The Influence of Intellectual Capital and Liquidity Risk on the Performance of Islamic Banks with Zakat Performance Ratio as Moderating Variable

Muhammad Ziyad[1]*, Isti Fadah[2], Intan Nurul Awwaliyah[3]

{mziyad@ulm.ac.id[1]}

Lambung Mangkurat University, Banjarmasin, Indonesia[1], University of Jember, Jember, Indonesia[2] [3]

Abstract. The objective of this study is to present empirical data regarding the relationship between Intellectual Capital and Liquidity Risk on Return on Assets, as moderated by the Zakat Performance Ratio variable. Purposive sampling was chosen as the sampling strategy for the study subject of Islamic Commercial Banks from 2017 to 2020, with Islamic Commercial Banks serving as a sample of 13 firms with 52 samples, which were then analyzed using the Moderated Regression analysis (MRA) method. The study's results indicate that Intellectual Capital has a negative effect on Return on Assets, Financing to Deposit Ratio has no effect on Return on Assets, and the Zakat Performance Ratio variable cannot strengthen the relationship between Intellectual Capital and Financing to Deposit Ratio and Return on Assets. Purposive sampling was used as the sampling technique for the research subject of Islamic Commercial Banks in the period of 2017 to 2020, using Islamic Commercial Banks as a sample of 13 businesses with 52 samples, then analyzed by the Moderated Regression analysis (MRA) method.

Keywords: Intellectual Capital, Financing to Deposit ratio, Zakat Performance Ratio, and Return on Assets

1 Introduction

In recent years, Indonesia has seen a growth in the development of Islamic finance, particularly the creation of Islamic financial institutions. These achievements motivate the government to enact laws that will serve as the legal foundation for regulating the operations of Islamic financial institutions. These rules take the form of those mentioned in Law No. 10 of 1998, which amends Law No. 7 of 1992.

Islamic banking is a major foundation of Indonesia's Islamic economy and finance. Nowadays, Islamic banking contributes 89.26% of the assets of Islamic financial institutions, and about 70% of Islamic economic activity rely on Islamic banking.

The growth of Islamic finance industry assets until 2020 reached 21.48% to Rp 1,770.32 trillion. This amount includes assets owned by the Islamic banking industry of IDR 593.35 trillion, the Islamic capital market of IDR 1,063.81 trillion, and the sharia non-bank financial industry (IKNB). Looking at these growth figures, it can be concluded simply that the Islamic economic and financial system can survive and grow positively amid during in the current crisis.

One of the issues facing Islamic banks today is the lack of quality and quantity of Human Resources as one of the supporting ecosystems for the growth of Islamic banks in Indonesia, particularly the mismatch between HR capability and industrial demands (Ma'ruf Amiin in ISEF 2021).

The contemporary period of modern competitiveness demonstrates that organizations rely on the utilization of intangible assets as well as tangible assets.

Intellectual capital is a knowledge resource in the form of employees, customers, processes, or technology which companies can use for the value creation process for the company (Nikolaj Bukh et al., 2005), In the 1990s, the emergence of Intellectual Capital (IC) received attention from business people, academics and investors, because Intellectual Capital is considered as value creation. Value creation is important for companies because it is a new measure of business success.

Intellectual Capital plays an important role in enhancing the company's ability to create a competitive advantage. Therefore, another benefit that companies get by reporting on Intellectual Capital, in addition to communicating their advantages, companies can also attract value-added resources. (Mouritsen, Bukh, & Marr, 2004). However, the exact measurement of the company's Intellectual Capital has not been established.

According to (Abidin, 2000), intellectual capital is still not well understood in Indonesia. This is because enterprises in Indonesia tend to employ conventional financing to establish their businesses, resulting in goods with little technological content. Moreover, many businesses have not prioritized human capital, structural capital, and consumer capital. Despite the fact that all of them are components of the company's Intellectual Capital building.

Pulic (2000) presents an Intellectual Capital metric to quantify the efficiency of added value as a consequence of the company's intellectual skills. Pulic's measurement is known as VAICTM (Value Added Intellectual Coefficient).

Value Added is the most objective measure of business performance since it demonstrates the company's capacity to produce value. VA is computed by subtracting the output value (which reflects revenue and includes all items and services offered in the market) from the input value (covers all expenses used in obtaining revenue, excluding employee expenses). (Ulum, 2013), Pulic established the Value Added Intellectual Coefficient (VAIC) approach in 1997 to offer information on the value generation efficiency of a company's tangible and intangible assets. The VAIC is a tool for assessing the performance of a company's intellectual capital. Because it is built from the accounts in the company's financial records, this method is quite simple and straightforward (balance sheet, profit and loss). The VAIC method measures the efficiency of three types of company inputs, namely VACA, VAHU and STVA.

Intellectual Capital may have a large impact on the company's market success, according to several studies on intellectual capital, including Pulic (2000). According to Shiri et al. (2012), VAIC has a considerable impact on firm performance, as reported by Chen (2005), Appuhami (2007), Diez at al (2010), and Mehrelian et al (2012) showed that VAIC has no impact on performance.

In addition to human resource development, Islamic banks also face challenges in risks that are closely related to their function as financial intermediary institutions. The rapid development of the external and internal environment of Islamic banking has resulted in increasingly complex risks for sharia banking business activities. Banks are required to be able to adapt to the environment through the implementation of risk management by following under Sharia Principles. The risk management principles applied to Islamic banking in Indonesia are directed in line with the standard rules issued by the Islamic Financial Services Board (IFSB).

The implementation of risk management in Islamic banking is adjusted to the size and complexity of the business as well as the Bank's capabilities. Bank Indonesia stipulates this risk management rule as a minimum standard that must be met by BUS and UUS so that Islamic banking can develop it according to the needs and challenges faced but still be carried out in a healthy, consistent, and in accordance with Sharia principles.

Risk management increased business value, according to Lechner and Philipp (2017); Horvey & Ankamah (2020); and organizations who use risk management outperform those that do not. Although (Saptana et al., 2020) claim that risk management has a positive and considerable impact on business value but no impact on investment choices.

Islamic banking is a financial institution that runs its business according to sharia, where the operational form follows sharia rules by following under Islamic economic law.9 In Indonesia itself, apart from obligations that are religious in nature, zakat obligations are constitutional or legal mandates, where every object of the company should carry out zakat. This is as clearly stated in Law no. 38 of 1999 concerning the management of zakat, that companies as objects or assets are subject to zakat (chapter IV article 11 paragraph (2) part (b). The fact that every company should carry out multiple social responsibilities, in the form of CSR on the one hand, and issuing zakat on the other. other.

Many research on zakat have been conducted, including Romzie et al. (2019), which found that zakat has a favorable impact on financial performance, Saima et al. (2017, which found that zakat has a beneficial impact on the performance of non-financial enterprises in Saudi Arabia), and others. According to Waddock and Graves (1997) and Preston and O'Bannon (1997), CSR as assessed by Zakat has a favorable impact on business success. Zakat has little impact on business performance, according to Syurmita et al (2020) and Yusuf et al (2022).

The objective of this study is to experimentally demonstrate how liquidity risk, which is tempered by the variable Zakat Performance Ratio, and Intellectual Capital, which includes (VACA, VAHU, and STVA), affect the financial performance of Islamic banks (ZPR). In particular, variables affecting the company's financial performance in terms of intangible assets are expected to be addressed through theoretical research to advance ideas in financial management. For the management of Islamic banks, investors, and the general public, practical

advantages are anticipated as a source of information in making choices connected to the company's financial performance.

1.1 Resource-Based Theory

The Resources Based Theory (RBT), which was initially proposed by Wernerfelt (1984), was devised to characterize a firm advantage. According to RBT, a company will have a competitive advantage if it possesses professional resources that are not available to other companies. When a company's performance is directly influenced by its goods, it is also indirectly influenced by resources that are used in the production process, according to Wernerfelt (Newbert, 2007). Then, according to Barney (1991), corporate resources comprise all of the corporation's assets, capacities, organizational procedures, company traits, and information.

1.2 Signaling Theory

The main goal of signaling theory is to reduce the asymmetry of information between the principal and the agent (Spence: 2002). How to solve issues brought on by information asymmetry is the focus of this theory. According to this hypothesis, high-quality firms would also tend to advertise their superiority to the market so that stakeholders and investors will raise the company's value and then decide on actions that will be more beneficial for the company (Whiting and Miller: 2008). Companies with a strong Intellectual Capital basis will stand out from lesser-quality enterprises thanks to IC disclosure. Publication of IC signals, such as through annual reports, will help the business by enhancing its reputation and luring prospective investors.

1.3 Agency Theory

The primary (the consumer) and the agent in this research are the two parties that are the focus of agency theory (Islamic bank). According to Jensen and Meckling (1976), an agency relationship is a contract between an agent and one or more principals that deals with the agent's delegation of responsibility to make decisions on behalf of the principle. Agency theory aims to assess and distribute outcomes in accordance with the agreed-upon work contract (Raharjo, 2007).

1.4 Intellectual Capital

It is well known that IC may boost the earnings of businesses whose revenues are impacted by innovation and knowledge-intensive services. Due to the fact that it comprises intangible assets that are used to calculate the company's worth, intellectual capital (IC) is seen as being valuable and should be reported and discussed. In order to fulfill the demands of information consumers and reduce information asymmetry between the two, the company's management also believes that intellectual capital disclosure is essential.

Although there is no consensus in the literature on the dimensions of intellectual capital, many authors consider that there are three dimensions, (Bontis, 1998; Roos et al., 1997; Sveiby, 1997; Edvinsson and Malone, 1997; Vergauwen, 2007): human capital, relational capital, and structural capital. reed et al. (2006) and Subramaniam and Youndt (2005) adopted a similar

classification, proposing that IC consists of three basic components: human, organizational, and social capital.

According to Sawarjuwono (2003), there are two categories of IC measuring techniques: non-monetary measures and monetary measurements. The Kaplan and Norton Balanced Scorecard is one tool for assessing IC with a non-financial evaluation, whereas the Pulic model known as VAICTM is one tool for measuring IC with a financial evaluation (value-added intellectual coefficient). In 1998, Pulic developed the "value added intellectual coefficient" (VAICTM) for measuring intellectual capital. The VAICTM approach is developed to offer data on how effectively firms create value from their tangible and intangible assets.

The Pulic (1998) technique for measuring intellectual capital is intended to give details on how well the company's tangible and intangible assets create value. To gauge a company's IC, Pulic created the "Value-Added Intellectual Coefficient" (VAICTM). Pulic concentrates on two additional crucial valuation and value-creation issues that have not been resolved by other approaches: 1) Businesses that are not traded on a stock exchange cannot be included in the calculation of market-based IC. There is a lack of a sufficient method for assessing the effectiveness of the existing business operations carried out by employees, which is why these organizations require new approaches to define market-based IC.

Three types of knowledge are included in IC: knowledge pertaining to workers (also known as human capital), information pertaining to customers (also known as customer or relational capital), and knowledge pertaining only to the corporation (referred to as structural or organizational capital). For the business, these three elements make up its intellectual capital ((Ulum, 2009). One of these is the measuring technique created by Pulic (1998), which use the Value Added Intellectual Coefficient to infer intellectual capital. The ability of the company to produce value is demonstrated by value added, which is the most objective metric for measuring business success (Pulic, 1998). The Value Added Intellectual Coefficient is made up of three parts. The first is physical capital, which is represented by the variable (VACA) - Value Added Capital Employed, and he second is human capital in the variable denoted by (VAHU) – Value Added Human Capital, and the third is Structural Capital Value Added (STVA).

1.5 Liquidity Risk

The bank's capacity to satisfy its commitments (both actual and perceived) threatens its financial position or survival, which is referred to as liquidity risk. Lack of liquidity in banks will hurt not only the bank but also the financial system as a whole, thereby reducing public faith in the banking sector. Liquidity risk management refers to the processes and strategies used by banks to:

1) Assess their ability to meet cash flow and collateral requirements (under normal and depressed conditions) without negatively impacting day-to-day operations or overall financial position; and 2) mitigate liquidity risk.
2) Reduce these risks by formulating strategies and taking appropriate steps to guarantee that the required cash and collateral are accessible when needed.

1.6 Zakat Performance Ratio (ZPR)

The Zakat Performance Ratio is part of a new measurement for Islamic banks called the Islamicity Performance Index developed by Hameed et al (2004), which is one method that can evaluate the performance of Islamic banks not only in terms of finance but also in terms of the principles of justice, halal, and purification (tazkiyah) carried out by Islamic banks. This index supports stakeholders by enabling depositors, shareholders, religious groups, governments, and others in evaluating the performance of Islamic financial institutions. Profit sharing ratio (PSR), zakat performance ratio (ZPR), equitable distribution ratio (EDR), directors employees welfare ratio (DER), Islamic investment against non-Islamic investment, and Islamic income versus non-Islamic income are all indicators in the Islamicity Performance Index.

1.7 Financial performance

The financial performance of the bank is a component of the overall performance of the bank. The bank's overall performance is a summary of the bank's successes in its operations, including finance, marketing, fundraising and distribution, technology, and human resources. Financial performance is one of the performance assessments that may be done to establish the bank's soundness. The soundness of a bank is determined by evaluating capital considerations, asset quality, management, profitability, liquidity, and market risk sensitivity.

To assess the financial performance of commercial banks, including conventional and Islamic. Return on Assets (ROA) is one of the measures used to evaluate banks' profitability. Return on Assets is one of the metrics used to assess a company's success, according to (Kashmir, 2014: 202). According to Bank Indonesia Circular Letter Number 15/29/DKBU dated July 31, 2013, Return on Assets (ROA) is a ratio used to gauge the ability of bank management to produce overall profits by dividing profit before tax by average total assets. This ratio is critical for banks to monitor efficiency in the utilization of assets to produce profits.
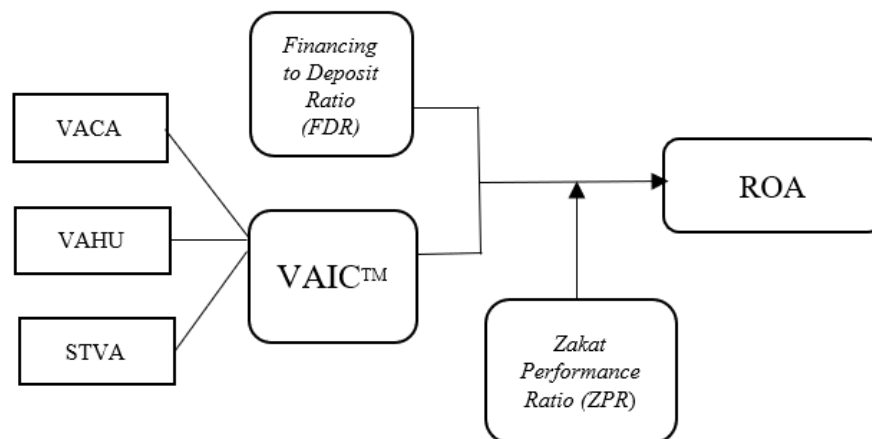
1.8 Research Concept Framework

Fig. 1. Concept Framework

Based on the research concept above, the following hypothesis is formulated:

H1 : Intellectual Capital has an effect on Return on Assets

H2 : Financing To Deposit Ratio has an effect on Return on Assets

H3 : Zakat Performance Ratio moderates the relationship between Intellectual Capital and

   Return On Assets

H4 : Zakat Performance Ratio moderates the relationship between Financing to deposit

   Ratio And Return On Assets

2 Research Methods

2.1 Population and Sample

The population used in this study were all Islamic banks in Indonesia. Sampling technique Using a purposive sampling technique, Islamic Commercial Banks as a sample of 13 companies with 52 samples of the observation period from 2017-2020.

2.2 Measurement of Research Variables and Operational Definition of Variables

Dependent Variabel : Return on Assets /ROA (Y). ROA is calculated by dividing net income by the average total assets of the company. The higher the ROA value, the more efficient the company is in using its assets. This means that the company can generate more money (earnings) with less investment, in Satiti (2013). The formula for calculating ROA is (Hanafi, 2014:42)

$$\text{ROA} = \frac{\text{Net Profit}}{\text{Total Aset}} \qquad (1)$$

Independent Variable. The independent variables are calculated in the first step of this research. In this study, the independent variable is intellectual capital, which is measured using Intellectual Capital Value Added (VAIC) with three components, namely Value Added Capital Employed (VACA), Value Added Human Capital (VAHU), and Structural Capital Value Added (STVA). measured as the difference between output and input:

$$\text{VA} = \text{OUT - IN} \qquad (2)$$

Information:

OUT = Output, total revenue.

IN = Input, operating/operational expenses and non-operational expenses except for personnel/employee expenses.

Calculating Value Added Capital Employee (VACA). Value Added Capital Employed (VACA) is an indicator of the value-added efficiency of Capital Employed (CE). VACA describes how much added value the company generates by using physical capital. VACA is the ratio of VA to CE (Pulic, 1999) in (Ulum, 2009). The formula for calculating VACA is:

$$VACA = \frac{VA}{CE} \tag{3}$$

Information:

VACA = *Value Added Capital Employed*

VA = *Value added*

CE = Capital Employed: available funds (equity and net income)

Calculating Value Added Human Capital (VAHU). Value Added Human Capital (VAHU) is a measure of the efficiency of value-added human capital. VAHU is the ratio of Value Added (VA) to Human Capital (HC). According to (Ulum, 2009), Human Capital (HC) is defined by the employee spending account. This connection highlights human capital's ability to produce value in an organization. VAHU may alternatively be viewed as the company's capacity to produce additional value for every rupiah invested on human capital. VAHU calculates how much Value Added (VA) can be created with the costs spent on labor. According to Ulum (2009), the following formula is used to calculate VAHU:

$$VAHU = \frac{VA}{HC} \tag{4}$$

Information:

VAHU = Value Added Human Capital

VA = *Value added*

HC = *Human Capital*: employee expense

Calculating Value Added Structure Capital (STVA). The value-added efficiency of structural capital is measured by structural capital value added (STVA). STVA calculates the amount of SC required to create one rupiah of VA and indicates how successful SC is at value generation. STVA is the SC/VA ratio (Pulic, 1999). (Ulum, 2009). STVA is calculated using the following formula:

$$STVA = \frac{SC}{VA} \tag{5}$$

Information:

STVA   =Structural Capital Value Added

SC   =Structural Capital: VA - HC

VA   =Value added

Calculating the Value Added Intellectual Coefficient(VAIC™). Following the calculation of the three components listed above, the next stage is to determine how much intellectual capital is created, which indicates the company's intellectual aptitude. The aggregate of the three components is known as intellectual capital (IC) with indicators(VAIC™).

$$VAIC^{TM} = VACA + VAHU + STVA \tag{6}$$

Financing to Deposit Ratio (FDR). Financing to Deposit Ratio (FDR) is a ratio that compares the quantity of credit granted to the amount of public money and own capital utilised. This ratio is determined using the following formula:

$$FDR = Total\ Financing\ /\ Third\ Party\ Funds \tag{7}$$

Moderating Variables: Zakat Performance Ratio (ZPR). The Zakat Performance Ratio (ZFR) measures the value of zakat issued to total assets possessed. The formula for calculating the Zakat Performance Ratio (ZPR) is as follows:

$$ZPR = Total\ Zakat\ /\ Total\ Assets \tag{8}$$

2.3 Data Analysis Techniques

Descriptive Analysis. The purpose of this descriptive analysis is to provide a description (description) of the data so that the data presented is easy to understand and informative for those who read it. Descriptive statistics explain various data characteristics such as the average (mean), the number (sum) of standard deviations (standard deviation), variance (variance), range (range), minimum and maximum values and so on.

Classic assumption test

Normality test. The normality test aims to test whether in the regression model, the dependent variable, the independent and moderating variables have a normal data distribution or not. In this study, the normality of the data was tested using statistical test analysis with Kolmogorov-Smirnov Z (1-Sample KS). The basis for decision making in the Kolmogorov-Smirnov Z analysis (1-Sample KS) is (Ghozali, 2012):

a. If the Asymp value. Sig. (2-tailed) is less than 0.05, then Ho is rejected. This means that the residual data is not normally distributed.

b. If the Asymp value. Sig. (2-tailed) is greater than 0.05, then Ho is accepted. This means that the residual data is normally distributed

Multicollinearity Test. Multicollinearity occurs when there is a relationship between the independent variables (independent). In this situation, multicollinearity is indicated by a linear relationship between the independent variables and the moderating variable in the regression model. The tolerance value and its inverse, the Variance Inflation Factor, can be used to determine the existence or absence of multicollinearity in a regression model (VIF). The tolerance value 0.10, which is the same as the VIF value > 1, is typically used to indicate the presence of multicollinearity.

Autocorrelation Test. The autocorrelation test determines if there is a link in the linear regression model between the confounding error in period t and the confounding error in period t-1 (before) (Ghozali, 2013). Autocorrelation was assessed using a run test in this study. If there is no association between the residuals, the residuals are considered to be random. The run test is used to determine if the residual data occurs at random or not (systematically).

Ho: residual (res_1) random (random)

Ha : residual (res_1) is not random variable

Heteroscedasticity Test. The Heteroscedasticity test is used to determine if the regression model has changes in residual variance from one observation case to the next. If the residual variance from one observation instance to the next has a fixed value, it is termed homoscedasticity; if there is a difference, it is called heteroscedasticity. A decent regression model is one with homoscedasticity rather than heteroscedasticity. The graph plot between the predicted value of the dependent variable (ZPRED) and its residual is used to determine the presence or absence of heteroscedasticity (SRESID). The following is the analyses' foundation:

a. If there is a certain pattern, such as dots that form a regular pattern (wavy, widen then narrowed), then it indicates that heteroscedasticity has occurred.

b. If there is no clear pattern. And the points spread above and below the numbers on the Y axis, so there is no heteroscedasticity.

2.4 Moderated Regression Analysis

MRA is an extended regression model used by researchers to assess the alignment of the correlation matrix with two or more causal connection models. The Zakat Performance Ratio factors modify the link between the Financing to Deposits Ratio, Intellectual Capital, and Return on Assets in this test. The MRA coefficient is represented by an output termed the coefficient, which is expressed as a standard coefficient or known as the Beta value, particularly in the SPSS software with the regression analysis option (Rochaety et all, 2007).

The goal of MRA is to evaluate whether the moderating variable will increase or diminish the association between the independent variable and the dependent variable. The moderating variable in this study is contained in the Pseudo Moderation Variable (Quasi Moderator). Because the moderating variable interacts with both the independent variable and the independent variable. The MRA (Moderated Regression Analysis) Model is as follows:

Model 1 . Regression Equation

$$Y = a + 1X1 + 2X2 + e \qquad (9)$$

Model 2 Regression Equation (MRA):

$$Y = a + 1X1 + 2 (X1*Z) + e \qquad (10)$$

Model 3 Regression Equation (MRA):

$$Y = a + 1X2 + 2 (X2* Z) + e \qquad (11)$$

Information:

Y   = ROA (Return on Assets)

a   = constant

1- 2   = regression coefficient

X1   = VAIC™ (Value Added Intellectual Coefficient)

X2   = FDR (Financing to Deposit Ratio)

Z   = ZPR (Zakat Performance Ratio)- Moderating Variable

e   = error

2.5 Hypothesis test

The suggested hypothesis testing approach is a substantial examination of individual parameters.

Major Individual Parameter Significant Test (Test Statistical t). Individual Parameter Significant Test (Test Statistical t) was used to determine if the independent variables had a significant or no influence on the dependent variable independently or partially (Ghozali, 2016). To examine the influence of each independent variable on the dependent variable, the t-test was utilized. The following are the test criteria:

1) If t count > t table or Sig 0.05, then Ha is accepted and Ho is rejected, and the independent variable influences the dependent variable.
2) If t count, t table, or probability exceeds the significance threshold (Sig > 0.05), Ha is rejected and Ho is approved as the independent variable.

Modified Regression Analysis (MRA). Interaction Test The interaction test, also known as Moderated Regression Analysis (MRA), is a subset of linear multiple regression in which the regression equation includes an interaction element (multiplication of two or more independents) to determine whether the moderating variable will strengthen or weaken the relationship between the independent and dependent variables. 2016 (Ghozali).

3 Results and Discussion

3.1 Descriptive Analysis

The purpose of this descriptive analysis is to provide a description (description) of the data so that the data presented is easy to understand and informative for those who read it. Descriptive statistics explain various data characteristics such as the average (mean), the number (sum) of standard deviations (standard deviation), variance (variance), range (range), minimum and maximum values and so on.

Table 1. Descriptive Statistical Test Results

Descriptive Statistics

	N	Minimum	Maximum	mean	Std. Deviation
VAIC	52	-5.16	3.87	1.6179	1.58507

FDR	52	.43	5.01	1.0069	.83026
ZPR	52	.01	2.42	.1944	.64883
ROA	52	.02	13.58	2.3627	3.62006
Valid N	52				

Source: Processed data (2022)

The following information is derived from the descriptive statistical test results in the table above: The Intellectual Capital variable, as proxied by the Value Added Intellectual coefficient (VAIC), has a range of values ranging from -5.16 to 3.87, with an average value of 1.62 and a standard deviation of 1.58. The variable Financing to Deposit Ratio (FDR) has a value of 0.43 and a maximum value of 5.01, with an average of 1.06 and a standard deviation of 0.83. Variable Zakat Performance Ratio (ZPR) with a minimum of 0.01 and a high of 2.42, an average of 0.19, and a standard deviation of 0.64. While the Return on Assets (ROA) variable has a minimum value of 0.02 and a maximum value of 13.58,

3.2 Classic assumption test

Normality test. A normality test is a test used to determine if our study data originates from a normal population. The normality test determines whether or not the data utilized is regularly distributed (Sanusi, 2016). Table 4 displays the results of the normality test of the variables used in this study using the Kolmogorof Smirnov test.

Table 2. Normality Test Results

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		52
Normal Parameters, b	mean	.0000000
	Std. Deviation	1.51572806
Most Extreme Differences	Absolute	.091
	Positive	.088
	negative	-.091
Test Statistics		.091
asymp. Sig. (2-tailed)		.200c,d

Source: Processed data (2022)

In the table above, the results of the normality test using the Kolmogorov-Smirnov test reveal that the value of Kolmogorov-Smirnov Z on Y is 0.091 with a significant value of 0.200, which signifies > 0.05. These findings indicate that the residual data acquired from all variables is regularly distributed.

Multicollinearity Test. The Multicollinearity test determines if the regression model discovered a relationship between the independent variables (independent). To discover the existence or absence of multicollinearity, the analytical model is regressed and the correlation between independent variables is tested using the Variance Inflating Factor (VIF) and Tolerance Value (TV). If the VIF value is greater than 10 and the TV value is less than 0.1, the relationship is considered a multicollinearity problem and must be eliminated from the model (Ghozali, 2011). The following are the findings of this study's multicollinearity test:

Table 3. Multicollinearity Test Results

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
Ln_X1	.989	1.011
Ln_X2	.959	1.042
Ln_z	.967	1.034

Source: Processed data (2022)

According to the multicollinearity test table above, all variables have tolerance values more than 0.1 and VIF values greater than 10. As a result, there are no indications of multicollinearity between independent variables in the regression equation.

Heteroscedasticity Test. The heteroscedasticity test is used to assess whether or not there is a divergence from the traditional assumption of heteroscedasticity, meaning the existence of variance inequality from residuals for all experiences in the regression model. Testing for heteroscedasticity involves examining the existence or absence of a certain pattern on the graph (Y forecast minus the actual Y) that has been researched (Ghozali, 2011). The heteroscedasticity test was performed in this study utilizing a scatterplot graph to see whether there was a pattern between the dependent variable (ZPRED) and the independent variable (SRESID). In this investigation, the scatterplot graph is as follows:
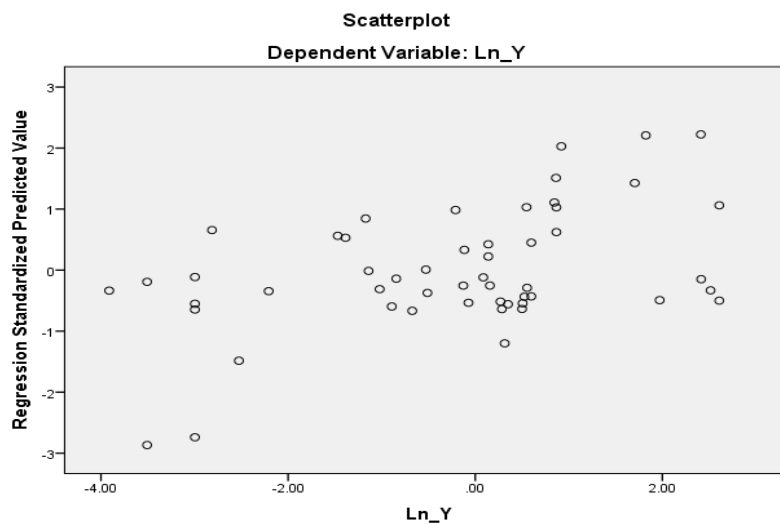

Fig. 2. Results of Heteroscedasticity test (Scatterplot Diagram)

The findings of the heteroscedasticity test with a scatter plot may be observed from the pattern of dots that spread randomly both above and below the number 0 and the Y axis in the image above, indicating that there is no heteroscedasticity.

Next, using the Glacier test, the significant value of each variable is larger than 0.05, indicating that there is no heteroscedasticity, as shown in the table below:

Table 4. Results of Heteroscedasticity Test (Gletser)

Coefficients

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.032	.642		.051	.960

VAIC_X1	.120	.346	.048	.348	.729
FDR_X2	-197	.347	-.080	-.567	.574
ZPR_z	.847	.417	.286	2.035	.057

a. Dependent Variable: abs_res1

Source: Processed data (2022)

Autocorrelation Test. The Autocorrelation test is used to examine whether there is a correlation between the present and prior confounding errors in the linear regression model. The lack of autocorrelation in the linear regression model is a requirement that must be satisfied. An autocorrelation problem occurs when there is a correlation (Ghozali, 2011).

Table 5. Autocorrelation Test Results

Runs Test

	Unstandardized Residual
Test Value	.15153
Cases < Test Value	26
Cases >= Test Value	26
Total Cases	52
Number of Runs	24
Z	-.840
asymp. Sig. (2-tailed)	.401

Source: Processed data (2022)

Based on the autocorrelation test findings utilizing the Runs Test, a significant value of 0.401 or more than 0.05 was achieved, indicating that there is no autocorrelation problem.

3.3 F-Test

Feasibility Test or F-Test This model is used to determine whether or not the model is Fit. If the F test has a significance value of 0.05. As a result, the model provided in this study is deemed practical or fit.

Table 6. Results of F-Test

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25,180	2	12,590	4.929	.011b
	Residual	125.156	49	2,554		
	Total	150,336	51			

Source: Processed data (2022)

Based on the F test findings, a significant value of 0.011 or less than 0.05 was achieved, indicating that this research model is practical or fit.

3.4 Coefficient of Determination Test (R^2)

The coefficient of determination test (R^2) attempts to quantify how well the model can explain the fluctuation of the dependent variable. If R^2 is near to one, the independent variable in the regression model has a greater ability to explain the variance of the dependent variable. In contrast, if R^2 is near to zero, the weaker the fluctuation of the independent variable explains the variation of the independent variable (Ghozali, 2011). The R^2 test results are presented in the table below.

Table 7. Coefficient of Determination Test Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.472a	.223	.138	1.59378

Source: Processed data (2022)

The results of the coefficient of determination (Adjusted R2) calculation in the table above were 0.223. This demonstrates that the independent variable has a 22.3% ability to explain the variation of the dependent variable, whereas the remaining 77.7% is explained by other variables or factors.

3.5 Result of MRA Analysis

This technique is used to partially evaluate the regression coefficients and independent variables, or to see whether each independent variable has a significant influence on the dependent variable.

Table 8. MRA Test Results

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.435	2.458		.991	.327
	VAIC_X1	-1,671	.577	-.383	-2.894	.006
	FDR_X2	1,139	.573	.264	1987	.053
	ZPR_z	-4.127	23250	-.794	-177	.860
	X1.Z	.497	1,407	.089	.354	.725
	X2.Z	3.213	28,898	.487	.111	.912

Source: Processed data (2022)

The moderating regression equation may be derived from the table above as follows:

$$Y = 2.435 - 1.671X1 + 1.139X2 + -4.125Z + 0.497(X1-Z) + 3.213(X2-Z) \tag{12}$$

With a p value of 0.006 0.05 and a coefficient value of -1.671, it can be stated that H0 is rejected, indicating that there is an influence between the Intellectual Capital variable and Return on Assets. With a coefficient value of 1.139 and a p-value of 0.053 > 0.05, it may be inferred that H0 is accepted, implying that the variable Financing to Deposit Ratio has no impact on Return on Assets. With a p-value of 0.725 > 0.05, the moderated regression coefficient between Zakat Performance Ratio and Intellectual Capital is 0.497. As a result, H0.3 is accepted, indicating that the Zakat Performance Ratio variable cannot influence the link between Intellectual Capital and Return on Assets.

3.6 Discussion

The Effect of Intellectual Capital on Return on Assets Kinerja Performance. According to the results of the tests, Intellectual Capital (VAICtm) had a negative and significant influence on the financial performance (ROA) of Islamic banks, as evidenced by a significance value of 0.0060.05. The findings of this study back up the findings of Untara and Mildawati (2014), who discovered that value-added human capital had a detrimental impact on performance.

The findings of this study reveal that Islamic banks' intellectual capital capacities have not been able to fully enhance their financial performance; this condition is also attributable to the reduction in Islamic bank performance caused by the COVID-19 pandemic.

Effect of Financing to Deposit Ratio (FDR) on Return on Assets. According to the results of the assessment of the influence of Islamic bank liquidity (FDR), there is no significant effect on financial performance (ROA), as evidenced by a significance value of $0.053 > 0.05$. These findings complement the findings of Aulia et al (2021), who discovered that the Financing to Deposit Ratio had no effect on financial performance. This circumstance was also created by the non-maximum distribution of Islamic bank funding as a result of the COVID-19 epidemic, which led practically all sectors, including the banking sector, to perform poorly.

The Effect of Intellectual Capital on Return on Assets with Zakat Performance Ratio as a Moderating Variable. According to the table above, the results of the interaction test between the intellectual capital variable (VAIC) and financial performance (ROA) that are moderated by the Zakat Performance Ratio (ZPR) variable are not significant, or the significance value of 0.725 is greater than 0.05, implying that the Zakat variable Performance Ratio (ZPR) is unable to moderate the interaction relationship between Intellectual Capital (VAICtm) and Financial Performance (ROA). The findings of this study reveal that Islamic banks' intellectual capital capacities have not been able to maximize their financial performance; this situation is also caused by a drop in Islamic bank performance as a result of the covid 19 epidemic.

Effect of Financing To Deposit Ratio (FDR) on Return on Assets with Zakat Performance Ratio as Moderating Variable. The interaction test results between Financing to Deposit Ratio (FDR) and Financial Performance (ROA) moderated by the Zakat Performance Ratio (ZPR) variable are also not significant, or the significance value of 0.912 is greater than 0.05, implying that the Zakat Performance Ratio variable (ZPR) is unable to moderate the interaction relationship between Financing to Deposit Ratio (FDR) and Financial Performance (ROA) of Islamic banks. These findings explain why the zakat issued by Islamic banks has yet to be maximized, preventing it from being a positive signal for the public to transact at Islamic banks.

4 Conclusions and Suggestions

4.1 Conclusion

According to the test results, Intellectual Capital (VAIC) has a negative influence on financial performance, however the variable Financing to Deposit Ratio (FDR) has no effect on the financial performance of Islamic banks. The Zakat Performance Ratio (ZPR) variable does not moderate the interaction relationship between Intellectual Capital (VAICtm) and Financial Performance (ROA), nor does it influence the interaction connection between Financial to Deposit Ratio (FDR) and Financial Performance (ROA).

This study has limitations, including data anomalies over a certain time period, namely 2019 and 2020, as a result of the covid 19 epidemic, which causes a fall in performance across all sectors, including the banking industry.

4.2 Suggestion

It is necessary for Islamic banks to further improve the capability of Human Resources so that it will become a plus for Islamic banks in serving the community, as well as Islamic banks to

increase the company's Zakat payments so that it will be a strong signal for the public to be more confident in transacting with Islamic banks.

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