e-Kepercayaan, e-Loyalitas, Keinovatifan konsumen*

INTRODUCTION

The Covid-19 pandemic has altered the way in which people conduct day-to-day activities. By implementing a variety of policies that restrict community activities, the government seeks to prevent and limit the spread of the virus. This effort has resulted in changes in many aspects of people's lives, including business, education, social, and so forth. Humans attempt to find solutions in order to carry out their daily activities in novel ways. The Video Conference application is one such method of communication.

The use of video conferencing is one solution during a pandemic (Aina & Nzegwu, 2020). Online meeting applications are increasing in use every week, whereas, in March 2020, there was a very significant 183 percent increase in the Zoom application (Evandio, 2020). The use of this application also has risks, especially related to privacy and security (Kagan et al., 2020). Furthermore, these problems range from unencrypted communication for unpaid users to malware vulnerabilities, allowing uninvited people to enter video conference meetings by guessing passwords, and stealing user data (Kagan et al., 2020). This problem will have an impact on low customer loyalty and a decline in company performance.

Several studies discuss E-loyalty as the commitment of customers to consistently revisiting the site and shopping without switching to other sites (Chou et al., 2015; Hou et al., 2020; Pham et al., 2020; Zhu et al., 2016; Rayi Retno Dwi Asih & Pratomo, 2018; (Haneen Hasan et al., 2020). E-loyalty is created from e-trust (Sharma & Lijuan, 2015). E-trust is a customer's belief in their hopes for an online business (Li et al., 2015). Not only does e-trust have an impact on e-loyalty but also privacy and security (Liljander et al., 2015). If customers feel their privacy is safe and secure, they are comfortable interacting in the digital world.

Another interesting thing is the consumer innovativeness. Consumer innovativeness is used as a predictor variable in the purchase intention model (Tjokrosaputro & Cokki, 2020; Al-Jundi et al., 2019). In the loyalty model, consumer innovation becomes a moderator of the relationship between service innovation and consumer loyalty (Roziana & Sari, 2018). Consumer innovativeness is related to someone's trust and loyalty (Menidjel et al., 2017; Lin, 2010). This element is still slightly used as a moderating variable in e-trust and e-loyalty relationships.

The role of consumer innovation is unique and there are still few studies in the e-loyalty model, especially as a moderator variable. Based on the phenomena and gaps in previous research, this study aims to examine the effect of perceived privacy and perceived security on e-trust and e-loyalty. Besides, it also examines the mediating role of e-trust in this relationship and to examine the moderating role of consumer innovativeness variables in e-trust and e-loyalty relationships.

LITERATURE REVIEW

Perceived Privacy and Perceived Security

For consumers to interact in the digital world, perceived privacy and perceived security are crucial. Individual perception is the capacity to regulate third-party access to information in market transactions or to share information privately (Goodwin, 1991). E-Trust appears to have as antecedents perceived privacy and perceived security in the digital world (Shukla, 2014; Liljander et al., 2015; Chou et al., 2015; Aslam et al., 2019). If consumers believe that their privacy is securely protected, they will feel at ease when using digital media. Elements of privacy and security can also increase e-loyalty (Kamilullah, 2017). Moreover, perceived privacy and perceived security have a positive relationship with e-loyalty (Cui et al., 2018). According to Fahmi (2018), preserving privacy can increase consumer intent to reuse and online media user loyalty.

Several indicators of perceived privacy include: (1) the company informs consumers about the information needed; (2) an explanation of the use of information; (3) a mechanism/policy to review and change inappropriate information; (4) consumers believe the company retains their personal information; and (5) consumers believe the company does not release their personal information (Goodwin, 1991). Meanwhile, there are five indicators for perceived security: (1) consumers believe the company implements security measures to protect users; (2) the company ensures protected transaction information; (3) the company has a secure payment mechanism; (4) the company has superior capabilities for dealing with hijackings; and (5) the company safeguards transactions with integrated security (Renata Mekovec & Zeljko, 2012).

E-Trust

E-trust is the degree to which consumers have confidence in online business transactions. Considered to be the most important aspect of a digital company's success, trust is widely regarded as the most important aspect of digital (Sharma & Lijuan, 2015). Trust is the psychological state of being willing to sustain harm based on the anticipation of the intentions or actions of others (Rousseau et al., 1998). Several studies have determined that e-trust precedes e-loyalty (Saini & Kumar, 2015; Li et al., 2015; Zhu et al., 2016; Saini & Singh, 2020; Ibrahim, Fitria, Shabri, 2022). In the context of e-loyalty, e-trust can serve as a moderating factor that influences e-loyalty (Kassim & Abdullah, 2010; Nisfullah & Bachri, 2020).

E-trust indicators include: (1) consumer confidence in the honesty and accuracy of the company in providing information; (2) consumer confidence in company errors; (3) consumer confidence that the company provides mutually beneficial recommendations; and (4) consumer confidence that the company does not harm users (Aslam et al., 2019; Chou et al., 2015; Li et al., 2015).

E-Loyalty

Loyalty is defined as repeated purchasing behavior over a set period of time motivated by a favorable attitude toward the subject (Keller, 1993). E-loyalty is defined as obedience and consistent behavior toward a subject or object via electronic means (Rayi Retno, Dwi Asih & Pratomo, 2018; Ibrahim & Kamri, 2016). E-loyalty is a long-term commitment to repurchase specific products or services from the same company on a regular basis (Bachri, 2017; Utami, 2015). According to Al-Dweeri et al. (2017), there are two types of loyalty: (1) behavioral loyalty, which is the level of customer commitment to the brand and can change if the service provider changes its marketing strategy, and (2) attitude loyalty, which is considered a positive attitude and is related to repurchasing behavior. Loyalty variables can improve a service company's performance (Bachri, 2018; Roslina et al., 2018).

According to Li et al. (2015), the indicators of e-loyalty are as follows: (1) consumers always visit certain applications to make transactions, (2) consumers intend to continue transacting on certain media, and (3) consumers frequently recommend certain media to others. Chou et al. (2015) added indicators of (1) consumer willingness not to switch to other media and (2)

products or services offered by companies in accordance with consumer expectations.

Consumer Innovativeness

The main topic that has received special attention from researchers is consumer innovativeness (Bartels & Reinders, 2011; Hur et al., 2012). This variable denotes how consumers react to new products associated with innovation (Zhang & Su, 2011; Fitri et al., 2018). Sahin and Gelmez (2020) state that the success of an innovation can only be achieved by accurately identifying its potential consumers and their needs. According to Midgley and Dowling (1978), there are two types of individual innovation: (1) innate innovativeness (related to personality traits) and (2) actualized innovativeness (engaging in innovative behavior). Personal innovation is a personality trait that expresses an individual's natural proclivity for innovation.

Consumer innovativeness has several dimensions and measurement indicators, including (1) social, which refers to the desire to show innovative products to others, (2) functional, which refers to the ease of use of products, (3) hedonic, which refers to the joy of using innovative products, and (4) cognitive, which refers to thoughts about innovative products (Vandecasteele & Geuens, 2010; Dimitha, Ibrahim, & Ahmadsyah, 2021).

Hypotheses and Proposed Model

This study investigates the following eight hypotheses:
H_1 : Perceived privacy has a positive effect on e-trust.
H_2 : Perceived security has a positive effect on e-trust.
H_3 : Perceived privacy has a positive effect on e-loyalty.
H_4 : Perceived security has a positive effect on e-loyalty.
H_5 : E-trust has a positive effect on e-loyalty.
H_6 : Perceived privacy has a positive effect on e-loyalty through e-trust.
H_7 : Perceived security has a positive effect on e-loyalty through e-trust.
H_8 : E-trust has an effect on e-loyalty moderated by innovativeness of Muslim lecturers.

The model of hypotheses tests is presenting in Figure1.
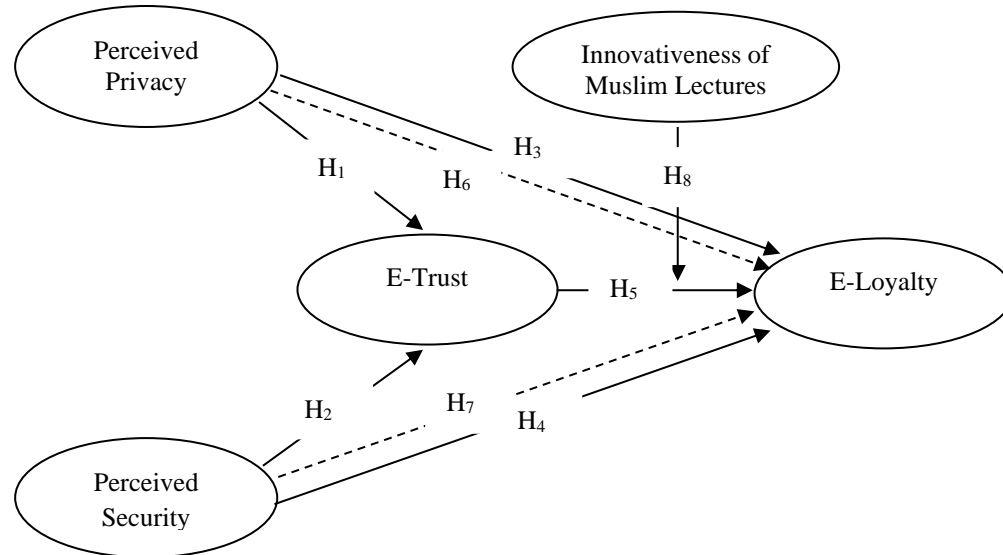
Figure 1. Research Framework

Note:

⟶   : Direct effect

--⟶   : Indirect effect

METHODOLOGY

This study examined the influence of perceived privacy and perceived security on e-trust and e-loyalty among 285 Muslim lecturers who utilize video conferencing applications. They were selected using the purposive sampling technique, with specific criteria such as being 25-year-old Muslim lecturers and having used video conferencing media more than three times in the last three months. Data was collected using questionnaires that were distributed from August to October 2020.

To measure perceived privacy and perceived security, this study adopted the research of Chou et al. (2015) which have five indicators for each variable. For the e-trust measurement, this study adopted five indicators from Li et al. (2015) and Aslam et al. (2019). The e-loyalty variable is measured using four indicators that adopted from Li et al. (2015) and Chou et al. (2015). Meanwhile, to measure consumer innovativeness, it utilized indicators by Vandecasteele & Geuens (2010), which contains four indicators. It employed Likert scales with a range from 1 (Strongly disagree) to 5 (Strongly agree). The hypothesis

testings were conducted with Structural Equation Modeling (SEM) in AMOS. Prior to that, the validity and reliability tests were performed.

RESULT AND DISCUSSION

Demography

From a total distribution of 285 samples, only 250 questionnaires were returned, which corresponds to a response rate of 87.7 percent. Male respondents dominated gender characteristics with 55.6 percent, while female respondents had 44.4 percent. From the perspective of marital status, 47.2% of respondents were married, 45.2% were unmarried, and 7.6% were other. Compared to other age groups, those between 31 and 40 years of age were the most prevalent. For more details, it appears in the following table.

Table 1. Respondent Demographics

Characteristics	Frequency	Percentage
Gender		
Men	139	55.6
Women	111	44.4
Marital status		
Married	118	47.2
Single	113	45.2
Others	19	7.6
Age (years old)		
23-30	78	31.2
31-40	93	37.2
41-50	74	29.6
More than 50	5	2.0
Job Status		
Civil Servant Lecturers	190	76.0
Non-Civil Servant Lecturers	60	24.0
Types of Vicon Media		
Zoom	56	22.4
Google Meet	88	35.2
Skype	50	20.0
Whatsapp	49	19.6
Others	7	2,8
Uses of Vicon		
Learning and Teaching	130	52.0
Webinar	76	30.4
Meeting	42	16.8
Others	2	0.8

In addition, based on the status of Muslim lecturers, the proportion of civil servant lecturers surpasses that of non-civil servant lecturers, 76 percent to 24

percent. Google Meet is the most popular type of media utilized by respondents, followed by Zoom with 22.4%. The majority of application users (52%) prefer video conferences to webinars (30%) and meetings for carrying out the learning process (16.8%).

Normality and Outlier Tests

The data is normally distributed, according to the normality test. Skewness has a critical ratio in the range + 2.58. Similarly, the critical-ratio of kurtosis is in the + 2.58 range. Asymmetry and kurtosis values between -2 and +2 are considered acceptable for proving a normal univariate distribution (George & Mallery, 2010). According to Hair et al. (2010) and Bryne (2010), data is considered normal if the skewness is between 2 and +2 and the kurtosis is between 7 and +7. There are no extreme data in this study, as determined by outlier analysis. As a result, the authors have a total of 250 samples at their disposal.

Validity and Reliability Tests

The consistency or dependability with which a test analyzes a trait is referred to as its reliability. The reliability coefficient demonstrates the dependability of a test. It is denoted by the letter "r," and it is expressed as a number ranging from 0 to 1.00, with r = 0 denoting no dependability and r = 1.00 denoting total dependability. The word validity refers to what the test measures and how successfully that attribute is assessed. All indicators in this research indicated a value greater than 0.334 (df = 33, 0.05). This result implies that all of the indicators are valid. Cronbach's alpha values are 0.820, 0.730, 0.741, 0.735, and 0.818 for perceived privacy, perceived security, e-trust, e-loyalty, and consumer innovativeness, respectively. The findings indicate that all of the constructs used in this study are reliable.

Measurement Model Tests

These tests assess the precision of all variables in this study. The Goodness of Fit Index, Adjusted Goodness of Fit Test, Tucker-Lewis Index, Comparative Fit Index, Root Mean Square Error of Approximation, CMIN, and P-Value are among the criteria employed (Hair et al., 2006). All criteria in the study satisfied the requirements, resulting in a fit and parsimony measurement model. More information is provided in the table below.

Table 2. The Goodness of Fit Tests for the Proposed Model

Criteria	Cut Off	Results	Conclusions
Chi-Square	-	96.454	Good
The Degree of Freedom	-	77	Good
The Goodness of Fit Index (GFI)	≥ 0.90	0.966	Good
Adjusted Goodness of Fit Index (AGFI)	≥ 0.90	0.940	Good
Tucker Lewis Index (TLI)	≥ 0.95	0.989	Good
Comparative Fit Index (CFI)	≥ 0.95	0.993	Good
Root Mean Square Error of Approximation (RMSEA)	≤ 0.08	0.028	Good
CMIN	≤ 2.00	1.253	Good
P-Value	≥ 0.05	0.066	Good

Thus, all variables are described in the following diagram.
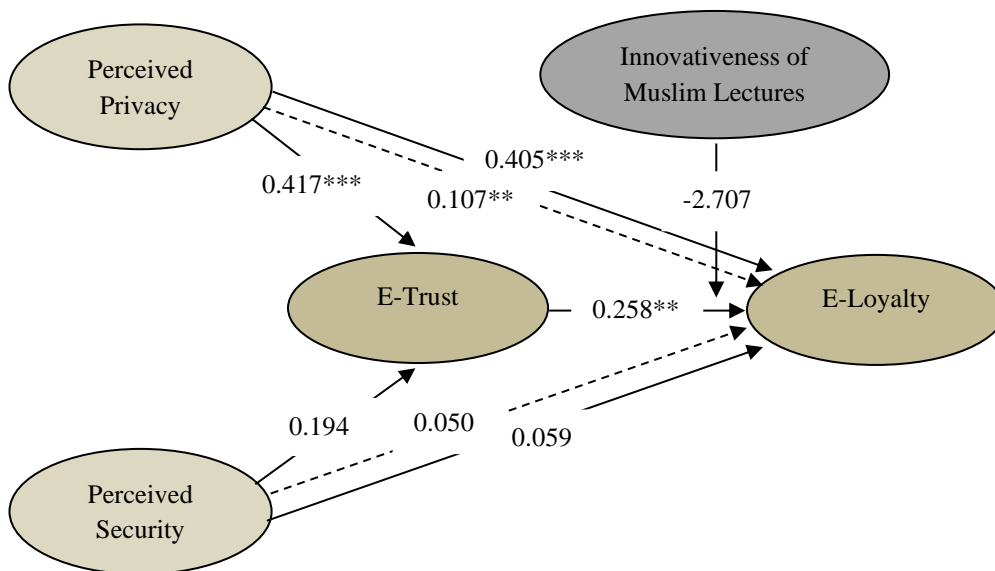
Figure 2. Estimation of Relationships

Note: ***Prob. <0.01; **Prob. <0.05; *Prob. <0.10

Discussions

The first hypothesis (H_1) states that perceived privacy has a significant effect on the e-trust of Muslim lectures in using video conferencing applications. It means that H_1 can be accepted with the C.R. value (6.421) > tα/2 (1.96) or P-value (0,000***) < Sig. α (0.001). This study supports the findings of Liljander et al. (2015), Widodo & Susanto (2018), and Kinasih & Albari (2012), who

found that e-trust may be generated by a person's feeling of privacy when utilizing online media. Perceived privacy is a key factor in digital activity. The greater the user's privacy is safeguarded, the more confident the user is in the media they utilize. As a result, the firm providing video conferencing applications assures that consumer personal data is correctly and confidentially stored.

The second hypothesis (H_2) indicates that perceived security has a substantial influence on the e-trust of Muslim lecturers in utilizing video conferencing technologies. It indicates that H_2 can be accepted with a C.R. (3.299) > $t\alpha/2$ (1.96) or P-value (0.000***) < Sig. α (0.001). This study is consistent with the findings of Shukla (2014) and Tirtana & Sari (2014), who discovered that e-trust may be generated from a person's perception of security while utilizing video conferencing. Security is a key element in building user trust, and various research demonstrate that security perceptions may be an antecedent variable or driver of online company performance. The safety variable can be an essential factor in building trust.

The third hypothesis (H_3) asserts that perceived privacy has a substantial impact on the e-loyalty of Muslim lecturers who use video conferencing programs. C.R. (5.953) > $t\alpha/2$ (1.96) or P-value (0.000***) < Sig. α (0.001), indicating that H_3 is acceptable. This study is consistent with the findings of Fahmi (2018) and Kamilullah (2017), which assert that consumers would stay loyal if their privacy is protected. Several prior research have demonstrated a favorable association between a sense of privacy and product loyalty. Privacy can encourage usage intentions and contribute to customer loyalty. Consequently, this characteristic becomes a crucial antecedent for building consumer loyalty.

The fourth hypothesis (H_4) asserts that perceived security has a significant effect on the e-loyalty of Muslim lecturers who use video conferencing software. Given that C.R. (0.978) < $t\alpha/2$ (1.96) or P-value (0.328) > Sig. α (0.10), it is evident that the null hypothesis (H_4) cannot be accepted. This result indicates that consumers are uncertain and anxious about whether or not the use of media would harm online businesses. Regarding the development of customer-friendly processes and methods, the organization must exercise extreme caution regarding this aspect. This study contradicts the findings of Kassim and Abdullah (2010), who discovered that consumers' feelings of perceived security can motivate them to share positive stories about a company or its products. As a result, they are uncertain whether or not to recommend it

to others. This indicates that consumers' perceptions of product safety may affect their brand loyalty.

The fifth hypothesis (H_5) states that e-trust influences e-loyalty positively among Muslim lecturers who use video conferencing applications. The test yielded a C.R. (3.327) > tα/2 (1.96) or P-value (0.000***) < Sig. α (0.001), indicating that H_5 can be accepted. In accordance with the findings of Zhu et al. (2016), Saini & Kumar (2015), and Bachri et al. (2019), that the e-trust variable has a statistically significant and positive effect on e-loyalty. When consumers have a strong commitment to a particular company or product, loyalty can increase. Meanwhile, a profound sense of consumer trust can foster a strong sense of commitment.

The sixth hypothesis (H_6) proposes that perceived privacy influences e-loyalty via e-trust. Path-a has a value of $\beta = 0.417$ with a significance level of 0.000. Path-b has a value of $\beta = 0.258$ with a significance level of 0.000. Path-c has a value of $\beta = 0.405$ with a significance level of 0.000, and Path-c' has a value of $\beta = 0.107$ with a significance level of 0.013. This indicates that H_6 is accepted. This result suggests that perceived privacy influences e-loyalty via e-trust, and that e-trust can act as a mediator between perceived privacy and e-loyalty levels.

The seventh hypothesis (H_7) suggests that perceived security influences e-loyalty via e-trust. The path-a has a value of $\beta = 0.194$ with a significance level of 0.328. Path-b has a value of $\beta = 0.258$ with a significance level of 0.000. Path-c has a value of $\beta = 0.405$ with a significance level of 0.000, and Path-c has a value of 0.059 with a significance level of 0.564. It means that H_7 is unacceptable. Thus, perceived security influences e-loyalty via e-trust, and e-trust cannot be used as a mediator between perceived security and e-loyalty due to the high level of consumer knowledge and skill regarding the use of video conferencing. Numerous astute consumers have concluded that the utilized applications have a number of shortcomings.

The eighth hypothesis (H_8) states the consumer innovativeness moderates the effect of e-trust on e-loyalty of Muslim lecturers in using video conferencing applications. The value of C.R. (-7.373) <tα/2 (1.96) or P-value (0.000***) < Sig. α (0.001), which means that H_8 cannot be accepted. Consumer innovativeness can weaken the effect of e-trust on e-loyalty. The level of consumer trust has a direct influence on e-loyalty. Innovative consumer

variables have no direct effect on e-trust and e-loyalty. Innovative consumers understand deeply about video conferencing applications and know the weaknesses of these applications that reduce the level of trust or raise doubts about these systems and applications.

CONCLUSION

This study investigated the relationship between the perceived privacy, security, e-trust, and e-loyalty of Muslim lecturers using video conferencing applications. This study confirms that perceived privacy has a direct effect on e-loyalty, whereas perceived security has no direct effect on e-loyalty, by using e-trust as a mediating variable. Similarly, for e-trust, perceived privacy and perceived security have a positive and substantial effect. E-trust influences e-loyalty in a positive and significant way. The relationship between e-trust and e-loyalty cannot be moderated, however, by consumer innovativeness. We argue that consumers have a high level of innovation and an in-depth understanding of video conferencing, as well as greater expectations for the products that are offered.

This research emphasizes the significance of understanding e-trust and e-loyalty. Loyal customers not only experience a sense of comfort while using the product, but they also engage in promotional activities and suggest video conferencing applications to other people. It is imperative for businesses to be able to improve both the functionality and general quality of their wares in order to live up to the standards set by their target audiences.

This study has a number of limitations, including the small sample size, which is restricted to Muslim lecturers only. Further research can expand samples from all circles that frequently use video conferencing in their work. This study only employs five variables: perceived privacy, perceived security, e-trust, e-loyalty, and consumer innovativeness. Therefore, future researchers should consider other variables related to information technology updates.

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EFFICIENCY DETERMINANTS OF ZAKAT INSTITUTIONS IN INDONESIA

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ABSTRACT - The purpose of this study is to examine the relative efficiency of national zakat organizations in Indonesia. Data was collected from decision-making units (DMU) consisting of 14 national zakat institutions in Indonesia listed on the BAZNAS website and selected using purposive sampling technique. The information was derived from the DMU's publicly accessible financial reports. This study utilized the Data Envelopment Analysis (DEA) output-oriented approach to maximize output with the same level of input when analyzing the data. In selecting input variables, this study consulted previous research. In addition, it utilized Tobit regression based on the outcome of Maximum Likelihood (ML) to evaluate the determinants of the efficiency value (dependent variable) as the score ranges from 0 to 100. The result indicates that the efficiency of zakat institutions fluctuates slightly throughout the observation period. In addition, the significant efficiency determinants are size and community membership. Therefore, zakat organizations must maintain and increase their donors' loyalty. It is anticipated that the findings will contribute to the advancement of practice and knowledge regarding the study of zakat literature.

Keywords: Zakat Institution, efficiency, Data Envelopment Analysis, Tobit Regression

ABSTRAK – Determinan Efisiensi Lembaga Zakat di Indonesia. *Penelitian ini bertujuan untuk mengkaji tingkat efisiensi relatif instituti zakat di Indonesia. Data dikumpulkan dari unit pengambil keputusan yang terdiri 14 lembaga zakat nasional yang terdaftar pada situs BAZNAS dan dipilih dengan teknik sampel purposif. Informasi yang diolah berasal dari laporan keuangan yang dapat diakses secara publik. Analisis data menggunakan Data Envelopment Anaysis (DEA) dengan pendekatan output-oriented yang memaksimalkan output di level yang sama dengan tingkat input. Dalam memilih variabel input, kajian ini menggunakan beberapa hasil riset sebelumnya. Selanjutnya, analisis data juga dilakukan dengan Tobit regression yang mendasarkan pada outcome dari Maximum Likelihood (ML) dengan maksud untuk mengevaluasi determinan nilai efisensi dalam rentang skor 0 sampai 100. Temuan kajian ini mengindikasikan bahwa tingkat efisiensi lembaga zakat di Indonesia cenderung berfluktuasi dalam periode yang diamati. Selain itu, determinan yang berpengaruh signifikan terhadap pencapaian tingkat efisiensi adalah ukuran (asset) dan afiliasi terhadap komunitas. Oleh karena itu, lembaga zakat harus menjaga dan meningkatkan loyalitas para donaturnya. Hasil kajian ini dapat berkontribusi pada kemajuan pengelolaan zakat dan memperkaya khazanah pengetahuan zakat dalam literatur.*

Kata Kunci*: Institusi Zakat, Efisiensi, Data Envelopment Analysis, Regresi Tobit*

INTRODUCTION

Muslims are obliged to pay zakat. As the majority of Indonesian people are Muslims, the potential of zakat collection should be huge. In 2019, Puskas BAZNAS conducted an indicator to measure zakat potential in Indonesia namely Zakat Potential Mapping Indicator (IPPZ) study. This study focused on calculating zakat potential based on zakat objects stipulated in Law No. 23/2011 on Zakat (BAZNAS, 2019) This study showed that the potential zakat in Indonesia in 2019 reached IDR 233.8 trillion. The details are displayed in Table 1 and 2.

Table 1. Potential of Zakat Collection in Indonesia

Object	Zakat Potential (IDR Trillion)
Zakat on agricultural products	19.79
Zakat on livestock	9.51
Zakat on deposits	58.76
Corporate Zakat	6.71
Zakat on Income	139.07
Total zakat potential	**233.8**

(Source: BAZNAS, 2019)

Nevertheless, the real collection is still far from the expectation although it shows a significant progress. The real collection in year 2018 reached IDR 8.1 trillion which only 3% of the potentials. But zakat collection and distribution experienced an increase respectively 30.13% and 39.91%. If this potential can be optimized properly, it can have a wider impact on society so that the expected social impacts can be maximally achieved and poverty alleviated. Hence, further investigation on the zakat management is necessary.

Table 2. Data on Collection and Distribution of Zakat Potential

Zakat Collection			
Year	**Collection (Billion)**	**Growth (%)**	**Ratio of collection to potential (%)**
2015	3,650	0	1.7
2016	5,017	37.46	2.3
2017	6,224	24.06	2.8
2018	8,100	30.13	3.7
Zakat Distribution			
Year	**Distribution (Billion)**	**Growth (%)**	**Ratio of distribution to potential (%)**

Zakat Collection			
Year	Collection (Billion)	Growth (%)	Ratio of collection to potential (%)
2015	2,249	0	61.6
2016	2,931	30.32	58.4
2017	4,860	65.81	78.1
2018	6,800	39.91	89.8

(Source: National Zakat Statistic (BAZNAS, 2019))

Hafidhuddin (2008) identified some problems in zakat management; 1) ineffective, 2) inefficiency, 3) ineffective information, 4) lack of trust to the zakat institution. On the other hand, Laela (2010) argued that donators are interested to see the efficiency performance of the zakat organizations. The level of efficiency performance affects people's decision in donating their money (Alexander, 2006). Furthermore, Muda et al (2006) found that among the highest factors that influence people to perform zakat is the level of efficiency, effectiveness and transparency of zakat organization. It will increase the public trust as they can monitor the disbursement of the donated funds. In addition, efficiency may contribute to the larger benefit for the ummah (Akbar, 2009)

Zakat organization is an institution collecting and distributing zakat funds (*Aamil*). It deserves some allocation of the zakat funds for operating costs (Q.S. At-Taubah: 60). There is no restriction about the percentage amount of the *aamil*'s right. However, Qaradhawi (2005) argued that the allocation for *aamil* should not exceed than 12.5% following the Shafii's opinion. Most Indonesian Zakat Institutions are private organization whereby they do not receive any allocation funds from the government. For BAZNAS (owned by the government), they receive little financial support from the government. All in all, Indonesian zakat institution depend on their rights upon some portions of zakat funds to operate their activities (Ibrahim, et al., 2014; 2011). The *aamil*'s portion may cover the salary, socialization costs, and other operating costs. Hence, to enlarge the benefit of zakat funds, the collected funds should be utilized efficiently.

Some researches have been found analyzing the efficiency level of zakat organization in Indonesia such as Akbar (2009), Al-Ayubi et al (2018), Rustyani & Rosyidi (2019) Rusydiana (2018) Ryandono et al (2021) Wahyudi & Susetyohadi (2021). However, these previous research only assessed the efficiency level of Indonesian Zakat Institutions, without explain the

determinant that affect it intensively. Therefore, to enhance a comprehensive result, this paper attempts to analyze the efficiency and determinants of efficiency level of Indonesian zakat organization. Hence, it is expected to find some factors that can be optimized to enhance the efficiency level.

This study aims to measure the efficiency level of 14 Zakat Institutions in Indonesia, from 2106 until 2018 using Data Envelopment Analysis (DEA). The analysis the continued by finding the determinant that affect the efficiency level of Indonesian Zakat Institutions using Tobit regression. A similar study was carried out by Wahab & Rahman (2013) which analyzed the determinants of zakat efficiency in Malaysian case. In addition, this study analyzed the influence of affiliation (type) of zakat institutions on the efficiency achievement. This issue was not discussed by Wahab & Rahman (2013) in the case of Malaysia

LITERATURE REVIEW

Zakat Organization in Indonesia

Based on the Act No. 38 Year 1999, there are two types of zakat organization in Indonesia: a) Badan Amil Zakat (BAZ, owned by government), b) Lembaga Amil Zakat (LAZ, private organization). In the newest act, No. 23 year 2011, it is mentioned that there are three types of BAZNAS: a) BAZNAS operating in district level, b) BAZNAS operating in province level and c) BAZNAS operating in national level. People are allowed to establish zakat organization (LAZ) with the approval of minister. BAZNAS is assigned to plan, implement and control the whole collection, distribution and utilization of zakat funds, and make a report to the president. Meanwhile, LAZ is obliged to report the audited zakat collection, distribution and utilization activities to the BAZNAS (National BAZ) regularly (PP RI No. 14/2014).

Efficiency in Zakat Institution

Efficiency concept is derived from the microeconomics theory: producer and consumer behavior. Producers tend to maximize revenue and minimize cost in order to earn more profits, while consumers maximize utility with the budget constraint. Ascarya (2012) In the production theory, frontier line describes the relationship between input and output of production. Input-output relation is the important component to measure the efficiency. An efficient firm is the one who lies at the frontier production line. Efficiency is one of the performance

parameters that theoretically represent the overall performance of decision-making units (DMUs). Prasetyo & Zuhdi (2013) argued that efficiency measurement aims to produce maximum output with the existing input or specific output with minimum input. Output is the income or production that can be accumulated while input is the resources or expenses to produce output.

According to Coelli (1996) the efficiency level can be measured through either the input/cost-oriented approach or the output-oriented approach. The input-oriented approach signifies that a certain amount of input may be reduced proportionally to produce the same level of output. Unlike the input-oriented approach that focuses on cost minimization, the output-oriented approach places emphasis on the profit maximization. This means that a certain percentage of output may be increased proportionally using the same level of input. Efficiency in zakat collection means that the zakat institutions are able to optimize their resources to collect zakat funds as much as possible. Meanwhile, the efficiency in distribution means zakat institutions is able to distribute the zakat funds with minimum costs.

Determinant of Zakat Institution's Efficiency

There are several factors than can be considered as the dominant determinants of efficiency in zakat management namely size, the age of zakat institution, number of branches and types of the organization. Hager & Rooney (2001) found that size influences the efficiency of charity institution. Likewise, Yi (2010) found that size of charitable organization had positive relationship with fundraising efficiency. This implies that the larger the organizational size, the higher the fundraising efficiency Interestingly, Laela (2010) found that size does not significantly influence the efficiency performance of zakat institution. Therefore, this variable should be reexamined.

Age is another important factor influencing the performance of organization due to the experiences (Coad et al., 2013). Iwiyisi & Chinwuba (2015) age was statistically significant in impacting the performance of federal non-profit universities in Nigeria. Perhaps, the age of zakat organization may affect the efficiency. Furthermore, the causality relationship between efficiency level and the number of branches should be studied. A study on the relationship between number of branch and efficiency of zakat institutions has been conducted by Wahab & Rahman (2013) Interestingly, they did not find any correlation in

Malaysian Zakat Institution. However, it is assumed that number of branches positively affect the efficiency of Indonesian Zakat Organizations.

Lastly, the type of zakat organizations may influence the efficiency level. Al-Ayubi et al (2018) have divided types of zakat organization into two groups: zakat organization with community affiliation and zakat organization without any community affiliation. Al-Ayubi et al (2018) found that the efficiency of these two groups is fluctuating. Unfortunately, the relationship between types of zakat organization and efficiency have not been analyzed in depth. It is hypothesized that zakat organization with community affiliation should has a better efficiency performance since they have loyal donators. Reddick & Ponomariov (2012) found a positive connection between affiliation and online donations. Sargeant & Woodliffe (2007) on their research about non-profit institution also found that hat individuals who express a strong personal link to a nonprofit are significantly more likely to express higher levels of active commitment.

Previous Studies

The first paper analyzing the relative efficiency of zakat organization in Indonesia was conducted by Akbar (2009). He analyzed the efficiency level of National Zakat Organization in Indonesia from year 2005 to 2007 relatively. Another research on zakat organization efficiency with Indonesian case study are conducted by Al-Ayubi et, al (2018), Parisi (2017) and Rusydiana (2018) Rusydiana (2018) measured the technological change and the efficiency. He found that productivity growth is dominantly caused by technological change instead of efficiency change 2011-2016. On the other hand, Al-Ayubi et, al (2018) compared the efficiency level of Indonesian Zakat Organization with community affiliation and Indonesian Zakat Organization without any community affiliation. They found that IZI with community affiliation a better performance of technical efficiency between 2010-2013. In addition, Parisi (2017) researched the relative efficiency and productivity level of 5 Indonesian zakat organization namely Dompet Dhuafa, BAZNAS, PKPU, YBM BRI and Rumah Zakat from year 2005-2014. He found that Dompet Dhuafa is the most inefficient. In general, the main factor of inefficiency is the minimum allocation of zakat funds. In other words, zakat organizations are weak in distributing the collected funds.

In recent publications about zakat efficiency, Rustyani & Rosyidi (2019) measure of the efficiency and productivity level amil zakat institutions in Indonesia from 2014 until 2016. This result of MPI analysis showed that in the first year, two LAZs experienced a decline in productivity, namely LAZ Al-Azhar and PKPU. The other four LAZs experienced increased productivity, namely LAZ YDSF, ACT, Rumah Yatim and Rumah Zakat. In the second year, three LAZs experienced increased productivity, namely LAZ Al-Azhar, PKPU and Rumah Zakat. Meanwhile, three other LAZ experienced a decrease in productivity, namely LAZ YDSF, ACT, and Rumah Yatim. Then Wahyudi & Susetyohadi (2021) analyze the level of efficiency of the LAZ of Islamic bank corporations in Indonesia using two samples, Baitulmal Bank Muamalat (BMM) and BSM Ummah (BSMU). The results of this study indicate that all OPZ based on Islamic banks have efficient performance with a value of 100% both on the assumption CRS and VRS. This means that OPZ from Islamic bank corporations can collect and distribute ZISWA funds. Last, Ryandono et, al (2021) examined the efficiency level of fourteen Zakat Management Organizations (ZMO) in Indonesia using FDH and Super Efficiency method. The finding of this study showed that ZMO managed by the government is the most efficient ZMO compared to the others who managed by private group and social organization.

Related research was also conducted with case studies of several countries. In Malaysia, research on the efficiency of zakat organization is conducted by Ahmad & Ma'in (2014) & Wahab & Rahman (2013). The latter measured the efficiency level from year 2003-2007. The method is Data Envelopment Analysis. The inputs are number of staff and the total expenditure while the outputs are the collected funds, the distributed funds and the number of zakat payers. The results depicted that zakat organization have achieved performed efficiently with the average score is 80.6%. Meanwhile Ahmad & Ma'in (2014) studied efficiency of Lembaga Zakat Selangor between 2001 and 2011. Next, Djaghballou et, al (2018) measure efficiency and productivity of zakat funds in Algeria from 2003 to 2013. They found that total factor productivity has increased sharply for all zakat funds, mainly due to a technical rather than efficiency change.

Efficiency measurement is also conducted in other non-profit organizations. Tofallis & Sargeant (2000) analyzed the relative efficiency of 327 charities organizations in United Kingdom. The inputs are collection cost and

administration costs, while output is the amount of collected funds. The result showed that 13 organizations are relatively efficient.

In regard to the efficiency determinant factors, Hager & Rooney (2001) examined the effect of size and age on the efficiency of charity organization. He found that only size which influences the efficiency level. Wahab & Rahman (2013) continued the study by measuring the factors that may influence the efficiency level. The research utilized Tobit regression method. It is found that zakat payment system, zakat computation system, board size, audit committee and decentralization significantly affect the efficiency level of Malaysian Zakat Organization.

Laela (2010) examined some factors that influence the efficiency level of zakat organization. Efficiency is measured by the ratio of spending program over the total spending. The research selected 23 zakat organization with a cross section data. Having employed Ordinary Least Square method, the results showed that the board of supervisors do not affect the efficiency level. However, the number of supervisory board as well as its ratio over the number of executive directors influence the efficiency. Likewise, she found that zakat institution will be more efficient if they hired independent auditor. Surprisingly, organizational structure and the size have no correlation with the efficiency level. The relationship between age and efficiency is proven by Coad et, al (2013) in manufactural Industries. It is argued that age will increase the productivity and then may generate more profit.

Studies on efficiency of zakat institution in Indonesia have been carried out by some researchers, among them   and others. However, those previous studies did not tackle the issue of the determinants that affect the efficiency achievement of zakat institution in Indonesia. The further research is needed to find out the determinants that influence it, not only limited on efficiency analysis. This study will analyze efficiency level and determinant that influence it. A similar study was carried out by Wahab & Rahman (2013) which analyzed the determinants of zakat efficiency in Malaysian case. In addition, this study analyzed the influence of affiliation (type) of zakat institutions on the efficiency achievement. This issue was not discussed by Wahab & Rahman (2013) in the case of Malaysia.

RESEARCH METHOD

This research is quantitative research with parametric and non-parametric approach. The non-parametric is Data Envelopment Analysis method to measure the efficiency level of the decision-making units (DMU). Meanwhile, the parametric approach is Tobit regression method to analyze the determinants of efficiency score. The DMUs observed in this study are national zakat institutions in Indonesia as listed in https://pid.baznas.go.id/laz-nasional/. There are 14 institutions selected out of 25 institutions as they provide their financial reports from year 2016 to 2018 online. Selection of 2016-2018 as the research period due to latest available data

Table 3. List of DMUs

No.	Name of Zakat Institutions	Year Establishment	Type	2016	2017	2018
1	BAZNAS	2001	Affiliated	√	√	√
3	Dompet Dhuafa	1993	Not Affiliated	√	√	√
4	Global Zakat	2005	Not Affiliated	√	√	√
5	Griya Yatim Duafa	2009	Not Affiliated	NA	√	√
6	Inisiatif Zakat Indonesia	2014	Not Affiliated	√	√	√
7	LAZ Al Azhar	2004	Affiliated	√	√	√
8	Lazis NU	2004	Affiliated	√	√	√
9	Laznas Dewan Dakwah	2016	Affiliated	√	√	√
10	Mizan Amanah	1995	Not Affiliated	√	√	√
11	Panti Yatim Indonesia	1998	Not Affiliated	√	√	√
12	Rumah Zakat Indonesia	1998	Not Affiliated	√	√	√
13	Yatim Mandiri	2004	Not Affiliated	√	√	√
14	YDS Al Falah	1999	Affiliated	√	√	NA

(Source: Zakat Institution Financial Report)

Data Envelopment Analysis

The research applies the Data Envelopment Analysis (DEA) using the output-oriented approach; how to maximize output with the same level of input. Output oriented measurement is more appropriate for the OPZ case, where zakat funds collected and distributed are far from their potential. This approach is employed as the main problem in zakat is the low level of collected funds compared to its potential Akbar (2009) The selected input variables are operational costs and personnel ('*aamil*) costs, while the output variables are the amount of collected

funds and the amount of distributed funds. The selection of input and output variables are based on the production approach. In other words, this research considers zakat organization as producers with the output maximization approach.

In selecting input variables, this study refers Tofalis & Sargeant (2000), Akbar (2009),Parisi (2017) & Rusydiana (2018). Tofalis & Sargeant (2000) use administrative and fundraising expenses as input variable to measure non-profit organization efficiency. These two variables also used by Akbar (2009) and Rusydiana (2018) to measure zakat institution efficiency In Indonesia Parisi (2017) use the other expenses or operational cost except sozialisation cost in order to measure efficiency. While output variables used in this study refers to (Ahmad & Ma'in, 2014; Akbar, 2009; Parisi, 2017; Rusydiana, 2018; Wahab & Rahman, 2013). All of these studies use the amount of zakat collected and zakat distributed as output variables to measure the achievement of input variables.

Table 4. Input Output Specification

Output Variables	Definition	Source of Data	Reference
Collected Funds	Total collection of zakat, infaq, shadaqah, other religious alms, and profit of funds management	Statement of changes in funds	(Ahmad & Ma'in, 2014; Akbar, 2009; Parisi, 2017; Rusydiana, 2018; Wahab & Rahman, 2013)
Distributed funds	Total of restricted distribution funds and unrestricted distribution funds.		(Ahmad & Ma'in, 2014; Akbar, 2009; Parisi, 2017; Rusydiana, 2018; Wahab & Rahman, 2013)
Personnel Costs	Salary and allowance of 'Amil. Funds for paying the amil in zakat management organization	Statement of changes in funds	(Tofalis & Sargeant, 2000; Akbar, 2009; Rusydiana, 2018)
Operational costs	Other expenses. This cost consists of any expenses in the financial report except employee income		(Tofalis & Sargeant, 2000; Akbar, 2009; Parisi, 2017; Rusydiana, 2018)

(Source: Zakat Institution Financial Report)

DEA is a method to evaluate the relative efficiency and managerial performance of production or decision-making units (DMUs), using the same selected multiple inputs and outputs whereby the correlation function from inputs to outputs is unidentified. The efficiency score in DEA ranges between 0 and 1 or 100%. An efficient DMU is indicated by 100% score. The lower the

score, the less efficient the firm. Using a mathematical equation, the formula of DEA is drawn as follows (Ascarya & Yumanita, 2006).

$$\text{Efficiency of DMU} = \frac{\sum_{k=1}^{P} u_k y_{kj}}{\sum_{i=1}^{m} v_i x_{ij}} \quad (1)$$

Whereby:
DMU = decision making unit
n = number of DMU observed
m = different inputs
p = different outputs
μk = average output
vi = average input
xij = number of input i consumed by DMUj
ykj = number of output k produced by DMUj

DEA approach models

There are two DEA models which are frequently employed, namely Charnes, Cooper and Rhodes (CCR) model and the Banker, Charnes and Cooper (BCC) model, introduced in year 1984 Coelli (1996) The primary distinction between CCR model and BCC model is the treatment over return to scale. The CCR model assumes constant return to scale (CRS) while the BCC model assumes that each DMU operates with variable return to scale (VRS) Ascarya & Yumanita (2006)

Constant return to Scale (CRS) assumes that every increase in a certain percentage of input will be proportionally followed by an increase in output with the same percentage. In other words, an additional input of x times will increase the additional output of x times. This assumption is only applicable if the observed DMU operates on the optimal scale. CRS is applicable when the observed DMU has been operating on an optimal scale. Competition and other financial barriers in most of the times are key factors of firm inefficiency. To anticipate it, Banker et, al (1984) proposed the DEA model based on variable return to scale (VRS). VRS produces Technical Efficiency (TE), also known as Pure Technical Efficiency (PTE). The VRS approach assumes that the additional input of x times may not produce additional output of exactly x times, thus it can be smaller or greater than x times Ascarya & Yumanita (2006) Employing an estimation frontier based on CRS and VRS, we can decompose the technical efficiency (overall) using the CRS approach (TECRS) to become

pure technical efficiency (TEVRS) and scale efficiency (SE) by using the following equation (Coelli, 1996)

TECRS = TEVRS x SE

A firm should be very sensitive to the issue of output scale (commonly called return to scale (RTS). In practice, a firm is experiencing one of three RTS conditions, namely increasing return to scale (IRS), constant return to scale (CRS), and decreasing return to scale (DRS). The IRS condition assumes that every increase of x times of input will produce more than y times of output. The CRS condition assumes that every increase of 1x input will produce 1y output. Meanwhile, the DRS assumes that every increase of 1 unit of input will produce less than 1 unit of output. Briefly, DEA method can be explained by the following figure:
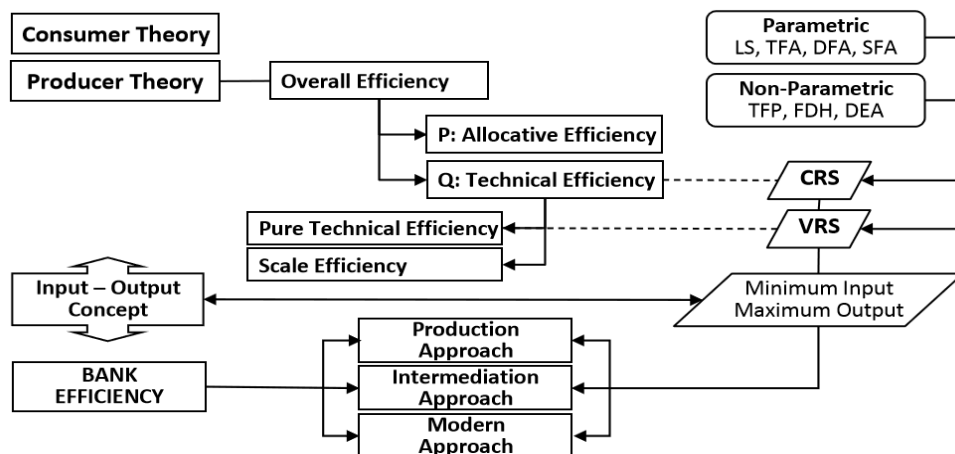
Figure 1. DEA Model
(Source: Ascarya et al., 2010)

Tobit Regression

The second research stage employs Tobit regression. Hoff (2007) argued that Tobit approach as the second stage of DEA is sufficient in most cases. The method is introduced by James Tobin in year 1958 to evaluate the relationship between limited dependent variables and independent variables Gujarati & Porter (2009) Initially, he wants to evaluate the expenditure of American household to buy car. However, this creates a problem in the OLS estimation as some households may not buy a car (zero expenditure). The estimation will

tend to zero and not significant. If it is significant, the value will be bias and not consistent Tobin (1958)

In Tobit regression model, the estimation is based on the result of Maximum Likelihood (ML). The result of parameter estimation is more accurate compared with OLS. Tobit regression is also known as a censored regression. Gujarati & Porter (2009) The use of Tobit in this research is to evaluate determinants of efficiency value (dependent variable) as the score lies between 0 and 100. Statistically, the tobit model can be expressed as follow Gujarati & Porter (2009)

$$Y_t = \beta_1 + \beta_2 X_i + \mu_i \tag{2}$$

Several variables have been selected as the regressors or independent variables namely size/total asset, age (internal), branch/number of offices and the type of organization. Hence, the tobit model of the research is as follows:

$$Y_t = \beta_1 + \beta_2 lnSize + \beta_3 Age + branch + \beta_5 type + \mu \tag{3}$$

Table 5. Tobit Variable Specification

Tobit Variable	Definition
Efficiency Score (Y)	Relative efficiency scores obtained from DEA computation
Size (X1)	Total Asset
Age	The observed year minus the year of establishment
Branch	Number of offices
Type	Whether the zakat institution has community affiliation (1) or not (0)

The selection of size as an independent variable refers to (Hager & Rooney, 2001) and Yi (2010) who in their research found that the size variable has a positive effect on efficiency, whereas this is contrary to Laela (2010) Next, he choice of age refers to Coad et, al (2013) and Iwiyisi & Chinwuba (2015) which show that age affects efficiency performance. Furthermore, the selection of branch variables refers to Wahab & Rahman (2013) Interestingly, Wahab & Rahman (2013) did not find any correlation between branches and efficiency in the Malaysian Zakat Institutions.

Lastly, the type variable was chosen as an independent variable referring to Al-Ayubi et, al (2018), Reddick & Ponomariov (2012), and Sargeant & Woodliffe

(2007). Al-Ayubi et, al (2018) have divided types of zakat organization into two groups; zakat organization with community affiliation and zakat organization without any community affiliation. their found that efficiency of these two groups is fluctuating, without analyze relationship among it in depth. While research conducted Reddick & Ponomariov (2012) and Sargeant & Woodliffe (2007) found a positive connection between affiliation/type and funds raised by non-profit organization. This variable is the first to be used in measuring the efficiency of a non-profit institution. The selection of this variable is based on the number of zakat institutions in Indonesia with different affiliations.

RESULTS AND DISCUSSION

Before entering into the discussion to the efficiency of zakat institution, table VI provides an overview of the input and output variables used in this study. Table VI shows descriptive statistics of the input and output variables

Table 6. Descriptive Statistics

Variable	Mean	Std.Dev	Max	Min
Input				
Staff Costs	9,652,621,375	11,425,920,903	51,641,508,352	116,825,275
Operational Costs	8,447,258,593	8,945,429,161	38,476,421,979	115,490,358
Output				
Collection	115,456,509,596	112,060,080,996	517,090,634,721	1,361,329,464
Distribution	103,210,241,623	105,961,609,761	509,269,003,283	1,187,745,527

Efficiency Level

On average, the results of CCR model shows that LAZISNU is the most efficient zakat institution, while Mizan Amanah and BAZNAS experienced the lowest level of efficiency. Interestingly, there is a significant gap of the efficiency level between LAZISNU and the others; whereby their efficiency scores mostly (77%) were below 50%. LAZISNU performed efficiently due to the loyalty of the members of *Nahdhotul Ulama* and also the efficient promotion.

Table 7. Average Efficiency Score

No	Zakat Institutions	CCR Model	BCC Model	
		Technical Efficiency	Pure Technical Efficiency	Scale
1	BAZNAS	0.17	0.42	0.40
2	Dompet Dhuafa	0.19	0.77	0.26
3	Global Zakat	0.68	0.82	0.84
4	Griya Yatim Duafa	0.25	0.26	0.98
5	Inisiatif Zakat Indonesia	0.41	0.43	0.96
6	LAZ Al Azhar	0.64	0.68	0.95
7	Lazis NU	0.81	0.93	0.88
8	Laznas Dewan Dakwah	0.28	0.29	0.95
9	Mizan Amanah	0.16	0.23	0.69
10	Panti Yatim Indonesia	0.25	0.26	0.98
11	Rumah Zakat Indonesia	0.29	0.58	0.51
12	Yatim Mandiri	0.30	0.33	0.92
13	YDS Al Falah	0.20	0.67	0.36

To understand deeper, the BCC model is worth to be analyzed since the zakat institutions may not operate at the optimum scale. Coelli (1996) argued that imperfect competition, constraint on finances, government regulations, and etc. may cause a decision-making unit to operate at not optimal scale. The results show that LAZISNU, Global Zakat and Dompet Dhuafa rank in the top three of pure technical efficiency. This indicates that they have better management than the others. However, since the scale efficiency scores of Dompet Dhuafa is very low, it cannot compete the overall efficiency of LAZISNU. Meanwhile, many zakat institutions enjoyed scale efficiency. Griya Yatim Dhuafa and Yatim Mandiri Indonesia achieved the highest level of scale efficiency during these three years on average. Unfortunately, both institutions had a very low performance in terms of technical efficiency.

The low scale efficiency level of Dompet Dhuafa and YDS al-Falah signify that there are not operating at the optimum level. However, these two zakat institutions have the difference in the level of return to scale, where YDSF at increasing return to scale, and Dompet Dhuafa at decreasing return to scale conditions. Return to Scale (RTS) analysis used as indicator to describe how well the bank's ability to produce its output. In the relationship between production factors or inputs with the level of production or output, RTS describes the response of output to a proportional change in input. Decreasing

Return to Scale (DRS) condition that an increase in all inputs the same amount causes a disproportionate increase in total output, this occurs when the increase in output is smaller than the added input. While Increasing Return to Scale (IRS) is a condition where additional input cause greater increase in output.

Table 8. Efficiency Trend of Each Zakat Institution

	Technical Efficiency	Pure Technical Efficiency	Scale Efficiency	Return to Scale
BAZNAS				Decreasing
Dompet Dhuafa				Decreasing
Global Zakat				Decreasing
Griya Yatim Duafa				Increasing
Inisiatif Zakat Indonesia				Decreasing
LAZ Al Azhar				Increasing
Lazis NU				Decreasing
Laznas Dewan Dakwah				Increasing
Mizan Amanah				Decreasing
Panti Yatim Indonesia				Increasing
Rumah Zakat Indonesia				Decreasing
Yatim Mandiri				Decreasing
YDS Al Falah				Increasing
Average				

(Source: author, processed, 2021)

Furthermore, in regard to the trend of efficiency from year 2016 until 2018, it can be clearly seen from Figure 2.
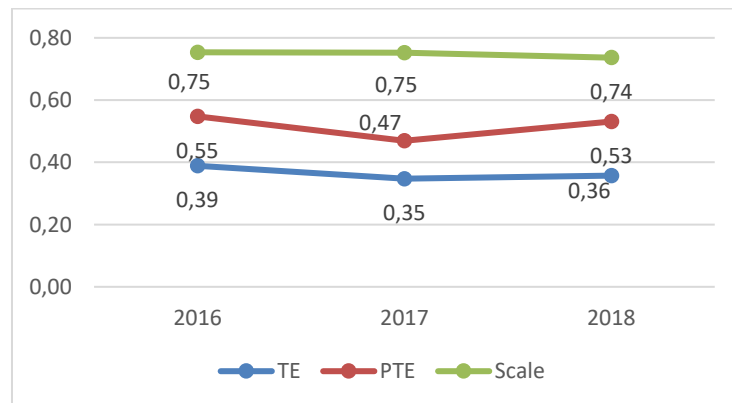
Figure 2. Trend of Zakat Institution's Efficiency

The Technical Efficiency (TE) shows a small fluctuation as it decreased in 2017 and then increased in 2018. The Pure Technical Efficiency (PTE) also fluctuates whereby the score in 2017 dropped significantly and then rebound in 2018. Lastly, the scale efficiency moved steadily in 2017 and then slightly

declined in 2018. All in all, there is no significant progress of the efficiency level during these three years. In this case, a breakthrough is needed to upgrade the efficiency level, especially the PTE.

In detail, the efficiency trend of each zakat institutions can be viewed in table 6. From TE perspective, only three institutions show a steady increase namely BAZNAS, Griya Yatim Dhuafa and Laz al Azhar. They show good improvement from time to time. On contrary, some institutions were declining continuously such as Dompet Dhuafa, IZI, Laznas Dewan Dakwah, Rumah zakat Indonesia, and YDS al Falah. Those institutions must be more aware about their performance. Serious improvement should be made. Other institutions fluctuate from time to time. Consistent improvement is required. In term of PTE, Lazisnu and Baznas made a consistent improvement. In the contrast, Griya Yatim and YDS al Falahh decreased simultaneously. Others fluctuate overtime. Hence, consistency of management aspect is still a serious problem in zakat management.

Potential Improvement

The improvement should be made to increase the efficiency. DEA results also show the potential improvement of each variable of every DMU. Based on the efficiency of the latest observed period with CCR model, the results are presented in Table 9.

Table 9. Potential Improvement

Zakat Institutions	Output Orientation (%)				Input Orientation (%)			
	Collection	Distribution	Staff Costs	Operational costs	Collection	Distribution	Staff Costs	Operational costs
Baznas	349.51	379.44	-72.03	0.00	0.00	6.66	-93.78	-77.75
Dompet Dhuafa	509.66	589.76	-19.48	0.00	0.00	13.14	-86.79	-83.60
Global Zakat	36.98	33.68	**-87.63**	0.00	**2.47**	0.00	-90.75	-25.19
Griya Yatim Duafa	294.75	302.29	-57.17	0.00	0.00	1.91	-89.15	-74.67
Inisiatif Zakat Indonesia	220.65	222.12	-64.20	0.00	0.00	0.46	-88.83	-68.81
LAZ Al Azhar	32.75	47.20	-78.64	0.00	0.00	10.89	-83.91	-24.67
Lazis NU	51.02	56.67	0.00	**-34.35**	0.00	3.74	-33.78	-56.53

Zakat Institutions	Output Orientation (%)				Input Orientation (%)			
	Collect ion	Distri- bution	Staff Costs	Operatio nal costs	Collect ion	Distri- bution	Staff Costs	Operational costs
Laznas Dewan Dakwah	319.37	315.39	-10.78	0.00	0.96	0.00	-78.52	-75.93
Mizan Amanah	**573.26**	**591.99**	-21.96	0.00	0.00	2.78	-88.41	**-85.15**
Panti Yatim Indonesia	361.31	393.36	-21.35	0.00	0.00	6.95	-82.95	-78.32
Rumah Zakat Indonesia	269.22	331.66	0.00	-33.48	0.00	16.91	-72.92	-81.98
Yatim Mandiri	245.88	341.77	-86.66	0.00	0.00	**27.72**	**-96.14**	-71.09
YDS Al Falah	503.28	501.67	-54.77	0.00	0.27	0.00	-92.48	-83.38
Mean	289.82	315.92	-44.20	-5.22	0.28	7.01	-82.96	-68.24

Based on the output orientation, Mizan Amanah has the highest potential in output variable (collection and distribution) followed by Dompet Dhuafa and YDS Al Falah. This indicate that they have not optimized their inputs yet to generate more output; collecting and distributing zakat funds. On the other hand, the input orientation model shows that the highest potential in staff cost is Yatim Mandiri. Benchmarking to the most efficient institution, Yatim Mandiri should reduce the cost up to 96%. In regard to the operational costs, Mizan Amanah should minimize the cost up to 85%.

On average, problem in outputs is higher than inputs. The distribution as well as collection should be increased about triple of the current condition. OPZ should increase zakat collection by 289.82% and improve zakat distribution by 315.92% in order to achieve maximum efficiency. Hence, zakat institutions should find a better strategy to increase the collection as well distribution. In addition, zakat institution should pay more attention to the staff cost variable. Based on potential improvement result above, this variable always shows great contributed to inefficiency, either using input or output approach. Zakat institution should pay more attention to the amil salaries or staff cost variable. Based on analysis, this variable was the main cause of inefficiency, either using input or output approach. This result implies that zakat institutions should improve their technology, rather than add their staff.

Tobit Regression Analysis

To identify the determinants of efficiency score obtained by DEA method, another method namely Tobit Regression should be employed. The results are as follow:

Table 10. Tobit Regression Results

Variable	CCR Model (Technical)		BCC Model (Pure Technical)	
	Coefficient	Prob	Coefficient	Prob
AGE	-0.007503	0.1912	0.005954	0.3733
BRANCH	0.000148	0.5548	-1.71E-06	0.9953
SIZE	-1.22E-13	0.7723	1.05E-12	**0.0322***
TYPE	0.061939	0.4975	0.230145	**0.0311***

*significant with 5% alpha

The table depicts that all independent variables are not significant influencing the efficiency score in CCR model. On the other hand, two variables are proven as determinants of efficiency score as the values of prob are less than alpha 5%. Age fails to determine the efficiency level. This finding is in contrast with Coad et al (2013) and Nurwati et, al (2014) who argued the positive relationship between age and efficiency performance. The development of digital technology, perhaps, allows young institution to compete with the older.

Likewise, branch does not affect the efficiency of zakat institutions. It is quite interesting to see the absence of relationship between branch and efficiency of zakat institutions as several studies such as (Ahmad & Ma'in, 2014; Al-Ayubi et al., 2018; and Wahab & Rahman, 2013) considered number of offices as an input of zakat efficiency. However, this finding is consistent with Wahab & Rahman (2013) It is found no relationship between those two variables in Malaysia using Tobit regression.

Meanwhile, size is proven as significant factor to determine the efficiency level. This finding is supported by Hager & Rooney (2001) who argued that size is a significant factor to the efficiency level of charity organization. The finding also in line with the fact in Islamic financial institutions whereby Ali & Ascarya (2010) discovered positive relationship.

In addition, type variable is proven among the determinants of efficiency in CCR Model. Hence, zakat institutions with community affiliation are more

efficient than those without any community affiliation. Having a community affiliation can lower the promotion costs. The loyalty of the affiliation can increase the output of zakat institutions significantly with lower costs.

CONCLUSION

The efficiency of zakat institutions fluctuates overtime. The low level of pure-technical efficiency indicates inequality of management quality among zakat institutions as DEA measures relative efficiency. LAZISNU achieved the most efficient zakat institution. Based on the analysis, it suggested to the zakat institutions which reached the maximum or high-level efficiency to keep their performance by maintaining the proportion of inputs and continue to work in increasing the output. However, the low-level efficiency of zakat institutions should further optimize the uses of input and find different strategy to maximize their output. Then, the analysis of potential improvement suggests the inefficient zakat institutions to minimize their input and maximize their output based on the value provided in the table 7 in order to achieve maximum efficiency level.

Further analysis is shown by Tobit Regression whereby size and community affiliation are significant determinants of efficiency. This finding urge zakat institutions without community affiliation to increase the loyalty of their donors. This research is expected to find several factors that can be optimized to improve the efficiency performance of zakat institutions in Indonesia. It also expected to be a reference and evaluation by government and zakat institutions in Indonesia, so it can expend the benefits received by mustahiq (*i.e* the needy), through efficient zakat policy and management

This research is expected to contribute to advancing practice and knowledge towards the study in zakat literature. In addition, we recommend further research investigating the efficiency of zakat institutions in Indonesia and its determinant with the latest data. Future research can also use different methods to assess the efficiency and productivity of zakat such as using the Stochastic Frontier Analysis (SFA) and the Malmquist Productivity Index (MPI).

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APPENDIX

Appendix 1. Data Envelopment Analysis (DEA) Result

No	Zakat Institutions	CCR Model Technical Efficiency	BCC Model Pure Technical Efficiency	Scale Efficiency	Return to Scale
1	Baznas 2016	0.11	0.44	0.26	Decreasing
2	Baznas 2017	0.12	0.56	0.22	Decreasing
3	Baznas 2018	0.13	0.65	0.19	Decreasing
4	BM Muamalat 2016	0.32	0.33	0.97	Increasing
5	BM Muamalat 2017	0.61	0.65	0.94	Increasing
6	BM Muamalat 2018	0.64	0.68	0.94	Increasing
7	Dompet Dhuafa2016	0.17	0.89	0.20	Decreasing
8	Dompet Dhuafa2017	0.16	0.89	0.18	Decreasing
9	Global Zakat 2016	0.16	0.58	0.28	Decreasing
10	Global Zakat 2017	0.19	0.78	0.24	Decreasing
11	Global Zakat 2018	0.22	1	0.22	Decreasing
12	Griya Yatim Duafa 2017	0.20	0.20	0.98	Increasing
13	Griya Yatim Duafa 2018	0.18	0.18	0.99	Increasing
14	Inisiatif Zakat Indonesia 2016	0.27	0.32	0.86	Decreasing
15	Inisiatif Zakat Indonesia 2017	0.22	0.30	0.73	Decreasing
16	Inisiatif Zakat Indonesia 2018	0.22	0.38	0.58	Decreasing
17	LAZ Al Azhar 2016	0.33	0.34	0.97	Increasing
18	LAZ Al Azhar 2017	0.36	0.37	0.98	Increasing
19	LAZ Al Azhar 2018	0.35	0.35	0.98	Increasing
20	Lazis NU 2016	0.63	0.65	0.96	Increasing
21	Lazis NU 2017	1	1	1	Constant
22	Laznas Dewan Dakwah 2016	0.28	0.30	0.93	Increasing
23	Laznas Dewan Dakwah 2017	0.28	0.30	0.95	Increasing
24	Laznas Dewan Dakwah 2018	0.23	0.24	0.99	Increasing
25	Mizan Amanah 2016	0.21	0.27	0.77	Decreasing
26	Mizan Amanah 2017	0.20	0.24	0.86	Decreasing
27	Mizan Amanah 2018	0.21	0.28	0.73	Decreasing
28	Panti Yatim Indonesia 2016	0.29	0.31	0.95	Increasing
29	Panti Yatim Indonesia 2017	0.23	0.23	0.98	Increasing
30	Rumah Zakat Indonesia 2016	0.23	0.70	0.33	Decreasing
31	Rumah Zakat Indonesia 2017	0.20	0.67	0.29	Decreasing

No	Zakat Institutions	CCR Model	BCC Model		
		Technical Efficiency	Pure Technical Efficiency	Scale Efficiency	Return to Scale
32	Rumah Zakat Indonesia 2018	0.22	0.70	0.31	Decreasing
33	Yatim Mandiri 2016	0.10	0.29	0.34	Decreasing
34	Yatim Mandiri 2017	0.09	0.30	0.30	Decreasing
35	Yatim Mandiri 2018	0.09	0.33	0.29	Decreasing
36	YDS Al Falah 2016	0.17	1	0.17	Increasing
37	YDS Al Falah 2017	0.16	0.73	0.22	Increasing

Appendix 2. Tobit Regression CCR Model (CRS) Result

```
Dependent Variable: EFF
Method: ML - Censored Normal (TOBIT)  (Newton-Raphson / Marquardt
    steps)
Date: 05/07/20   Time: 17:29
Sample: 1 37
Included observations: 37
Left censoring (value) series: 0
Right censoring (value) series: 1
Convergence achieved after 5 iterations
Coefficient covariance computed using observed Hessian
```

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.437447	0.091269	4.792926	0.0000
AGE	-0.007503	0.005740	-1.306969	0.1912
BRANCH	0.000148	0.000250	0.590527	0.5548
SIZE	-1.22E-13	4.22E-13	-0.289327	0.7723
TYPE	0.061939	0.091302	0.678394	0.4975

Error Distribution				
SCALE:C(6)	0.212245	0.025262	8.401709	0.0000

Mean dependent var	0.363893	S.D. dependent var	0.223607
S.E. of regression	0.226522	Akaike info criterion	0.153655
Sum squared resid	1.590684	Schwarz criterion	0.414885
Log likelihood	3.157390	Hannan-Quinn criter.	0.245750
Avg. log likelihood	0.085335		
Left censored obs	0	Right censored obs	1
Uncensored obs	36	Total obs	37

Appendix 3. Tobit Regression BCC Model (VRS)

```
Dependent Variable: EFF
Method: ML - Censored Normal (TOBIT) (Newton-Raphson / Marquardt
    steps)
Date: 05/07/20   Time: 17:31
Sample: 1 37
Included observations: 37
Left censoring (value) series: 0
Right censoring (value) series: 1
Convergence achieved after 4 iterations
Coefficient covariance computed using observed Hessian
```

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.288589	0.106137	2.719019	0.0065
AGE	0.005954	0.006687	0.890331	0.3733
BRANCH	-1.71E-06	0.000293	-0.005835	0.9953
SIZE	1.05E-12	4.91E-13	2.141736	0.0322
TYPE	0.230145	0.106784	2.155235	0.0311

Error Distribution				
SCALE:C(6)	0.246223	0.031401	7.841293	0.0000

Mean dependent var	0.514738	S.D. dependent var	0.259004
S.E. of regression	0.242834	Akaike info criterion	0.633748
Sum squared resid	1.828024	Schwarz criterion	0.894978
Log likelihood	-5.724330	Hannan-Quinn criter.	0.725843
Avg. log likelihood	-0.154712		

Left censored obs	0	Right censored obs	4
Uncensored obs	33	Total obs	37

ISLAMIC-BASED DIGITAL ETHICS: THE PHENOMENON OF ONLINE CONSUMER DATA SECURITY

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ABSTRACT - This paper seeks to explain the problem of widespread consumer data theft and the significance of online consumer data privacy in a review of Islamic values-based digital ethics. This research employs a qualitative approach by reviewing a variety of books, journals, papers, and other reputable sources, which are then examined using content analytic tools. The findings of this research indicate that first and foremost, effective cybersecurity will secure customer data. Second, ethical conduct derived from Islamic beliefs will be able to deter criminal activity and data breaches against consumers. Data privacy is a fundamental right that must be maintained collectively, according to Islam. The key to combating crime and breaches in the digital environment is hence the precautionary principle of stakeholders.
Keywords: Cyber Security, Digital Space, Digital Ethics, Islamic Value

ABSTRAK – Etika Digital Berbasis Islam: Fenomena Keamanan Data Konsumen Online. *Penelitian ini bertujuan untuk menjelaskan fenomena maraknya pencurian data konsumen serta melihat posisi penting privasi data konsumen online dalam tinjauan etika digital berbasis nilai Islam. Penelitian ini menggunakan metode kualitatif, dengan menelaah berbagai literatur baik buku, jurnal, laporan dan sumber reliable lainnya yang kemudian dianalisis menggunakan teknik content analysis. Hasil penelitian ini menemukan bahwa, pertama, keamanan siber yang baik akan mampu melindungi data konsumen. kedua, perilaku etis yang bersumber dari nilai Islam akan mampu mencegah kejahatan dan pelanggaran data konsumen. Ketiga, dalam Islam data privasi merupakan hak dasar yang harus dihormati secara bersama-sama. Untuk itu prinsip kehati-hatian daripara stakeholder menjadi kunci melawan kajahatan dan pelanggaran diruang digital.*
Kata Kunci: *Keamanan Siber, Ruang Digital, Etika Digital, Nilai Islam*

INTRODUCTION

E-commerce platforms in Indonesia have the third-highest number of users in the world, and are expanding rapidly. The five largest e-commerce companies in Indonesia have incorporated fundamental BCF elements for account verification and transaction processing. In this instance, e-commerce continues to prioritize consumer data security. Despite this, cybersecurity is not a concern for the expanding e-commerce businesses. E-commerce places greater emphasis on the business's profitability and market expansion. One businessman disclosed that selling data is more lucrative than buying and selling items. They sell consumer information, such as residence addresses, e-mail addresses, age and gender, frequently purchased products, and mobile phone contacts. A follow-up strategy derived from the acquired customer data can be utilized for business partner presentations. With the intention of attracting investors who will finance the expansion of their enterprises.

According to the Bulletin APJII (2021), there are even programs that communicate user data to third parties. The shared information includes purchase information, location, contact lists, user content, diagnostics, and financial data. This phenomenon is a widespread practice exemplified by Instagram and Facebook, which care more about gathering user data than securing it.
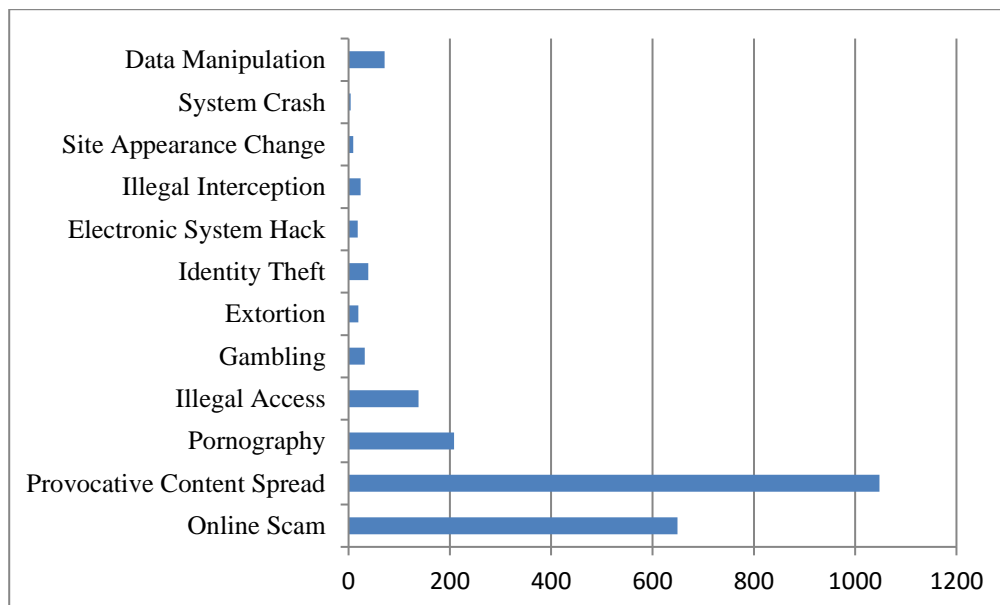
Graph 1. Cybercrime Trends in Indonesia
(Source: Siber, 2020)

Currently, the threat to the security of online consumer data is growing more concerning. At least two cases have been identified: in mid-2020, Startexmislead accounts offered 12,957,573 data on the Raid Forum of the dark web, and in mid-2021, the owner of the Kotz account sold 279 million Indonesian population data on the same forum. Personal information is susceptible to theft in both instances. In fact, according to Cyber Patrol data, there were 2,259 public reports of cybercrimes from January to December of 2020 (see Graph 1). This demonstrates how dangerous the issue of cyberspace data security is to its users. According to Mohamed and Ali's (2020) research, cybersecurity can be enhanced by increasing surveillance and adopting innovative technologies.

Previous research on online consumer data security has primarily focused on two aspects. First, research on the function of technology in cybersecurity systems (Craigen et al., 2014; Herdiana et al., 2021; Mujeeb-ur-Rehman et al., 2021; Naseer et al., 2021). Second, the research on cyber security framework mitigation and development (Amatullah et al., 2020; Mylrea et al., 2018; Nafi'ah, 2020). The majority of research on these two topics does not address digital ethics based on Islamic values. Where cyberspace interactions are closely tied to behavioral values.

Therefore, this study will describe the phenomenon of consumer data security from the perspective of digital ethics based on Islamic values. Through a review of digital ethics based on Islamic values, this paper will complete the understanding of cybersecurity. This study describes in detail a review of the impact of digital ethics based on Islamic values on the data security of online shoppers.

The paper's remaining sections are structured as follows: In section two, certain ideas and works of literature on consumer data, cyber security, and Islamic value-based digital ethics are examined. The third section focuses on data and research methodology, whilst the fourth section offers and examines empirical findings. Conclusions and suggestions for further study are provided in the last section.

LITERATURE REVIEW

Consumer Data: Privacy to Protect

The term "data" refers to accurate and genuine information or material that may serve as the foundation for an investigation (and subsequent analysis and conclusions) (KBBI, 2020). In addition, the government regulation Number 82/2012 explains that "personal data" refers to particular individual data that is stored, maintained, and kept truthful while also protecting its confidentially. Personal data encompasses a person's communications (history) and information about such individual.

According to Voigt and Bussche (2017), data is all information that is kept either electronically or in the form of signals or indicators. Data is deemed personal if it pertains to an individual who can be directly or indirectly identified using an identifier. In most cases, the term "identifier" will refer to one or more characteristics that are expressions of a person's physical, physiological, psychological, genetic, economic, cultural, or social identity. Some examples of such characteristics include a person's name, address, email address, date of birth, identification number, location, and online identifiers (such as their IP address or cookies).

Article 26 of the ITE Law confirms that the protection of personal data is a component of the privacy rights, which include the right to enjoy a private life and be free from interference, the right to be able to communicate with others without being spied upon, and the right to monitor access to information about a person's personal life and data (ITE Law, 2008).

One type of cyber threat is a breach of personally identifiable information. In the digital environment, criminals searching for a means to steal someone is identity frequently target multiple pieces of personal information (Wheatley et al., 2016). According to Rebovich (2021), identity theft is defined as making use of the personal identification of another individual without first obtaining permission from that individual's rightful owner. This leads to the conclusion that as more people become interested in the digital world, there will be a greater demand for data and a greater number of people committing the crime of data theft.

Cyber Security: Ensure Data Security

Cybersecurity terminology is still relatively new in the literature. However, as cybersecurity concerns grew, it quickly expanded and eventually became a major issue in every country. According to Branch (2021), cybersecurity terminology began to be addressed throughout the world in the mid-1990s, when there was a "information war." The word refers to an assault and defense operation on computer networks that targets classified material.

There are at least some definitions of cybersecurity in the extant literature. According to Dixit and Silakari (2021) and Mago (2014), cybersecurity is the protection of hardware, software, and data included in an internet-connected system from unauthorized access and cyber-attacks. Meanwhile, Sarker et al (2020) defined cyber security as "the protection of information technology systems and applications against threats, attacks, and cyber risks." Furthermore, cyber security focuses on computer network security from assaults or other forms of intruders, data privacy security information, operational security consisting of policies, processes, and the protection of data that is an asset.

According to Corallo et al. (2021), cyber security is not limited to information technology (IT) systems since it affects the entire ecosystem of operational technology (OT), which interacts with the physical world. Rachman & Susan (2021) argued that cyber security is not confined to concerns associated with technology issues, but also includes the threat of radical awareness inside the internet community. Therefore, cybersecurity can be viewed as the development of mechanisms — both in the physical and digital worlds — to defend against cyber threats and attacks that target data confidentiality.

Discussions about cyber security are increasing in tandem with the growing number of internet users. Because the use of the internet in a country creates potential for cyber-attacks, resources or a system are required to secure cyberspace; this system is referred to as cybersecurity (Craigen et al., 2014). Building a cyber security system necessitates knowledge of security protocols. The cyber security system is deemed capable of preventing cyberattacks or threats through a set of procedures. Similarly, Egloff and Cavelty (2021) highlighted that cyber security systems must be supported by cybersecurity knowledge while conducting attribution assessments, which are the foundation for internet users' security from cyber-attacks.

The Buildings Cybersecurity Framework (BCF) refers to the National Institute of Standards and Technology (NIST) to develop vital infrastructure and consists of five main elements: identify, protect, detect, respond, and recover. Mylrea et al. (2018) elaborated: (1) Identify identifies various cybersecurity threats and weaknesses; (2) Protect recommends handling in managing cyber risk; (3) Detection focuses on techniques, policies, and procedures for detecting cyber-attacks; (4) Respond focuses on handling in responding to cybersecurity incidents; and (5) Recover focuses on restoring normal operating services.

Even though there are precise standards for designing a cybersecurity system, cybercrime still exists. In general, cybercrime is committed through exploiting flaws in the cybersecurity system. According to Sharma and Kumar Sharma (2020), the method utilized to begin cybercrimes includes:

1. Cyberstalking is a type of cybercrime in which the criminal follows the victim online. This activity enables offenders to annoy their victims using electronic mail and messaging applications.
2. Cyber assassination is a cybercrime that involves the murder or defamation of a victim using cyber media.
3. Hacking is gaining illegal access. This operation permits hackers to see, copy, and alter data without deleting it.
4. Cracking is an act of cybercrime that aims to destroy data or hardware by leveraging unauthorized access to the victim's device or server.
5. E-mail phishing is a cybercrime that involves the creation of messages with phony sender addresses.
6. SMS bluffing is a cybercrime that involves the use of short message services. The message is a bogus text message issued under a phony identity, which may be a person or a business.
7. Bot networks, a group of interconnected, virus-infected computer systems. With the target, the criminal controls the victim's computer.
8. Theft of copyrighted assets, company secrets, and contamination of company trademarks constitute Cerebral Property Crime.
9. Cyber crouching is the registration, trading, and use of domain names on the internet while exploiting the victim's trademark. The purpose of this action is to profit from the trademark.
10. Cyberterrorism is an instance of cybercrime. Even the offenders engage in cyber warfare by committing acts of aggression through the internet with the purpose of causing large-scale disruptions.

11. Data theft (identity) is the fraudulent act of stealing other people's information. Typically, data theft occurs on unprotected websites or social media platforms, and it is also widely disseminated via email promos that entice recipients to click on malicious links.

The prevalence of cyber-attacks such as data theft demonstrates the significance of ensuring the integrity of cybersecurity systems. Because all Internet users have the right to privacy and are free from societal pressure (Burgoon, 1982) or being spied on by any party, it would be unethical for any organization to conduct surveillance on Internet users (Widiantari, 2021). For this reason, with reference to regulation of *Badan Siber dan Sandi Negara* No. 8/2020, electronic system operators (both public and private) must maintain the security of information management. Thus, electronic system operators are expected to develop cyber security that prioritizes cyber security principles to protect privacy and consumer rights, such as the use of on-time passwords, personal identification numbers (PIN), end-to-end data exchange, and enhanced system surveillance (Amatullah et al., 2020), and the implementation of advanced encryption techniques (Nafi'ah, 2020).

Islamic Value-Based Digital Ethics

The study of digital ethics is a contemporary topic that refers to digital notions that are regarded as unusual. Existing academic literature has a few of definitions of digital ethics, the vast majority of which are remarkably similar. Luke (2018) defines digital ethics as the ethical principles that govern internet interactions. Schoentgen and Wilkinson (2021) feel that a person's values and beliefs serve as the basis for the formulation and implementation of ethical procedures when it comes to internet ethics. According to Kusumstuti et al. (2021), internet ethics is concerned with acts and all interactions based on conscious, responsible, honest, and virtuous behavior that enhances the quality of human life.

The three definitions presented above highlight the fact that digital ethics is concerned with activities and interactions that are carried out in cyberspace. The manner in which actions and interactions take place in cyberspace reveals three types of relationships: those between individuals, those between communities, and those between communities and individuals. These three types of relationships all live out a life model through the utilization of cyberspace as a method of mediation (Pilliang, 2012).

The use of moral principles in online interactions is an absolute requirement that cannot be avoided. A lack of ethical conduct in cyberspace can lead to mistrust, hostility, conflict, and the misuse of digital tools, all of which can result in significant financial losses (Véliz, 2019). Users of the internet who behave ethically can avoid these negative outcomes. According to Floridi (2016), ethics are able to control humans to act more morally, and they are also able to build value in relationships and interactions so that they are more valued. Additionally, ethics are able to control individuals to act more morally than they would otherwise (Kamri, Ramlan, & Ibrahim, 2014). In addition, a person's belief in his faith can help establish ethical behavior in online.

The value of Islamic teachings, as Chaudhary (2020) argues, establishes the individual as a moral subject who actualizes his personal activity with full awareness and prioritizes moral aspects and responsibility. In other words, the individual is a moral agent. This moral conduct derives its justification from Islamic precepts (Ibrahim & Kamri, 2013). Within the framework of Islamic thought, morality occupies a place of utmost importance. In Islam, ethical conduct is based on the following five principles: (1) Unity of Command, the concept of monotheism about oneness; (2) Equilibrium and Balance, the concept of justice and balance between components and various aspects of life; (3) Freedom and Free Will, the concept of human nature as the caliph of Allah SWT; (4) Benevolence or Ihsan, beneficial actions for others that are carried out without expecting anything in return; and (5) Responsibility (*Mas'uliyyah*), the concept of responsibility for all human actions to Allah SWT (Ahmad et al., 2021; Ibrahim & Kamri, 2016, 2017).

These principles serve as the foundation for constructing values that are derived from the Qur'an and hadith. In addition to this, the actualization of Islamic beliefs will lead to ethical behavior in virtual spaces. In this context, the value of monotheism is connected to things that are worthy of being worshipped. This indicates that every action or behavior is designed as a step toward realizing monotheism to the extent that Allah SWT is concerned. This idea illuminates the significance of monotheism, which is present in each and every facet of human existence. In accordance with the saying of Allah Ta'ala in the al-Qur'an:

> *"That is, for indeed Allah, He is the real one, and whatever they call on besides Allah is falsehood. And verily Allah, He is the Highest, the Greatest."* (Surah Luqman: 30)

The concept of equilibrium value refers to being honest, straight-forward, and fair, as well as equalizing objects in terms of their size and value. According to what Allah Ta'ala says, the advice to be fair is as follows:

> *"Indeed, Allah commands (you) to do justice and do good, to give help to relatives, and He forbids (to do) abominable acts, evil deeds, and enmity. He teaches you so that you can learn a lesson."* (Surat an-Nahl: 90)

In spite of the fact that he possesses free choice in the manner in which he chooses to express his life activities, the value of being a caliph means that there are constraints on human behavior. Humans, in their role as caliphs, are obligated to flourish economically and to disseminate wealth throughout the world and the earth by working together and assisting one another (Surah An-Nahl: 90). Through the completion of this work, humans are positioned as components of a very broad unity of creation. As the saying of Allah Ta'ala:

> *"And it is He who has made you caliphs on earth and has raised (degrees) some of you above others, to test you for the (bounty) He has given you. Verily, your Lord is swift in punishing, and indeed, He is Most Forgiving, Most Merciful."* (Surat al-An'am: 165)

The importance of virtue, or an ethical concept, is that it encourages the dissemination of usefulness. The conduct of desiring to be of service to others is an indication of how the Ihsan value is put into practice. In relation to the importance of virtuous behavior, the Word of God is as follows:

> *"O you who believe! Bow, prostrate, and worship your Lord, and do good, that you may prosper."* (Surat al-Hajj: 77)

The value of accountability, in which all activities will be held accountable both in this world (during life) and in the afterlife. Regarding its status as the Word of God:

> *"O you who believe! Fear Allah and let everyone pay attention to what he has done for tomorrow (hereafter), and fear Allah. Indeed, Allah is All-Aware of what you do."* (Surat al-Hashr: 18)

RESEARCH METHOD

This study employs a qualitative methodology, which is based on non-numerical data or data in the form of text and images, and data filtering is performed to derive interpretations from the literature review (Creswell, 2014). To gain a holistic grasp of reality, a qualitative technique is employed to describe occurrences. To comprehend the phenomena of online consumer data theft, this study employs literary studies as an analytical tool, in the form of books, journals, and other credible sources. The study's obtained data were then categorized based on the specified research questions. The data in this study are given in a narrative-descriptive format and examined utilizing a content analysis technique. Referring to Hsieh and Shannon (2005), content analysis is utilized to understand classified text data in order to derive a conclusion.

RESULTS AND DISCUSSION

Result

The theft and breach of personal data undeniable fact

Before a consumer is granted access to an application, they are always needed to consent to the developer's privacy policies. It is required to secure this clearance in order to guarantee continued consumer access. If this is not the case, then you cannot utilize the application. The agreement will grant access permissions to the program developer, allowing the developer to analyze the personal information of users who are logged into the device. Because we want all private information and access data stored on our devices to be readily identifiable by the developers who operate on them. This indicates the possibility of illegal use of personal information.

According to the author, this is a crucial factor in the theft of client data. Users of the Internet who get unauthorized access are the offenders of the crime of data theft. According to the most recent Databoks Report 2020, 105,2 million e-commerce user records were compromised. Usernames, email addresses, and passwords for online accounts were among the information that was compromised. The table below illustrates the high rate of data theft that will occur among online marketplace clients in Indonesia in 2020.

Table 1. Number of E-Commerce Data Theft

Name	Lots of Data Stolen
Tokopedia	91 Million
Bukalapak	13 Million
Bhinneka	1,2 Million

(Source: Databoks, 2020)

The material offered above illustrates that unauthorized access to and use of a person's personal data is not a myth, but rather an undeniable fact. The increase in data theft in Indonesia, as reported by Komalawati et al. (2021), is a result of weak cyber security, which makes it simple to steal consumer data. Therefore, preemptive measures should be taken to strengthen cyber security in order to protect the privacy of customer data. According to Lee (2021), it is necessary to pay attention to the cyber ecosystem (stakeholders), the evaluation of cyberinfrastructure (such as users, workforce, and technology), the assessment of cyber risks (such as identification of devices, vulnerabilities, threats, and cyber-attacks), and cybersecurity activities in order to maximize the function of cybersecurity in protecting data privacy and digital assets. According to Naseer et al. (2021), innovation in cybersecurity must focus on the development of apps that integrate threat intelligence data, automation of threat detection, forensic analysis, algorithm application, and the research of internet users.

There is an urgent requirement for the development of cyber security in order to ensure the privacy and reliability of data. Taking into account the fact that cyber threats originate from a variety of actors, including those working for foreign intelligence agencies, actors who have become disillusioned with their work, investigators, extremist organizations, hacker activities (hacktivist), and activities from organized crime groups. This risk also develops as a result of criminal actions conducted online, which target information and data security systems that are connected to the internet network. These criminal activities can even pose a threat to the military operations of a country (Rahmawati, 2017). These dangers will, without a doubt, have an impact on both real and virtual society.

Technology advancements can be used to fortify internet defenses. According to Herdiana et al., (2021), the deployment of cutting-edge technology and algorithm modifications throughout the system will have an effect on the security system's precision. This includes the use of technologies such as the internet of things (IoT), blockchain, artificial intelligence (AI), avatar-based

management techniques, and others. According to Mujeeb-ur-Rehman et al. (2021), the implementation of rigorous privacy security cycle stages is appropriate for preserving the data privacy of internet users (clients, merchants, and online transaction systems) by using advanced technology as cybersecurity. This can be accomplished by utilizing advanced technology such as cybersecurity. The protection of Internet users' personal information is a critical issue.

Cybersecurity, which is merely a method in the process of developing privacy policies for internet users, has been shown to be unsuccessful, despite the fact that it is necessary to secure the data of consumers (Ebert et al., 2020). For this reason, in order to preserve privacy, in addition to prioritizing cyber security principles, the implementation of artificial intelligence (AI) as a cyber security technology is required (Herdiana et al., 2021). On the other hand, socialization is also required to ensure that internet users receive education pertaining to cyber security (Rahman et al., 2020). According to de Bruijn and Janssen (2017), individual elements, such as internet users, need to also take action to protect the privacy of their data. The mentality of internet users is the most important factor in determining the choices they make when using the internet. Consumers, and particularly those customers who conduct business online, hold a crucial role in ensuring the safety of their own personal information against online risks such as data theft.

Factors Supporting Consumer Privacy Data Breach

The likelihood of cyber threats is directly proportional to internet usage. The potential for damage resulting from cyberattacks is growing. This is due to the misuse of technological advancements by those who conduct cyber attacks. This means that people who utilize unlawful access also apply technology to research data theft vulnerabilities. However, similar to the previous section, technological advancements can also be used to combat cybercrime.

The development of continually new technology, infrastructure, and method models is one of the ways that efforts are being made to increase cybersecurity. A more significant cyber danger has been recognized, and this program is a response to that threat. There is a widespread perception that the current methods of cybersecurity are inadequate to secure the privacy of internet users in an effective manner. On the other hand, technology integration with network changes such as 5G, IoT (Dawson et al., 2021), and AI (Djenna et al., 2021) is

thought to be capable of building a comprehensive, strategic, and reliable cyberinfrastructure in dealing with cyber threats on a large exploitative scale.

In addition to the role that technology plays, users of the internet also have a duty to play in the protection of the confidentiality of their data. Choo (2011) recommended stakeholders such as users, organizations, governments, and research institutions that rely on the internet to continue innovating in order to combat cyber dangers such as data theft after seeing the fast expanding cyber threat landscape. Therefore, the possibility of people who utilize the internet cannot be discounted.

The decisions that internet users make in response to comprehending the dangers of cyberspace are influenced by digital ethics. According to Floridi (2018), providing an explanation of ethical behavior in cyberspace helps ensure that users are aware of potential dangers, prioritize the precautionary principle, and decrease risks due to the fact that ethically compliant users can decline data requests from malevolent access. A cybersecurity landscape in which internet users are aware of each other's privacy is being pursued, and one of the most important components in achieving this goal is ethical behavior. Each individual is solely responsible for their own level of privacy protection and access to data for evaluation.

The previous explanation divides internet users into three groups. First, consider internet users as market players whose primary activities are purchasing and selling. Second, internet users are market employees who must control the security of their customer data. Third, internet users steal data. Each of these three types of internet users has its own set of ethical guidelines. Users of the Marketplace have the ability to approve or deny requests for damaging access, which necessitates user attentiveness. While program developers can be held more accountable for protecting user data. Application developers' ethical behavior may also include the use of passwords and PINs sent directly to the authorized data owner's contact or e-mail address, as well as the improvement of system surveillance and the deployment of advanced encryption techniques. Meanwhile, unethical programmers and internet users who commit data theft are more concerned with the damage they cause than with personal or collective benefits.

Discussion

Who is responsible for cybersecurity?

Cybersecurity should be prioritized in the safeguarding of customer information. However, in Indonesia, this position has not been very effective. This is due to the fact that there are application developers that are supposed to preserve consumer data privacy but simultaneously engage in the practice of buying and selling such data for financial advantage. This predicament is the result of application developers buying and selling client data. Furthermore, a considerable number of people who embrace growing degrees of technological skill are contributing to the deterioration of this condition. Therefore, the protection of consumers' personal information is an extremely essential issue that must be managed properly.

To prepare for this, it is essential to use technology in the process of constructing cyber security, as this will have an effect on the reliability of cyber security in general (Dawson et al., 2021; Djenna et al., 2021; Herdiana et al., 2021). Building a dignified cybersecurity landscape requires prioritizing the enhancement of the privacy and safety of consumer data. The government is wielding its power like an iron fist to establish stringent regulations that would strengthen cyber security. The existing restrictions solely focus on marketplace application developers buying and selling user data. There is a need for regulations so as not to perpetuate the misconception that cyberspace is extremely unrestricted and therefore poses no threat to users' privacy.

Furthermore, it is vital for application developers and other actors in the digital world to conduct themselves ethically. The perpetrators' moral commitment will have a good impact on the climate of the digital environment. Ethical behavior is an internal state that is entirely under the control of the individual, both as a consumer and as a moral internet user. An ethical conduct will provide certain frames or borders that are good, terrible, safe, and damaging in order to divert criminals away from committing crimes and violating consumers' privacy data.

On the other hand, the responsibility that the user has for maintaining the confidentiality of his data ought to be reinforced when unauthorized access permissions are being requested. Despite the fact that the application developers continue to abuse the system that allows them to grant access permissions, the system continues to function as intended. This is a cause for

concern, and in the APJII Bulletin Edition 84, it is even urged that in the future, users of any program must prioritize prudence and pay close attention to any information that is provided to the application developer.

Consequently, maintaining the security of consumer data privacy is a shared obligation. It is not only the government's role as a stakeholder in this topic, but also the responsibility of every internet user as a service provider, application developer, and service user.

The precautionary principle can prevent privacy data breaches and crimes in cyberspace

The landscape of cybersecurity is shaped by a variety of factors, including the infrastructure and technology used by service providers and application developers, as well as the ethical behavior of each individual internet user. When it comes to maintaining behavior in cyberspace, ethics is crucial. The Islamic principle instructing followers to use cyberspace in a way that does not cause harm to themselves or others demonstrates the critical need for an Islamic-based digital ethics system.

Putting forward the values found in Islamic business ethics will undoubtedly provide comfort to all internet users. These values include the concepts of monotheism, justice and balance, freedom and freewill (human nature as the caliph of Allah SWT); benevolence or *Ihsan* (beneficial actions for others); and responsibility. Through these concepts, internet users can reflect on the importance of worship in their cyberspace interactions. To put it another way, the worth of good and bad behavior must be considered. Because cyberspace users do not want their data privacy to be violated by anyone. As a result, cyberspace, which is interpreted as a space for free expression, must also consider the freedom of others.

The preceding demonstrates that the assurance of a feeling of safety while interacting in cyberspace can be initiated through the morally upstanding conduct of each individual member of a cyber society. Respect for an individual's right to solitude is a fundamental tenet of Islam (Norwawi et al., 2014; Akmal, Musa, & Ibrahim, 2020). This provides further evidence that, in accordance with digital ethics founded on Islamic values, the concentration of power is distributed among individuals in proportion to the portions they control. First, there is an improvement in the infrastructure and technology of cybersecurity service providers and developers. Second, customers who engage

in financial transactions (also known as internet users) place a premium on their moral conduct while online.

Digital ethics serves as a moral compass in cyberspace. Consumers (users) of marketplace applications are the most vulnerable type of internet user. While concerned with digital ethics based on Islamic values, online consumers are viewed as internet users with the authority to maintain the security and privacy of their data. When online consumers are aware of cyber threats, they can use the precautionary principle (Floridi, 2018) to make decisions about the transparency of their data. Furthermore, the precautionary principle is an important pillar in ensuring the security and privacy of consumer data. Customers can be aware of their private areas under this principle. As well as the authority to make decisions on the review of his personal data. Where these efforts on occasion become supporters for the formation of a cyber security landscape.

Consumer data security perspective of Islamic value-based digital ethics

The state of internet users is becoming increasingly concerning. According to Hardiman (2018), the cyber community (homo digitalis) acts very brutally in cyberspace when using the internet network. According to Choiriyati & Windarsih (2019), such a situation demonstrates the need for ethical construction that is more knowledge-based in nature and is derived from religious values. In this regard, digital ethics based on Islamic values should be conceptually transformed to be more applicable. So that ethical behavior formed in cyberspace is consistent with the instructions contained in internet users' religious beliefs. Furthermore, Chaudhary (2020) explains how the value of Islam can actualize the responsible behavior of its adherents. Where Islamic ethics helps to build a civilized and moral life In the digital space, ethical values based on Islamic values are critical for creating a business climate that adheres to values and ethics (Ambarwati, 2013; Umuri & Ibrahim, 2021).

People who believe in their religious values are more likely to use the internet, and the fact that behavior and interactions are highly valued in Islam ranks first. Furthermore, awareness of privacy among internet users and application developers regarding the safety of data in cyberspace is something that must be taken into account, as self-respect is closely linked to privacy in Islam (Norwawi et al., 2014). The right to privacy is fundamental, and all parties involved are obligated to protect it. In Islam, the act of granting permission is

inextricably linked to the concept of personal privacy. In the Qur'an, Allah SWT says:

> *"27. O you who believe, do not enter houses other than your own until you are sure to welcome and greet their occupants. That's what's best for you; maybe you will be reminded. 28. And if you find no one in it, do not enter it until you are given permission... 29. There is nothing wrong with you entering uninhabited houses in which there is comfort for you..."* (Surat an-Nur: 27-29)

The preceding paragraph underlines the need of consent in privacy. According to Asad (2017a), the content in verse 27 has a protective function for persons against the danger of slander. Furthermore, Asad noticed in the letter that the content of the prohibition's meaning is a valuable foundation for the idea that one's privacy should not be invaded. Asad interprets the 28th verse to mean that permission is granted to someone who is the proper owner or person in charge of privacy. Asad says in his reading of the 29th verse that areas that can be approached without permission are buildings such as public utilities, including historic buildings that have collapsed. In this scenario, though, the researcher perceives cyberspace as a private "place" for someone. Aside from the advice to acquire permission, there is also a restriction on suspecting, spying on, and disclosing information belonging to others (slander). According to Allah SWT's Word:

> *"O you who believe, stay away from many [negative] prejudices..."* (Surat al-Hujurat: 12)

The prejudice mentioned in Surah Al-Hujurat verse 12 is a type of bias that has the ability to produce undue distrust of others (Asad, 2017b). The above Qur'anic verses stress that Islam is particularly concerned about privacy and security issues where the principle of secrecy must be respected. To protect data privacy in cyberspace, ethical behavior is required. According to Faisal et al. (2013), service providers and application developers must pay attention to privacy issues, while consumers should play a part in regulating privacy by prioritizing Islamic principles. This is equally true for the security of online consumer data. According to Imtiaz et al (2020), e-commerce that does not prioritize consumer data security would lose consumer trust. Furthermore, Islam places a premium on the protection of internet customer data privacy.

Cyberspace, being an interactive domain, should be handled with caution. To avoid negative outcomes, the ethical behavior of every internet user who uses cyberspace must be accomplished collectively. Islamic morals that are essential for its members are particularly important when it comes to internet security and privacy. The Islamic viewpoint on unauthorized access is incorrect. The license granted for data privacy access should not be abused. The use of Islamic values in consumer data security is everyone's obligation to preserve each other's privacy on the internet.

CONCLUSION

Based on the discussion, it is possible to infer that digital ethics founded on Islamic values can serve as a means of moral development for internet users, particularly consumers who conduct online transactions. Through the promotion of Islamic values-based ethics, cyber security can be established. Consumers gain the independent authority to make decisions to secure their data as a result of the instillation of these principles. Meanwhile, other internet users can be held more accountable for their online behavior. The ruling, reinforced by ethical cyberspace behavior, demonstrates that cybersecurity is a problem that must be addressed collectively.

In Islam, privacy is associated with self-respect. Privacy is a fundamental human right that must be respected both individually and collectively. To protect one's privacy in the digital world against violations and crimes, the principle of prudence should be prioritized in transactions and interactions. Similarly, developers should respect and protect consumer privacy data, rather than exploiting it for personal advantage.

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ISLAMIC PHILANTHROPY AS A DETERRENT TO POTENTIAL FRAUD

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ABSTRACT - This study aims to investigate the utilization of Islamic philanthropic institutions in Indonesia and to recommend fraud-prevention warning signals. This study employs the desk study method to conduct qualitative research with the Allocation to Collection Ratio (ACR), the disbursement speed, and the Amil Right Ratio (RHA) as early warning signals for the possibility of fraud. Data was collected from eight Islamic charitable organizations in Indonesia. Using the ACR method, the results indicated that Badan Amil Zakat Nasional (BAZNAS), Dompet Dhuafa (DD), Institut Zakat Indonesia (IZI), Lazis Muhammadiyah (Lazismu), and Baitul Maal Muamalat (BMM) have a greater potential for fraud based on higher deposited cash balances exceeding 10% (11-30%). Due to the lack of sufficient data on website searches and financial reports, the assessment of disbursement speed is not covered in this study. Other results indicated that using the RHA method, the only institution with a RHA greater than 12.5% is RZ (RHA 13.8%), which has a greater potential for fraud due to the orientation of the institution's responsibility towards the institution's interests rather than the interests of non-amil *mustahik*. This study contributes to providing an overview of the use of funds in Islamic philanthropic institutions and fraud warning signs in order to anticipate and prevent potential fraud.
Keywords: Islamic Philanthropy, Warning Signals, Fraud

ABSTRAK – Filantropi Islam Sebagai Pencegah Potensi Fraud. *Studi ini ditujukan untuk mengeksplorasi pendayagunaan lembaga filantropi Islam di Indonesia dan memberikan rekomendasi warning signals sebagai upaya pencegahan terhadap potensi fraud. Studi ini merupakan penelitian kualitatif menggunakan metode desk study dengan tiga metode sebagai warning signal terhadap potensi fraud: metode ACR* (Allocation to Collection Ratio)*, Disbursement Speed dan Rasio Hak Amil (RHA). Studi ini menggunakan objek data delapan lembaga filantropi Islam di Indonesia. Hasil studi menunjukkan melalui metode ACR: Badan Amil Zakat Nasional (BAZNAS), Dompet Dhuafa (DD), Institut Zakat Indonesia (IZI), Lazis Muhammadiyah (Lazismu) dan Baitul Maal Muamalat (BMM) memiliki potensi fraud yang lebih tinggi didasarkan pada saldo kas yang mengendap lebih tinggi di atas 10% (11-30%). Penilaian disbursement speed tidak dijelaskan dalam studi ini dikarenakan tidak adanya informasi yang memadai pada penelusuran website dan laporan keuangan. Hasil studi lainnya menunjukkan melalui metode RHA, satu lembaga dengan RHA >12,5% adalah RZ (RHA 13,8%) memiliki potensi fraud lebih tinggi didasarkan pada orientasi tanggungjawab lembaga yang lebih berpihak kepada kepentingan lembaga daripada kepentingan pihak mustahik non 'amil. Studi ini berkontribusi memberikan gambaran pendayagunaan dana pada lembaga filantropi Islam, memberikan warning signal terhadap potensi fraud untuk mengantisipasi dan meminimalisir terjadinya potensi fraud.*
Kata Kunci: *Filantropi Islam,* Warning Signals, Fraud

INTRODUCTION

Based on the results of a poll conducted by the Charities Aid Foundation (CAF), the 2021 World Giving Index ranks Indonesia as the most charitable nation in the world (CAF, 2021). This inauguration is inextricable from the culture of the Indonesian people, who want to help and share (*ta'awun*) in order to assist the needy and alleviate their burdens (Kasri, 2013). The implementation of zakat, *infaq*, *shodaqoh*, and *waqf* (ZISWAF) in Indonesia, the country with the world's biggest Muslim population, contributes to the generosity of the Indonesian people (Al-Jaza'iri, 2017) The ZISWAF instrument is a kind of philanthropy in Islam, which is a religious commandment that is an obligation/recommendation for every Muslim. In the CAF report, Indonesia's largest contributor is the extremely robust and widespread application of zakat, which has a significant impact on the Indonesian economy. This is corroborated by data on national zakat receipts in Indonesia in 2019, which amounted to IDR 10.22 trillion and were distributed to the tune of IDR 8.68 trillion, accounting for 84.9% (BAZNAS, 2019).

The significant amount of money gathered as a result of philanthropic initiatives in Indonesia demonstrates that the Indonesian people responded enthusiastically. This charitable endeavor has yielded enormous benefits for the welfare and economic empowerment of the Indonesian populace. The amount of funds gathered by philanthropic institutions increases the opportunity for fraud during collection, management, and distribution. This is true for both small and large philanthropic organizations (Ohalehi, 2019). Strategic risk, operational risk, financial risk, and compliance risk can all contribute to fraud in philanthropic organizations (Arshad et al., 2015). During its development, it was discovered that a number of philanthropic activities in Indonesia did not adhere to the provisions of Law No. 9/1961 regarding the collection of money or goods, such as the use of personal accounts to collect funds, and that there was a lack of transparency in their financial reporting, including reports of fund receipts and distributions (Rongiyati, 2021). The possibility for fraud is elevated because the majority of fund owners (donors) prefer to commit their cash to informal institutions or individuals as opposed to institutions with established legality and official authorization from the governing agency (Kasri, 2013; Rongiyati, 2021; Ibrahim, 2011; Wahid et al., 2014). The misuse of charitable funds for personal gain falls under the category of fraud. Fraud is the act of leveraging one's responsibility to benefit oneself through the intentional misuse of power (ACFE, 2017). In charity, fraud is the misuse of

funds for personal gain. Fraud disregards materiality and is not determined just by the extent of the loss (Bernardi & Pincus, 1996). Fraudulent philanthropy may also involve the misuse of funds contrary to the *amanah* of the *muwakkif* (the owner/donor of the *waqf*) (Andirja, 2020).

A philanthropic organization is a non-profit organization formed for charitable purposes, which is a noble and non-profit activity, so it is quite surprising that this institution is used as a conduit for fraudulent activities such as embezzlement of funds by unscrupulous individuals and the misuse of charitable fundraising for personal gain (Arshad et al., 2015). These fraudulent tactics and abuses of authority have the potential to destroy public faith in the credibility of non-profit organizations, so threatening their long-term existence. Because non-profit organizations depend on a positive public image and a positive public perception of the credibility of fund management, the occurrence of fraud will have a negative impact on the difficulty of maintaining the trust of fund owners and will have significant implications for subsequent fundraising efforts (Lauck & Brozovsky, 2018). This will have a significant impact on the establishment of non-profit organizations, particularly philanthropic institutions, in the context of efforts to alleviate poverty in Indonesia and improve the welfare and quality of life of the people.

Non-profit organizations are among the four types of organizations/institutions most negatively affected by fraud (2.9%) (ACFE Indonesia Chapter, 2019). Non-profit organizations typically operate with limited resources, mutual trust relationships inherent in an atmosphere of public trust (Lauck & Brozovsky, 2018), lack of segregation of duties between departments (Ohalehi, 2019), lack of transparency and accountability (Ortega-Rodriguez et al., 2020), weaker internal control procedures, and a lack of business and financial expertise compared to commercial organizations (Arshad et al., 2015). The 2019 Indonesia Fraud Survey reveals that non-profit organizations have the highest average value per fraud event at >$10 billion (by 17.4%) (ACFE Indonesia Chapter, 2019). This indicates that fraud committed by non-profit organizations is categorized as a major crime against the management of large funds and demonstrates the lack of attention paid by non-profit organizations to supervision and internal control systems, as well as the implementation of anti-fraud programs aimed at the prevention, detection, and mitigation of fraud.

In order for charitable institutions and activities in Indonesia to flourish and contribute to the eradication of poverty, it is imperative to engage in anti-fraud prevention measures. The supervision of financial and non-financial indicators as an early warning of fraud and misuse of funds and to limit negative effects on company viability can be used to avoid fraud in philanthropic organizations (Arshad et al., 2015). In their research, Kummer et al. (2015) suggest implementing anti-fraud regulations, establishing a whistleblowing mechanism, and recording fraud risk as an effective fraud prevention and detection device. To achieve social sustainability, Ortega-Rodriguez et al. (2020) emphasized the significance of transparency and excellent corporate governance in philanthropic organizations. Ohalehi (2019) emphasizes the significance of an internal control system and a better governance structure (good corporate governance) for philanthropic institutions of all sizes to protect themselves from potential fraud. Abu Khadra and Delen (2020) emphasized the significance of implementing good corporate governance (GCG) in combating fraud. Moreover, Wahyuni-TD et al. (2021) tested the effects of GCG and fraud prevention on the performance of zakat institutions with positive results, but there was no significant effect of the principle of fairness of GCG on zakat performance with fraud prevention, indicating that zakat institutions should pay more attention to the application of justice to avoid fraud, and the principle of justice is an early signal that can be used to detect whether there is fraud.

The basis of Islamic philanthropic activity is the provision of voluntary funds issued by Muslims on the basis of goodness (*tabarru'*), which does not expect rewards and profits and the funds are used solely for welfare and improving the quality of life in the community (KNEKS, 2019), which is a mandate that must be carried out, and it is the responsibility of the manager to distribute the funds in accordance with the mandate of the funder in accordance with the provisions of the provision (Andirja, 2020). The management of these gift funds is governed by the Shari'a's law (*fiqh*), which has implementation provisions and norms.

This study aims to investigate the utilization of Islamic philanthropic institutions in Indonesia and present recommendations for warning signals to identify potential fraud, so that philanthropic funds can be managed and channeled to the appropriate parties in line with *amanah*. This philanthropic study is limited and focuses on community fundraising through people, formal and informal organizations, and institutions, excluding government grants (allocations from the state budget) and corporate CSR funding (allocation of

funds from internal companies). This study assists in multiple ways, including assisting Islamic charity institutions in resolving fraud-related issues and developing an internal control system. By identifying the root causes of fraud, the likelihood of fraud can be decreased or managed. Second, this study aids Islamic charity institutions in generating early-warning signals to predict and prevent probable fraud.

LITERATURE REVIEW

Islamic Philanthropy

The term philanthropy is derived from the Greek terms Philo and Anthropos, which imply "human love." The KBBI defines philanthropy as love (generosity) towards others. Philanthropy is a sort of care for another person or group of people that is motivated by altruism (Makhrus, 2018). The terms *shodaqoh, al-birr, ata' khayri, al-ata' al-ijtima'i,* and *al-takaful al-insani* are related with Islamic generosity (human solidarity). Islamic philanthropy is a sort of charity to others anywhere and at any time, which is a requirement and advice for Muslims under Islamic law (Makhrus, 2018).

Islamic philanthropy has two methods: first, it is a binding requirement on every Muslim in the form of zakat (obligatory legislation), and second, it is a recommendation or act of kindness called out to every Muslim (sunnah) as a kind of generosity instrument: *infaq*, *shodaqoh*, *waqf*, and *hibah*. According to Al-Jaza'iri (2017), zakat is obligatory for every Muslim who possesses assets that have attained the *nishab* under certain conditions. *Infaq* is a sunnah practice that is more expansive than zakat on a Muslim's property (Al-Jaza'iri, 2017). *Shodaqoh* refers to all of a Muslim's good actions, both material (wealth) and immaterial (Al-Jaza'iri, 2017). *Waqf* is the holding of an asset so that it cannot be inherited, sold, or donated, and the proceeds are distributed to the beneficiary (Al-Jaza'iri, 2017). *Hibah* is a gift offered by a someone who has had money or property taken from him (Al-Jaza'iri, 2017).

Three actions comprise Islamic philanthropy: collecting, management, and distribution (KNEKS, 2019). Collecting funds from property owners (*muzakki*, *wakif*, and contributors) includes all activities, from socialization through accepting funds by charitable officers. Planning, resource management, fund management, and monitoring and evaluation are examples of management activities. Distribution activities comprise of the process of distributing funds to *mustahiq, mauquf 'alaih,* and receivers of donations in accordance with

Islamic law. The allocation of Islamic philanthropy contributions to both the consumption sector (education, health, social, and *da'wah*) and the production sector (growth of the halal industry) is anticipated to alleviate poverty and boost the national economy (KNEKS, 2019).

Fraud

Fraud is the practice of exploiting one's responsibility to satisfy one's own self-interest by profiting oneself through the intentional misuse of power (ACFE, 2017). According to fraud theory, there are three primary reasons why individuals commit fraud: pressure, opportunity, and justification (see Figure 2.1) (Cressey, 1950). Pressure can originate from other people, the environment, or extremely urgent personal requirements, and it can be brought on by greed (moral hazard) and a high standard of living (extravagant lifestyle) (Akmal, et al., 2020; Ibrahim, 2018; Kamri, et al., 2014).
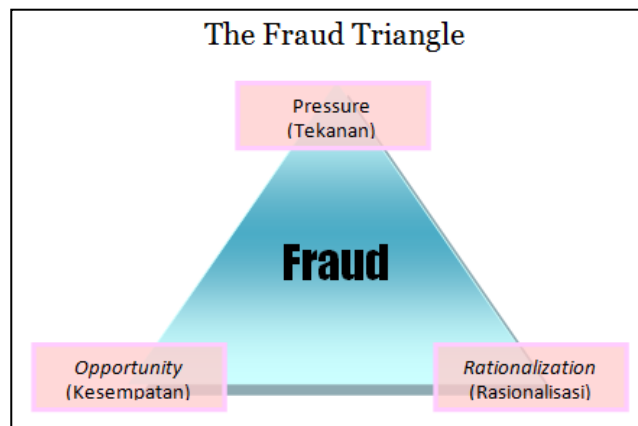
Figure 1. Fraud Triangle Theory
(Source: Cressey, 1950)

The opportunity factor frequently arises as a result of the institution's inadequate internal management structure; charitable institutions, in particular, are typically operated on the basis of kinship without effective control and monitoring. This creates possibilities for individuals who initially had no desire to commit fraud, but given the opportunity and insufficient supervision, they will be compelled to commit fraud and misuse of funds, especially in the lack of reporting requirements and financial statement openness. The rationalization or explanation for committing fraud is influenced by a lack of understanding of the rules and responsibilities, as well as limitations on the management of funds or other assets, which mandate that they must be distributed to those who are entitled to receive them, but are used for personal gain, such as using donated

funds for personal interest and not returning them on the grounds of compensation for work and repeated announcements for their actions due to the lack of accountability.

METHODOLOGY

This study is a qualitative investigation employing the approach of desk research. Desk research or desk study refers to secondary data or data obtained without fieldwork. This strategy comprises library and online searches (Hague, 2006). A number of sources, including articles' periodicals, books, statutes, and other relevant sources, have been accessed to acquire data. This study provides information on eight Islamic charitable organizations in Indonesia, namely BAZNAS, RZ, DD, IZI, Lazismu, Lazisnu, BMM, and Yatim Mandiri. These eight institutions are Islamic philanthropic organizations in Indonesia that have a nationwide operational scope, publish comprehensive financial reports on the collection and distribution of contributions, and are accessible via the internet (official website).

The following website provides access to financial reporting data for Islamic charity institutions, including fundraising reports, distribution of cash reports, and allocation of amil rights reports.

Table 1. Islamic Philanthropic Institution in Indonesia

No	Institution	Website
1	BAZNAS	https://baznas.go.id
2	LAZ Rumah *Zakat* Indonesia	https://www.rumah*zakat*.org
3	LAZ Dompet Dhuafa Republika	https://dompetdhuafa.org
4	LAZ Inisiatif *Zakat* Indonesia	https://izi.or.id
5	LAZ Muhammadiyah	https://lazismu.org
6	LAZIS Nahdlatul Ulama	https://nucare.id
7	LAZ Baitulmaal Muamalat	https://bmm.or.id
8	LAZ Yatim Mandiri	https://www.yatimmandiri.org

(Source: Processed data, 2021)

The data analysis technique includes fund distribution ratio analysis and *amil* rights ratio calculation analysis. The examination of the fund distribution ratio is performed by making a comparison of the funds that were collected with the funds that were distributed (allocation to collection ratio). The purpose of this study is to determine how much effort charitable organizations put into distributing monies contributed by members of the public and reducing the

amount of prudence deposited funds require in order to protect themselves from the possibility of fraud. The calculation of the AMI rights ratio is analyzed by contrasting the result with the total amount of cash distributed. This evaluation is to determine how committed philanthropic institutions are to maximizing funds that have been received from the community and have been allocated to the needs of the ummah while simultaneously minimizing the portion of the internal allocation of *'amil*, including both *bisyaroh* allocation and the operational costs of the institution.

RESULT AND DISCUSSION

Utilization of Islamic Philanthropy in Indonesia

Islamic philanthropy in terms of zakat and non-zakat (*infaq*, *shodaqoh*, *waqf*, and other religious social funds) aims to improve the well-being of individuals, alleviate poverty, and enhance the standard of living (BAZNAS, 2018). To maximize its benefits, its distribution and use must adhere to Islamic law and applicable laws and regulations. *Mustahik* zakat is limited to eight classes (*ashnaf*): the *faqir*, the poor, the 'amil, the *muallaf*, the *riqab*, the ghorimin, sabilillah, and Ibn sabil (Al-Jaza'iri, 2017). Non-zakat *mustahik* is not restricted to *ashnaf* and may be allocated to other organizations per the funder's instructions (Andirja, 2020). Education, health, humanity, da'wah, and advocacy can be targeted for distribution. Utilization may include support in enhancing productive capacity, entrepreneurship, life skills competency, community empowerment, and so on. The highest allocations in 2019, according to the BAZNAS money distribution report, were for social and humanitarian causes (36.9%), da'wah (25%), education (19.3%), the economy (13.5%), and health (5.2%). (BAZNAS, 2019).

Makhrus (2018) divides the usage of Islamic philanthropy into two categories: consumption and production. Health, education, and social assistance are examples of consumptive usage. The productive utilization may include the development and empowerment of MSMEs as well as the empowerment of the community. Good management is applied to the utilization of these funds, beginning with the planning, determining, implementing, and evaluating phases, so that the process can run smoothly and be measured. Utilization programs are conducted in addition to charitable (short-term) programs, particularly for emergency assistance such as natural disasters, also by establishing long-term programs by utilizing forms of activity that make the community more economically independent, so that it has a greater impact on

alleviating poverty and also improves the quality of the people (Makhrus, 2018).

This study provides information on the collection and distribution of funds by eight Islamic philanthropic organizations in Indonesia: BAZNAS, RZ, DD, IZI, Lazismu, Lazisnu, BMM, and YM (see Table 4.1). Included in the data collection are zakat and non-zakat funds, including *infaq*, *shodaqoh*, *waqf*, and other religious social funds (DSKL). Distribution information includes the allocation for eight *ashnaf* (specific zakat) and other consumptive and productive assistance. The table also displays the portion of *amil* rights allocated to salaries (*bisyaroh*) and operational expenses for administrators and *amil* officers who assist in every process beginning with the collection, management, and distribution of funds so that these philanthropic funds are channeled in accordance with the regulations and their designation. The allocation to collection ratio (ACR) is calculated to determine the ratio of absorption/distribution of funds, and the *amil* rights ratio (RHA) is calculated to determine the size of the *amil*'s portion of the collected funds. In the following discussion, the ACR and RHA are used as one of the warning signs of potential fraud in philanthropic institutions.

Table 2. Collection and Distribution of Indonesian Islamic Philanthropic Institutions

No	Institutions	Year	Collection	Allocation	Amil Right	ACR	Category	RHA
1	BAZNAS	2019	4,420,134,577,697	3,339,386,373,405	310,562,932,727	75.5%	Effective	9.3%
2	RZ	2020	223,144,145,509	200,930,742,839	27,773,028,621	90.0%	Highly Effective	13.8%
3	DD	2020	370,007,990,385	330,425,427,795	38,065,009,282	89.3%	Effective	11.5%
4	IZI	2020	96,329,189,782	80,239,026,310	12,037,437,955	83.3%	Effective	12.5%
5	Lazismu	2020	40,022,367,557	32,118,694,101	n/a	80.3%	Effective	n/a
6	Lazisnu	2020	781,740,400,439	732,186,921,139	n/a	93.7%	Highly Effective	n/a
7	BMM	2020	83,494,980,465	66,264,941,077	6,127,033,625	79.4%	Effective	12.1%
8	YM	2020	121,288,691,137	119,323,963,185	26,987,231,823	98.4%	Highly Effective	12.1%

(Source: Processed data, 2021)

The National Amil Zakat Agency (BAZNAS) is an official state agency that administers zakat on a national scale. BAZNAS is responsible for coordinating all zakat *amil* institutions in Indonesia, including the *Amil* Zakat Institution (LAZ) and the Zakat Collection Unit (UPZ). LAZ is a private institution established by the community and authorized by the government to aid in the collection and distribution of zakat. UPZ is an organizational unit created by BAZNAS for the purpose of zakat collection. BAZNAS collected IDR 4.4 trillion in 2019 from zakat maal-income (43.6%), zakat maal-institution (3.4%),

zakat fitrah (15.5%), tied *infaq/shodaqoh* (7.9%), untied *infaq/shodaqoh* (28.5%), and CSR funds (1.1%). The funds were then allocated in the following proportions: economy (13.5%), education (19.3%), da'wah (25%), social humanity (34.9%), and health (5,2%). If it is based on *ashnaf*, the distribution is as follows: the poor (66.3%), the '*amil* (9.3%), the converts (0.016%), the *riqab* (0.1%), the *gharimin* (2.3%), *fii sabilillah* (19.9%), and *ibn sabil* (2.1%). (1.5%). According to information regarding the collection and distribution of BAZNAS funds, the funds settled at the end of 2019 with an ACR of 75.5%. The *amil* rights are valued at 310.5 billion IDR with a RHA of 9.3%.

RZ is a LAZ with 51 representative offices throughout Indonesia, headquartered in Bandung. RZ generates philanthropic funds via community empowerment programs with four main clusters: *"senyum juara"* (education), *"senyum sehat"* (health), *"senyum mandiri"* (economic empowerment), and *"senyum lestari"* (environmental sustainability initiative). RZ was able to collect a total of IDR 223.1 billion in zakat funds in 2020, which included professional zakat, savings zakat, trade zakat, zakat fitrah, gold and silver zakat, stock and investment zakat, gift zakat, agricultural zakat, livestock zakat, zakat *muqayyad*, and placement results. The funds were then distributed for a total of IDR 200.9 billion to the poor, *fi sabilillah*, converts, *ghorimin*, *ibn sabil*, and *amil*, in addition to the allocation of zakat-managed assets. According to data on the collection and distribution of RZ funds, the funds deposited at the end of 2020 totaled IDR 22,2 billion with an ACR of 90%. The *amil* rights were valued at IDR 27.7 billion and had a RHA of 13.8%.

DD is a LAZ headquartered in Jakarta with 27 domestic branches and five overseas branches dedicated to reducing community poverty by empowering people and humanity. In 2020, the poverty alleviation program will benefit 3.15 million out of Indonesia's total poor population of 26.42 million people (11.92%), with a total of IDR 370 billion collected from zakat funds (55.1%), *infaq* (10.52%), bound *infaq* (3.36%), *qurban* (17.88%), social humanity (8.12%), and *waqf* (5.02%). The funds were then allocated to the fields of education (10.04 %), health (6.85%), social (19.29%), economy (11.82%), *da'wah* and culture (1.59%), humanitarian (12.19%), advocacy (0.01%), stocking of sacrificial animals (19.29%), ZISWAF socialization (7.35%), and institutional operations for a total of IDR 330.42 billion (11.52%). Based on information regarding the collection and distribution of DD funds, the deposited funds at the end of 2020 amounted to IDR 39.5 billion with an ACR of 89.3%. The *amil* rights were worth 38 billion IDR, with a RHA of 11.5%.

IZI is a LAZ headquartered in Jakarta with 16 branches across Indonesia that aims to develop a community self-reliance program through five primary programs: IZI to success, IZI to smart, IZI to fit, IZI to faith, and IZI to help. IZI was able to raise IDR 96.3 billion for zakat funds in the form of zakat maal and zakat fitrah in 2020, and distributed IDR 80.2 billion to the poor, gharim, converts, sabilillah, and *ibn sabil*. Totaling IDR 22.8 billion, non-zakat funds were channeled into humanitarian, education, health, economic, Islamic world, rehabilitation, *da'wah*, and *qurban* programs in the amount of IDR 21.68 billion. With an ACR of 83.3%, funds settled by the end of 2020 totaled IDR 16 billion. The *amil* rights cost 12 billion IDR and have a RHA of 12.5%.

Lazismu is a LAZ sponsored by the Muhammadiyah religious organization, which has a network spanning 31 provinces, 225 cities, and 1,019 service offices in Indonesia. Lazismu raised 40 billion IDR in 2020 for zakat and *infaq* funds. The money was then allocated to 32,1 billion IDR worth of education, health, economic, *da'wah*, and humanitarian programs. Funds settled by the end of 2020 totaled 7.9 billion IDR with an ACR of 80.3%. Lazisnu is a LAZ operating under the auspices of the religious organization Nahdlatul Ulama (NU), which has a network spanning 34 provinces and 376 regencies/cities in Indonesia, in addition to 12 foreign representative offices. In 2020, Lazisnu raised a total of 781,7 billion IDR. The funds were then allocated in the amount of IDR 732.1 billion to economic, socio-religious, health, education, and humanitarian programs. With an ACR of 93.7%, funds settled by the end of 2020 totaled IDR 49.5 billion.

BMM is a LAZ with its headquarters in Jakarta. In 2020, BMM raised IDR 83.4 billion and distributed IDR 66.2 billion through three main programs: the distribution (consumptive), utilization (productive), and cooperation programs (investment). The distribution program includes muamalat social security, muamalat healthy community, BMM rescue, muamalat blessing house, and public facility provision. Muamalat forerunners, muamalat scholars, tahfidz muamalat, muamalat solidary boarding school, hamlet zakat muamalat, muamalat friends of SMEs, sharing smartphones and infrastructure are all part of the utilization program. The IDB kafala, the Hasene kafala, and the King Abdullah Foundation are all part of the collaboration program. The total amount of funds settled at the end of 2020 was 17.2 billion, with an ACR of 79.4%. The *amil* rights were worth IDR 6.1 billion, with a RHA of 12.1%. Yatim Mandiri is a LAZ that focuses on improving orphans' quality of life through orphanages and post-care education, as well as providing skills for economic

independence. Yatim Mandiri raised IDR 121.2 billion in 2020 and channeled IDR 119.3 billion into education, empowerment, health, humanitarian, *da'wah*, super nutrition, *qurban*, and *waqf* programs. The total amount of funds settled at the end of 2020 was IDR 1.9 billion, with an ACR of 98.4%. The *amil* rights were worth IDR 26.9 billion, with a RHA of 12.1%.

Fraud Potential in Islamic Philanthropy

The most common objective of a wide variety of fraudulent schemes and illegal activities is financial gain. In addition to the fact that money can be easily converted into anything else in order to meet the needs of the perpetrator (Christensen & Byington, 2003), another reason why cash theft is so common is that it is much simpler to commit than other types of asset theft (Byington & McGee, 2012). The urgent need for financial needs is the most dominant pressure for someone to commit fraud, as financial motives are more dominant in causing fraud than non-financial motives. Financial motives are more dominant in causing fraud than non-financial motives (Hollow, 2014). Even charitable organizations that provide services such as shelter and fund distribution are not immune to the possibility of fraud (Ohalehi, 2019). Furthermore, the funds that are collected and managed by charitable organizations are not insignificant, and the majority of the receipts of funds from property owners are cash on hand and bank account balances. When funds are received through a bank transfer, there is still the possibility of fraud taking place if the bank account uses an account that is held in the name of an individual rather than an account that is held in the name of an official institution (Rongiyati, 2021).

In most cases, the activities of fundraising, fund management, and fund distribution present the greatest opportunity for fraudulent activity within Islamic charitable organizations. First, whenever funds are transferred from property owners to philanthropic officers, especially in the form of cash on hand, there is a risk of fraud in fund management activities. This is a unique challenge. Fraud occurs when cash received by philanthropic officers is not deposited into the institution, either to the treasurer or through the institution's official account. Instead, unscrupulous officers use the money for their own personal gain, committing the crime of fraud (Greenlee et al., 2007). Second, the institution's large cash balance, combined with a lack of oversight over the management of these funds, raises the possibility of fraud in fund management activities. This is due to the fact that there is no oversight over the management

of these funds (Ohalehi, 2019). Third, there is the possibility of fraud occurring during the fund distribution process if funds are given to parties other than those who are entitled to receive them under Islamic law and parties other than those who meet the criteria that the donor has mandated. This category includes the practice of allocating funds for non-Islamic law-compliant purposes. One example is the use of social funds for profit-making activities such as investment and business (Andirja, 2020).

Warning Signals Against Potential Fraud in Islamic Philanthropy

It is very important and urgent for Islamic philanthropic institutions to identify warning signals that can lead to the possibility of fraud and as an anti-fraud program so that fraud does not occur or can be minimized. Identifying these warning signals can help prevent or reduce the amount of money lost to fraud (Arshad et al., 2015). The following are some things that Islamic philanthropic institutions can use as a warning signal in order to prevent fraud, and they are as follows:

1. The Allocation to Collection Ratio (ACR) Method

A high balance of cash or funds deposited on funds from collections that have not been disbursed is one of the potential sources of fraud in philanthropic institutions (Ohalehi, 2019). When funds are received from donors, they should ideally be distributed directly to the recipients, so that the benefits of philanthropic funds can be felt directly by those in need. When the funds deposited can be received directly, the donor's blessing is also maximized. The ACR method is commonly used to assess the efficacy of philanthropic institutions in disbursing funds. The ACR method can also be used to detect potential fraud. ACR, or absorption of funds, is the ratio of distribution to collection (Nafi', 2020). ACR is used as an indicator to assess the effectiveness of a philanthropic institution's performance in disbursing funds. Beik et al. (2016) divide the ACR assessment into five categories: highly effective (90%), effective (70-89%), fairly effective (50-69%), below expectation (20-49%), and ineffective (20%). The higher the ACR, the more effective it is, and the lower the ACR, the less effective it is. Based on the ACR calculations of eight philanthropic institutions in Indonesia in this study, three highly effective institutions stand out: RZ with an ACR of 90%, Lazisnu with an ACR of 93.7%, and Yatim Mandiri with an ACR of 98.4%. BAZNAS had an ACR of 75.5%, DD had an ACR of 89.3%, IZI had an ACR of 83.3%, Lazismu had an ACR of 80.3%, and BMM had an ACR of 79.4%.

Philanthropic institutions with a lower ACR have a higher risk of fraud due to the large cash balance that settles. With ACRs of 90% (highly effective), RZ, Lazismu, and Yatim Mandiri have a lower potential for fraud based on smaller cash balances (10%). Due to higher deposited cash balances, BAZNAS, DD, IZI, Lazismu, and BMM have a higher potential for fraud (11-30%). The conclusion of this analysis is only a possibility due to the triggering of fraud opportunities. Opportunities arise as a result of the large deposits of funds in philanthropic institutions. According to the fraud triangle theory, one of the three causes of fraud is opportunity (Cressey, 1950). This opportunity can lead to a fraud if it is followed by two other factors: pressure and rationalization. Pressure is an intention that can be caused by both internal and external factors. Internal pressures can include pressure on life's necessities, pressure to improve one's quality of life, and pressure to live an extravagant lifestyle. External causes of pressure include pressure from family, pressure from superiors, and pressure from society in general on social and community demands. When pressure expectations are not met, rationalization can occur, and the fraudulent act committed is announced. Opportunities can lead to fraud when individuals who initially have no intention, but with the opportunity and ability, combined with weak supervision and the absence of demands for financial reporting and transparency, are moved to commit fraud by misusing and using funds for personal interests.

2. The Disbursement Speed Method

Another indicator of the possibility of fraud involving funds deposited in charitable organizations is the speed with which funds are distributed. The speed of disbursement is a measurement tool used to assess the success of the funds, and it is determined by how quickly the funds are collected until they are distributed to the recipients. The faster the allocation, the fewer funds are available for deposit, increasing the risk of fraud involving the funds that have been deposited. According to Beik et al., (2016), the speed of disbursement can be classified into five categories: fast (less than three months), good (three to six months), moderate (six to nine months), slow (nine to twelve months), and very slow (over twelve months). Because there was no information found regarding the speed of disbursement based on the websites and financial reports of the eight charitable organizations included in this study, it is not possible to explain the speed of disbursement as a warning signal against the possibility of fraud in this particular study.

3. The Amil Rights Ratio (RHA) Method

The most common type of fraud in non-profit institutions involves employees who have a motive for misappropriating assets, particularly the misuse of philanthropic funds for personal gain (Fish, 2020). Employee fraud in philanthropic institutions causes their responsibilities to be oriented more toward personal and institutional interests than *mustahik* parties' interests (who are entitled to receive funds). Philanthropic institutions are institutions that channel philanthropic funds from donors to *mustahik*. Philanthropy funds are not business assets that can be claimed by institutions for free use, and these funds are an *amanah* that must be channeled to *mustahik* (Alim, 2015). '*Amil*' is one of the groups that become *mustahik* for zakat funds. *Amil* is a government-appointed person tasked with collecting zakat from *muzakki* (people who have met the criteria for zakat obligations) (Tuasikal, 2010). According to MUI, an *amil* is a person appointed by the government or a person formed by the community with permission and approval from the government (MUI, 2011). This means that *amil* who meet the two criteria above, namely people appointed by the government or who receive permission and approval from the government, are included in the *mustahik* zakat group and are entitled to a portion of the allocation of zakat funds. If they do not meet these two criteria, they are not considered *amil* and are not entitled to a share of the zakat funds.

The proportion of the zakat fund allocated to the '*amil* is determined by the amount of work done (Tuasikal, 2010). There is no regulation from the government or the MUI fatwa regarding the allocation of zakat funds to '*amil*. Beik et al. (2016) limit the portion of *amil* rights to a maximum of 12.5% of total zakat receipts, calculated from one-eighth of the *ashnaf* of zakat recipients. Based on the calculation of the RHA of eight philanthropic institutions in Indonesia in this study, one institution, RZ, has a RHA greater than 12.5%. BAZNAS has a RHA of 9.3%, DD has a RHA of 11.5%, IZI has a RHA of 12.5%, BMM has a RHA of 12.1%, and Yatim Mandiri has a RHA of 12.1%. Lazismu and Lazisnu, two philanthropic institutions, did not mention the %age of *amil* funds.

The higher the RHA of a philanthropic institution, the greater the potential for fraud; this is based on the institution's orientation of responsibility, which is more in favor of personal and institutional interests than non-*amil mustahik* parties. Because the funds collected from the community are basically deposit

funds that must be channeled to be allocated to *mustahik* for alleviating poverty and improving the community's quality of life, the high ratio of *amil* rights will increase the potential for high fraud. If the portion of the *amil* rights is excessive, it can be considered a fraud because the funds are used for personal and institutional interests rather than community benefit. A greater allocation to personal and institutional interests can also be considered an injury to the trust of philanthropic institutions as donors' representatives, where an *amanah* must be fulfilled with an allocation in accordance with Shari'a provisions (Andirja, 2020).

CONCLUSIONS

This study seeks to investigate the utilization of Islamic philanthropic institutions in Indonesia and provide recommendations for fraud-prevention indicators. This study presents information on the collection and distribution of funds from eight Islamic philanthropic institutions in Indonesia, namely BAZNAS, RZ, DD, IZI, Lazismu, Lazisnu, BMM, and Yatim Mandiri, gathered through a desk study. The possibility of fraud cannot be excluded from philanthropic institutions and the distribution of funds. In Islamic philanthropic institutions, the potential for fraud exists in the collection, management, and distribution of funds. The potential for fraud in fund management activities exists when property owners transfer funds to philanthropic officers, especially in cash. Due to the institution's high cash balance and the absence of supervision over the management of these funds, the potential for fraud in fund management activities is present. Fraud risk in fund distribution activities when funds are allocated to parties other than those entitled to receive them under Islamic law and parties who do not meet donor-mandated criteria.

As part of identification and anti-fraud efforts against Islamic philanthropic institutions, it is necessary to identify potential fraud indicators. In this study, the ACR method, the speed of disbursement, and the RHA are proposed as potential fraud warning signals. Based on the ACR method, philanthropic institutions with a low ACR and a high cash settlement balance have a greater potential for fraud. RZ, Lazismu, and Yatim Mandiri, which have an ACR of 90% (extremely effective), have a lower fraud risk (10%) based on their smaller cash balances. Based on their larger deposited cash balances, BAZNAS, DD, IZI, Lazismu, and BMM have a higher fraud risk (11-30%). The disbursement speed assessment cannot be explained in this study because website searches and financial reports from the eight philanthropic organizations included in this

study did not yield sufficient information. Based on the RHA method, the higher the RHA of a philanthropic institution, the greater the potential for fraud. This is due to the orientation of the institution's responsibility, which favors personal and institutional interests over those of non-*amil mustahik*. In this study, there is one institution whose RHA is greater than 12.5%, namely RZ with a RHA of 13.8%. BAZNAS has a RHA of 9.3 %, DD has a RHA of 11.5%, IZI has a RHA of 12.5 %, BMM has a RHA of 12.1%, and Yatim Mandiri has a RHA of 12.1%. Lazismu and Lazisnu, two charitable organizations, did not mention the proportion of *amil* funds.

This study has the following limitations: First, only eight philanthropic institutions were studied; future research can collect data on all philanthropic institutions in Indonesia on a national scale. If there is insufficient information on the website, it can request more information directly from the relevant institution. Second, rather than including only the most recent year of financial reports in the study, future research can include a range of data with a minimum average of three years so that the data obtained is more equitable and can describe a more stable financial condition. As a result, the results obtained are more accountable.

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SECTORAL FINANCING CONCENTRATION AND PROFITABILITY OF ISLAMIC BANKING IN INDONESIA

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ABSTRACT - This paper investigates the extent to which sectoral financing concentration affects the Islamic banks' profitability in Indonesia. As additional control variables, we include bank-specific and macroeconomic conditions. This study utilizes the aggregated financial statements of Islamic banks in Indonesia from January 2010 through December 2019 and analyzed with the Autoregressive distributed lag (ARDL) model. The results confirm cointegration evidence, demonstrating the long-term relationship between the dependent and independent variables. The results clearly indicate that sectoral financing concentration increases the profitability of Islamic banks. Furthermore, excessive financing and high non-performing financing reduce the profitability of Islamic banks. As a financial sector, Islamic banks' performance is contingent on favorable economic and macroeconomic conditions, such as high economic growth and low inflation. These findings imply that Islamic banks must employ skilled workers who are experts in related economic sectors, which is one of the primary goals of Islamic bank financing.
Keywords: Islamic banks, sectoral financing concentration, profitability, ARDL

ABSTRAK **– Konsentrasi Pembiayaan Sektoral dan Profitabilitas Bank Syariah di Indonesia.** Tulisan ini mengkaji sejauh mana konsentrasi pembiayaan sektoral mempengaruhi profitabilitas bank syariah di Indonesia. Sebagai variabel kontrol tambahan, kami menyertakan kondisi spesifik bank dan variabel makroekonomi. Penelitian ini menggunakan agregat laporan keuangan bank syariah di Indonesia dari Januari 2010 sampai Desember 2019 dan dianalisis dengan model Autoregressive distributed lag (ARDL). Hasil kajian mengkonfirmasi bukti kointegrasi, yang menunjukkan hubungan jangka panjang antara variabel dependen dan independen. Hasil kajian memperjelas bahwa konsentrasi pembiayaan sektoral dapat meningkatkan profitabilitas bank syariah, sementara pembiayaan yang berlebihan dan pembiayaan bermasalah yang tinggi mengurangi profitabilitas bank syariah. Sebagai institusi yang bergerak di sektor keuangan, kinerja bank syariah sangat bergantung pada kondusifitas sistem ekonomi dan kondisi makroekonomi, seperti pertumbuhan ekonomi yang tinggi dan inflasi yang rendah. Temuan ini menyiratkan bahwa bank syariah harus mempekerjakan pekerja terampil yang ahli di sektor ekonomi terkait, yang merupakan salah satu tujuan utama pembiayaan bank syariah.
Kata kunci: Bank syariah, konsentrasi pembiayaan sektoral, profitablitas, ARDL

INTRODUCTION

Islamic banking, sukuk (Islamic bonds), Takaful (Islamic insurance), Islamic funds, and other Islamic Financial Institutions are all part of the Islamic finance industry. According to total assets and the number of institutions, the Islamic finance industry is rapidly expanding. Total assets in 2012 were US $1.761 trillion, rising to US $3.374 trillion in 2019 with 1,595 total Islamic institutions worldwide, according to the Islamic Finance Development Report (IFDR). The largest financial industry in the Islamic finance industry is Islamic banking. 527 Islamic banks held $2.349 trillion in total Islamic banking assets, accounting for 70% of total Islamic financial assets (IFDR, 2021).

As the world's largest Muslim country, Indonesia pioneered Islamic banking in 1992 with the passage of Law No. 7/1992, which allows a bank to apply for profit-loss sharing contracts (Widarjono, 2018). However, when compared to other Muslim countries, Indonesia is late in adopting Islamic banking. Following the ratification of Banking Law No. 21/2008 by the government, the number and assets of Islamic banks increased rapidly (Widarjono, Mifrahi, & Perdana, 2020; Aulia, Ibrahim, & Tarigan, 2020). With 34 Islamic banks and total assets of US $38 billion in 2019, Indonesia has risen to the tenth largest country in the world banking industry. The government has merged three state-owned banks to strengthen Islamic banking in Indonesia, and their combined assets of US $14 billion are expected to accelerate Islamic economic development in Indonesia (IFDR, 2021).

As a financial intermediary, an Islamic bank performs two main functions: funding and credit. The goal of credit or financing activity is to maximize bank performance (Daud et al., 2016; Ibrahim, & Salam, 2021). As a result, Islamic banks' primary concern as financial intermediaries is credit risk management (Abedifar, Molyneux, & Tarazi, 2013; Muarif, Ibrahim, & Amri, 2021). One of the critical issues in financing risk management is how banks diversify their financing across economic sectors in order to reduce the risk of non-performing loans (NPF).

A well-managed financing risk appears to support the performance of Islamic banks (Abedifar, Molyneux, & Tarazi, 2013; Hassan, Khan, & Paltrinieri, 2019; Nisak, & Ibrahim, 2014). Diversification of financing can boost the profitability of Islamic banks in Southeast Asian countries with dual banking systems (Chen, Liang, & Yu, 2018). Diversification of financing through

various financing contracts can also reduce the NPF of Islamic banks in Indonesia (Widarjono & Rudatin, 2021; Nadia, Ibrahim, & Jalilah, 2019). Other findings indicate that the NPF of Islamic rural banks in Indonesia has decreased as a result of financing diversification (Widarjono, Anto, & Fakhrunnas, 2020). Loan diversification in various economic sectors boosts profitability and reduces non-performing loans (NPLs) for Indonesian conventional banks (Prastiwi & Anik, 2020). However, research into the impact of financing diversification in various economic sectors on the performance of Islamic commercial banks in Indonesia is still uncommon.

This paper examines the impact of financing diversification in various economic sectors on the profitability of Islamic commercial banks in Indonesia. However, research into the impact of financing diversification on Islamic bank profitability is still rare. As a result, our research aims to bridge the empirical literature gap by investigating the effects of financing diversification in various economic sectors on the profitability of Indonesian Islamic commercial banks.

Our paper is formatted as follows: The first section provides context, including the study's contribution. The following section emphasizes the existing empirical study. The method and data are discussed in the third section. The fourth section presents the findings and discussion. Finally, the final section provides a conclusion.

LITERATURE REVIEW

The primary issue that has become the subject of an ongoing debate regarding the profitability of banks is which policy, loan concentration or loan diversification, should be implemented. According to the concentration-stability hypothesis, some financial institutions make the decision to focus their lending on specific economic sectors in order to ensure both continued profitability and the institution's continued viability. This is done so that the financial institution can gain knowledge of the specific sectors and benefit from that knowledge (Acharya, Hasan, & Saunders, 2006).

On the other hand, according to the concentration-fragility hypothesis, financial institutions choose to diversify their loan portfolios in order to reduce the risk associated with financing projects due to the problem of asymmetric information regarding the outcomes of those projects. According to the portfolio theory, financial institutions are not required to concentrate all of their loans in a single industry (Rossi, Schwaiger, & Winkler, 2009). The

performance of financial institutions can be significantly improved by diversifying their loan portfolios.

According to the classical banking theory, the theory of loan diversification posits that loan diversification is one of the ways in which a company can increase their credit lines in order to reduce the likelihood of defaulting on those lines (Diamond, 1984). Monitoring costs is necessary for loan diversification, which ensures that financial institutions only diversify when they are making a profit that is greater than the costs they have incurred. Loan diversification, followed by strong monitoring and supervision, will bring the amount of impaired loans down, but on the other hand, it will also bring down profits because of the costs associated with monitoring and supervision. A good selection of borrowers, on the other hand, will lower monitoring costs, which will in turn increase bank profits (Moudud-Ul-Huq, Ashraf, Gupta, & Zheng, 2018).

Chen, Wei, and Zhang (2013) examined the effect of sectoral concentration on Chinese banks' non-performing loans (NPL) using 16 commercial banks between the years 2007 and 2011. Their research covered the period from 2007 to 2011. According to the findings of their study, higher levels of sectoral loan concentration are associated with higher levels of non-performing loans. Kusi et al. (2020) investigated the impact of sectoral loan concentration on the profitability of Ghanaian banks during the period of 2007-2014 using 30 commercial banks as their sample. Their findings provide evidence that sectoral loan diversification increases profitability for banks, thus confirming the concentration-fragility theory.

In a similar manner, Prastiwi and Anik (2020) analyzed the impact that sectoral credit diversification had on the overall performance of Indonesian banks from 2015 to 2018 by using aggregated commercial banks as their data source. A high concentration of loans is detrimental to profitability and can lead to an increase in non-performing loans. In contrast, the findings of a study that was conducted by Hayden, Porath, and Westernhagen (2007) using 983 German banks between the years 1996 and 2002 provide evidence that loan concentration increases both the return and stability of banks, providing support for the concentration-stability theory.

In the case of Brazilian banks, having a concentrated loan portfolio not only increases profitability but also lowers the risk of default (Tabak, Fazio, &

Cajueiro, 2011) In Islamic banks, the primary concern is diversification, which can refer to either the diversification of income or the diversification of financing. Using data from 77 Islamic banks located in 20 different countries, Čihák and Hesse (2010) investigate the impact of income diversification and find that it has a positive impact on the profitability of Islamic banks.

Accordingly, Chen, Liang, and Yu (2018) found that income diversification positively links to Islamic banks' profitability. They used Islamic banks from Pakistan, Malaysia, and Indonesia during the period of 2006-2012. Moreover, Widarjono, Anto, and Fakhrunnas (2020) used data from 143 Islamic rural banks in Indonesia collected quarterly between 2013 and 2018 to demonstrate that income diversification helps reduce impaired financing. The data was gathered during the study period.

In addition, Islamic banks offer a number of interest-free financing options, including Mudharabah, Musyarakah, Murabahah, Istisna, Salam, Ijarah, and Qards. These are just a few of the terms that can be found in Islamic banking contracts. Using aggregate data from Indonesian Islamic banks from 2011-2019, Widarjono and Rudatin (2021) investigated the effect of Islamic financing diversification in various financing contracts on non-performing financing. They did this by focusing on the effect on non-performing financing. There is mounting evidence suggesting that increased financing concentration leads to impaired financing.

METHODOLOGY

This paper examines the impact of financing diversification in various economic sectors on the performance of Islamic banks in Indonesia, using some control variables comprised of bank-specific and external factors. The profitability of Islamic banks is measured using ROA. Asset, equity, efficiency, and financing risk are Islamic bank-specific factors, while inflation and domestic output are external factors. Our research relies on aggregated financial statements from Indonesian Islamic banks from January 2010 to December 2019. We use existing studies to investigate the performance of Islamic banks, such as Čihák and Hesse (2010), Kabir and Worthington (2017), and Hassan, Khan, and Paltrinieri (2019). The performance model of Islamic banks can be expressed as the following regression equation:

$$\text{ROA}_t = \emptyset_0 + \emptyset_1 \text{HHI}_t + \emptyset_2 \text{CAR}_t + \emptyset_3 \text{FDR}_t + \emptyset_4 \text{CIR}_t + \emptyset_5 \text{NPF}_t + \emptyset_6 \text{IPI}_t + \emptyset_7 \text{CPI}_t + e_t \tag{1}$$

Where ROA is the return on assets as a proxy for the profitability of Islamic banks. The Herfindahl-Hirschman index of financing (HHI) measures the diversification of financing. CAR stands for capital adequacy ratio, CIR stands for cost-income ratio, which represents operating efficiency, CPI stands for consumer price index, which measures inflation, and IPI stands for industrial production index, which measures domestic output.

The Herfindahl-Hirschman Index (HHI) is used to assess financing diversification (HHI). Agriculture, forestry, and agricultural facilities (AFA); mining (MIN); manufacturing (MAN); water, gas, and electricity (WGE); construction (CON); trade, restaurants, and hotels (TRH); transportation, cargo storage, and communication (TCC); business services (BS); social services (SS); and others (OT). the following:

$$\text{HHI} = \left(\frac{\text{AFA}}{\text{TF}}\right)^2 + \left(\frac{\text{MIN}}{\text{TF}}\right)^2 + \left(\frac{\text{MAN}}{\text{TF}}\right)^2 + \left(\frac{\text{WGE}}{\text{TF}}\right)^2 + \left(\frac{\text{CON}}{\text{TF}}\right)^2 + \left(\frac{\text{TRH}}{\text{TF}}\right)^2 + \left(\frac{\text{TCC}}{\text{TF}}\right)^2 + \left(\frac{\text{BS}}{\text{TF}}\right)^2 + \left(\frac{\text{SS}}{\text{TF}}\right)^2 + \left(\frac{\text{OT}}{\text{TF}}\right)^2 + \tag{2}$$

Where TF stands for total financing (TF). Financing diversification demonstrates how Islamic banks diversify their financing contracts across economic sectors in order to reduce impaired financing. Low HHI indicates that Islamic bank financing is more diverse, whereas high HHI indicates that financing is concentrated (Widarjono, Mifrahi, & Perdana, 2020), supporting the concentration-fragility hypothesis. In contrast, Islamic banks concentrate on a few economic sectors that are likely to generate high profits, lending credence to the concentration-stability hypothesis. As a consequence, we anticipate a negative or positive relationship between financing diversification and profitability.

The capital adequacy ratio is widely used to assess the equity of Islamic banks (%). The capital adequacy ratio (CAR) measures an Islamic bank's ability to maintain its capacity (Hamid, 2017). Holding less capital reflects Islamic banks' risk-taking behavior, resulting in increased financing. Islamic banks can increase their profits by expanding their financing through high CAR. Keeping more capital, on the other hand, indicates Islamic banks' risk-averse behavior and, as a result, likely generates less profit. Therefore, we anticipate that CAR

will have an impact on Islamic bank profitability, either positively or negatively.

FDR stands for financing deposit ratio (%), which measures bank liquidity. High FDR indicates that banks allocate more financing than they collect from depositors, and high FDR can generate more profit as a result of the increased financing. However, it is debatable because a high FDR indicates a lack of liquidity (Trinugroho et al., 2017). Low liquidity reflects banks' inability to manage an unexpected increase in assets or a decrease in financing, and this condition degrades the bank's performance and increases the high risk. As a result, we anticipate that FDR will have an impact on profitability, either positively or negatively.

CIR stands for cost-to-income ratio (%). CIR stands for operating efficiency, which measures how much it costs to generate one unit of income (Trinugroho, Agusman, & Tarazi, 2014). The high CIR indicates a high cost to generate per unit income. Accordingly, a low CIR indicates greater efficiency and vice versa. High CIR causes Islamic banks to generate low margins, resulting in low profits (Trinugroho, Risfandy, & Ariefianto, 2018). This paper anticipates that CIR will have a negative impact on profitability.

Credit risk is an important aspect of Islamic bank stability. Non-performing financing (NPF) is a credit risk measurement tool commonly used in Islamic banks. NPF is the impaired financing-to-total financing ratio (percent). The greater the NFP, the greater the bad financing, and it is difficult to recover. A high NPF indicates that the bank will be unable to generate significant profits (Ahamed, 2017; Widarjono, Mifrahi, & Perdana, 2020). As a result, this paper hypothesizes that NPF has a negative impact on Islamic bank profitability.

GDP is the market value of a country's goods and services. GDP is a measure of a country's economic growth. A rising GDP indicates increased production of goods and services, which raises income. As a result, Islamic bank profitability is linked to positive economic growth (Abedifar, Molyneux, & Tarazi, 2013; Hassan, Khan & Paltrinieri, 2019). Because monthly GDP data are unavailable, this study relies on the industrial production index (IPI). According to our findings, IPI has a positive impact on profitability.

Inflation is defined as a general increase in prices. The consumer price index is used to calculate inflation (CPI). Inflation raises the prices of goods and services, affecting customers' ability to repay loans (Priyadi et al., 2021). As a

result, rising prices will reduce banks' ability to generate income, further reducing the profitability of Islamic banks. As a result, a negative sign in CPI is predicted.

The Autoregressive Distributed Model (ARDL) is used in this case. The ARDL model provides some benefits to the time series model (Pesaran & Shin, 1998). To begin, all variables are not required to be integrated in the same order or fractionally integrated, but none are integrated at I. (2). Second, ARDL can evaluate both short-run and long-run conditions. In the ARDL model, we can write equation (1) as:

$$\Delta ROA_t = \vartheta_0 + \sum_{i=1}^{p} \vartheta_{1i}\Delta ROA_{t-1} + \sum_{i=1}^{p} \vartheta_{2i}\Delta HHI_{t-1} + \sum_{i=1}^{p} \vartheta_{3i}\Delta CAR_{t-1} + \sum_{i=1}^{p} \vartheta_{4i}\Delta FDR_{t-1} + \sum_{i=1}^{p} \vartheta_{5i}\Delta CIR_{t-1} + \sum_{i=1}^{p} \vartheta_{6i}\Delta NPF_{t-1} + \sum_{i=1}^{p} \vartheta_{7i}\Delta IPI_{t-1} + \sum_{i=1}^{p} \vartheta_{8i}\Delta CPI_{t-1} + \theta_1 ROA_{t-1} + \theta_2 HHI_{t-1} + \theta_3 CAR_{t-1} + \theta_4 FDR_{t-1} + \theta_5 CIR_{t-1} + \theta_6 NPF_{t-1} + \theta_7 IPI_{t-1} + \theta_7 CPI_{t-1} + e_t \qquad (3)$$

Where Δ is the first different operator, $\vartheta_{1i} - \vartheta_{7i}$ are the short-run dynamic condition, and $\theta_1 - \theta_7$ are the long-run condition.

Furthermore, we can derive an error correction model (ECM) from ARDL model. The ECM model combines short-run dynamics and long-run equilibrium. ECM of ARDL for equation (1) can be expressed as follows:

$$\Delta ROA_t = \vartheta_0 + \sum_{i=1}^{p} \vartheta_{1i}\Delta ROA_{t-1} + \sum_{i=1}^{p} \vartheta_{2i}\Delta CAR_{t-1} + \sum_{i=1}^{p} \vartheta_{3i}\Delta FDR_{t-1} + \sum_{i=1}^{p} \vartheta_{4i}\Delta CIR_{t-1} + \sum_{i=1}^{p} \vartheta_{5i}\Delta NPF_{t-1} + \sum_{i=1}^{p} \vartheta_{6i}\Delta IPI_{t-1} + \sum_{i=1}^{p} \vartheta_{7i}\Delta CPI_{t-1} + \theta_7 ECT_{t-1} + e_t \qquad (4)$$

Where ECT_{t-1} is the lag of error and θ_7 is the speed of adjustment coefficient. ECM represents a short-run condition as a disequilibrium condition since the behavior of each economic agent deviates from the equilibrium condition. This disequilibrium condition exists because of the existence of several variables that is not stationary at the level. Accordingly, this ECM model contains the lag error, denoted by ECT(-1), as a correction factor in the short run to move towards the long-run equilibrium condition. For that reason, the ECM model is suitable when ECT(-1) is negative and significant.

Some steps are required to estimate the ARDL model. The first step is stationary data. The next step is to estimate the ARDL model. As distributed lag model, the results depend on the optimal lag. Our study employs the Akaike

information criterion (AIC) and Adjusted R^2 to choose the optimal lag. Both methods are chosen for selecting the highest lag length instead of the smallest lag length. The third step is the cointegration test. The last step is to estimate the short-run and long-run coefficients.

RESULT AND DISCUSSION

The descriptive statistics of all variables are reported in Table 1. On average, the profitability (ROA) is 1.53 and is relatively stable, with a standard deviation of 0.6. This profitability is above the threshold value of 1.5% as regulated by the Indonesian Financial Service Authority to be healthy Islamic banking. The sectoral financing diversification on average is 22.48%, with a standard deviation of 2.85. Figure 2 reports the sectoral financing concentration during the studied period. HII increased steadily from 2010 to 2013 and then it was relatively stable after 2014.

Table 1. Descriptive statistics

	Mean	Std. Dev.	Maximum	Minimum
ROA	1.53	0.46	2.52	0.08
HHI	22.48	2.85	28.27	18.75
CAR	16.25	2.35	21.39	11.07
FDR	93.11	5.85	104.83	83.72
CIR	83.81	6.69	94.38	70.43
NPF	3.78	0.80	5.54	2.22
IPI	123.39	16.45	158.00	92.32
CPI	126.59	17.28	152.79	97.55

The average equity (CAR) is 16.25% and this equity exceeds the threshold value of 15% as regulated by the government. The standard deviation of CAR is 2.35, meaning that equity is stable since Islamic banks are banned from any excessive and speculative financing (Azmat, Skully, & Brown, 2015). The financing rate (FDR) on average is 93.11%, with a standard deviation of 5.85. This financing rate is high due to expansionary financing as a new Industry but it is lower than the maximum threshold of 95%. Islamic bank efficiency (CIR) is 83.81, ranging from 70.43 to 94.38, with a standard deviation of 6.69, which is overall less than the maximum rate of 95%. On average, impaired financing (NPF) is also low (3.78%), which is below the threshold of 5%. Indeed, the performance of Islamic banking in Indonesia sounds good as a new player in the banking industry.

Before estimating the ARDL, we have to check the stationarity of all variables using the unit-root test to determine their order of integration. As required for the ARDL model, every variable is not integrated of order 2 or I(2). For that reason, the unit root test is significant to warrant that each variable is I(0) or I(1).
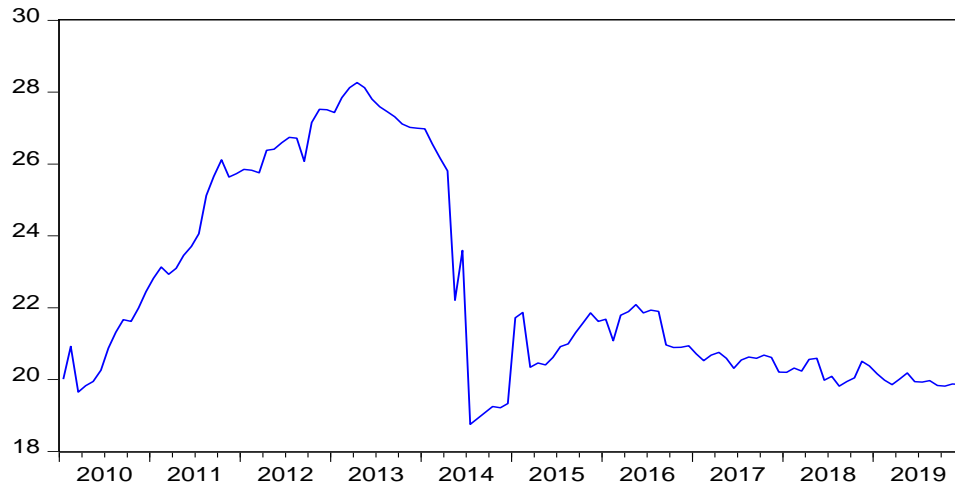
Figure 1. HHI Sectoral financing concentration

Augmented Dickey-Fuller (ADF) and Phillip-Perron (PP) are employed. Table 2 reports the results of unit-root tests. The findings report that each variable is integrated of order 1 and none are I(2). These results conclude that the ARDL approach is valid to estimate the Indonesian Islamic banks' performance.

Table 2. Unit-root test

	Level				First difference			
	ADF		PP		ADF		PP	
Variable	Constant	Trend	Constant	Trend	Constant	Trend	Constant	Trend
ROA	-3.30**	-3.41*	-3.17**	-3.09	-11.13***	-11.13***	-15.85***	-16.18***
HHI	-1.50	-2.59	-1.48	-2.37	-6.31***	-6.42***	-12.68***	-12.73***
CAR	-1.80	-2.24	-2.27	-3.34*	-11.78***	-11.73***	-13.10***	-13.04***
FDR	-1.70	-3.13	-1.56	-3.08	-12.84***	-12.88***	-12.97***	-13.01***
CIR	-1.82	-2.07	-2.50	-3.47**	-17.65***	-17.58***	-20.21***	-20.19***
NPF	-1.60	-1.63	-2.56	-2.56	-10.83***	-10.78***	-15.19***	-15.12***
IPI	0.64	-11.04***	-1.31	-11.09***	-8.09***	-8.11***	-103.85***	-105.19***
CPI	-1.18	-1.21	-1.84	-1.64	-9.78***	-9.85***	-7.23***	-7.40***

Notes: ***, **, * report significance in 1%, 5%, and 10%, respectively

We next estimate the ARDL model employing the OLS method. As dynamic model, the estimation results rely on the selected lag. This study selects a maximum lag length of up to 6. As mentioned before, our study applies AIC and Adjusted R squares to choose the optimal lag length. Table 3 reports estimation results of Islamic banks' profitability where the AIC method results in ARDL (6,0,6,4,2,0,2,5) and the adjusted R^2 method produces ARDL (6,6,6,5,6,0,2,5). The coefficient of determination (R^2) of the two methods is 0.8526 and 0.8760, indicating that both AIC and adjusted R^2 methods can explain well. The Autoregressive Conditional Heteroscedasticity (ARCH) and Lagrange Multiplier (LM) and methods are employed to check heteroscedasticity and serial correlation problems. Both the AIC and the adjusted R^2 methods pass the heteroscedasticity and serial correlation problems. The CUSUM test also indicates evidence of coefficient stability.

Table 3 ARDL: Islamic banks' profitability

	AIC		Adjusted R^2	
Variable	**Coefficient**	**t-statistics**	**Coefficient**	**t-statistics**
C	1.8888	1.2283	2.4110	1.3349
DROA(-1)	0.4304***	3.8942	0.4296***	3.5156
DROA(-2)	-0.0996	-0.8415	-0.2136	-1.6252
DROA(-3)	0.2660**	2.2476	0.2978**	2.3139
DROA(-4)	0.0868	0.6709	0.0386	0.2750
DROA(-5)	-0.0611	-0.5318	-0.1129	-0.8461
DROA(-6)	-0.2577**	-2.3130	-0.1810	-1.3599
HHI2	0.0420**	2.0746	0.0263	0.6084
HHI2(-1)	-	-	0.0179	0.3639
HHI2(-2)	-	-	0.0129	0.2487
HHI2(-3)	-	-	0.0221	0.4417
HHI2(-4)	-	-	-0.0123	-0.2543
HHI2(-5)	-	-	0.0593	1.2057
HHI2(-6)	-	-	-0.0969**	-2.2344
CAR	-0.0033	-0.1181	-0.0109	-0.3756
CAR(-1)	-0.0627**	-2.0210	-0.0593*	-1.8916
CAR(-2)	0.1395***	4.3338	0.1437***	4.3052
CAR(-3)	-0.0160	-0.4899	-0.0442	-1.2162
CAR(-4)	0.0195	0.6290	0.0471	1.4253
CAR(-5)	-0.0024	-0.0815	-0.0239	-0.7361
CAR(-6)	-0.0448*	-1.7685	-0.0315	-1.1569

	AIC		Adjusted R^2	
Variable	**Coefficient**	**t-statistics**	**Coefficient**	**t-statistics**
FDR	0.0086	0.6501	0.0132	0.9451
FDR(-1)	-0.0093	-0.6228	-0.0109	-0.6925
FDR(-2)	0.0097	0.5856	0.0140	0.8085
FDR(-3)	0.0071	0.4265	-0.0065	-0.3567
FDR(-4)	-0.0366**	-2.6152	-0.0410**	-2.1973
FDR(-5)	-	-	0.0166	1.1362
CIR	-0.0229**	-2.3338	-0.0370***	-2.8515
CIR(-1)	0.0021	0.2339	0.0119	1.0574
CIR(-2)	0.0263***	2.7355	0.0167	1.4569
CIR(-3)	-	-	-0.0090	-0.9277
CIR(-4)	-	-	0.0042	0.4278
CIR(-5)	-	-	-0.0120	-1.3208
CIR(-6)	-	-	0.0183**	2.0799
NPF	-0.1197*	-1.7891	-0.1060	-1.5214
IPI	0.0039	0.6009	0.0057	0.8362
IPI(-1)	0.0100	1.6445	0.0119*	1.7487
IPI(-2)	0.0191***	3.1170	0.0184***	2.7030
CPI	0.0444	0.9376	0.0689	1.3021
CPI(-1)	0.0285	0.3796	0.0282	0.3402
CPI(-2)	0.0342	0.4173	0.0274	0.3120
CPI(-3)	-0.0601	-0.7549	-0.0949	-1.1032
CPI(-4)	0.0538	0.7474	0.0949	1.1797
CPI(-5)	-0.1384***	-2.9982	-0.1615***	-2.9563
R-squared	0.8526		0.8760	
Diagnostic test				
LM	0.0067		0.0088	
ARCH	0.9167		1.8940	

Notes: ***, **, * report significance in 1%, 5%, and 10%, respectively.

Having estimated the coefficient of the ARDL model, then the next step is to test cointegration to check long rung relationship between variables, employing the bound testing approach (Pesaran, Shin, & Smith, 2001).
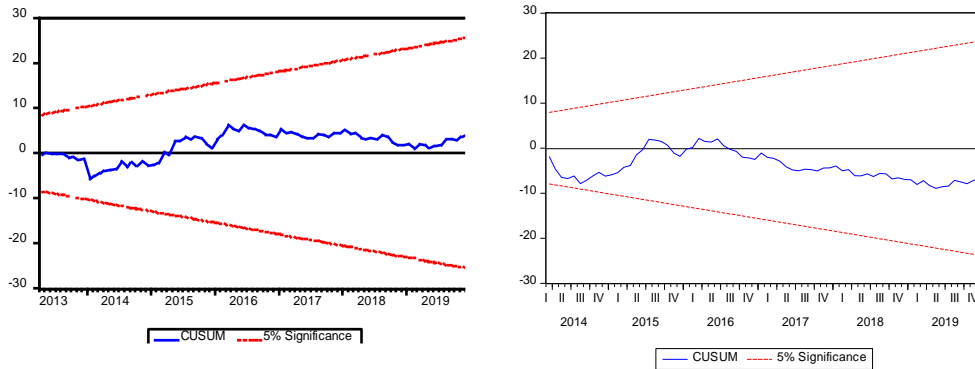
Figure 2. Stability test of ROA

The cointegration exists if F-statistics (F$_{PSS}$) is higher than the upper bond and otherwise it is no evidence of cointegration. Table 4 present the cointegration results. Our study has two models, and all F-statistics are greater than the upper bound at $\alpha = 1\%$ or $\alpha = 5\%$, meaning that evidence of long-run relationship among variables is found. Our study shows fractionally integrated and cointegration. Therefore, we can further estimate both long-run and short-run conditions.

Table 4. Cointegration

Model	F-statistic	α	Lower bound	Upper bound
ROA: AIC	3.8147**	10%	1.92	2.89
ROA: Adjusted R^2	4.1147***	5%	2.17	3.21
		1%	2.73	3.90

Table 5 reports the long-run coefficient of Islamic banks' performance. We start with HHI, which shows the diversification of financing in various economic sectors as the main concern of this research. The HHI is positive and significant, which implies that the concentration of financing in some economic sectors increases the profitability of Islamic banks. As a new banking industry in Indonesia, Islamic banks are more focused on certain sectors that are likely to generate high profits. There are several reasons. First, banks focus on certain sectors because Islamic banks are prohibited from conducting excessive financing and are prohibited from speculating (Beck, Demirgüç-Kunt, & Merrouche, 2013; Widarjono, Anto, & Fakhrunnas, 2020). Second, Islamic banks do not have experience channeling financing, so they focus on specific sectors to build their sectoral core competence avoid high impaired financing (Risfandy et al., 2020).

Our results confirm the concentration stability hypothesis. Islamic banks have to build up their core competence to benefit from competitive advantage through sectoral financing concentration. By concentrating their financing activities on specific sectors or groups of sectors, a bank can learn and benefit from the expertise of the given sectors and likely generate more profit (Acharya Hasan, & Saunders, 2006). Our study supports the existing empirical studies that sectoral financing concentration supports bank's performance, such as Hayden, Porath, and Westernhagen (2007) for German banks, Bebczuk and Galindo (2008) for Argentine Banks and Tabak, Fazio, and Cajueiro (2011) for Brazilian banks.

Table 5. Long-run coefficient: Islamic banks' performance

	AIC		Adjusted R^2	
	Coefficient	t-statistics	Coefficient	t-statistics
C	2.9738	1.2592	3.2515	1.4492
HHI	0.0661**	2.4136	0.0395*	1.3365
CAR	0.0468	1.1551	0.0285	0.7454
FDR	-0.0323**	-2.4581	-0.0196*	-1.4386
CIR	0.0088	0.5188	-0.0092	-0.4894
NPF	-0.1885**	-1.8536	-0.1430**	-1.5594
IPI	0.0519***	3.0129	0.0486*	2.5304
CPI	-0.0593***	-3.2436	-0.0498**	-2.3202

Notes: ***, **, * report significance in 1%, 5%, and 10%, respectively.

Next, we analyze the bank-specific control variables. CAR does not affect ROA and FDR has a negative effect on ROA. These results indicate that high financing reduces the profitability of Islamic banks in Indonesia. The average FDR rate in the study period was 93.11% and this FDR rate is very high for Islamic banks as a new banking industry in Indonesia. The high FDR causes a high risk of financing, which lowers Islamic banks' profitability (Chamberlain, Hidayat, & Khokhar, 2020). However, this finding contradicts the study by Trinugroho et al. (2017) in the case of Islamic rural banks in Indonesia, for which FDR strengthens the profitability of Islamic rural banks.

The cost-to-income ratio (CIR), which measures operating efficiency, has no effect on ROA. The plausible reason is that this level of inefficiency is still below the maximum 95% rate regulated by the Indonesian Financial service authority as a policymaker. The average level of operational inefficiency of Islamic banks is 84%, with a maximum rate of 94% and a minimum rate of

70% in the study period. However, the results of this study are not in line with the case of Islamic rural banks (Trinugroho et al., 2017). The inefficiency of Islamic rural banks has a negative effect on bank profits because Islamic rural banks, as small Islamic banks, are more vulnerable to bank-specific factors than big Islamic banks (Ibrahim & Rizvi, 2017).

As hypothesized, NPF, which measures a bad financing rate, is negative and significant on ROA, implying that high bad financing lowers Islamic banks' profitability. The high impaired financing trims down the Islamic banks' ability to increase financing because of the previous high bad financing, reducing Islamic banks' profitability (Sutrisno & Widarjono, 2018). The finding is in accordance with Warninda (2014) and Widarjono, Mifrahi, and Perdana (2020) for Indonesian Islamic rural banks.

The last discussion is the macroeconomic control variables as external factors. As expected, GDP positively influences ROA. These findings imply that an economic upturn through high economic growth increases the profitability of Islamic banks. Economic growth will increase income, so consumers' ability to repay their obligation is up and thus increase profitability (Priyadi et al., 2021). Inflation has a negative effect on ROA. The increase in prices has reduced the ability of consumers to repay their financing due to a decrease in the nominal money, reducing the profitability of Islamic banks (Widarjono & Rudatin, 2021). These findings confirm the existing study that good economic condition through high economic growth and low inflation supports the profitability of Islamic banks (Srairi, 2019).

Table 6 presents the ECM-ARDL estimation that is selected by AIC and Adjusted R^2 for ROA. The coefficients of determination (R^2) are relatively high, ranging from 0.5359 to 0.9788. All error correction variables are negative and significant, indicating the ECM-ARDL is valid to capture the short-run condition. In addition, these results strengthen our earlier results that HHI, CAR, FDR, CIR, NPF, IPI, and CPI are cointegrated with ROA. Moreover, the pace of adjustment is quick, varying from 63.52 to 74.15 percent, implying that, on average, the previous period's disequilibrium is adjusted by about 63.52-74.15 percent in the following month.

The results report that the lags of the ROA influence the current ROA in the short run. These results imply that the current profitability relies on the previous profitability. Like in the long run, financing concentration positively affects

profitability. As expected, CAR influences negatively or positively on profitability. For instance, D(CAR(-1)) affect negatively but D(CAR(-4)) and D(CAR(-5)) influence positively to profitability. FDR positively affects profitability, confirming the results conducted by Trinugroho et al. (2017). Contrary to the long-run condition, inefficiency in operating links negatively to profitability in the short-run condition, supporting the findings obtained by Risfandy et al. (2017). However, inflation positively supports profitability, but economic upturn negatively weakens profitability in the short-run condition.

Table 6. ECM-ARDL: Islamic Banks' Profitability

	AIC		Adjusted R^2	
Variable	Coefficient	t-statistics	Coefficient	t-statistics
D(DROA(-1))	0.0656	0.5734	0.1711	1.3981
D(DROA(-2))	-0.0340	-0.3055	-0.0425	-0.3437
D(DROA(-3))	0.2320**	2.1305	0.2553**	2.0121
D(DROA(-4))	0.3188***	3.1184	0.2939**	2.4152
D(DROA(-5))	0.2577***	2.7090	0.1810	1.5856
D(HHI)	-	-	0.0263	0.7391
D(HHI(-1))	-	-	0.0149	0.4475
D(HHI(-2))	-	-	0.0278	0.7641
D(HHI(-3))	-	-	0.0499	1.5476
D(HHI(-4))	-	-	0.0375	1.1113
D(HHI(-5))	-	-	0.0969***	2.7688
D(CAR)	-0.0033	-0.1435	-0.0109	-0.4718
D(CAR(-1))	-0.0957***	-4.1002	-0.0913***	-3.9447
D(CAR(-2))	0.0437*	1.8727	0.0524**	2.0864
D(CAR(-3))	0.0277	1.1575	0.0082	0.3302
D(CAR(-4))	0.0472**	2.0964	0.0554**	2.3607
D(CAR(-5))	0.0448**	1.9947	0.0315	1.3303
D(FDR)	0.0086	0.7521	0.0132	1.1120
D(FDR(-1))	0.0198	1.6383	0.0169	1.3741
D(FDR(-2))	0.0295**	2.3830	0.0309**	2.4010
D(FDR(-3))	0.0366***	2.9200	0.0244*	1.8464
D(FDR(-4))	-	-	-0.0166	-1.2941
D(CIR)	-0.0229***	-2.7281	-0.0370***	-3.6981
D(CIR(-1))	-0.0263***	-3.0939	-0.0183	-1.6545
D(CIR(-2))	-	-	-0.0016	-0.1484
D(CIR(-3))	-	-	-0.0105	-1.0402
D(CIR(-4))	-	-	-0.0063	-0.6555

	AIC		Adjusted R^2	
Variable	**Coefficient**	**t-statistics**	**Coefficient**	**t-statistics**
D(CIR(-5))	-	-	-0.0183**	-2.3285
D(IPI)	0.0039	0.8154	0.0057	1.1066
D(IPI(-1))	-0.0191***	-3.9558	-0.0184***	-3.5920
D(CPI)	0.0444	1.1428	0.0689	1.5928
D(CPI(-1))	0.1106**	2.4700	0.1341***	2.7024
D(CPI(-2))	0.1448***	2.9592	0.1615***	3.2005
D(CPI(-3))	0.0847**	1.9490	0.0666	1.3930
D(CPI(-4))	0.1384***	3.5821	0.1615***	3.7288
EC$_{t-1}$	-0.6352***	-6.1419	-0.7415***	-6.4237
R-squared	0.5359		0.6098	

Notes: ***, **, * report significance in 1%, 5%, and 10%, respectively.

CONCLUSION

As a financial intermediary, Islamic banks are extremely vulnerable to economic shocks. Furthermore, as a new financial industry in Indonesia, Islamic banks must compete with conventional banks. As a result, a study on the performance of Islamic banks is critical to determining the sustainability of Islamic banks in Indonesia, a country with a Muslim majority. The purpose of this research is to examine the impact of sectoral financing diversification on the profitability of Islamic banks using internal and external control variables. Equity, financing rate, operating efficiency, and financing risk are bank-specific control variables, while inflation and domestic output are external control variables.

The findings show that sectoral financing concentration improves Islamic bank profitability. This conclusion is reasonable given that Islamic banks, as new players in Indonesian banking, have no experience channeling their funds. They should concentrate their efforts on high-profit sectors. Furthermore, sectoral financing concentration is critical for Islamic banks to develop sectoral core competencies. Extensive financing and high bad debt also reduce Islamic banks' profitability. Macroeconomic conditions have a significant impact on Islamic banks. Good macroeconomic conditions, such as low inflation and high economic growth, boost Islamic banks' profitability.

These findings are critical for Islamic banks and regulators in supporting Islamic bank performance. To gain a competitive advantage, every Islamic

bank must be able to develop sectoral core competencies. To accomplish this, Islamic banks must hire employees with strong economic sector skills and train existing employees to be more knowledgeable about economic sector behavior. Indeed, NPF has a significant negative impact on the profitability of Islamic banks. Therefore, the Indonesian financial services authority, as the regulator, must improve Islamic banks' corporate governance by mitigating impaired financing. As a result, monitoring and controlling financing is critical for reducing financing risk.

Acknowledgments

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IS THERE ANY EFFECT OF COVID 19 ON THE PERFORMANCE OF THE SHARIA STOCK INDEX?

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ABSTRACT - The implementation of social distance during the Covid-19 pandemic has an impact on economic activity and stock market indices. Evidently, the increase in confirmed cases has had no discernible effect on economic activity. This article compares the performance and returns of the Islamic stock index before and after the pandemic. Data were gathered from the Jakarta Islamic Index (JII), the Indonesian Sharia Stock Index (ISSI), and the Jakarta Islamic Index 70 (JII70) for the April 2019-March 2020 (pre-Covid-19) and April 2020-June 2021 (post-Covid-19) periods. The Paired Sample-T Test was employed to compare the return values of each Islamic stock index. The results show that these indices performed better in Covid-19 than in previous years. The independent sample test reveals that only the ISSI index demonstrated a statistically significant difference between returns before and during the Covid-19 periods. This study concludes that Covid-19 has implications for increasing the average return and decreasing the risk of all sharia indices studied during the observation period. Analysts predicted that rising prices would boost sharia stock returns, beginning with BRI sharia shares and spreading to other sharia industries such as ANTM, INCO, EMTK, and the banking sector.
Keywords: Return, Sharia Stock, Covid 19, Comparison

ABSTRAK – Adakah Pengaruh Covid 19 Terhadap Kinerja Indeks Saham Syariah? *Penerapan social distancing selama masa pandemi covid-19 berdampak pada aktivitas ekonomi dan indeks pasar saham. Hanya saja, peningkatan jumlah kasus terkonfirmasi virus corona tidak berpengaruh signifikan terhadap aktivitas ekonomi. Tujuan artikel ini adalah untuk menguji perbedaan kinerja dan return indeks saham syariah pada periode sebelum pandemi dan setelah pandem. Data penelitian merupakan data saham syariah yang dikumpulkan dari Jakarta Islamic Index (JII), Indeks Saham Syariah Indonesia (ISSI) dan Jakarta Islamic Index (JII70) periode April 2019 – Maret 2020 (sebelum Covid-19) dan periode April 2020 – Juni 2021 (saat Covid-19). Data analisis menggunakan Paired Sample-T Test untuk mengkomparasi nilai return masing-masing indeks saham syariah. Hasil penelitian menunjukkan indikasi kinerja indeks saham syariah yang lebih baik selama Covid-19 dibandingkan sebelumnya. Selain itu, perhitungan independent sample test menunjukkan hanya indeks ISSI yang memberikan perbedaan return yang signifikan sebelum dan selama masa Covid-19. Kajian ini menyimpulkan bahwa Covid-19 berimplikasi pada peningkatan rata-rata return untuk semua indeks syariah yang ditelit dan memiliki risiko yang lebih rendah pada periode covid-19. Beberapa analis menyatakan kenaikan harga akan meningkatkan return saham syariah dimulai dari pergerakan saham syariah BRI yang juga didorong oleh industri syariah lainnya seperti ANTM, INCO, EMTK dan industri perbankan.*
Kata Kunci: *Return, Saham Syariah, Covid 19, Perbandingan*

INTRODUCTION

The business cycle is generally divided into four stages or phases: prosperity (peak cycle), downturn (economic recession), economic trough, and recovery (expansion). This stage of wealth represents the pinnacle of the process, where a nation's economy is thriving (Kaiser & Maravall, 2012; Leiva-Leon, 2017; Perron & Wada, 2016; Kare & Stjepanovi, 2016). This stage of wealth is characterized by a high standard of living.

On March 2, 2020, Indonesia reported the first case of Covid-19 in Depok City. The Covid-19 pandemic initially went unnoticed in Indonesia. However, new cases of Covid-19 patients increased exponentially in the first three months. The Covid-19 pandemic has impacted numerous sectors in both developed and developing countries, including Indonesia. According to Ozili and Arun's (2020) research, social distancing during the covid pandemic affected economic activity and stock market indexes.

Additionally, the Indonesia Stock Exchange (IDX) has had an impact on the Covid-19 pandemic. The average composite stock price index (JCI) from January 2 to October 27 in 2020 was Rp. 5,147.43. On March 24, 2020, the JCI reached its highest point of Rp. 6,325, 41, and its lowest point of IDR 3,937.63. Because of these circumstances, the first case discovered in early March 2020 was influenced by the stock market's decline. At the same time, on March 23, 2020, the Dow Jones Industrial Average (DJI) fell USD18,591.93. The DJI, on the other hand, peaked at USD 29,551.42 on February 12, 2020, about a month before plummeting to its lowest point on March 23, 2020.

What about the Indonesian Islamic stock index (ISSI), the Jakarta Islamic Index (JII), and the Jakarta Islamic Index 70 (JII 70)? When the index is negative, the average return from April 2019 to March 2021 is -3.133%, -2.9%, and -3.1%, respectively. Meanwhile, the average return from April 2020 to June 2021 is positive, with 1.1%, 1.9%, and 1.6%, respectively, following the developments of the three sharia stock indices before and after the pandemic.
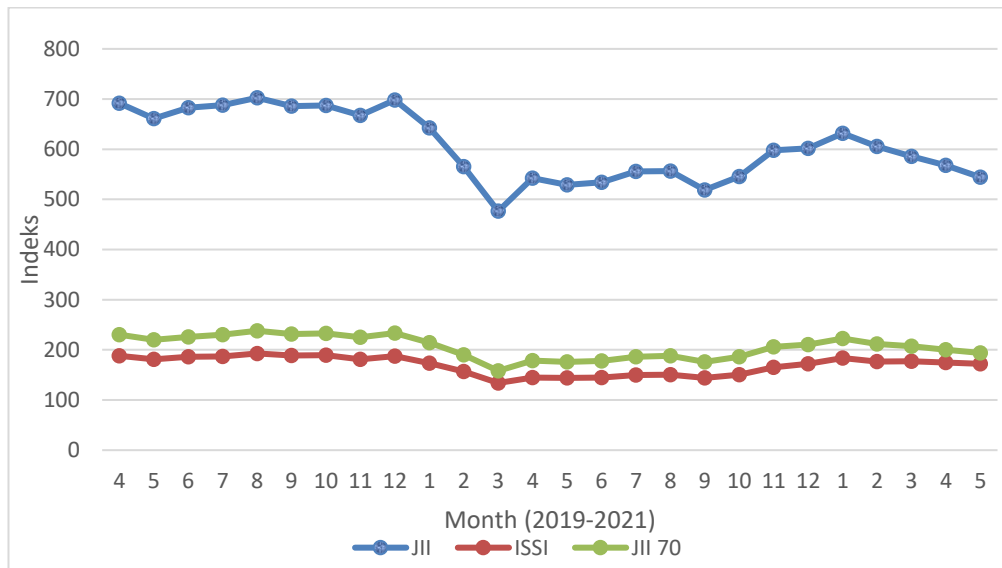
Figure 1 Development of the JII, ISSI, and JII 70 Indexes Before and During
Covid-19
(Source: Indonesia Stock Exchange, data processed)

Previous research comparing stock performance before and after the covid-19 pandemic has focused on one index or a few stocks and has primarily discussed conventional stocks (Abhinandan et al., 2020; Alam et al., 2020; Amaroh, 2020; Ashraf, 2020; Faruk & Marsono, 2022; Haryanto & Mawardi, 2021; He et al., 2020; Nurdany et al., 2021; Ozili & Arun, 2020; Rianto et al., 2022; Rusydiana & Prakoso, 2021; Zhang et al., 2020). While there has been little research comparing the performance of Islamic stocks before and during Covid using data from three types of Islamic stock indexes (ISSI, JII, and JII70). Therefore, this study will compare the performance of three sharia stock indexes before and during the covid pandemic.

Based on the foregoing, this study will examine the performance of the Islamic stock index. The data was collected before and during the pandemic. This study will examine if there is a significant difference in returns before and after the pandemic.

LITERATURE REVIEW

Sharia Stock Index

The stock market that follows sharia principles is still in the early stages of development. Hearn et al. (2011) mention that due to the limited focus on

Islamic finance, there is little literature available on the role and regulations of the Islamic-compliant stock market. Most of them focused on Islamic banking industry such as Ibrahim & Salam (2021), Mailinda, Ibrahim, & Zainul (2018), Muarif, Ibrahim, & Amri (2021), and Nadia, Ibrahim, & Jalilah (2019). In addition, only a handful of stock markets around the world -- such as the Khartoum Stock Exchange (KSE) in Sudan, the Kuala Lumpur Stock Exchange (KLSE) in Malaysia, and the Tehran Stock Exchange (TSE) in Iran, for example -- accommodate Islamic law in trading in Indonesia. stock market.

Indonesian sharia shares are included in the Indonesian Sharia Stock Index (ISSI), and the screening process is carried out by the Financial Services Authority (OJK). Meanwhile, in Malaysia, the list of sharia shares is included in the FTSE Bursa Malaysia EMAS Shariah Index (FBMS), and the selection is determined by the Sharia Advisory Board (SAC). Both DSN-MUI and SAC impose specific criteria on the company's financial statements in the sharia index (Mifrahi, 2013; Mariana, & Ibrahim, 2022).

In addition to the Indonesian Sharia Stock Index (ISSI), there is the Jakarta Islamic Index (JII) and the Jakarta Islamic Index 70 (JII70). The Indonesian Sharia Stock Index (ISSI) consists of all sharia shares listed on the Sharia Securities List. The Jakarta Islamic Index (JII) holds 30 sharia shares, and the Jakarta Islamic Index 70 (JII70) holds 70 sharia shares. JII 70 was selected by the IDX based on liquidity criteria among constituents listed on ISSI for the last six months, then 150 stocks were selected based on the order of the highest average market capitalization for the past year. After this step, 70 stocks were selected from 150 stocks based on the regular market's highest average daily transaction value. According to the Sharia Securities List and the Financial Services Authority schedule, Sharia shares will be reviewed twice a year. (Amaroh, 2020; Nurdany et al., 2021; Sutrisno et al., 2022).

Previous Research

Kulal et al. (2020) empirically determined the effect of Covid-19 on the Indian Stock Exchange using NSE (National Stock Exchange) data from 2 January 2020 to 22 January 2020. The results indicate a decline in short-term stock market returns and a substantial effect of Covid-19 on the Indian stock market. Alam et al. (2020) analyze the impact of the Covid-19 lockdown period on the Indian stock market using an event study of 31 BSE-listed companies. The analysis of the pre-20 day and post-15-day data for the 35-day event window

reveals a significant positive response in the event window period, with the stock market responding significantly during the lockdown period.

According to research conducted by Haryanto and Mawardi (2021), Covid-19 had a negative impact on the JCI and trading volume of the previous day. This study provides empirical confirmation that the Covid-19 epidemic has an effect on the Jakarta Composite Index (JCI). In addition to these variables, market conditions were found to affect JCI. On the JCI, empirical evidence can demonstrate the effect of Covid-19 and the weakening of daily transactions. To identify return volatility in the Islamic capital market in Indonesia during the Covid-19 pandemic, Nurdany et al. (2021) conducted an asymmetric analysis with the GARCH (1,1) model and an asymmetric analysis with the TGARCH (1,1) model. The daily time series information from January 2, 2020, to July 17, 2020, is provided by the Indonesian Sharia Stock Index (ISSI). The results indicate that the volatility of ISSI yields has decreased during the Covid-19 pandemic. Simultaneously, the price of ISSI fell sharply, followed by a gradual increase.

Zhang et al. (2020) discovered that Covid-19 increased the risk of global financial markets significantly. Individual stock markets are impacted by the severity of the epidemic in their respective nations. In addition, they assess the potential outcomes of policy interventions. They are concerned that policies such as the US government's unlimited quantitative easing could increase uncertainty and lead to long-term problems. Ashraf (2020) examines the reactions of stock markets in 64 nations to the increase in COVID-19 cases between January 22, 2020 and April 17, 2020. The research demonstrates that the stock market has reacted negatively to COVID-19 cases. The author also reveals that the initial phase of COVID-19 saw a more negative market response.

He et al. (2020) investigated the effects and ripple effects of COVID-19 on the stock markets of the eight most affected nations. Their findings indicate that COVID-19 has a negative short-term impact on the stock market. In addition, they identify a two-way spillover effect of COVID-19 between Asian, European, and American nations. Ozili & Arun (2020) analyzed the impact of COVID-19 on stock market indices on four continents. They noted that stock indices were significantly impacted by the social isolation caused by COVID-19.

Several previous studies have demonstrated a negative impact of COVID-19 on stock market indices (Abhinandan et al., 2020; Ashraf, 2020; Haryanto & Mawardi, 2021; He et al., 2020; Nurdany et al., 2021; Ozili & Arun, 2020; Zhang et al., 2020). Covid 19 also had a positive impact on the market index (Alam et al., 2020). Therefore, it can be concluded that COVID-19 has had both positive and negative effects on the stock market index.

METHODOLOGY

Data

The data used are the Jakarta Islamic Index (JII), the Indonesian Sharia Stock Index (ISSI), and the Jakarta Islamic Index (JII70) for the period April 2019 – March 2020 (Before Covid-19) and the Period April 2020 – June 2021 (During Covid-19). Data source from the Indonesian stock exchange.

Analysis Method

Performing the calculation of returns for each sharia stock index with the formulation.

$$\text{Rit} = \frac{Iit - Iit-1}{Iit-1} \tag{1}$$

Furthermore, a comparison of returns before Covid-19 and during Covid 19 was carried out using the Paired Sample-T Test comparison analysis, which was used to compare whether there were differences or similarities in average between groups of related/paired data.

The analytical method used in this research is the Pair Sample T-Test, and the analysis is carried out using SPSS 18.0 software. In this study, the significance level or probability of error is 0.05 or (5%). Ho is rejected, and Ha is accepted if the probability value (sig t) $< (0.05)$.

RESULT AND DISCUSSION

Research result

The development of sharia stock index returns consisting of JII, ISSI and JII70 is illustrated in the Table 1. The performance of Islamic stocks was favorable

throughout the Covid-19 pandemic. The three sharia indices that are tracked by the exchange all move in a more positive direction than they did before the pandemic. The Indonesian Sharia Index (ISSI), the Jakarta Islamic Index 70 (JII70), and the Jakarta Islamic Index (JII) are the three indices that are being discussed. Since the Covid-19 case in Indonesia was first announced on March 2 in 2020 to March 31 in 2021, the ISSI has strengthened by 13.9 percent, according to the Indonesia Stock Exchange (IDX), which noted this development.

Table. 1 Return JII, ISSI, JII 70 Periods Before and During Covid-19

Year	Month		Return JII	Return ISSI	Return JII 70
2019	4				
	5		-0,045	-0,039	-0,044
	6		0,033	0,028	0,028
	7		0,008	0,005	0,019
	8		0,022	0,031	0,033
	9	Before	-0,024	-0,020	-0,026
	10	Covid 19	0,001	0,003	0,006
	11		-0,028	-0,045	-0,034
	12		0,046	0,038	0,037
2020	1		-0,079	-0,078	-0,081
	2		-0,121	-0,095	-0,113
	3		-0,157	-0,145	-0,169
	4		0,139	0,081	0,129
	5		-0,025	-0,007	-0,015
	6		0,009	0,008	0,013
	7		0,041	0,036	0,046
	8		0,002	0,004	0,010
	9		-0,068	-0,046	-0,064
	10	During	0,052	0,046	0,058
	11	Covid 19	0,096	0,097	0,106
2021	1		0,007	0,043	0,021
	2		0,049	0,065	0,058
	3		-0,041	-0,035	-0,049
	4		-0,033	0,001	-0,021
	5		-0,030	-0,015	-0,035
	6		-0,041	-0,015	-0,032

(Source: BEI, data processed)

In the meantime, JII70 saw a gain of 12.3%, while JII have seen a gain of 7.8%. The movement of the three sharia indices performed significantly better than

that of the LQ45 and IDX30, which were, respectively, 5.1% and 2.4%. As a point of comparison, the performance of ISSI dropped by 16.5% in the time before the pandemic that occurred in January-February 2020. During this time, the value of JII70 and JII decreased by 18.4% and 19.1%, respectively.
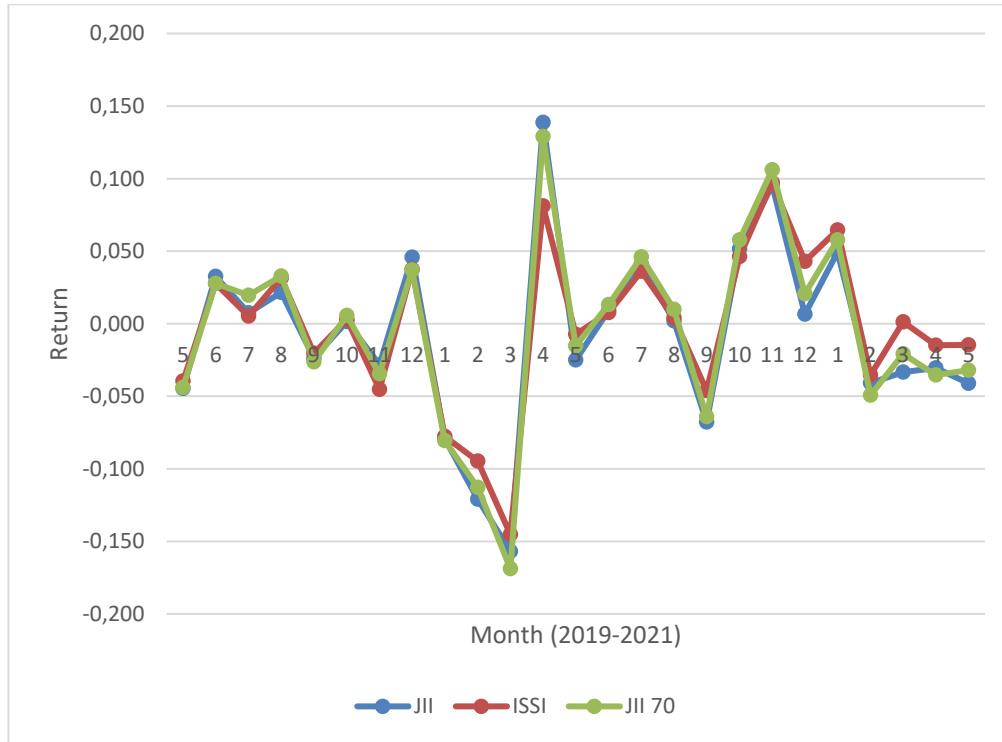
Figure 2. JII, ISSI and JII 70 return fluctuations Before and during covid-19
(Source: BEI, data processed)

Figure 2 demonstrated that the direction of movement of the three sharia stock indices has almost the same movement pattern after the initial information that the Covid 19 return experienced the highest increase in ISSI, JII, and JII 70, along with the average return prior to and during Covid 19.

Table 2. Average Return on Islamic Stock Index Before and During Covid-19

Indeks		Before Covid-19	During Covid-19
JII	Average Return	-3,1%	1,1 %
	Risk (Standard Deviation)	6,5%	5,8 %
ISSI	Average Return	-2,9%	1,9 %
	Risk (Standard Deviation)	5,8%	4,3 %
JII 70	Average Return	-3,1%	1,6 %
	Risk (Standard Deviation)	6,7%	5,8 %

(Source: BEI, data processed)

This was shown by the fact that the three sharia stock indices all moved in the same direction after the first piece of information. Based on Table 2, it can be seen that before Covid, the average return of the Islamic stock index gave a negative return value and vice versa. During Covid, it gave a positive return value, and the risk (standard deviation) also decreased. In addition, Islamic investors also showed higher growth in transaction activity during the pandemic. This result is seen from the increase in sharia investors' transaction value and the growth of active sharia investors. The growth of active sharia investors in February 2020 was 8,652, and in February 2021, the number doubled to 17,117. Likewise, the transaction value increased dramatically from IDR 470 billion in February 2020 to IDR 2.5 trillion in February 2021.

Statistical Test Results

Jakarta Islamic Index (JII)

The JII index reached its maximum return of 4.6% in December 2019 before covid 19, and it reached its maximum return of 13.9% in April 2021 during covid-19. The maximum return during covid-19 was achieved in April 2021. This value demonstrates performance during the pandemic, particularly in terms of maximum return in the year of study, which is certainly something that is interesting for people who invest according to sharia law. Aside from that, we are in a position to assert that covid-19 did not have a detrimental impact on the JII index.

The following are the results of the independent sample test to see if there is an impact of covid-19

Table 3. Description of JII Returns Before and During Covid 19

Group Statistics					
Group		N	Mean	Std. Deviation	Std. Error Mean
Return	Before	11	-0,031273	0,0647396	0,0195197
	During	14	0,011214	0,0583730	0,0156009

(Source: BEI, data processed)

Table 3 demonstrates that JII's return data prior to COVID 19 was 11, and that during COVID 19, there were 14, with the highest average return occurring during COVID 19 was 1.12%. As can be seen in the Table 4, there is a significant difference in the returns before and during the period.

Table 4. JII Sample Independent Test

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Return	Equal variances assumed	.099	.756	-1.722	23	.098	-.0424870	.0246673	-.0935151	.0085411
	Equal variances not assumed			-1.700	20.440	.104	-.0424870	.0249881	-.0945395	.0095654

(Source: BEI, data processed)

Based on Levene's Test for Equality of Variances with sig 0.756 > 0.05, the data variance before and during covid-19 is homogeneous, so the Equal variances value should be used to interpret the independent sample test output. According to the results of the independent sample test table, the value of Sig. (2-tailed) 0.098 > 0.05, which indicates that there is no significant difference between the average return on the JII index before and after the pandemic.

Indonesian Sharia Stock Index

A composite index of sharia shares that are listed on the IDX is represented by the Indonesian Sharia Stock Index (ISSI), which was introduced on May 12, 2011. ISSI is a performance indicator for the Indonesian Islamic stock market. ISSI components are all sharia shares listed on the IDX and included on the OJK's Sharia Securities List (DES). This index indicates that the IDX does not select sharia shares in order for them to be included in the ISSI. The data presented in Table 5 for ISSI return before and during COVID 19 show that the average return during COVID is higher than the average return before COVID. There is no difference between this condition and the JII index. As can be seen in the following table, there is a significant difference in the returns before and during the period.

Table 5. Description of ISSI Returns Before and During Covid 19

Group Statistics					
	Group	N	Mean	Std. Deviation	Std. Error Mean
Return	Before	11	-,028818	,0584531	,0176243
	During	14	,018786	,0433557	,0115873

(Source: BEI, data processed)

The value of Sig. (2-tailed), determined using Levene's Test for Equality of Variances with the Independent Sample Test, is 0.028 minus 0.05. The findings imply that there was a sizeable gap between the average return on the ISSI Index prior to and during the period covered by covid-19.

Table 6. ISSI Sample Independent Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Return	Equal variances assumed	.974	.334	-2.341	23	.028	-.0476039	.0203381	-.0896764	-.0055314
	Equal variances not assumed			-2.257	17.936	.037	-.0476039	.0210922	-.0919283	-.0032795

(Source: BEI, data processed)

Jakarta Islamic Index 70 (JII 70)

The IDX introduced the Jakarta Islamic Index 70 (JII70 Index) on May 17, 2018. The JII70 only includes the 70 most liquid sharia-compliant stocks listed on the IDX. Similar to ISSI, JII's constituent sharia shares are reviewed twice a year, in May and November, in accordance with OJK's DES review schedule.

Table 7. Description of Return JII 70 Before and During Covid 19

Group Statistics					
	Group	N	Mean	Std. Deviation	Std. Error Mean
Return	Before	11	-.031273	.0667384	.0201224
	During	14	.016071	.0576641	.0154114

(Source: BEI, data processed)

The average return for the JII 70 Index during covid-19 was higher than before the pandemic. When compared to other sharia indices, the trend is the same. The question is whether there is a real difference in the average return of the two groups, as shown in the table below:

Table 8 Independent Test Sample Jakarta Islamic Index 70 (JII 70)

		Independent Samples Test							
		Levene's Test for Equality of Variances		t-test for Equality of Means					
								95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Return	Equal variances assumed	.166	.687	-1.902	23	.070	-,0473442	,0248892	-,0988315	,0041432
	Equal variances not assumed			-1.868	19.904	.077	-,0473442	,0253460	-,1002314	,0055431

(Source: BEI, data processed)

According to Levene's Test for Equality of Variances with sig 0.687 > 0.05, the data variance before and during the independent sample test is homogeneous, so the interpretation of the independent sample test output table is guided by the values contained in the Equal variances assumed table. Based on the independent sample test table, Sig. (2-tailed) 0.070 0.05, this means that there is no significant (significant) difference in the average return on the JII 70 index before and during covid.

Discussion

Covid-19 has implications for increasing the average return and risk for all sharia indices studied. Sharia stock indices have a lower risk during the Covid-19 pandemic. The statistical test results of research data show that the difference in Islamic stock returns from the three Islamic stock indices, which had a significant difference before and during the COVID-19 pandemic, is the difference in the Indonesian Syariah Stock Index (ISSI). This study also found that three sharia stock indices (ISSI, JII, and JII70) had a positive impact during the covid-19 pandemic. It is clear from the average return and risk (standard deviation) values. This result is very encouraging and contradicts the findings

of Haryanto and Mawardi (2021), who concluded that Covid-19 had a negative impact on the JCI and the previous day's trading volume. Similarly, Abhinandan et al. (2020) found that short-term stock returns on the Indian Stock Exchange are lower.

He et al. (2020), Ashraf (2020), and Ozili & Arun (2020) found similar evidence that COVID-19 had a negative impact on the index. It is fascinating to delve deeper into the causes of the Islamic Stock Index in Indonesia. Several analysts predicted that the increase in prices would ultimately increase the return on sharia shares, beginning with the movement of BRI sharia shares, which was driven by other sharia industries such as ANTM, INCO, EMTK, and the banking industry.

CONCLUSION

The calculation of the return and risk of Islamic stock indices (JII, ISSI, and JII 70) shows that performance during Covid-19 was better than before Covid-19. This is based on the calculations mentioned earlier. Furthermore, the ISSI index is the only one that shows a significantly different level of returns prior to and during the Covid-19 period, according to the results of calculations based on independent sample tests.

This finding is related to the previous one because the proportion of Islamic shares in ISSI is greater than in JII and JII70. However, when using data from all Islamic stocks included in ISSI rather than JII and JII70, the significance of this comparison increases. The following study can compare the performance of Islamic stocks in Indonesia using ISSI data on Islamic stocks.

Acknowledgments

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FIRM VALUE AND ITS PREDICTORS: EVIDENCE FROM COMPANIES LISTED ON JAKARTA ISLAMIC INDEX

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ABSTRACT - This study aims to determine whether financial leverage, managerial ownership, profitability, company size, and the Islamic Social Reporting Index influence the firm value of companies listed on the Jakarta Islamic Index. The study population comprises companies listed on the Jakarta Islamic Index (JII) over the period of 2015-2019, with a total of 70 observations. This research period was chosen to avoid the potential effect of COVID-19 in the years after 2019. It is revealed that simultaneously all the financial leverage, managerial ownership, profitability, company size, and Islamic Social Reporting Index variables have a positive effect on firm value. Moreover, in the partial test, it was also found that each independent variable had a positive effect on firm value. The study implies and signifies the role of Islamic social reporting not only in ensuring the achievement of firms' social accountability, but also in increasing their value, particularly of those listed on the Islamic index.
Keywords: Financial Leverage, Managerial Ownership, Profitability, Islamic Social Reporting Index, Firm Value.

ABSTRAK – Nilai Perusahaan dan Prediktornya: Pemeriksaan Perusahaan yang Terdaftar di Jakarta Islamic Index. *Penelitian ini bertujuan untuk mengetahui apakah financial leverage, kepemilikan manajerial, profitabilitas, ukuran perusahaan, dan Islamic Social Reporting Index berpengaruh terhadap nilai perusahaan perusahaan yang terdaftar di Jakarta Islamic Index. Populasi penelitian adalah perusahaan yang terdaftar di Jakarta Islamic Index (JII) periode 2015-2019, dengan total 70 observasi. Periode penelitian ini dipilih untuk menghindari potensi efek COVID-19 di tahun-tahun setelah 2019. Terungkap bahwa secara simultan semua variabel financial leverage, kepemilikan manajerial, profitabilitas, ukuran perusahaan, dan Islamic Social Reporting Index berpengaruh positif terhadap perusahaan. nilai. Selain itu, pada uji parsial juga ditemukan bahwa masing-masing variabel independen berpengaruh positif terhadap nilai perusahaan. Studi ini menyiratkan dan menandakan peran pelaporan sosial Islam tidak hanya dalam memastikan pencapaian akuntabilitas sosial perusahaan, tetapi juga dalam meningkatkan nilainya, terutama yang terdaftar di indeks Islam.*
Kata Kunci: *Leverage Keuangan, Kepemilikan Manajerial, Profitabilitas, Indeks Pelaporan Sosial Islam, Nilai Perusahaan.*

INTRODUCTION

The common objective of any company, whether it is publicly traded or non-public, is to increase its value. The achievement of high corporate value is intended to maximize shareholders' level of prosperity, which in turn encourages investors to invest their funds in the company (Haruman, 2008). Firm value is vital, as it reflects company performance and influences investors' perceptions of it (Suharli, 2006). According to Kusumajaya (2011), company value is the market value of a company's equity plus the debt market value; hence, adding the company's total equity to its debt reflects its value. Kashmir (2010) highlighted several means to achieve company goals, namely (1) maximizing firm value, (2) maximizing profit, (3) creating stakeholder welfare, and (4) creating a corporate image. In particular, company value is significant as it reflects its overall performance, thus influencing investors' view of it (Kusumajaya, 2011). Optimization of firm value can be achieved by implementing the financial management function. One particular financial decision will affect other related decisions and impact on firm value (Wijaya, 2010). When shareholders entrust management to other parties, the owners expect the management to do their utmost to increase the company's value, which will in turn increase shareholders' prosperity. Nevertheless, agency theory proposes that management may act in its own best interests (Jensen & Meckling, 1976).

Several factors have been noted from previous research which affect firm value; for example, financial leverage, profitability, capital structure, company growth, the price-earnings ratio, company size, social disclosure, company ownership, company risk, sales growth, corporate governance, and funding policies. However, the findings of previous studies have been inconsistent. For instance, the research conducted by Pantow, Murni and Trang (2015), Setiawati and Lim (2018), and Mailinda et al. (2018) found that financial leverage had a positive effect on firm value. However, the research results of Ogolmagai (2013) and Nguyen & Nguyen (2015) differ, with financial leverage having no effect. Furthermore, according to several studies, increasing managerial share ownership will positively impact company value; consequently, control over management activities will increase, so company activities and decisions will be maximized. This was demonstrated by Ningsih (2013), Abbas (2013), and Abdolmanafi (2013), although Murhadi (2015) obtained conflicting results, finding that the proportion of share ownership by managers had a negative effect on firm value.

Researchers commonly use the relationship between profitability and firm value, yet inconsistent results have also been obtained. Nurmayasari (2012) and Yunita (2014) found that profitability had a positive effect on firm value. On the other hand, Herawaty and Susanto (2009) demonstrated that profitability had a negative effect. In addition, studies conducted by Rahmawati and Achmad (2012) on firm size and value found that firm size had a positive effect on firm value, whereas Dewi and Wirajaya (2013) found a negative effect. As is also the case in Islamic-based companies, the factor primarily used by previous researchers has been corporate social responsibility (CSR). CSR practices should demonstrate that a publicly- traded firm listed as a sharia issuer has genuinely performed its operations in line with Islamic standards, one measure of which is the Islamic Social Reporting Index Model (ISR Index model). Sharia principles are expected to influence the development of value for shareholders, which has become the purpose of business and corporate management (Nohong, Sobarsyah, Sanusi, Handayani, Otulawa & Bon, 2019). However, the results in previous studies have also been inconsistent in relation to the firm value effect. Bidhari, Salim, Aisjah & Java (2013), Tjia and Setiawati (2012), Rosiana et al. (2013) and Amri and Umtara (2010) indicated that the ISR index had a positive effect on firm value, while Septianungrum (2014) found the opposite.

With the findings from previous research related to company value showing inconsistent results, the author felt that research was needed on the issue. This study uses companies listed on the Jakarta Islamic Index (JII), as such samples are even more interesting to explore. As it consists of 30 companies that accommodate investments based on Islamic sharia, the researcher wanted to observe how these factors affect Islamic-based companies. During the the period of 2011-2016, the movement of the Islamic equity index has increased significantly. In the period 2011–2016, the Indonesian stock market experienced a more robust increase in the value and frequency of sharia-based stock transactions than non-sharia shares. The volume of sharia stock transactions increased by an average of 167.2 percent, compared to 130 percent for non-sharia transactions. The average rise in sharia stock transaction values as 70.7 percent, compared to 25.4 percent for non-sharia ones (Santosa, 2020). In addition, JII has continuously seen improved performance and does not involve speculative elements or fixed profits. Companies are fair in profit sharing, which became a consideration in choosing JII companies as research

samples for this study. Apart from the inconsistent results of previous studies, which motivated this research, several other pertinent notions related to the urgency of proper ISR practice have also been taken into consideration. Among these, is that despite the fact that companies are deemed to practice corporate social reporting to demonstrate their accountability towards stakeholders, pertinent information from an Islamic perspective is often lacking (Othman & Thani, 2010); ideally, the Islamic perspective of social responsibility is different from the western one (Hussain et al., 2020). This notion necessitates that more studies should be conducted on ISR and its implementation by companies listed on the Islamic index, so this research is deemed to be relevant.

The remainder of the paper is organized as follows: the following section presents the literature review and hypothesis development, followed by the research method, the findings and discussion. The final section is the conclusion, which includes the limitations and recommendations.

LITERATURE REVIEW

Weston and Copeland (1997) detail many methodologies for assessing companies; in this study the focus is on discounted cash flow. Increasing its value is the goal of every company, as the higher the value, the higher the prosperity of the shareholders, meaning they will invest their capital in the company (Haruman, 2008). Company value is measured in several ways, one being its stock market price, as this reflects investors' assessment of the total equity held (Wahyudi & Pawestri, 2006). The higher the share price, the higher the company value, and the prosperity of shareholders will also increase. Some factors used in this research that can determine firm value are explained in the following sections.

Financial Leverage

According to Herawaty and Susanto (2009), financial leverage is the use of funds with fixed expenses in the hope that these funds will increase earnings per share. According to Riyanto (2001: 22), financial leverage is a balance or comparison between the amount of long-term debt with and a company's current capital'. This ratio can show how far the company's capital structure is financed by debt or external parties (Harahap, 2013). Capital structure is a form of the funding decision; Ogolmagai (2013) states that it is a financing structure, for both internal and external companies. Capital structure comes from external financing, namely debt. The use of debt as capital structure must be fully

considered by management; according to Chen and Steiner (1999), it is an instrument that is very sensitive to changes in firm value. To a certain extent, the higher the proportion of debt of a company, the higher its stock price, but also, an increase in debt will reduce the company's value.

Managerial Ownership

In running a business, shareholders, as the principal, delegate company management to the manager as the agent, in the hope that they will act on behalf of the owner to achieve the company's goals. However, managers tend to act in their own interests, which creates agency conflicts. One way companies can overcome this is by aligning the interests of managers with those of the owners (Imanta & Satwiko, 2011). This can be achieved through suitable corporate governance mechanisms, which are an indirect way for the principal to control the agency costs incurred by the agent. For companies to produce financial reports with quality information, increasing managerial ownership will positively impact firm value, because with the increase in share ownership by company management, control over management activities will increase, meaning the company's actions and decisions will be maximized.

Profitability

Profitability refers to a company's ability to generate profits over a certain period. According to Brigham and Houston (2011), a profitability ratio is a group of ratios that show the combined effects of liquidity, asset management, and debt on the company's operating results. Profitability shows the company's ability to earn profits, is a measure of the effectiveness of company management, or it can also be one of the factors that creates future value and thus attract new investors. The profitability ratio is a tool to measure a company's ability to generate profits at the level of sales, assets, and specific share capital. After calculating the profit on debt costs and preferred stock dividends, ROE calculates the company's ability to generate profit for common shareholders (Fitri, 2014; Muarif et al., 2021).

Company Size

The larger the company, the greater the amount of information available to investors regarding investing in it. Larger companies usually have more demands from the public for information than smaller ones. The number of shareholders indicates that the company needs more disclosure due to

shareholders' requests and capital market analysts (Reni & Anggraini, 2006). Company size can be measured in several ways. According to Dewi and Wirajaya (2013), this can be based on employees, total asset value, or sales volume. This study uses an indicator of companies' total assets obtained from their financial position report at the end of the period of their annual report.

Islamic Social Reporting

CSR from an Islamic perspective has been widely studied. Haniffa (2002) proposed a new index in measuring social disclosure by adding several items that must be presented in the annual report as corporate responsibility in reporting social disclosure. This index is called the Islamic social reporting index (ISR), which reports companies' social performance based on sharia. Muslims can utilize ISR as a consideration in their decision-making. Furthermore, businesses can employ ISR to fulfil their commitments to Allah SWT and the surrounding society (Jihadi et al., 2021).

The index is an extension of the social performance reporting standard, and includes people's expectations of the role of companies in the economy and from a spiritual perspective of Islam. It emphasizes social justice related to the environment, minority rights, and employees (Fitria and Hartanti, 2010). The ISR index has two main objectives: to be a form of accountability to Allah SWT and the community, and to increase the transparency of business activities by providing relevant information for the needs of Muslim decision-makers. Haniffa (2002) suggested five CSR disclosure items using the ISR index: funding and investment, products and services, employees, society, and the environment. This was further developed by Othman and Thani (2010), who added one further item, corporate governance.

Hypotheses Development

Relationship Between Financial Leverage and Firm Value

The use of financial leverage can be beneficial for companies because of the corporate tax shield, with which debt can protect the company's tax rate on profits, enabling the proportion of debt in the company to be optimal and company performance to be improved. This follows trade-off theory, which proposes that debt will increase company value to the limit of financial leverage (optimal). After passing the optimal limit, financial leverage will lead to higher bankruptcy costs and reduce company value (Myers, 1977). Based on this, it

can be stated that financial leverage affects firm value. In addition, previous studies have found that financial leverage has a positive effect on firm value (Setiawati & Lim, 2018; Pantow, Murni & Trang, 2015; Haryono, 2015; Sambora & Handayani, 2014). Therefore, the first hypothesis proposed is that:

Hypothesis 1: Financial leverage has a positive effect on firm value.

Relationship Between Managerial Ownership and Firm Value

According to Endraswati (2012), increased managerial ownership will increase company wealth. Consequently, management wealth will be tied to company wealth, meaning that management will attempt to reduce the risk of losing its wealth by lessening the financial risk incurred by high debt levels. By being involved in share ownership, managers will consider all the possible risks that arise and improve their performance in managing the company. Therefore, the company's activities can be monitored through greater managerial ownership, leading to greater control of management activities. This will undoubtedly lead to better decision-making and increase company value. This is supported by the findings from the research conducted by Pantow, Murni & Trang (2015), Putu and Wayan (2014), Ningsih (2013) and Abbas (2013), who found that managerial ownership had a positive effect on company value. It is therefore hypothesized that:

Hypothesis 2: Managerial ownership has a positive effect on firm value.

Relationship Between Profitability and Firm Value

Profitability shows the level of net profit that can be achieved by a company when running its operations. Profits that can be distributed to shareholders are those after interest and taxes. High profitability can increase company value, which is reflected in its share price (Mahendra, 2012). It can also indicate good company prospects, so investors will respond positively, also increasing company value. The results of previous research have shown that profitability has a positive effect on firm value (Hermuningsih, 2013; Setiwati & Lim, 2018; Hendrik, 2017; Pantow, Murni & Trang, 2015; Ayu & Ary, 2013). The following hypothesis is therefore proposed:

Hypothesis 3: Profitability has a positive effect on firm value.

Relationship Between Firm Size and Firm Value

Company size can relate to its total assets. Larger companies are assumed better than smaller ones; therefore, the larger a company's size, the greater the tendency for investors to pay attention it (Reni & Anggraini, 2006). Investors' expectations are in the form of dividends from the company; an increase in demand for shares will spur growth in stock prices in the capital market (Shofwatul, 2011). This increasing price and demand for shares will lead to an increase in company value. The fact that firm size positively affects firm value has also been demonstrated by several previous researchers; for example, Handriani and Robiyanto (2018), Setiawati and Lim (2018), and Shofwatul (2011). Therefore, the fourth hypothesis is:

Hypothesis 4: Firm size has a positive effect on firm value.

Relationship Between Islamic Social Reporting and Firm Value

Islamic social reporting (ISR) involves social programs or actions that arise outside a company's interests (Siegel, 2000). Such reporting can reduce social risk and benefit the company in the long run. With the disclosure of social responsibility, the company will hope to gain social legitimacy and maximize its financial measures in the long term. Such disclosure is also expected to create a good corporate image and increase sales. Companies that are socially responsible are expected to respond positively to market participants (Sayekti & Wondabio, 2007). Such appreciation and positive market reaction result in good market performance, resulting in high stock prices, allowing companies to attract new funds easily. This allows them to develop and create appropriate market conditions to improve market performance, which will create high corporate value and sustainable growth (Saputra, 2010). While several studies have investigated the extent of ISR disclosure and what can determine ISR by Islamic banks (Amran et al., 2017; Hussain et al., 2020; Kamla & Rammal, 2013; Othman & Thani, 2010), others have specifically examined the effect of ISR on firm value; for example, Setiawati and Lim (2018), Bidhari et al., (2013), Tjia and Setiawati (2012), Rosiana et al., (2013) and Amri and Umtara (2010). Consequently, the final study hypothesis is:

Hypothesis 5: Islamic social reporting affects firm value.

METHODOLOGY

A quantitative research approach was employed, using panel data regression analysis through E-Views statistical software to test the hypotheses. This type of analysis was used because the study data are a combination of five-year time series data and a cross-section of 14 different companies. Before the data were assessed, it was necessary to first test the classical assumptions. Furthermore, the analysis testing process was performed jointly and partially.

Sample and Data Collection

The study population consisted of 30 Islamic companies registered with JII during the period 2015-2019. This period was selected because it was not influenced by the COVID-19 pandemic. The sample selection was made using purposive sampling with predetermined criteria. A total sample of 14 companies met the requirements during the 5 years (2015-2019) of observation. Consequently, as shown in Table 1, the number of observations was 70.

Table 1. Sampling Process

No	Sample Criteria	Total
1	Companies listed on the Jakarta Islamic Index (JII) in the period 2015-2019.	30
2	Companies listing inconsistently on the Jakarta Islamic Index (JII) in the period 2015-2019.	(16)
3	Companies that did not publish annual reports.	(0)
4	Companies that did not have complete data related to the research variables in their 2015-2019 annual reports.	(0)
Total Sample		14
Total observations for the five-year research period (14x5)		**70**

Variables and Measures

Dependent Variable

The dependent variable was firm value. The value of a company can be seen by comparing the market price per share and the book value per share. Firm value in this study was assessed through the price-book value (PBV). This measures the value that the market places on the management and organization as a growing company (Brigham & Houston, 2014). The following formula measures this ratio:

$$PBV = \frac{Market\ Price\ per\ share}{Book\ Value\ per\ Share} \qquad (1)$$

Independent Variables

Five independent variables were used:(1) financial leverage, defined as a decision regarding the composition of funding chosen by the company (Hasnawati, 2005); (2) managerial ownership, which according to Wahidahwati (2002) is a shareholder from the management who actively participates in making company decisions (directors and commissioners); (3) profitability, the company's ability to make a profit, which can be measured using ROE; (4) company size, as measured by the company's total assets in rupiahs and given the symbol SIZE (Husnan, 1993); and (5) the Islamic Social Reporting Index (ISR), an index of corporate social responsibility disclosure whose indicators are specific to Islamic ethical principles. The index is obtained by using the content analysis method, without weighting the company's annual report. Each disclosure item has a value of 1 or 0: 1 if the item is contained in the company data, or 0 if it is not included. These values are then added up to a whole, so that the most significant value is 46 and the smallest 0 for each company in each year (Abdilah & Rahayu, 2014). Table 2 summarizes these measurements**:**

Table 2. Variable Measurements

Research Variable	Indicator	Scale
Dependent Variable		
Firm Value	$PBV = \dfrac{Market\ price\ per\ share}{Book\ Value\ per\ Share}$	Ratio
Independent Variables		
Financial Leverage	$Debt\ to\ Equity\ Ratio = \dfrac{Total\ debt}{Total\ of\ equity}$	Ratio
Managerial Ownership	$Managerial\ Ownership = \dfrac{Number\ of\ managerial\ shares}{Number\ of\ outstanding\ shares}$	Ratio
Profitability	$ROE = \dfrac{profit\ after\ tax}{Equity}$	Ratio
Firm Size	Size = Ln (Total Asset)	Ratio
Islamic Social Reporting (ISR) Index	$Disclosure\ Level = \dfrac{Number\ of\ affected\ disclosure\ scores}{Maximum\ score}$	Ratio

RESULT AND DISCUSSION

Descriptive Statistics

The average financial leverage value is 0.468, with a standard deviation of 0.27. The maximum value is 0.96 and the minimum 0.10. The average value of managerial ownership is 0.09, with a standard deviation of 0.086, a maximum value of 0.52, and a minimum of 0.01. The average profitability value is 0.303, with a standard deviation of 0.301, a maximum value of 1.34, and a minimum value of 0.1. The average value of company size is 25.21; its standard deviation is 2.45, maximum value 30.60, and minimum value 20.48. The average value of the Islamic Social Reporting Index is 0.67, with a standard deviation of 0.08, maximum value of 0.78, and minimum of 0.54. Finally, the firm value variable has an average value of 5.55, a standard deviation of 5.65, a maximum value of 29.67, and a minimum value of 0.48. The descriptive statistics are tabulated in Table 3.

Table 3. Descriptive Statistics

	Minimum	Maximum	Average	Std. Deviation
Firm Value	0.48	29.67	5.55	5.65
Financial Leverage	0.10	0.96	0.46	0.27
Managerial Ownership	0.01	0.52	0.09	0.08
Profitability	0.1	1.34	0.30	0.30
Company Size	20.48	30.60	25.21	2.45
ISR Index	0.54	0.78	0.67	0.08

Eviews was used to run the regression test. The classical assumption test result shows that the normality test using Kolmogorov-Smirnov had a significance value of 0.09 > 0.05, which means that the data distribution is normally distributed. Moreover, the results of the multicollinearity test show that all the VIF values are lower than 10 and that tolerance is lower than 1. It can thus be concluded that there are no symptoms of multicollinearity, namely correlation between independent variables. The autocorrelation test showed that the DW value was 2.115. With the value of DW < 4-DU, and DW > DL, it can be concluded that there were no autocorrelation symptoms in the research variables. For the heteroscedasticity test, using the plot shows that the residuals are spread randomly. Therefore, the assumption is that homogeneous error

variance is met or there is no heteroscedasticity, therefore the study data have a normal distribution.

Table 4. Hypothesis Test Results with the Random Effect Method

	Coefficient	Std. Error	T-Statistic	Prob.
(Constant)	0.547	0.171	3.187	0.008
Financial Leverage	3.541	0.672	5.267	0.001
Managerial Own.	2.312	1.010	2.287	0.013
Profitability	1.764	0.163	10.782	0.001
Company size	1.939	0.165	11.708	0.001
ISR Index	1.011	0.262	3.851	0.000
Prob (F-statistic)	0.001			
Adjusted R Square (R^2)	0.917			

The regression model used to obtain the results was a random effects model, as shown in Table 4. Based on the table, simultaneous testing (F test) has a value of 0.001; it can be seen that the F-statistics probability, where the value is smaller than 5% (0.05). This indicates that the variables of financial leverage (X_1), managerial ownership (X_2), profitability (X_3), company size (X_4), and Islamic Social Reporting Index (X_5) together simultaneously have a significant effect on firm value on the Jakarta Islamic Index (JII). This finding is also consistent with the previous studies conducted by Ansori and H.N. (2010), Wijaya (2010), and Rosiana et al., (2013), whose results demonstrate that total assets measure company size, profitability is measured by return on equity, financial leverage is measured by ratio debt to equity and that the Islamic governance score is measured by the number, cross membership, educational background, and reputation of the sharia supervisory board as independent variables, and Islamic social reporting as the dependent variable. This indicates that firm value is strongly influenced by the presence of financial leverage, managerial ownership, profitability, firm size, and the Islamic Social Reporting Index of each company listed on the Jakarta Islamic Index (JII) in Jakarta, even though the object studied and the year of study differ. Furthermore, the adjusted R-squared for this study has a value of 0.917, which means that 91.7% of the independent variables used can predict firm value in the Jakarta Islamic Index (JII).

Partial testing (t-test) was conducted to examine the partial effect on firm value of financial leverage, managerial ownership, profitability, firm size, and the Islamic Social Reporting Index. The results of the statistical t-test, as shown in

Table 4.2 indicate that the probability value of financial leverage (X_1) of 0.001, which is lower than 5% (0.05), means that this variable has a significant effect on the value of companies listed on the Jakarta Islamic Index during the study period. The beta coefficient value for the financial leverage variable is 3.541, meaning financial leverage affects firm value by 3.541. It can be interpreted that every increase of one unit of X_1 can increase Y by 3.54. These results are in line with previous research conducted by Ramadan (2015), Kouki and Said (2011), Pratama and Wiksuana (2016), Obradovich and Gill (2013) and Achmad and Amanah (2014), who explain that the use of external funds will increase a company's income, which will later be used for profitable investment activities. Therefore, investors hope that future company growth will increase, together with company value.

The results of the managerial ownership (X_2) variable test showing a probability value of 0.013 < 0.05 mean that the managerial ownership variable has a significant effect on the value of companies listed on the JII during the study period. The beta coefficient value for the managerial ownership variable is 2.3124, indicating that managerial ownership affects firm value by 2.3124. It can be interpreted that every increase of one unit of X_2 can increase Y by 2.31. The results also show that managerial ownership has a significant effect on firm value. This indicates that managerial ownership will result in increased firm value on the Jakarta Islamic Index. If a company has many shareholders, then this large group of individuals does not participate actively in the company's day-to-day management. Therefore, they elect a board of commissioners, which in turn elects and oversees its management.

The test value of the profitability (X_3) variable, with a probability value of 0.001 < 0.05, indicates that this variable has a significant effect on the value of companies listed on the JII during the study period. The beta coefficient value for the variable is 1.7648, so profitability affects firm value, or it can be interpreted that every increase in one unit of X_3 can increase Y by 1.76. Furthermore, the results indicate the level of net profit that can be achieved by companies when performing their operations. The results of this study are in line with the previous research, such as that of Setiawati and Lim (2018), Pantow, Murni, and Trang (2015), and Hermuningsih (2013) which show that profitability has a positive effect on firm value. Company value has a positive sentiment towards achieving profits to justify the payment of dividends so that the stock price will increase. This also indicates that the company shows a positive signal to pay dividends.

The test results on the firm size (X$_4$) variable show a probability value of 0.001 <0.05, which means that this variable significantly affected the value of companies listed on the Jakarta Islamic Index during the study period. The value of the beta coefficient for the firm size variable is 1.9391, so firm size affects firm value of 1.9391, or it can be interpreted that every increase of one unit of X$_4$ can increase Y by 1.93. This result is consistent with research conducted by Reni and Anggraini (2006), who found that company size affected the firm value. The results of this study are consistent with research conducted by Shofwatul (2011), who found that investors had high expectations of large companies. Investors' expectations take the form of dividends from the company; an increase in demand for shares will spur an increase in share prices in the capital market. The increasing price and demand for shares will lead to an increase in company value. Previous studies also support this finding, such as those of Handriani and Robiyanto (2018), Setiawati and Lim (2018), and Nurhayati and Wasilah (2013).

The test results on the Islamic Social Reporting (ISR) index (X$_5$) variable show a probability value of 0.000 < 0.05, which means that the ISR Index variable has a significant effect on the value of companies listed on the JII during the study period. The beta coefficient value for the variable is 1.0114, so the ISR index affects firm value by 1.0114. It can be interpreted that every increase of one unit of X$_5$ can increase Y by 1.01. Moreover, the influence of the ISR index also contributes to increasing firm value on the JII. The results of this study are consistent with research conducted by Sayekti and Wondabio (2007), who found that by disclosing social responsibility, companies hope to gain social legitimacy and maximize financial measures in the long term. Disclosure of the company's ISR is also expected to create a good corporate image and increase sales. Companies that undertake social responsibility expect to respond positively to market participants. This allows them to develop and create appropriate market conditions to improve their market performance, which will create high corporate value and sustainable growth (Saputra, 2010). The results of this study are consistent with previous research conducted by Setiawati and Lim (2018), Bidhari et al. (2013), Tjia and Setiawati (2012), Rosiana et al. (2013) and Amri and Umtara (2010).

CONCLUSIONS

This paper has aimed to determine whether financial leverage, managerial ownership, firm size, and the Islamic Social Reporting (ISR) Index play a role

in firm value. Using 14 companies on the Jakarta Islamic Index (JII) as the study sample, the findings reveal that the five factors simultaneously affect firm value in companies listed on the Jakarta Islamic Index. Moreover, all the factors have been partially found to impact firm value positively. The results imply he significant role of social and environmental concerns in firms, particularly within the Islamic context, in not only achieving their socially-oriented goals, but also contributing to the increment in firm value. There is still a lack of research on the factors that influence the value of companies listed on the Jakarta Islamic Index hence this study may provide significant inputs to the existing literature.

Nevertheless, the study may be limited in some areas, such as the variables used particularly company size, as the independent variable may be just too commonly used. Furthermore, this study only utilized companies on the Jakarta Islamic Index (JII). Moreover, the period of observation is only five years (2015-2019). Several recommendations can be made based on this research, both to investors or potential investors in making investment decisions. It is advisable for them to pay attention to accounting information in the form of financial ratios so that the decisions taken can lead to the best results. In this study, five variables are taken into account, namely financial leverage, profitability, managerial ownership, company size, and corporate social reporting, all of which influence company value. Future research may utilize other issuers listed on the IDX in order to involve larger companies and research variables may be added to obtain better results.

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RETAIL GREEN SUKUK IN INDONESIA: TOWARD A *MAQASHID* APPROACH

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ABSTRACT - Recent global trends include an increase in demand for sustainable development goals (SDGs) and green sukuk programs. The initiative has gained prominence due to the severe effects of climate change, global warming, and other environmental issues. With its green bond and green sukuk framework, Indonesia has endeavored to mitigate this effect. In response, the Indonesian government has issued Sukuk Tabungan (ST), which is designed to finance green projects. This article will examine the structure and performance of the Sukuk *al-Wakalah* contract, as well as the *Maqashid* method used to determine the *mashlahah* and priority level of Sukuk Tabungan, using the library research method and descriptive analysis. The study's findings indicate that Sukuk Tabungan could contribute to the achievement of the Sustainable Development Goals (SDGs) because it is designed in accordance with *maqashid*, which avoids Sharia-compliant practices in order to perform *mashlahah*. Even though it has a lower coupon rate and is of a smaller size than Sukuk Ritel, it has a high likelihood of being issued because its proceeds will be used exclusively to finance green projects in order to accelerate the Sustainable Development Goals. In addition, the objective of sukuk al *Wakalah* issuance appears to fall within the imperative level or *dharuriyat* of the *Maqashid* framework due to its five targeted projects, in accordance with the Islamic legal maxims "harm is to be eliminated" and "avoidance of harm takes precedence over the attainment of benefit," which should be the primary reason for the issuance of this Sukuk.
Keywords: Sukuk Tabungan, Sukuk *al wakalah*, *Maqashid*, Green economy

ABSTRAK – Sukuk Hijau Ritel di Indonesia: Sebuah Tinjauan Maqashid. *Kebutuhan akan keberlangsungan tujuan pembangunan berkelanjutan (SDGs) dan sukuk hijau kian menjadi tren dunia belakangan ini. Inisiasi tersebut muncul ke permukaan sebagai respon terhadap dampak buruk perubahan iklim, pemanasan global dan isu lingkungan lainnya. Indonesia dengan kerangka program obligasi dan sukuk hijau (green bond dan green sukuk) mencoba mengatasi dampak buruk akibat isu tersebut. Sebagai tindak lanjut, Pemerintah Indonesia meluncurkan green sukuk, atau Sukuk Tabungan (ST) yang ditujukan untuk membiayai proyek hijau (green project). Dengan menggunakan studi literatur kepustakaan sebagai metode secara deskriptif analisis, artikel ini berupaya mendiskusikan lebih jauh struktur dan performa dari sukuk al wakalah, serta pendekatan Maqashid yang digunakan untuk menentukan kemaslahatan dan tingkat prioritas dari pembiayaan Sukuk Tabungan. Temuan penelitian menyimpulkan bahwa, Sukuk Tabungan harus menghindari dari praktik yang tidak sesuai dengan prinsip Syariah. Meskipun memiliki kupon yang lebih kecil dan jumlah yang lebih sedikit dari Sukuk Ritel, Sukuk Tabungan punya potensi yang besar untuk dikembangkan karena dana sukuk tersebut ditujukan secara khusus untuk membiayai proyek hijau demi mempercepat SDGs. Tujuan peluncuran sukuk al wakalah dapat disimpulkan terdapat pada level yang sangat penting atau dharuriyat, berdasarkan kerangka Maqashid, dikarenakan tujuan pembiayaannya pada lima target area, sejalan dengan kaedah fiqh yaitu "kemudaratan harus dihilangkan" dan "mencegah kemudaratan lebih utama ketimbang mencapai kemaslahatan".*
Kata Kunci: *Sukuk Tabungan, Sukuk al wakalah, Maqashid, Ekonomi Hijau*

INTRODUCTION

The demand for sukuk is steadily increasing year after year, with a market share of approximately 24.2 percent of total Islamic financial services asset by 2018 (IFSB, 2018). The current global issuance of sukuk market amounted to $123.15 billion in 2018, a modest increase of approximately 5% over the previous year, which generated only $116.7 billion. However, the increase in volume was primarily due to sovereign sukuk issuances from Asia, the Gulf Cooperation Council, Africa, and other jurisdictions. Malaysia, on the other hand, continues to dominate the sukuk market share, followed by Indonesia, Saudi Arabia, the United Arab Emirates, and Turkey (IIFM, 2019).

Recently, Indonesia has made a strong commitment to preventing the impact of climate change through various commitments to embrace climate change adaptation and mitigation priorities through its green bond and green sukuk framework. This is similar to the growing trend of green sukuk and sustainable development around the world. Massive investments in green projects are being made in response to climate change, global warming, and other environmental concerns. According to Mat Rahim and Mohamad (2018), the Islamic Development Bank (IDB) expressed concern about issuing green sukuk among its member countries during the United Nations Global Warming Conference (COP 21) in Paris. Recently, the IDB has funded a $180 million clean energy pilot project, and in 2018, it announced its intention to double the renewable energy fund from $80 billion to $150 billion from 2016 to 2030. The project's impact can be seen in the reduction of carbon dioxide ($CO2$) emissions.

Through the green regulation established by the Indonesia Financial Services Authority (OJK) and the framework developed by Kemenkeu (2018), there are projects that are likely to be financed or refinanced via green sukuk and must meet the following criteria. They must include renewable energy, energy efficiency, resilience to climate change for highly vulnerable regions and sectors/disaster risk reduction, sustainable transport, waste to energy and waste management, sustainable management of natural resources, green tourism, green building, and sustainable agriculture.

A prominent Muslim scholar, Umer Chapra, has proposed the theory of development. As evidenced by his work, he emphasized that the concept of development must adhere to *Maqahasid* Shariah in order to achieve development with the goal of fostering prosperity in the world and afterlife

(Chapra, 2007). In accordance with the spirit of *Maqashid* Shariah, the sustainable development of the green economy would not only bring benefits to human beings, but would also have a greater impact on every living thing on earth. *Maqashid* are also concerned with preserving the environment and are obligated to leave a better legacy for the next generation or the successor to civilization. By adopting *Maqashid* as a framework for determining economic development, it would be simple to measure *maslahah* and *mafsadah* in addition to comprehending the various levels of *Maqashid*, either priorities or categories.

Turning from this point, the main objectives of this paper are:

1. To theoretically assess and evaluate Sukuk Tabungan or green sukuk based on its structure and performance to finance green projects in Indonesia.
2. To discuss its *maslahah* and level of priorities by using *Maqashid* framework.

This article aims to provide a more comprehensive discussion of green sukuk by analyzing it using the *maqashid* framework, with Sukuk Tabungan serving as a case study. Considering that *maqashid* could be used as the criterion for determining whether something is harmful and must be eradicated or beneficial and must be achieved, the significance of this study has increased recently. Recent years have seen an increase in the number of academics focusing on the study of *maqashid*, as it is believed to be the way out of economic programs that are incompatible with achieving *mashlahah* and avoiding harm. This article will contribute to a broad discussion on how to develop Sukuk Tabungan based on Indonesia's experience with *maqashid* sharia and its efforts as a response to climate change, global warming, and other environmental issues. As a literature review, the second section will cover previous studies on sovereign sukuk in Indonesia. The third section of this paper describes the methodology employed. In the meantime, the fourth section will provide the paper's discussion, which is the primary section of this research. And the final section will conclude with a conclusion and recommendation.

LITERATURE REVIEW

Sukmana (2020) has done an in-depth evaluation of Indonesia retail sukuk *(sukuk ritel)*. The focus of the discussion is on the performance of *sukuk ritel*, beginning with its objectives and moving on to issuances, sales, structure,

benefits, and possibilities, as well as problems. Competitive rates, the possibility to be purchased by anyone, and risk-free funding are some of the unique qualities of *Sukuk ritel*, according to the report. Furthermore, the primary success elements are owing to Indonesia's economic growth and vast population.

Meanwhile Siswantoro (2018) through his research has examined the performance of green sukuk's price after the issuance date. The concern raised due to during the offering period, most green sukuk was oversubscribed, which may implicate after the issuance. The study concludes that since it was oversubscribed during offering period, it does not necessarily correlate to the performance after issuance period of green sukuk. Interestingly, the climate change issues may be ignored by investors as they exclusively seek based on profit motive.

On the other hand, Santoso (2020) investigates role of green sukuk as a mean for sustainable economic development in Indonesia to improve the mitigation of climate change. The author argues that several renewable energy sectors are likely to be financed by sukuk proceeds to support SDGs such as energy efficiency, green buildings, sustainable transportation and so forth. Farhand et al., (2020) also analyzes the implications of sukuk with the *Wakalah* structure in financing the waste industry center. The paper intends to create a financing model for procurement of waste processing technology through the sukuk *al wakalah*. The authors reveal that SSBN *wakalah* can improve the effectiveness and efficiency of the waste processing industry, not only in terms of the economy, but also in terms of the environment and social aspects.

The Development of Sukuk in Indonesia

Indonesian Government has been issued several types of sukuk which vary from Islamic Fixed Rate (IFR), Retail Sukuk (SR or sukri), Hajj Fund Sukuk (SDHI), Islamic T-Bills (SPN-S), Project Based Sukuk (PBS) and Global Sukuk (SNI). *Sukuk ritel* (sukri), Sukuk Waqf or Cash Waqf Linked Sukuk (CWLS) and Sukuk Tabungan negara (ST) are among the sukuk which are available for retail investor. *Sukuk ritel* is one of the Sharia compliance investment instruments offered by the government of Indonesia for its citizen to support the national development. The overall aspects were assessed by National Sharia Board (DSN-MUI) and declared as Sharia compliance. The tenure for *Sukuk ritel* is three years with minimum amount start from IDR 1

million with fixed rate coupon. Besides, Indonesian Government has another type of sukuk, namely Cash Waqf Linked Sukuk *ritel* (CWLS *ritel*). The profit generated from this investment will be generated to *mutawalli* or trustee in supporting social programs as well as community economic empowerment, such as scholarship for underprivileged, building mosque (*masjid*), and provision of capital.

Similarly, Sukuk Tabungan (ST) is another Sharia compliance instrument whereas the major characteristic of recent Sukuk Tabungan (ST) is its focus on the green based development. By this instrument, Indonesian Government aims to support five targeted sectors, namely clean and affordable energy; decent work and economic development for local citizens; industry, innovation and infrastructure; smart city and sustainable community; and climate action. With initiation of issuing green sukuk, the Government of Indonesia attempts to mitigate the severe impact of climate change (Kemenkeu, 2020).

For the latest issuance of Sukuk Tabungan, ST007, Indonesian Government estimated the total amount raised is up to IDR 2 billion, but right before the end of offering period it exceeds at around IDR 5.2 billion and might be larger when the official data announced (Dirgantara, 2020). In addition, the potential of sukuk seems bright and substantial in the future due to prevailing interest rate around the world relatively low whereas sukuk offers greater revenue.

Sukuk

It derives from Arabic word which mean to strike, and this represents proportional undivided ownership interest in asset. Sukuk are certificates of equal value used as a common share and right in tangible asset, usufruct and service or (in the ownership of) asset in a particular project or special investment activity. It is not a new instrument invented by modern scholars, but a remodeling of instruments by Muslim scholar during eighteenth century. According to AAOIFI (2017) there are several types of sukuk including sukuk of ownership of leased asset, ownership of usufruct, ownership of services, *Murabahah*, *Salam*, *Istisna*, *Mudharabah*, *Musharakah*, investmen agency and sharecropping (*Muzara'ah*) irrigation (*Musaqat*) and agricultural partnership (*Mugharasah*). Following AAOIFI, Indonesia National Sharia Board DSN-MUI (2020) recently has issued a resolution regarding sukuk. The area types of sukuk which stipulated must encompass vary, from *Mudharabah*, *Ijarah*,

Wakalah, *Musharakah*, *Murabahah*, *Salam*, *Istisna* and/or other kinds that are appropriate and not against Sharia principles.

In recent year, sukuk considered as one of the leading financial instruments in Islamic finance industry which have the second largest market share after Islamic banking. International sukuk issuance stood at USD 32.98 billion in 2018 which rapidly increased since 2008 that only had a total issuance at USD 2.21 billion. This mainly comprises sovereign sukuk, quasi-sovereign sukuk, corporate sukuk and financial institution sukuk. For domestic issuance, the amount increased quadrupled from USD 22.12 billion to USD 90.16 billion during 2008-2018 period. Indonesia contribute to this sector at around 6.60% of total value worth USD 16.60 billion whereas Malaysia led the sukuk issuance as the lager contributor with market share around 25.32% and amounted up to USD 63.65 billion (IIFM, 2019).

Until 2015, sukuk issuance was dominated by Malaysia with 64% of sukuk outstanding denominated in the Malaysian Ringgit (MYR). Then US dollar (USD) currency contributed as the second largest issuance of sukuk at 18%, followed by Saudi Riyal (SAR) at 5%, Indonesian Rupiah (IDR) at 3%, Qatari Riyal (QAR) at 3%, Singapore Dollar (SGD) at 2%, Bahraini Dinar (BHD), Emirati Dirham (AED), and Pakistan Rupee (PKR) that have the same proportion around 1%, and other currencies approximately 3%. Sukuk has some differences compare to that of bond as it should be Sharia compliance and must fulfill the basic requirement of all Islamic finance product and transaction which is free from *riba, gharar* (uncertainty)*, risywah, maysir* (speculative) *and jahl* (Bacha & Mirakhor, 2018).

Wakalah Sukuk

Based on IIFM (2019) report, in international sukuk market since 2015, the structure that is the most widely used by sukuk issuer is sukuk *al wakalah*. It reports that sukuk *al wakalah* made up around 50.77% share among sukuk issuance during 2010-2016 period, followed by sukuk *al Ijarah* that has share worth 30.86%, hybrid sukuk at around 6.12%, sukuk *al Murabahah* about 5.61%, sukuk *al Mudharabah* worth 3.42%, sukuk *al Musharakah* 2.20% and finally Islamic exchangeable sukuk which contribute around 1.02% among others.

Al Wakalah is an agreement between sukuk holder and the *wakil* (agent) where the *wakil* will act on behalf of the sukuk holder. This concept therefore

resembles to an agency agreement (Razak et al., 2019). Similarly, Sukuk *al wakalah* also involves the issuance of certificate. In this contract, the proceeds from sukuk issuance will be utilized to purchase Sharia compliance assets, or it might be invested in Sharia compliance businesses and projects. The *wakil* or agent manages the funds to generate profit from the investment or asset purchased in earlier stage. However, the proceeds from *wakalah* contract cannot be guaranteed and the *wakil* is eligible to accept the agency incentive from the amount excess of the agreed upon profit (Ali, 2019).

Green Sukuk or Green Bond

The green bond firstly launched in June 2007 by European Investment Bank. In the following year, World Bank-International Bank issued the second green bond for the development and reconstruction (IBRD). This kind of bond gained its high demand since the investors not only seek for personal profit from this mechanism, but also due to its virtue, that support green activities as well as balance the ecosystem and preserve the environment (Siswantoro, 2018).

Apart from this, green sukuk launched a decade later after the issuance of green bond. It was initiated by Tadau Energy Sdn. Bhd. (Tadau Energy) amounted up to 250 million denominated in the Malaysian Ringgit (MYR) where the proceeds is directed to finance a large-scale solar photovoltaic power plant. This development has created the new debut for the capital market instrument as *green sukuk* combining green finance and Islamic finance (World Bank, 2020). However, the initiative has started since 2014 when the government of Malaysia, through Securities Commission (SC) set up Socially Responsible Investment (SRI) sukuk framework in August. This SRI sukuk framework aims primarily to facilitate the SRI financing, and the framework highlights the utilization of proceeds, eligible projects, disclosure of requirements, the appointment of independent parties and reporting requirements. Ultimately, the SRI framework is a platform to accelerate Malaysia's value proposition to be the Islamic finance and sustainable investment hub (J. Keshminder et al., 2019).

The issuance of green bond by 2019 globally accounted for USD271 billion that has increased from previous year at USD182 billion whereas for green sukuk, including domestic currency sukuk, reached USD6.1 billion by 2020. Green sukuk issuance has grown around USD2.6 billion from 2019 which stood at USD3.5 billion. The global bond was predominantly driven by European market which had proportion around 45% of global issuance. This was followed

by Asia-Pacific and North American markets around 25% and 23% respectively (Ibrahim, 2018). The total of 51 jurisdictions had green bond issuance where 8 of these jurisdictions were freshly new. For sukuk market, twelve of unique issuers are located in Indonesia, Malaysia, the United Arab Emirates, and one multilateral development bank had already deployed green sukuk to raise fund approximately USD6.1 billion in four different currencies, namely EUR, IDR, MYR, and USD by July 2020 (World Bank, 2020).

However, green sukuk market is relatively new and required support from all related parties to enhance that market. Some identified challenges which green sukuk have to deal with are shoddy green taxonomy, time-consuming and higher cost, higher risk profile, issues in identification the green asset and less compelling benefit (J. S. Keshminder et al., 2022). Rahman et al., (2020) reveal similar finding that major challenges for the development of SRI sukuk are investment risk, lack of performance of measurement standard, higher transaction cost, risk of return, shortage of sufficient sukuk, investors' confidence and lack of awareness.

Maqashid Sharia

Maqashid is the plural form of the word *maqshad* in Arabic which means purpose, objective or principle. As a whole, it is the goal or principle in law or Sharia. *Maqashid* Sharia is defined as an alternative to create a condition of *mashlahah* (common good). *Maslahah* has many definitions but has more or less the same understanding of the goodness, which is the goal of Sharia (Kamali, 2008).

In very simply, *Maqashid* could be understood as a comprehensive concept that explicates the ideals or purposes of sharia related to human life. On the other word, *Maqashid al-Shari'ah* could be considered as the grand framework that provides guidelines and directions that ensure the realization of *mashlahah* (benefit) and the prevention of *mafsadah* (harm) in human life (Ibrahim et al., 2021).

Ahmad & Mobin, (2015) emphasize the main objective of Sharia lies in the principles of removing agony, hardship and difficulties of society. This in line with qur'anic verses that Allah does not want to impose any hardship on his servant. The *ayat* says "Allah does not want to impose any hardship on you, but wants to make you pure, and to bestow upon you the full measure of His blessings, so that you might have cause to be grateful" (5:6). Another *ayat* says,

"Allah does not require of any soul more than what it can afford" (2:286) which means Allah will not impose any hardship to his servant beyond his capability.

Al-Syatibhi (d. 790 AH/ 1388 AD) formulated the *Maqashid Shariah* into five cores in order to gain the *mashlahah* which known as *daruriyat* (the essentials), namely; *Hifdzun ad-din* (maintaining religion), *Hifdzun an-nafs* (keeping the soul), *Hifdzun Aql* (keeping the mind), *hifdzun Nasl* (maintaining the descendants) and *Hifdzun maal* (Safeguarding Property) (Al Raysuni, 2013). Furthermore, Auda (2008) explores the above concept from Al-Syatibi. He explains a) *Hifz al-din* the *Maqashid* theory as maintaining, protecting and respecting freedom of religion and belief, b) *hifz al-nasl* as protection of family and family institutions, c) *Hifz al-'aql* as multiplying scientific thinking and research patterns, d) *hifz al-nafs* is interpreted by maintaining human dignity and human rights, and the last *hifz al-mal* is defined by prioritizing social concerns, development and social welfare (Kamri, Ramlan, & Ibrahim, 2014).

METHODOLOGY

This study employs a qualitative approach based on library research and descriptive analysis. According to Sugiyono (2007), qualitative methods are research conducted to discover, investigate, explain, and describe the quality or unusual characteristic of social influence that cannot be explained, measured, or illustrated using a quantitative approach. In addition, the methodology included a systematic review of retail sukuk and Sukuk Tabungan. To be effective, it is necessary to consider both published and unpublished research. In this study, an exploratory study was conducted using secondary resources. The data was gathered from books, research papers, conference papers, academic studies, case studies, press releases, and articles accessible in numerous public and private libraries and research e-databases. Frequently used electronic databases include EBSCOhost, Emerald Journals, and Wiley Online Journals. Various official documents published by the Indonesian Ministry of Finance also served as the primary source for this research. The study attempts to investigate previous research on sovereign green sukuk and fill in the gaps in the available literature. This study focuses on the structure and performance of green sukuk and employs the *Maqashid* framework to determine its *maslahah* and priority levels. The fatwa of the Indonesian National Sharia Board (DSN-MUI) is also required to justify the sharia compliance of green sukuk issuance.

RESULT AND DISCUSSION

Structure of Sukuk Tabungan Contract

In general, sukuk, which is the instrument for raising long-term funds has several key players. Among those are the originator or *mudharib*, where in Sukuk Tabungan it is the Government of Indonesia who take this place. The regulator is the next key player in the sukuk market followed by credit enhancer (Government or third party), trustee (to manage and administer SPV), manufacturer (of asset which is the object of financing), rating agency (to rate and monitor the sukuk), Investment Bank (for structure, sukuk, compliance, prospectus and to bring to the market), Sharia Advisor (at the investment bank and regulator level), and finally sukuk investors (Bacha & Mirakhor, 2018).

Special purpose vehicle (SPV) is *Perusahaan Penerbit SBSN*, a special legal entity established by Indonesian government to issue Sharia compliance sukuk. This regime refers to government regulation No.73/2012 as a new regulation from the previous law No.56/2018 on the special legal entity issuing national Sharia securities. Underlying asset of Sukuk Tabungan is land or building of national treasury, and it cannot be claimed, neither individually nor collectively, by sukuk holder. For the sukuk transaction purpose, it divided into several units with value IDR 1 million which is equivalent with share per unit of sukuk.

Wakalah, which is the underlying contract in this type of sukuk has specific flow. In the first place, SPV has to declare the acceptance as an agent (*wakalah* undertaking) of sukuk holder to receive and manage the fund in order to purchase the underlying asset of Sukuk Tabungan either national tangible asset or project. At the same time, government will be act as a *wakil* for supplying the asset with specific value and type. Then, *bai'* transaction will take place at the next stage in providing the procurement of goods to be used for *Ijarah* object. Subsequently, SPV and Indonesian Government will enter into setting up project undertaking to buy the project from government which resulting in the right of government to set up the project used for providing *Ijarah* object.

Then, government and SPV sign the *Ijarah* contract with clause a) *ujrah* derived from national tangible asset will be directed to sukuk holder as coupon, and b) *ujrah* based on project regarded as fee of maintenance *Ijarah* asset services (*wakalah* on *Ijarah* asset maintenance). Subsequently, the purchase undertaking of asset will be conducted where the SPV only sell the asset to

Indonesian government, either at the early redemption or at the end of *Ijarah* contract with agreed price between parties. The structure of *wakalah* contract in sukuk tabungan is shown in figure 1.
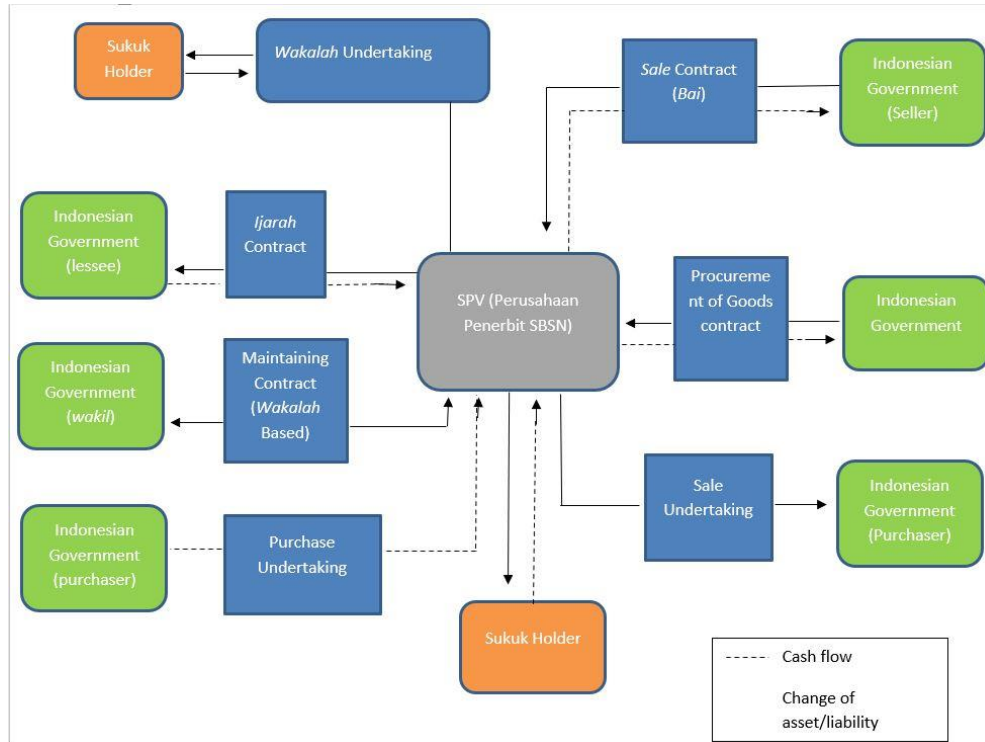

Figure 1. *Wakalah* structure of *Sukuk Tabungan*
(Source: Ministry of Finance, 2020)

Ali (2019) explains that according to AAOIFI, the purchase price of *wakalah* assets cannot be a pre-agreed-upon fixed amount, but should instead be based on the asset's market value at the time the originator exercises its right under the purchase undertaking. If the originator is required to purchase a *wakalah* asset for a fixed price, the sukuk holder will be exempt from any risk associated with the *wakalah* asset and will be guaranteed a profit. The customs regime on such restrictions requires the originator to serve as a guarantor for the outstanding sukuk amount. The guarantor is obligated to cover any losses between the proceeds from the *wakalah* asset and the amount due to the sukuk holder, whether they occur during the liquidation of the *wakalah* asset or during periodic payments. Bacha & Mirakhor (2018) concur with AAOIFI that the purchase price of asset-backed-sukuk may be determined by the prevailing market price or an exercise deemed in-the-money. The holders of the sukuk reserve the right to sell the underlying asset to a third party if the issuer is unable

to repurchase it at maturity. However, the purchase price of asset-based sukuk may be subject to redemption or outstanding value.

In repurchase asset after the maturity of contract, the issue might raise whether the price of asset is based on predetermined price or at market price. Razak et al., (2019) assert that at the end of rental, the SPV and obligor will carry out their option under purchase undertaking to require the obligor to purchase based on the exercise price equal to the dissolution amount payable to the sukuk holder.

Sukuk Tabungan Performance

Indonesian government has issued up to 7 series of Sukuk Tabungan (ST001 to ST007). This sukuk has different character compared to *Sukuk ritel* where the differences lay on the structure, tenure, tradability, and coupon rate. The former uses *wakalah* as the sukuk contract with 2 years tenure, non-tradeable and floating with floor coupon rate. Besides, for *Sukuk ritel*, *ijarah* is applied as the initial contract of this sukuk with mostly 3 years tenure, fixed coupon rate, and it can be traded at secondary market among domestic investors. Since the sixth issuance, Government of Indonesia has declared that Sukuk Tabungan will be directed to finance green project and simultaneously put this sukuk within green sukuk category. The proceeds generated from ST006 onwards exclusively directed to finance or re-finance green project development according to UNDP. This is intended to contribute to mitigation and adaptation of severe impact of climate change, and preserving biodiversity (Kemenkeu, 2018).

Besides, two global sovereigns green sukuk has already issued by Indonesian Government which firstly launched at 2018 amounted up to $1.25 billion and $750 million for the second issuance with tenure 5 years. This sukuk offered 3.75% and 3.90% coupon rate respectively and placed Indonesia as the first issuer of green sukuk in the world (Indonesian Ministry of Finance, 2018). Indonesia sovereign green sukuk was the first green sukuk to be launched among sovereign sukuk. It continues to show its leadership in the public sector including the first retail green sukuk.

In its following issuance, retail sovereign green sukuk, Sukuk Tabungan 006 and Sukuk Tabungan 007, was also have gained huge attention due to their nature that is "green" and used to support accelerating sustainable development goals (SDGs). The underlying contract used on such sukuk is *wakalah* based with tenure 2 years. The price for a unit is equivalent to IDR 1 million as

minimum unit per purchase whether the maximum amount is at IDR 3 billion or 3,000 unit. In ST006, sukuk holders will receive coupon based on floating with floor at 6.75%. Similarly, the coupon for ST007 is also based on floating with floor at 5.50 % and will follow the Indonesian central bank rate. This derived from prevailing rate at 4.00% plus fixed spread at 150 bps (1.50%) (Kemenkeu, 2020). The profit is to be distributed per month for 2 years with early redemption facility where only 50% per total investment could be withdrawal prior to maturity.

In general, Sukuk Tabungan offer smaller coupon rate and have lesser sales compared to that of *Sukuk ritel* which had slightly higher rate and greater sales. The size of sukuk also, in addition, differ considerably between these 2 types of sukuk. Majority of Sukuk Tabungan sales is below 5 trillion except for ST007 that able to generate more than 5 trillion. Adversely, most of *Sukuk ritel* sales are above 10 trillion which indicates that *Sukuk ritel* has attracted more investor than Sukuk Tabungan.

Tabel.1 shows the comparison between Sukuk Tabungan and *Sukuk ritel* from the first issuance of its products. According to Sukmana (2020), there are four objectives of sovereign retail sukuk issuance. Firstly, it aims to create portfolio diversification for financing instruments in order to support the national budget deficit. The second objective is to increase in size the domestic investor base. Thirdly is to boost the Islamic finance development in Indonesia and, finally is to strengthen the Indonesian capital market by transforming the society from a savings-oriented one into an investment-oriented one.

Table 1. Official Report on Result of Sukuk Sales, Various Issues

		Sales (trillion)	**Coupon Rate**	**Tenor**	**Structure**	**Tradi bility**	**guar antee**
Sukuk Tabungan	ST001	IDR 2.58	6.19% (fixed rate)	2 Years	*Wakalah*	No	Yes
	ST002	IDR 4.94	8.30% (floating with floor)	2 Years	*Wakalah*	No	Yes
	ST003	IDR 3.1	8.15% (floating with floor)	2 Years	*Wakalah*	No	Yes
	ST004	IDR 2.63	7.95% (floating with floor)	2 Years	*Wakalah*	No	Yes
	ST005	IDR 1.96	7.40% (floating with floor)	2 Years	*Wakalah*	No	Yes
	ST006	IDR 1.46	6.75% (floating with floor)	2 Years	*Wakalah*	No	Yes
	ST007	IDR 5.4	5.50% (floating with floor)	2 Years	*Wakalah*	No	Yes

Sukuk ritel	SR001	IDR 5.56	12.00% (fixed rate)	3 Years	Ijara Sale and Lease Back	Yes	Yes
	SR002	IDR 8.03	8.70% (fixed rate)	3 Years	Ijara Sale and Lease Back	Yes	Yes
	SR003	IDR 7.34	8.15% (fixed rate)	3 Years	Ijara Sale and Lease Back	Yes	Yes
	SR004	IDR 13.6	6.25% (fixed rate)	3.5 Years	Ijara Asset to be Leased	Yes	Yes
	SR005	IDR 14.96	6.00% (fixed rate)	3 Years	Ijara Asset to be Leased	Yes	Yes
	SR006	IDR 19.32	8.75% (fixed rate)	3 Years	Ijara Asset to be Leased	Yes	Yes
	SR007	IDR 21.96	8.25% (fixed rate)	3 Years	Ijara Asset to be Leased	Yes	Yes
	SR008	IDR 31.5	8.30% (fixed rate)	3 Years	Ijara Asset to be Leased	Yes	Yes
	SR009	IDR 14.3	6.90% (fixed rate)	3 Years	Ijara Asset to be Leased	Yes	Yes
	SR010	IDR 8.4	5.90% (fixed rate)	3 Years	Ijara Asset to be Leased	Yes	Yes
	SR011	IDR 21.1	8.05% (fixed rate)	3 Years	Ijara Asset to be Leased	Yes	Yes
	SR012	IDR 12.1	6.30% (fixed rate)	3 Years	Ijara Asset to be Leased	Yes	Yes
	SR013	IDR 25.67	6.05% (fixed rate)	3 Years	Ijara Asset to be Leased	Yes	Yes
	SR014	IDR 16.7	5.47% (fixed rate)	3 Years	Ijara Asset to be Leased	Yes	Yes

(Source: Ministry of Finance, 2020)

In the initial period issuance of retail green sukuk, government of Indonesia raised up to IDR 1.46 trillion (USD 104.4 million) where most purchaser of this sukuk is led by millennials that have share around 51.07%, followed by baby boomer and Gen X at 48.66%, and the remaining 0.27% of share contributed by Gen Z. However, for the next issuance of retail sovereign green sukuk, the size increases almost fourfold at IDR 5.4 trillion (USD 385.7 million) and was dominated by baby boomer and Gen X (52.61%), then millennials (44.51%) and Gen Z (0.34%). This increased could be due to the awareness of domestic investor to put their fund into green sector as sukuk is a sharia compliance instrument for investing, provides greater impact to the society wellbeing, and at the same time generates competitive profit. Yesuf & Aassouli (2020) have shown that embedding ESG into Islamic investment funds do not adversely affect the returns. In addition, according to the test conducted by Roslen et al., (2021) the median yield for green sukuk performs better and yields significantly higher for long term investment than those for non-green sukuk. The distribution of investors based on age group shown in Table.2.

Table 2. Green Sukuk Report

Distribution of Investors by Age Group	Millennials	Baby Boomer & Gen X	Gen Z
ST006	51.07%	48.66%	0.27%
ST007	44.51%	52.61%	0.34%

(Source: Ministry of Finance 2021)

Maqashid Sharia Approach

When discussing *Maqashid* Sharia, it is undeniable to get away from Islamic legal maxim *(qawaidh al fiqhiyah)*. Legal Maxim is the fundamental principle for attainment of *Maqashid* Sharia. Many scholars equate the way Legal Maxim works with *Maqhasid Sharia*. However, specifically, these two approaches to Islamic law are different. The science of legal maxims is different from the science of *ushl al-fiqh* (methodology in Islamic jurisprudence) in that the maxims are based on the *fiqh* itself. A maxim is defined as a general rule which applies to all of related particulars, and it is reflective of a close reading of the fiqh. It, in this sense, is different from what is known as a controller (parameter) which is somewhat limited in scope and controls the particulars of a single theme of *fiqh*. Legal maxim itself is defined as laws related to the principles of law built by Shariah and the objectives referred to in their Shariah. There are five rules of Islamic Legal maxim: Matter determined by intention; Hardship begets facility; Certainty not dispelled by Doubt; Injury must be removed; Custom is Authority (Saiti & Abdullah, 2016).

To align with, Laldin et al., (2013) state that Sharia considers harm associated in human relation as a manifestation of injustice and must be removed which also acknowledges as *munkar* or objectionable. This fall into maxim "harm is to be eliminated". In addition, this maxim has several corollaries which are "harm is not to be removed by harm", "averting harm takes precedence over achieving benefit", "private harm is to be borne in order to ward off public harm", and "the greater harm is to be removed by lesser harm". In order to be applicable, the harm must fall into following criteria:

1. The harm should be confirmed and certain.
2. The harm must be excessive.
3. The harm must be unjustified or unlawful.
4. The harm must interrupt a valid *maslahah*.

By the above-mentioned criteria, the severe impact of climate change, global warming and other environmental issue is including on the harm criteria which must be prevented.

On the other hand, to prevent such harm, Indonesian government set up five targeted sectors for Sukuk Tabungan 007 financing (clean and affordable energy; decent work and economic development for local citizens; industry, innovation and infrastructure; smart city and sustainable community; and climate action) which will be used to avert harm. This purpose is in line with the above Islamic legal maxim that averting harm takes precedence over achieving benefit, and fall into *dharuriyat* category.

Santoso (2020) has identified that there are various sectors that are potentially to be financed by green sukuk proceed particularly in the renewable energy area. This ranging from: A) sustainable management of natural resources; B) energy efficiency, the effort used to minimize the amount of energy needed in using equipment's or even energy-related systems; C) green tourism, a prototype of ecotourism that concentrates on sustainable tourism which tries to prevent the damage on tourist sites and cultural heritage; D) green building that are environmentally responsible and could reduce the use of resources required such as design, construction, operation, maintenance, renovation, and demolition; E) sustainable transportation; F) sustainable agriculture, refers to agricultural movement adopting the ecology principles as well as the integrated system between organisms and their environment; G) waste management and waste energy which tries to concentrate on the utilization of solar energy, wind energy, and biogas energy as an alternative for renewable energy, and H) resilience to climate change, which must fulfill two requirements that are the environmental awareness mandate and Sharia compliant goal for SGD (sustainable development goal).

Based on the research by Hariyani et al., (2020), deploying green sukuk as source of investment to finance sustainable waste management in Indonesia could bring benefits in finance diversification, reduce waste, and promote employment. There also opportunities that likely to be achieved by using such way including alternative energy, enlarge sukuk liquidity and greater role of Islamic finance.

Moreover, the achievement of green economy would be considered in association with all five cores based on *Maqashid* formulation (Fauzia, 2016).

For *hifdzun ad-din* (maintaining religion) area, the religion would not be able to exist if its follower did not preserve soul, mind, descendant and wealth which means this is consequences from other cores. In *hifdzun an-nafs* (keeping the soul), the relation is considered in the Sharia order to produce and distribute the basic need before tahsiniyah or beautification. This refers to the saving of non-renewable energy resources. Furthermore, *hifdzun 'aql* (keeping the mind) could be translated into encouraging human being mindset about the *mashlahah* to replace the utility concept. For *hifdzun nasl* (maintaining the descendants), the relation could be in preserving the environment by upgrading family soft skill to be the agent of waste treatment and establishing garbage bank. Finally, in *hifdzun maal* (safeguarding property) this could be taken into consideration by investing such wealth into socially responsible investment.

Mergaliyev et al., (2021) revealed that the consequences of *maqashid* and Islamic moral economy are based on Islamic ontology. Despite the ontological difference between *maqashid* and the prevailing conventional practice such as SDGs (Sustainable Development Goals), ESG (Environmental, Social, Governance), SRI (Socially Responsible Investment), making reference to those practice should be reached because the consequences produced by SDGs, ESG and SRI are in line with *maqashid* objectives.

Turning from this point, Sukuk Tabungan Indonesia which is purposed as green sukuk in order to finance green projects as a respond of climate change, global warming and other environmental issues, has a great chance to be developed, as long as it is applied within *maqashid* approach and framework. Among others are to achieve *mashlahah* (benefit) and avoiding harm trough programs or policies that, at least, purposed to protect the environment (*hifdz al-biy'ah*).

CONCLUSIONS

In response to the severe effects of climate change, global warming, and other environmental issues, the issuance of green sukuk has recently become a global phenomenon. With its green bond and green sukuk framework, Indonesia has attempted to mitigate this impact. As a result, the Indonesian government has issued green sukuk, known as Sukuk Tabungan (ST), which are intended to finance green projects.

The low-risk investment instrument Sukuk Tabungan issued by the Indonesian government is a *wakalah*-based contract. Sukuk Tabungan must refrain from practices that violate Sharia law. Even though it offers a lower coupon rate and

is of a smaller size than *Sukuk ritel*, it has a great chance of being developed as its proceeds will be used exclusively to finance green projects to accelerate the SDGs. On the other hand, Sukuk Tabungan, which is intended to finance five specific projects, is vitally important based on the *maqashid* approach, which is also consistent with the Islamic legal maxims "harm must be eliminated" and "avoidance of harm takes precedence over attainment of benefit." This objective appears to fall within the priority level or *dharuriyat* of the *maqashid* framework.

Moreover, the relevant government authorities, such as the National Sharia Board (DSN-MUI), the Financial Services Authority (OJK), and the Central Bank of Indonesia, are expected to promote green sukuk because it can be one of the instruments to boost economic growth and contribute to the green development in Indonesia, and because it is a sharia-compliant investment.

This study examines only retail green sukuk (Sukuk Tabungan) issued by the Indonesian government for the general public. Further research could examine additional types of sukuk, such as global sukuk, Islamic Fix Rate (IFR), Islamic Government T-bill (SPNS), Foreign Exchange Sukuk *Valas*, etc., and compare their performance to that of Indonesian Government's conventional sovereign bond.

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DETERMINANTS OF FINANCIAL LITERACY ON MICRO WAQF BANKS IN ACEH

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ABSTRACT - In comparison to the conventional financial literacy index, the Islamic financial literacy index in Aceh remains relatively low at 18.64%. The presence of micro Waqf banks in Aceh is intended to be beneficial to both urban and rural communities. This study investigates the factors that influence the public's preference for Micro-Wakaf Bank in Aceh. To collect data, a questionnaire was administered to 100 respondents throughout Aceh. This study utilizes the variables literacy index, preference, religiosity, and business motivation. To investigate these variables, a quantitative approach with multiple regression analysis techniques is employed. The results indicate that preference, religiosity, and business motivation have positive and statistically significant effects on Islamic financial literacy. Despite 52 percent Islamic financial literacy for micro waqf banks and the role of micro-waqf banks in expanding micro-scale businesses, the public preference for micro waqf banks remains low compared to Islamic banks. Because the practical implications of this research will have an impact on micro-waqf banks, as literacy numbers increased, the public will be more likely to choose micro-waqf banks for their business ventures.
Keywords: *Preference, bussines Transactions, Micro Waqf Bank, Community.*

ABSTRAK – Determinan Literasi Keuangan terhadap Bank Wakaf Mikro di Aceh. *Indeks literasi keuangan Syariah di aceh masih tergolong rendah sekitar 18,64% dibandingkan dengan indeks literasi keuangan konvensional. Hadirnya bank wakaf mikro di Aceh berupaya untuk meningkatkan kesejahteraan masyarakat urban dan pedesaan. Tujuan penelitian ini untuk menganalisis faktor-faktor yang mempengaruhi minat masyarakat Aceh dalam memanfaatkan bank wakaf mikro terhadap pemodalan usaha. Penelitian ini mengunakan metode kuantitatif dengan teknik analisis regresi berganda. Data penelitian dikumpulkan melalui kuesioner terhadap 100 responden yang tersebar di seluruh Aceh. Variabel yang digunakan dalam penelitian ini ialah indeks literasi, preferensi, religiusitas dan motivasi usaha. Metode analisis data menggunakan analisis regresi linear berganda. Hasil penelitian ini menunjukkan bahwa variabel preferensi berpegaruh positif dan signifikan terhadap indeks literasi keuangan syariah. Preferensi public terhadap bank wakaf mikro masih rendah dibandingkan dengan bank syariah, namun literasi keuangan syariah terhadap bank wakaf mikro sebesar 52% dan membantu peningkatan bisnis berskala mikro di dalam masyarakat. Oleh karenanya, hasil kajian ini berimplikasi bagi bank wakaf mikro dalam kepercayaan publik, dimana semakin tinggi tingkat literasi, semakin besar minat publik dalam memilih lembaga bank wakaf mikro dalam pemodalan usaha mereka.*
Kata Kunci: *Preferensi, transaksi bisnis, bank wakaf mikro, masyarakat*

INTRODUCTION

Financial literacy is a measure of a person's capability, skill, knowledge of financial institutions, products, and services, as well as their ability to independently comprehend financial management (OJK, 2019). Financial literacy enables the public to be literate in financial institutions, particularly Islamic financial institutions, so that the public can comprehend the ease of access to dependable financial institutions (Faujiah, 2018). Preferences can be inferred from a person's interests in decision-making, which are influenced by their psychology, personality, social environment, and culture. Additionally, religion influences an individual's behavior when engaging in economic activities (Adisti, 2021). However, literacy and religiosity can also influence the community's preference for Islamic financial institutions, one of which is the micro waqf bank institution (BWM) (Munardi, et al., 2020).

The Micro Waqf Bank (BWM) is one of the Islamic microfinance institutions that focuses on empowering the poor (Tarigan, 2013) by providing revolving funds from waqf funds or third parties who become donors, and then distributing them to the community for micro business activities. Micro Waqf Bank is unique in regards to its operations. It can be deduced from the location, which is typically found in Islamic boarding schools, which are also Islamic educational institutions (Sulistiani, 2019). Customers of the micro-waqf bank are impoverished communities and those in the vicinity of boarding schools (pesantren) (Sulistiani, 2019). Despite the institution's enormous potential in Indonesia, the community has yet to fully comprehend micro waqf banks and has no interest in them (Rianti, 2019).

Based on the observation that micro Waqf banks are directly supported by the Indonesian government and have the potential to develop in the community, a deeper analysis of this issue is required. It can also have a positive effect on the economic performance of a government. Several previous studies on micro Waqf banks have not yet addressed the community's preferences for economic empowerment via micro Waqf bank institutions. Some of these works include Ahmad and Rahman (2018); Choudhury, Pratiwi, and Hoque (2019); Mahat, Jaaffar, and Rasool (2015); Mauluddin and Rahman (2018); and Sabirin (2016), which merely analyze the role of Waqf and Islamic philanthropy in society's welfare.

The province of Aceh has exclusive authority to implement Islamic law, including its economic aspects. According to Qanun No. 11/2018 on Islamic Financial Institutions, all financial institutions, including microfinance institutions, in Aceh must adhere to Sharia principles (sharia compliance). Despite this, there are still a significant number of Acehnese who engage with moneylenders who offer soft loans with high interest rates. With the enactment of this regulation, which is also in line with the operationalization of the Micro Waqf Bank (BWM), it is now possible for the poor community to conduct business without the influence of moneylenders.

Based on data from the Financial Services Authority, Sharia-compliant microfinance institutions in Aceh remain extremely limited. There are only two microfinance institutions in Aceh, meaning that people have few options for financing their business activities (OJK, 2020). It is still difficult for the general public to get access to appropriate financing on a micro scale, particularly when there are limited options available. People will opt for the more traditional form of credit offered by moneylenders, even though it comes with a higher interest rate (Aulia, Ibrahim, & Tarigan, 2020). This is an extremely pressing issue in today's society (Ibrahim, 2014). Therefore, the availability of a micro waqf bank presents another choice for individuals who run micro businesses and wish to gain access to low-volume financing in the range of two or three million rupiah.

Furthermore, according to the most recent Central Bureau of Statistics data, the poverty depth index in Aceh increased by 0.08 percent in 2020 compared to 2019. In Aceh, the poor index was around 15.01 percent in 2019, and it was around 15.43 percent in 2020. As a result, the poverty rate has risen significantly since 2019. (BPS, 2019).

Typically, Islamic micro-waqf banks operate within Islamic boarding schools. Dayah, or Islamic boarding schools, have tremendous potential as taffaquh Islamiyah institutions in Aceh. The people of Aceh continue to have a great deal of trust in Pesantren and Dayah. Statistically, there are approximately 1,177 Islamic boarding schools in Aceh. Approximately 124,922 students attend 382 Islamic boarding schools that provide integrated education (Kemenag, 2021). Therefore, the potential for a Micro Waqf Bank to serve the poor in the vicinity of the pesantren is high.

Then, several previous studies have discovered a significant relationship between community preferences and religiosity, such as Adisti (2021) and Munardi, Ahmad Fauzul Hakim Hasibuan, and Ichsan (2020). Preference is the tendency of people's choices when selecting a product. For example, while religiosity is the individual's responsibility in the beliefs held that affect the individual, he will undoubtedly carry out his obligations in this case. Waqf and zakat, for example, are Islamic obligations that must be fulfilled by anyone who is aware of them (Ibrahim, & Ilyas, 2016: Ibrahim et al., 2015; Ibrahim, 2011). People will tend to transact at micro-waqf banks, regardless of their religiosity or preferences.

Furthermore, business motivation influences preference (Munardi, Hasibuan, & Ichsan (2020), Nanda, Ayumiati, and Wahyu (2019), Octavia (2020), because there are still people in Aceh who do not have access to microfinance. Literacy will also prevent problems with managing money and gaining access to financial institutions, which are both potential sources of stress. Initially, a number of studies presented evidence indicating that individuals' levels of financial literacy were increasing (Nanda et al. 2019). However, the author is curious as to whether or not increased financial literacy will result in a higher preference among the general public for micro-Waqf banks. As a result, the contribution of this study will be to answer the question of whether or not the factors of people's religiosity, level of business motivation, and level of financial literacy influence their preference for micro-waqf banks.

Because of this, the authors intend to confine the scope of this research to the preferences of the general public in Aceh regarding micro-Waqf banks. The potential for the development of Islamic microfinance institutions in Aceh, as well as an analysis of the number of people who are interested in selecting a micro-waqf bank, will both have implications on the level of community literacy as well as economic development in an area.

LITERATURE REVIEW

Waqf, which is one of the components of Islamic philanthropy, has emerged as the most important channel through which the Muslim community can advance their social standing. In Indonesia, the micro Waqf Bank instrument was established in 2017 and began operations in 2018 based on the Constitution Number 1/2013 concerning Microfinance Institutions. Its goal is to broaden the public's access to financial resources on a microscale and to promote financial

inclusion at the community level. The Micro Waqf Bank Institution is responsible for the distribution of the funds that were donated by members of the general public with the intention of providing waqf to the community.

To date, however, not all Islamic boarding schools in Indonesia, including those in Aceh, have established Micro Waqf Banks. In addition, the public's understanding of the micro waqf bank instrument's business model remains limited. The urgency of this study is therefore to increase public understanding and preference for Islamic microfinance institutions, as well as the role of micro waqf banks and boarding schools in achieving their goals.

Despite the fact that there are several articles on micro Waqf banks, this topic has yet to be thoroughly researched. The indicators that were utilized in this study focused on analyzing the preferences of the community as well as the literacy level of the community regarding the micro waqf bank instruments in Aceh. The contribution of the research is to increase public understanding, particularly in the poor community that requires sharia microfinance in order to increase its income and welfare, as well as to elevate the image of micro waqf banks (BWM) in Aceh as one of the models of Islamic financial institutions developed by the government. Specifically, the research focuses on the poor community that requires sharia microfinance in order to increase its income and welfare.

According to the Financial Services Authority (2019), financial literacy is a set of processes or activities designed to increase the knowledge, competence, and skills of consumers and the broader community so that they can better manage their finances. According to Mason and Wilson, financial literacy is a person's ability to obtain, comprehend, and evaluate pertinent information in order to make decisions based on an understanding of the financial ramifications of their actions. Conceptually, Islamic finance literacy is defined as "the ability to use financial knowledge, skills, and attitudes to manage financial resources in accordance with Islamic teachings" (Munardi, Fauzul, and Ichsan, 2020).

The analysis of preferences and literacy uses empirical data tested with regression by Noor and Sanrego (2011) and Yimga (2018) and then conducts a causal comparison analysis of individuals' preferences (Manan and Shafiai 2015). In this study, operational variables refer to earlier studies such as Noor and Sanrego (2011); Yimga (2018); Zayanie, Fitria, and Kamariah (2019) and Fauzia (2018); Husniyah (2018). (2019). The variables examined are the

transactional interest of the community, motivation, level of trust, religiosity, and education level. Transactional interest and motivation are indicators of people's preferences or tendencies to utilize Islamic microfinance institutions to operate their businesses. As indicators of public literacy regarding micro-waqf bank institutions, the variables of education level, level of trust, and religiosity are defined.

In this case, Rozzani et al. (2015) believe that the community should prefer microfinance institutions because access is easier and the community can propose lending funds in small amounts (Rozzani et al. 2015:804). Manan and Shafiai report that the global development of microfinance institutions has nearly reached 90% in terms of recruiting customers, who are mostly poor people from Asian countries (2015:83). Similarly, the literacy level of people who choose to transact with microfinance institutions is rising, according to Indrawati (2014) and Mahat et al. (2015), who conducted their research in Malaysian communities. They are aware of increasing economic empowerment through waqf microfinance institutions through small groups of people (Mahat et al. 2015:302).

Moreover, according to other research by Octavia (2020) and Rianti (2019), the public still does not comprehend micro waqf banks (BWM), indicating that the public's knowledge of Islamic microfinance institutions is still limited. In light of this, the establishment of the Islamic Boarding School-based Micro Waqf Bank is applauded. Since there is only one BWM in Aceh, the problems caused by the presence of the Micro Waqf Bank instrument are not optimal. In order to analyze the preferences of micro waqf bank customers, it is necessary to engage in a broader and more effective socialization process. Yulianti (2015) conducted additional research on the influence of public interest on the decision to select Islamic banking products in Banda Aceh using indicators of community religiosity and the quality of banking services.

In contrast to previous research conducted by Nurhayati and Nurjamil (2019), research on the empowerment of the poor through Islamic boarding schools with access to micro-waqf banks revealed that the empowerment model implemented by BWM consisted of business capital financing using the Al-Qardh contract, which prioritizes education and assistance with business development and management. Next, Fitaloka (2019) investigates the application of micro waqf banks to the alleviation of poverty. The obtained results indicate that Sharia Microfinance Institutions (LKMS) empower the

productive poor by providing assistance and micro-financing without collateral using the cash of waqf funds in a system that does not accept deposits. A qualitative study by Aisyah, Islam, and Sunan (2019) found that the optimization of micro waqf banks as community empowerment is possible. The results of the study indicate that the institution's role as a social agent for the community consists of providing financing and business assistance to the community, and that the role of Islamic boarding schools is closely related to the empowerment of the community through the provision of assistance through weekly meetings known as HALMI.

Nanda et al. (2019) also investigates the level of Islamic financial literacy among Banda Aceh residents. This study employs a qualitative strategy with a low, medium, and high literacy level measurement model derived from the theory of Chen and Volpe (1998). According to the findings of this study, the level of Islamic financial literacy among the residents of Banda Aceh City is 71.99%, which falls within the moderate range (60%-79%).

The present study aims to analyze the level of literacy and the community's propensity to choose micro-Waqf banks as business partners by analyzing indicators of religiosity (Munardi et al., 2020), preference indicators (Adisti, 2021), business motivation (Ramly et al., 2020; Faujiah, 2018), and literacy (Nanda et al., 2019; Octavia, 2020; and Husniyah, 2019). Indicators of financial literacy, which refer to research by Nanda et al. (2019) employing the Chen and Volpe (1998) theory, are applied to the analysis of individuals' preferences. Islamic financial literacy refers to an individual's understanding of Islamic financial products and services. Consequently, the authors formulated the following hypothesis as the first premise of the study:

H_1: Community preferences have a positive and significant impact on the literacy of micro waqf banks in Aceh

H_2: Community religiosity has a positive and significant impact on micro waqf bank literacy in Aceh

H_3: Community business motivation has a positive and significant impact on micro waqf bank literacy in Aceh

METHODOLOGY

This study was carried out by applying a quantitative methodology and employing a survey method to collect the necessary data for analysis. The sample for this study consisted of 100 individuals from various districts in Aceh. Data analysis was carried out using descriptive statistics, as in previous studies by Iman and Mohammad (2017), Mahat et al. (2015), Widiarto and Emrouznejad (2015), and Noor and Sanrego (2015). (2011). It utilizes logistic models as well as multiple regression analysis.

The questionnaire instrument was distributed directly and online using the Google Form platform to collect data. Following the distribution of the questionnaire, the researcher conducted direct observations at micro waqf banks in Aceh, observing the activities of customer groups in conducting their business. The financial literacy index (Y) was used as the dependent variable in this study, while the independent variables were preference (X1), religiosity (X2), and business motivation (X3) (X3). The operational variables are then as follows:

Table 1. Operational Variabel

Variable	Definition	Reference	Indicator	Interval
Literacy (Y)	Cash waqf literacy is interpreted as basic knowledge related to Micro Waqf Banks and the operations of Sharia Microfinance Institutions	Adisti (2021), OJK, (2014), dan Octavia (2020)	Education Level, Knowledge and Faith	1-5 (likert)
Preferences (X1)	Preference is an individual's behavior in making choices that can be influenced by personality, psychology, social and culture and religious identity.	Setiadi (2013) dan Adisti (2021)	Religious identity, maslahah, individual psychology and culture	1-5 (likert)
Religiosity (X2)	Religiosity is belief in Allah and making Islam a guide for life.	Osman, (2016) dan Adisti (2021)	obedience	1-5 (likert)
Business Motivation (X3)	The willingness of the community and customers to take advantage of opportunities for entrepreneurship	Ramly et al. n.d.(2020)	Peluang, Kebutuhan modal, dan pengaruh orang luar	1-5 (likert)

(Source: Adisti, 2021)

In analyzing the data, the author constructs a regression model based on research by Adisti (2021; Nanda et al. (2019); Noor and Sanrego (2011);

Faujiah (2018); Husniyah (2019); Munardi, Hasibuan, and Ichsan (2020); Octavia (2020). Thus, the research framework is as displayed in Figure 1.
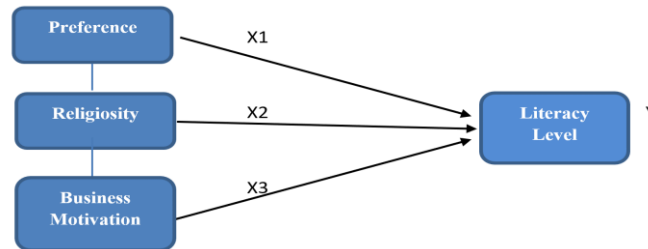

Figure 1. Research Framework

In order to assess the questionnaire instrument's validity and reliability, as well as the collected data's validity and reliability, researchers employ validity and reliability tests. The test employs two samples with a 5% level of significance. In addition, standard assumption tests such as normality, multicollinearity, and heteroscedasticity are conducted to determine if the constructed model is accurate and meets the requirements. Using the following formula, multiple regression analysis is performed to determine the relationship between the dependent variable and the independent variable (Munardi, Hasibuan, & Ichsan, 2020):

$$LogY = LogX1 + LogX2 + LogX3 + e \tag{1}$$

$LogY$ = *Literacy level*
$LogX_1$ = *Preference*
$LogX_2$ = *Religiosity*
$LogX_3$ = *Business Motivation*
a = constant b1, b2, b3 = Regression Coefficient

Since it was discovered that some data deviated from the validity test results, the author has transformed the data using logs. Some data points were omitted and transformed due to the presence of nonlinear variables between the dependent variable and the independent variable.

RESULT AND DISCUSSION

Respondents

The survey locations in this study were selected based on regional categories, such as Aceh Barat, Aceh Jaya, Nagan Raya, Aceh Tengah, Banda Aceh City,

and Aceh Besar. Both paper forms and a Google Form were used to distribute the questionnaires for the survey. We have collected a total of 100 forms, 80 of which were completed using Google forms, and the remaining 20 were completed manually. Within the group of people who responded to the survey, there were 46% males and 64% females. Approximately 60% of the jobs that are listed on the questionnaire are positions in the public sector, and the rest 40% are in the private sector. The level of education also varies, but the vast majority of respondents (73%) have completed high school. In comparison, only 14% have a bachelor's degree and 13% have a low level of education.
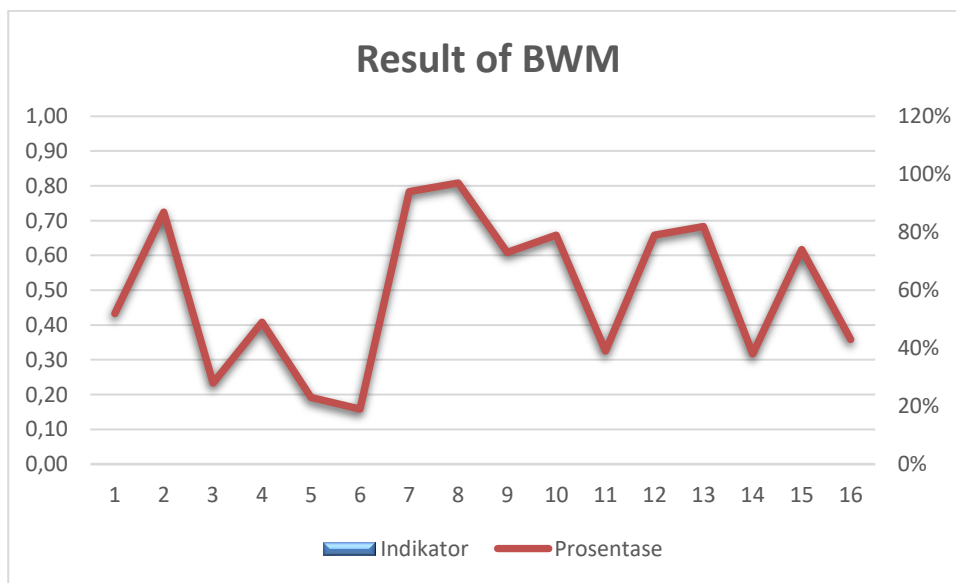

Figure 2. Result of BWM Survey
(Source: processed data)

The graph above depicts the percentage of micro waqf bank surveys based on literacy, preference, religiosity, education level, and business motivation indicators. The graph depicts the highest percentage on the graph, as shown by the religiosity indicator of 97% and 94%. The literacy indicator has a percentage value of 87%, and the business motivation indicator has a percentage value of 82%. However, the education level indicator yielded lower results by 19% and 23%, respectively. This is due to the variety of questionnaires distributed, which ensures that the filling is not overly dominated by one level of education. The religiosity indicator, on the other hand, receives a very high score. This demonstrates that the Acehnese community, which is predominantly Muslim, strongly supports the operation of Sharia-based microfinance institutions, including micro waqf banks. On the

other hand, the government has provided support through regulations issued in the last three years regarding the operation of Islamic financial institutions in Aceh, which are governed by Qanun Number 11/2018 concerning Islamic Financial Institutions.

Table 2. Matrix of Respondents' Answers

No	Variable	Questions	Percentage	Code
1		Do you know the Micro Waqf Bank (BWM)?	52 %	A
2	Literacy	Do you agree with the establishment of a Micro Waqf Bank in Aceh and helping microfinance to the community?	87%	A
3		I know of the existence of a micro waqf bank (BWM) from social media, radio, TV, and banners.	28%	N
4		We support the operation of micro waqf banks (BWM) in increasing small community businesses	94%	A
5	Religiosity	We agree that microfinance institutions should avoid usury, gharar, maysir and tadlis	97%	A
6		Public access in obtaining financing at the Micro Waqf Bank (BWM) is easy and fast.	73%	A
17		We choose business financing at the Micro Waqf Bank, because the institution is sharia-based	79 %	A
18	Business Motivation	We chose business financing at the Micro Waqf Bank, because you are close to the leaders or employees of BWM?	39%	DA
9		Micro Waqf Bank Assists Microfinance to small communities	79%	A
10		In my opinion, Micro Waqf Banks are very helpful for small communities in providing financing for business development	82 %	A
11		I prefer Islamic banking institutions over Micro Waqf Banks in business financing.	38%	N
12	Preference	I prefer credit financing at conventional banks over Micro Waqf Banks (BWM)	74%	DA
13		There are obstacles and obstacles for the community to access business financing from Micro Waqf Banks (BWM)	43%	N

(Source: BWM Survey Results Tabulation, processed, 2021)

Each indicator has three or four questions with varying percentage results. The survey results are coded, for example, A means Agree, which means that the respondent agrees with the question or statement on the item. The code N indicates that the majority of respondents answered neutral/undecided on the questionnaire's questions. The DA code indicates that the majority of respondents disagreed with the statement in the questionnaire questions.

Furthermore, the percentage of the results of the public literacy survey on micro waqf banks in Aceh scored 87%, indicating that all respondents support the establishment of micro waqf banks in Aceh. This is due to the Acehnese people's rapid support for the development of Islamic financial institutions. In terms of public understanding of Micro Waqf banks, it received a 52% score, indicating that there are still many people who are unaware of micro waqf banks, which is approximately 48%. They did, however, agree on the existence of a micro waqf bank in Aceh, as well as the purpose of the micro waqf bank in assisting people in need in Aceh.

Interestingly, based on the religiosity indicator, 94% answered the question regarding the operation of micro waqf banks (BWM) in supporting small community businesses, while 97% answered the question stating that BWM must avoid usury, gharar, and maisir. This indicates that the community trusts and supports the operation of micro waqf banks in Aceh, despite the fact that this institution only began operations at the beginning of 2019. This is due to the fact that the emotional factors of the Acehnese people are still quite strong. In terms of the motivation indicator, 79% of respondents answered that micro waqf banks assist small communities with microfinancing, and 79% said that the community chose micro waqf banks because their financing was based on Sharia. This indicates that the business motivation of 79% of the 100 respondents in Aceh has been influenced by Sharia-based financial institutions. The community also responded that micro waqf banks had assisted small communities with business development financing to the extent of 82%.

Nonetheless, the preference indicator or the tendency of people's choice of Islamic microfinance institutions is still low; this can be seen by comparing financing in Islamic banks to conventional bank credit. This is because the people of Aceh are unfamiliar with micro waqf banks. Consequently, 38% of respondents receive more information about Islamic banks, according to the survey results on this question. Around 43% of respondents answered the problem and obstacle question correctly. In addition, when comparing the preferences of the Acehnese people between Islamic financial institutions and conventional financial institutions, the results of this survey indicate that 74% prefer and choose Islamic financial institutions over conventional bank institutions for conducting transactions and other activities. The tabulation results of the survey of micro waqf banks in Aceh are depicted in the graph presented in the following section.

Instrument Test

Validity Test

In the validity test, the correlation coefficient value is greater than the r table value for n = 100 at the 0.05 level of significance, with a value of 0.197. Therefore, it can be concluded that X1 (Preference) variable results with a probability value greater than 0.197 are valid. Then, the variable X2 (religiosity) receives the value 0.725, which is greater than 0.197, and is therefore also declared valid. The final variable X3 (business motivation), with a probability value of 0.321 exceeding a significance value of 0.297, is also valid. Thus, all variables derived from the questions on the distributed survey are considered valid.

Table 3. Validity Test

Covariance Correlation t-statistic	Log Y	Log X1	LogX2	Log Y
Log Y	0.19475			
	1.00000			
Log X1	0.025603	0.064302		
	0.725008	1.000000		
	10.42079			
Log X2	1.020035	0.023493	0.031526	
	0.725008	0.522891	1.000000	
	13.60420	6.072692		
Log X3	0.019775	0.003695	-0.010261	0.193849
	0.321843	0.033161	-0.131258	1.000000
	3.365137	0.328460	-1.310726	

(Data Source: Processed by Eviews 12)

Reliability Test

In this study, the provisions for determining the degree of reliability are predicated on the following conditions:
   a. Reliable if the value of Cronbach Alpha (α) > 0.60
   b. Not reliable if the value of Cronbach Alpha (α) < 0.60

Table 4. Reliability Test of Instrument

Decision-making		
Set value	Cronbach Alpha's Value	Conclusion
0,60	0,792265991	**Reliable**

(Data Source: Processed, 2022)

The instrument reliability test is computed in Microsoft Excel. The results showed that all variables from all questionnaires distributed had a test value of $0.792 >$ Cronbach Alpha (α) > 0.60, indicating that all variables are considered reliable.

Classic Assumption Test

Normality Test

The conclusion of the normality test is derived from the Kolmogorov-Smirnov test. If sig < 0.05, the sample is not normally distributed; however, if sig > 0.05, the sample is normally distributed. As displays in Figure 2, the probability value is $0.057 > 0.05$, meaning the data is normally distributed.
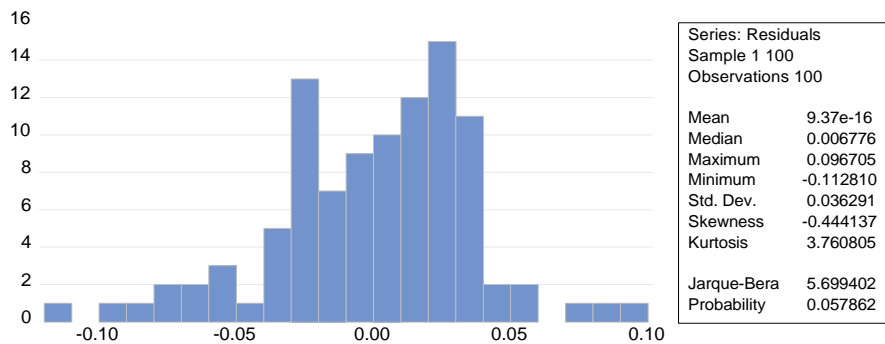

Figure. 3 Normality Test

Multicollinearity Test

The coefficient of variance for the preference variable (X1) in the multicollinearity test is 1.396, which is less than 10.00, indicating that X1 does not exhibit multicollinearity.

Tabel 5. Uji Multikolineritas

Variance Inflation Factor		
Variabel	Uncentered VIF	Centered VIF
C	256.9562	NA
LogX1	122.8205	1.396569
LogX2	300.9878	1.419489
LogX3	21.62508	1.032514

(Data Source: Proccesed by Eviews 12)

On the variable Religiosity (X2), the VIF value of 1.419 is less than 10.00, indicating that there is no multicollinearity. The business motivation variable (X3) is less than 10.00 with a VIF value of 1.032. In conclusion, the regression model has no multicollinearity.

Heteroscedasticity Test

The results of the test for heteroscedasticity, where the p value is indicated by the Prob value, are 0.4297 for chi square (2) in Obs*R-Squared. Since the p value is greater than 0.05, hypothesis 1 is accepted. It indicates that the regression model is homoscedastic, or that the assumption of non-heteroscedasticity holds true.

Table 6. Heteroscedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-Statistic	0.909184	Prob. F(3,96)	0.4396
Obs*R-Squared	2.762705	Prob. Chi-Square(3)	0.4297
Scaled Explained SS	3.514656	Prob. Chi-Square(3)	0.3189

(Source: Data processed by Eviews 12)

Multiple Regression Results

According to the findings, the X1 (preference) variable has a positive regression coefficient of 0.198. This indicates that an increase in the value of people's preferences correlates positively with an increase in the literacy rate of a society. Because the p-value of 0.00 is less than = 0.05, it can be concluded that the preference variable does, in fact, have a positive and significant influence on Islamic financial literacy. Then, for the X2 variable, which is religiosity, it has a positive regression coefficient of 0.528, which indicates that an increase in the value of religiosity also results in an increase in people's literacy.

Table 7. Multiple Regression Test

Dependent Variable: LOG Y				
Method: Least Squares				
Variable	Coefficient	Std.Error	t-Statistic	Prob.
C	2.026257	0.058846	34.43346	0.0000
LogX1	0.198619	0.017211	11.54006	0.0000
LogX2	0.528587	0.024729	21.37483	0.0000
LogX3	0.126207	0.008505	12.83835	0.0000
R-Squared				
Adjusted R-Squared				
F-Statistic	445.9676			
Prob(F-Statistic)	0.000000			

(Data Source: Processed by Eviews 12)

The fact that the p-value of 0.00 is less than 0.05 indicates that the religiosity variable does, in fact, have a positive and significant effect on Islamic financial literacy. The X3 variable, which measures business motivation, has a positive regression coefficient of 0.126, which indicates that as the level of religiosity in a population rises, so does the average level of literacy in that population. The p-value of 0.00 is less than = 0.05, which indicates that the variable of business motivation has a positive and significant effect on Islamic financial literacy. This is because the p-value is less than = 0.05. The fact that the value of significance for the F test was 0.00 rather than = 0.05 indicates that all three independent variables, X1, X2, and X3, have a positive and statistically significant effect on the dependent variable simultaneously.

Discussion

The results indicate that the community's preference variable for micro waqf banks had a significant effect with a value less than 0.00 and greater than 0.05 alpha. This hypothesis is consistent with Octavia's (2020) finding that the public's preference for Islamic financial institutions has a significant impact. This indicates that individuals prefer microfinance over micro waqf banks, Islamic banks, and conventional banks. According to the results of the survey, 94 percent of respondents favor micro waqf banks for financing.

Furthermore, micro waqf banks cater to groups of mothers who are highly motivated to engage in entrepreneurship. This group of micro waqf bank customers has a predominantly low-income background and resides near the micro waqf bank's location or the Islamic boarding school where the micro waqf bank was founded. The economic situation of these housewives is extremely precarious, and they rely on microbusinesses to support their households. Compared to obtaining financing from banks whose terms they cannot meet. This group prefers to fund the Aceh Besar babul maghfirah micro waqf bank.

Next, the level of religiosity can impact the community's selection of micro waqf banks. Additionally, the results indicate that religiosity has an effect on the literacy of micro waqf banks. According to a theory, the greater a person's literacy, the greater their religiosity. In this instance, micro waqf bank clients are all Muslims; therefore, a Muslim with a high level of religiosity will choose financing from Islamic microfinance institutions, specifically micro waqf

banks. According to the results of this hypothesis test, religiosity has a positive and statistically significant impact on the financial literacy of micro waqf banks, with a probability value of 0.00 less than alpha 0.05. That is, the independent variable positively affects the dependent variable. Moreover, according to the results of the researcher's observations as to why the influence of religiosity is high on the community's attitude toward micro waqf banks, the figure of the Islamic boarding school leadership as a religious leader is also one of the reasons why people are interested in taking financing at micro waqf banks, as they believe that the figure of a ustad or teungku will not disappoint them with his honesty. Then, from an emotional standpoint, religion has a significant impact on the community's financing of micro waqf banks.

This implies that the religiosity indicator will increase individuals' preference for micro waqf banks. In their research, Rianti (2019) and Octavia (2020) found that the public's awareness of micro waqf banks is still low, despite the vast potential for the development of micro waqf banks in Aceh. The researcher discovered that the level of financial literacy in Aceh pertaining to Islamic financial institutions remained low at approximately 18.23%. The results of a survey, however, revealed that public awareness of micro waqf banks had increased by 52 percent. The assumption of the researcher's hypothesis test, which states that the level of preference and religiosity has a significant effect on micro waqf banks, also supports this conclusion. then this research is strengthened by previous research Munardi, Ahmad Fauzul Hakim Hasibuan, Ichsan, and Husniyah (2020), as well as Hasibuan, Ichsan, and Husniyah (2019), used indicators of financial literacy and religiosity on the use of banking products, and found that both variables had a positive and statistically significant effect on product use.

Financial literacy is significantly influenced by the variable of business motivation. Based on their participation in weekly halaqah activities (HALMI) organized by micro waqf banks, the author's analysis demonstrates that the business motivation of the people in the vicinity of the pesantren is extremely enthusiastic. Customers who are members of KUMPI attend Halaqah, and three business groups participate in twice-weekly activities. The objective is to provide micro waqf bank customers with knowledge and direction so long as they obtain financing from the Sharia microfinance institution. Among the current number of micro waqf bank customers, 185 individuals with diverse business backgrounds have recently joined (Husniyah 2019).

The simultaneous test results show that all variables have a positive and significant effect. It is clear from the Sig-F value of 0.00, which is less than = 0.05. It means that the regression model was correct, and it can be concluded that preference, religiosity, and business motivation all have a strong influence on public literacy toward micro waqf banks.

The findings show that the level of public understanding of financial institutions influences the public's preference for microfinance financing at micro waqf banks in Aceh. The knowledge is obtained through weekly customer meetings known as halaqah. Microfinance customers were given knowledge and information about financing and motivation to do business during the meeting. Because the patron of the traditional education leadership is a role model for the surrounding community, the growing sense of trust in the leadership of this pesantren has a greater impact on the community, they choose to join the micro empowerment group. This result suppots the studies of Adisti (2021), Munardi, Hasibuan, Ichsan (2020), Nanda at al., (2019), and Octavia (2020), which refers to a high level of literacy or public understanding, society tends to choose a microfinance institution or a product of corporate banking.

Furthermore, according to Adisti (2021) and Munardi, Hasibuan, and Ichsan (2020) research, religiosity is a determining factor in why people choose to transact with Islamic financial institutions. People prefer Islamic financial institutions for transactions because the majority of respondents are Muslims. The public's trust in Islamic financial institutions such as micro waqf banks and Islamic banks is growing. This is related to Faujiah (2018)'s study, which shows the findings related to business motivation after the establishment of micro waqf banks. It implies that the community's options for obtaining microfinance are becoming more diverse, as there are currently very few Islamic microfinance institutions in Aceh (OJK, 2020).

CONCLUSIONS

The hypothesis variable X1 (preference) results show that people's preferences influence the level of public literacy toward micro waqf banks. The next variable, X2, (religiosity), has a positive and significant impact on the literacy of micro waqf banks. This demonstrates that the level of religiosity of the community is very influential in choosing micro waqf banks in Aceh, even

though this is seen from an emotional standpoint, because the majority of Aceh people are devout Muslims.

The significance of the variable X3 (Business Motivation) indicates that the variable of business motivation influences the community's literacy of micro waqf banks. The presence of business motivation, the community will increase their literacy or understanding of micro waqf banks. Furthermore, the F test results have an effect on all variables X1, X2, and X3 simultaneously or together. When the literacy variable is jointly influenced, we can see the significance of the influence of the independent variables on the dependent variable. The independent variable contains almost all of the information required to predict the dependent variable.

This study has limitations due to the small number of variables. Perhaps future researchers should use a variety of variables, as well as a wider range of samples. Due to the scarcity of micro waqf banks in Aceh, this study was limited to a sample of customers from a single micro waqf bank.

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