

# THE ANALYSIS OF INTELLECTUAL CAPITAL AND AVERAGE GROWTH ON THE PERFORMANCE OF SHARIA BANKS

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## Abstract

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The swift growth of Indonesian Sharia banks in recent decades has necessitated ongoing performance enhancements to establish effective and robust Sharia banking. The study looks into the relationship between average growth of intellectual capital growth (ROGIC) and intellectual capital (IC) and how it affects the operations of Sharia banks using Indonesia's Islamic performance index (IPI). The profit-sharing ratio (PSR) is used in this study as a stand-in for the Islamic performance index. From 2018 to 2022, the study used a purposive selection technique using 10 Sharia banks. Bank performance is significantly impacted by the average growth of intellectual capital, and Sharia bank performance is significantly impacted by intellectual capital as measured by the Islamic performance index and the PSR, according to research employing multiple regression analysis techniques. An intangible asset that is essential to increasing competitiveness and providing value is an organization's intellectual capital because of the positive correlation between the Islamic performance index. Additionally, when the value of the Islamic performance index rises in parallel with the average development of intellectual capital, Sharia bank performance improves.

**Keywords:** Intellectual Capital, Islamic Performance Index, Average Growth of Intellectual Capital, ROGIC

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## 1. INTRODUCTION

A phenomenon that has occurred in recent decades is the rapid development of Sharia banks in Indonesia. Therefore, Sharia banking needs to continue to improve its performance to create efficient and healthy Sharia banking (Akkas & Asutay, 2022). Sharia banks need to continue to improve their performance for several crucial reasons. Sharia banks need to ensure that they can meet customer needs well. The government demonstrates its dedication to growing the halal

sector. Human resources with expertise in the subject of Sharia banking are required to manage Sharia banks effectively. The primary cause of the hindered increase in performance in Sharia banking is the dearth of human resources with Sharia banking expertise.

Banks that use Sharia banking can function better if they switch from labor-based management to knowledge-based management (Akkas & Asutay, 2023). The Industrial Revolution 4.0 supports this, namely that companies must have quality and competent human resources. It is anticipated that

the organization will function well with strong human resource skills (Asutay & Ubaidillah, 2023). Accounting classifies human resources as intangible assets. When evaluating and quantifying intangible assets, one method is to use intellectual capital, IC (Azzahra, 2020).

According to Chinnsamy et al. (2024), intellectual capital refers to knowledge assets, intellectual property, and intellectual assets that may be seen as shares or capital depending on the knowledge that the business has. A person's expertise that may help a business gain a competitive edge is known as intellectual capital (Dang et al., 2019). Knowledge, skill, intellectual property, brand, reputation, and customer connections are examples of intellectual capital (Dwiputri, Suyuno, & Laksana, 2023).

Therefore, businesses must be able to maximize the management of current resources for each individual in order to improve corporate value and outperform competitors (Dwiputri, Suyono, & Laksana, 2023). There is a positive correlation between past success and future performance because organizations with consistently growing intellectual capital demonstrate better performance (Hersugondo et al., 2021).

One metric used to assess Sharia banking success is intellectual capital. To gain the trust of stakeholders, the development of Sharia banks must be accompanied by good performance developments. Sharia principles must be used to evaluate the performance of Sharia banks (Putri et al., 2023). The success of Sharia banks may be evaluated using the Islamic performance index (IPI), which serves as a substitute for the profit-sharing ratio (PSR). This research has been conducted in both traditional and Sharia financial institutions as well as the services sector, as carried out by Shaferi et al. (2018) and Shaferi et al. (2020).

Intellectual capital as well as average growth of intellectual capital (ROGIC) are two interesting indicators of Sharia bank performance. This is because there are still not enough persons who are knowledgeable and skilled in Sharia banking. There are still many human resources who manage Sharia banking with the knowledge and competence of conventional banks.

Knowledge, creativity, and experience are examples of the intangible assets that make up an organization's intellectual capital. When it comes to adding value and boosting a company's competitiveness, intellectual capital is crucial. The average increase of intellectual assets during a certain time period is measured by the average growth of intellectual capital. According to Chen et al. (2005), the average growth of intellectual capital measures how well a corporation can maintain and enhance its intellectual property. The secret to enhancing performance and offering clients better services in the context of Sharia banking is effective intellectual capital and average growth of intellectual capital management.

According to Ousama et al. (2020) and Nawaz et al. (2021), studies on intellectual capital in small and medium-sized enterprises (SMEs) have not received much attention from researchers, because they focus more on large companies. Because SMEs and small businesses have simpler organizational structures and more robust internal social networks

than huge corporations, they differ from large businesses in how they manage knowledge.

Most small businesses only exist in the market for a few years, even though SMEs and small corporations are crucial to the global economy. The findings of this study contradict prior research that suggests financial performance is unaffected by relational capital (RC), a component of intellectual capital (Prasojo et al., 2022; Rehman et al., 2022).

This study aims to investigate how Indonesian Sharia bank performance is affected by intellectual capital and the average growth of intellectual capital using the Islamic performance index.

The remainder of the paper is structured as follows. Section 2 reviews the literature. Section 3 presents the research methodology. Section 4 provides the research findings. Section 5 discusses these findings. Section 6 concludes the paper.

## 2. LITERATURE REVIEW

### 2.1. Resource-based theory

Resource-based theory (RBT) shows how businesses may use their current resources as effectively and efficiently as possible to have a competitive edge in the marketplace (Al-Musali & Ismail, 2014). Effective resource management may produce qualified personnel, which can set the business apart from its rivals and eventually result in high performance. RBT is concerned with how a business's assets produce a competitive edge (Laksana et al., 2023). Each resource is seen as contributing to the business's performance and strategic behavior, and the firm is seen as a well-coordinated collection of resources. RBT is predicated on three fundamental premises: resource heterogeneity, immobility, and imperfect imitability (Mawardi et al., 2022).

The company's human resources are one of the resources in this instance. Intellectual capital in human resources is one of the factors that might help a business develop added value (Prasojo et al., 2022). According to the RBT approach, businesses may fulfill their objectives — namely, making the most profit possible — and win a continuing competition by strategically managing and controlling their tangible and intangible assets (Rehman et al., 2022). Human capital, structural capital, and capital used are the three primary categories into which intellectual capital is divided as an intangible asset making effective efficient use of these three resources to raise business performance.

Numerous investigations have been conducted, although the outcomes have been inconsistent. The intellectual capital performance of Islamic banks has been studied by Rachmawati et al. (2020), Nawaz et al. (2021), and Haris et al. (2024), among others performing similar research.

### 2.2. Islamic performance index

A technique for assessing the performance of Islamic banks is the Islamic performance index (IPI) (Muhammad et al., 2021). In addition to financial considerations, IPI also takes into account the *halal*, *tazkiyah* (cleaning of assets), and justice principles that are upheld by Sharia banking. We may assess the success of Islamic banks in terms of profit

sharing, zakat, equitable distribution, salary comparisons between directors and employees, and halal and non-halal investments by utilizing the IPI. It guides Islamic banks to continue to improve their performance based on Islamic principles (Ousama et al., 2020).

Sharia bank financial performance measurement has a different nature from conventional banks. Therefore, performance measurement tools are needed that are by the nature of sharia banking. Sharia banking performance is gauged by the IPI. Hameed et al. (2010) created this measuring index. When calculating success, the Islamic success index takes into account both the material and spiritual facets of life. Sharia banking performance is determined by applying Sharia principles to the IPI (Sardo & Serrasqueiro, 2017).

Intellectual capital consists of an organization's knowledge, information, creativity, and experience. Employee competencies, procedures, and systems that uphold Sharia standards are all part of intellectual capital in the context of Islamic banking (Nawaz et al., 2021). The IPI is a technique that evaluates Islamic banks using a number of metrics. These metrics include the PSR, which indicates how the bank distributes profits to its clients; the zakat performing ratio, which assesses how well the bank manages zakat; and Islamic versus non-islamic income, or halal versus non-halal income (Shaferi et al., 2018).

Hameed et al. (2010) have developed an index that can be used to measure Sharia banking performance by the general characteristics of Sharia banks themselves. This index can be used to measure ratios that can reflect the business performance of Sharia banking (Sri et al., 2022). The PSR is one Islamic performance statistic that may be used to assess how well Sharia banks are performing. Sharia banks' effectiveness in accomplishing its objectives is measured by the PSR ratio. The PSR ratio describes the performance of Sharia banks in channeling funds to the public sector and provides information regarding the level of financing in Sharia banks (Sri et al., 2022).

### 2.3. The meaning of intellectual capital

Knowledge, information, invention, and experience that may be applied to generate income is known as intellectual capital. This is a body of practical knowledge or the combined force of reason. According to the International Federation of Accountants (IFAC), intellectual capital is made up of information that a business possesses in the form of knowledge assets, intellectual property, and intellectual assets. An organization's knowledge base, or intellectual capital, is an intangible resource that may improve the performance of the company. There are three main parts of intellectual capital (Vu et al., 2019), namely:

- 1) One important resource that may provide a firm with a competitive edge and enable it to compete and thrive in a fast-paced commercial climate is human capital (HC). Having knowledgeable staff members may boost business performance and guarantee the company's longevity.
- 2) An organizational capacity linked to optimizing corporate operations, intellectual output, and overall business success is known as capital structure (CS).

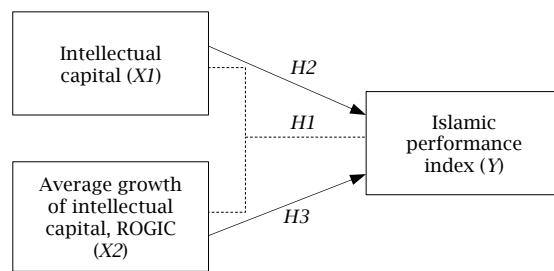
3) Relational capital (RC) or customer capital (CC) refers to the ongoing ties that a business has with its partners, including suppliers, customers, the government, and so on.

### 2.4. Value-added intellectual coefficient

The value-added intellectual coefficient (VAIC) is a technique for displaying data on how well a company's tangible and intangible assets create value that was created by Pulic (1998). The VAIC is one tool used to assess how well an organization's intellectual capital is performing. Its method's advantage is that it integrates data from several companies and sources, making the data easily accessible. Standard financial numbers are often obtained from corporate financial reports and are required to compute these different ratios determined by subtracting the input from the output, value added. Value added capital coefficient (VACA) refers to the second relationship between value added (VA) and capital employed (CA) that uses physical capital. It serves as a gauge for the additional value produced by a single physical capital unit.

Below is an example of the research framework that was applied in this study, namely:

Figure 1. Empirical model



### 2.5. Research hypotheses

The following are some possible theories for this study:

*H1: Sharia bank performance is impacted by both intellectual capital and average growth of intellectual capital (ROGIC), according to the Indonesian Islamic performance index.*

*H2: The Indonesian Islamic performance index indicates that Sharia bank performance is influenced by intellectual capital.*

*H3: The Sharia bank performance is influenced by the average growth of intellectual capital (ROGIC), according to the Indonesian Islamic performance index.*

## 3. RESEARCH METHOD

This research thoroughly examines the Islamic index performance using an explanatory technique. Multiple linear regression (MLR) was employed in the research employing multiple regression analysis tools and techniques. Statistical modeling is used to model the relationship between one dependent variable and two or more independent variables.

The approach facilitates comprehension of the relationship between changes in the independent and dependent variables. MLR testing and traditional assumption testing are also used in the study.

The following tests make up the traditional assumption test: normality, autocorrelation, multicollinearity, and heteroscedasticity.

The quantitative method used in this study illustrates the link between the variables. One kind of research methodology that emphasizes obtaining numerical data is called a quantitative approach.

The sample consists of 14 Sharia commercial banks that were registered with Bank Indonesia between 2018 and 2022. The sampling strategy utilized in this study was purposeful sampling. Ten Sharia banks are the samples that can be utilized in this study, depending on the sampling procedure. The financial reports and annual reports issued by Indonesia's Sharia banks were employed as research instruments in this study. Every variable has an associated computation.

The following are the indicators and calculation formulas:

$$VACA = VA/CE \tag{1}$$

The human capital coefficient (*VAHU*) displays the amount of added value that is spent on staff:

$$VAHU = VA/HC \tag{2}$$

The partnership between human capital (*HC*) and value added (*VA*) shows how valuable *HC* can be to a business. Finding out how structural capital (*SC*) contributes to value generation is the next stage. Pulic's (2008) concept defines *SC* as *VA - HC*. *SC* and *HC* have an inverse relationship. *SC*'s contribution to *VA* generation is measured by structural capital coefficient (*STVA*). The subsequent relationship is:

$$STVA = SC/VA \tag{3}$$

The value-added intellectual coefficient (*VAIC*) is a measure of an organization's intellectual capacity. *VAIC* can also be thought of as a business performance indicator (*BPI*).

$$VAIC = VACA + VAHU + STVA \tag{4}$$

Sharia bank performance may be impacted by the average growth of intellectual capital (*ROGIC*) in addition to intellectual capital. It follows that an average increase in intellectual capital will also positively affect future performance since companies with consistently growing intellectual capital often perform well.

$$ROGIC = VAIC_t - VAIC_{t-1} \tag{5}$$

In this study, the multiple regression model equation is:

$$IPI = \alpha + \beta_1 IC + \beta_2 ROGIC + \varepsilon \tag{6}$$

where *IPI* is the Islamic performance index;  $\alpha$  is constant;  $\beta_1, \beta_2$  are regression coefficients; *IC* is intellectual capital; *ROGIC* is the average growth of intellectual capital;  $\varepsilon$  is a standard error.

#### 4. RESULTS

To ascertain if the values of the residual data are regularly distributed, a normality test is conducted. To ascertain whether or not the data in a set of

variables or data is normally distributed, a statistical method known as the normality test is employed. The main goal is to ascertain if the collected data comes from a regularly dispersed population. According to the analysis's findings, the normality test analysis's findings are:

**Table 1.** Normality test results

Description		Unstandardized residual
N		49
Normal parameters <sup>a,b</sup>	Mean	0.00742
	Std. dev.	0.13860201
Most extreme differences	Absolute	0.170
	Positive	0.170
	Negative	-0.095
Kolmogorov-Smirnov Z		1.189
Asymp. Sig. (2-tailed)		0.118

Note: a. Test distribution is normal. b. Calculated from data. Source: Data processed, 2023.

Given that the one-sample Kolmogorov-Smirnov test technique yielded a result of 0.118 (Asymp. Sig. (2-tailed)) greater than 0.05, Table 1 indicates that the residual value is typical.

#### 4.1. Multicollinearity test

The multicollinearity test is a statistical technique used to determine if the independent variables in a regression model have a strong connection with one another. The aim is to find out if the independent variables significantly affect one another, as this might affect how the regression results are perceived. The results of the variance inflation factor (VIF) calculation may assess multicollinearity. There are no problems with multicollinearity in the regression if  $0.1 < VIF < 10$ . The multicollinearity test findings for this study.

**Table 2.** Multicollinearity test results

Model	Collinearity statistics	
	Tolerance	VIF
1	(Constant)	
	Lag_X1	0.512
	Lag_X2	0.563

Note: Dependent variable: Lag\_Y. Source: Data processed, 2023.

The VIF value of 2.312 is shown in Table 2 for the independent variables or average growth of intellectual capital (*X2*) and intellectual capital (*X1*). Consequently, multicollinearity between the independent variables in the research model is prevented, as there is no significant correlation or link between the independent variables used in this study.

#### 4.2. Heteroscedasticity test

Whether the variance of the residuals in a regression model is misaligned is ascertained using a statistical method known as the heteroscedasticity test. When there is variation in the residual variance (the difference between observed and projected values) between data in linear regression, this is known as heteroscedasticity. To ascertain if the residuals of one observation in the regression model differ in variance from those of another observation, the heteroscedasticity test is used. These are the results of the heteroscedasticity test conducted for this investigation:

**Table 3.** Variables in the model using all the independent variables

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.	
	B	Std. error	Beta			
1	(Constant)	0.101	0.020		5.026	0.000
	Lag_X1	-0.006	0.010	-0.121	-0.550	0.585
	Lag_X2	5.505E-006	0.006	0.000	0.001	0.999

Source: Data processed, 2023.

The significance level (Sig.) for variables X1 and X2 is, respectively, 0.585 and 0.999. The two independent variables have significance values greater than 0.05. This leads one to the conclusion that heteroscedasticity is absent from the regression model employed in this study.

### 4.3. Autocorrelation test

To ascertain if, in a linear regression model, the autocorrelation test is a statistical technique used to determine if confounding mistakes in period *t* and errors in period *t-1* (prior) are related. We have an issue with autocorrelation if there is a correlation. You may use the run test to perform the test autocorrelation. The findings are presented in Table 4.

Using an autocorrelation test with a significance value of 0.149 > 0.05, Table 4 results using the runs test show that the research model does not have autocorrelation.

**Table 4.** Autocorrelation test results

Description	Unstandardized residual
Test value	-0.00516
Cases < Test value	24
Cases ≥ Test value	25
Total cases	49
Number of runs	20
Z	-1.441
Asymp. Sig. (2-tailed)	0.149

Source: Data processed, 2023.

### 4.4. Multiple linear regression test

A statistical technique for simulating the relationship between one dependent variable and two or more independent variables is multiple linear regression (MLR). We consider the impact of several independent variables on the dependent variable in MLR analysis. The purpose of the MLR employed in this study is to ascertain how intellectual capital (X1) and its average growth (X2) affect Sharia bank performance as measured by the IPI. The following are the findings from the study's MLR analysis:

**Table 5.** Multiple linear regression test results

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.	
	B	Std. error	Beta			
1	(Constant)	0.198	0.031	7.584	0.000	
	Lag_X1	-0.042	0.025	-0.428	-3.184	0.006
	Lag_X2	0.027	0.012	0.231	2.122	0.057

Note: Dependent variable: Lag\_Y.

Source: Data processed, 2023.

The multiple linear regression equation derived from Table 5 is as follows:

$$IPI = 0.198 - 0.042IC + 0.027ROGIC + \varepsilon \quad (7)$$

where *IPI* is the Islamic performance index; *IC* is intellectual capital; *ROGIC* is the average growth of intellectual capital;  $\varepsilon$  is a standard of error.

The following is one approach to interpret the above multiple linear regression equation:

The constant coefficient has a positive value of 0.198, which indicates that if the average growth of intellectual capital (*ROGIC*) and all other intellectual capital variables are valued at zero, the Islamic performance index will be worth 0.198.

The regression coefficient for the intellectual capital variable is -0.042. The value of the Islamic performance index will drop by 0.042 for every 1% rise in the intellectual capital component, providing the other factors remain constant, according to the negative regression coefficient value.

The regression coefficient between the factors and the average growth of intellectual capital is 0.027. According to the positive regression coefficient value, the Islamic performance index value will rise by 0.027 for every 1% increase in the average growth of intellectual capital variable, providing that all other factors remain constant.

### 4.5. F-statistical test (simultaneous test)

The F-test is a statistical method used to determine whether independent variables together (simultaneously) influence the dependent variable in a linear regression model. We may observe how each independent variable affects the dependent variable by using the F-test. To demonstrate how independent factors collectively affect the dependent variable, the F-statistical test is utilized (Wahyudi et al., 2018). The criteria for accepting or rejecting a hypothesis are as follows.

When the significant value is less than 0.05,  $H_0$  is rejected and  $H_1$  is approved. This suggests that the dependent is impacted by the independent components simultaneously when taken as a whole.

$H_0$  is approved and  $H_1$  is rejected when the significant value is more than 0.05. This indicates that there is no joint, or simultaneous, influence between the independent factors and the dependent variable.

The following are the findings of the study's simultaneous significance test (F-statistical test).

**Table 6.** F-statistical test results (simultaneous test): ANOVA<sup>a</sup>

Model	Sum of squares	df	Mean square	F	Sig.	
1	Regression	0.137	2	0.068	3.174	0.040 <sup>b</sup>
	Residual	0.838	46	0.018		
	Total	0.042	48			

Note: a. Dependent variable: *Lag\_Y*.  
 b. Predictors: (Constant), *Lag\_X2*, *Lag\_X1*.  
 Source: Data processed, 2023.

Given that the significant value is less than 0.05 (0.030 < 0.05), Table 6 indicates that *H1* is accepted and *H2* is rejected. It may be concluded the average growth of intellectual capital (*X2*) and intellectual capital (*X1*), two independent variables may both simultaneously affect the dependent variable, the Islamic performance index of Indonesian Sharia banks between 2018 and 2022.

**Table 7.** Results of the t-statistical test (partial test)

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.
	B	Std. error	Beta		
1	(Constant)	0.198	0.031	7.584	0.000
	<i>Lag_X1</i>	-0.042	0.025	-3.184	0.006
	<i>Lag_X2</i>	0.027	0.012	0.364	2.122

Note: Dependent variable: *Lag\_Y*.  
 Source: Data processed, 2023.

The significance value of intellectual capital (*X1*) is 0.006. Given that the significant value is less than 0.05 (0.006 < 0.05), this suggests that *H1* is accepted. It is concluded that the Islamic performance index of Indonesia’s Sharia banks was significantly impacted by intellectual capital between 2018 and 2022.

The average significance value of the average growth of intellectual capital (*X2*) is 0.057. The Islamic performance index seems to be significantly impacted by the average growth of intellectual capital (ROGIC) in Indonesian Sharia banks between 2018 and 2022.

**5. DISCUSSION**

**5.1. The influence of intellectual capital on Sharia bank performance based on the Islamic performance index**

As determined by the Islamic performance index, which serves as a stand-in for the PSR, the findings demonstrate that intellectual capital significantly affects Sharia bank performance. The probability significance level of 0.008, which is less than 0.05, clearly indicates that *H1* is acceptable.

The results of this research are consistent with research by Chabachib et al. (2020) and Pratama et al. (2022) which shows that intellectual capital influences the performance of Sharia banks based on the Islamic performance index. According to the research findings, the level of intellectual capital will affect how well Sharia banks operate, as determined by the Islamic performance index.

According to the RBT approach, businesses that own or manage strategic assets — both real and intangible — can establish a sustained competitive advantage and maximize earnings. This theory indicates that a Sharia bank will be able to gain

**4.6. T-statistical test (partial test)**

To investigate the difference in mean values between two different groups, a statistical method known as the t-test is utilized. One helpful method in statistical analysis is figuring out whether differences between two groups are statistically significant or just the product of chance. The t-test may be used in a variety of contexts, including regression analysis. The t-statistical test, according to Wahyuni et al. (2023), shows how much an independent variable adds to the explanation of the dependent variable. If the significance level  $t < \alpha$ , it indicates that the dependent variable is influenced by the independent variable. The dependent variable is not impacted by the independent variable if the significance threshold  $\tau > \alpha$  (0.05). The findings of this study’s individual parameter significance test (t-statistical test).

a competitive edge and generate maximum profits if it can effectively oversee and make use of its intangible resources, including intellectual capital, well. Only then it can be said that the Sharia bank has performed well.

The value of the intellectual capital coefficient in this investigation is negative. A negative direction indicates that Sharia bank performance will decrease in the event of a rise in intellectual capital. This is consistent with the findings of the studies conducted by Chabachib et al. (2020) and Pratama et al. (2022). This implies that Sharia bank performance will decline as the company’s intellectual capital investment increases. This may result from a trade-off in the intellectual capital component or from the existence of a less productive kind of intellectual capital.

Sharia bank financial performance may suffer if they are not making the most of their intellectual capital, according to the PSR, a gauge of the Islamic performance index. This is because many human resources staff still have experience working with traditional banks, which means they do not fully comprehend Sharia banking. Because of this, even if Sharia bank has made significant investments in intellectual capital, its performance cannot be optimized. Not all investments in intellectual capital can provide profits.

**5.2. The influence of average growth of intellectual capital on Sharia bank performance based on the Islamic performance index**

The average growth of intellectual capital (ROGIC) has a significant impact on bank performance, according to the results. Sharia is based on the PSR, which serves as a stand-in for the Islamic performance index. A probability significance level of 0.046, which is less than 0.05 and indicates that

H2 is acceptable, shows this. The results of this research are consistent with research by Baroroh et al. (2023), Mawardi et al. (2020) which shows that the average growth of intellectual capital influences the performance of Sharia banks based on the Islamic performance index.

The average intellectual capital growth coefficient value in this study is positive. A positive trend suggests that as the average development of intellectual capital increases, Sharia bank performance will also increase. If Sharia banks can boost the expansion of their intellectual capital, they will perform better. To stay ahead of the competition, businesses need to be able to manage and grow their intellectual capital. Higher performance in the now and the future is correlated with the average growth of intellectual capital.

## 6. CONCLUSION

It is feasible to conclude that a company's intangible asset, known as intellectual capital, is crucial for generating added value and enhancing competitiveness based on the test findings and debate that have been presented. The knowledge, information, creativity, and intellectual experience that comprise intellectual capital are some of the key aspects to remember. These resources are used to build competitive advantages and add value for the organization. When it comes to banking, intellectual capital can also take the form of Sharia principles, which are the foundational knowledge of Sharia banks. The Islamic performance index, which is a proxy for the PSR, measures intellectual capital, which has a major influence on Sharia bank performance. Two variables have a negative relationship, meaning that the more intellectual capital invested, the lower. The performance of Sharia banks will suffer as a result of the Islamic performance index's value.

The term "average growth in intellectual capital" (ROGIC) is used to describe the typical rise in an organization's or business's intellectual assets. The average growth in intellectual capital evaluates how much an organization's intellectual capacity grows annually. The average change in intellectual capital (knowledge, creativity, and experience) during a certain time period is determined by the average growth of intellectual capital. This expansion may result from creating procedures, introducing novel techniques, or raising staff competency. The average growth of intellectual capital can show a company's ability to manage and enrich intellectual assets.

## REFERENCES

- Akkas, E., & Asutay, M. (2022). Intellectual capital disclosure and financial performance nexus in Islamic and conventional banks in the GCC countries. *International Journal of Islamic and Middle Eastern Finance and Management*, 15(5), 943-966. <https://doi.org/10.1108/IMEFM-01-2021-0015>
- Akkas, E., & Asutay, M. (2023). The impact of intellectual capital formation and knowledge economy on banking performance: A case study of GCC's conventional and Islamic banks. *Journal of Financial Reporting and Accounting*, 21(5), 1149-1170. <https://doi.org/10.1108/JFRA-08-2021-0251>
- Al-Musali, M. A. K., & Ismail, K. N. I. K. (2014). Intellectual capital and its effect on financial performance of banks: Evidence from Saudi Arabia. *Procedia — Social and Behavioral Sciences*, 164, 201-207. <https://doi.org/10.1016/j.sbspro.2014.11.068>
- Asutay, M., & Ubaidillah. (2023). Examining the impact of intellectual capital performance on financial performance in Islamic banks. *Journal of the Knowledge Economy*, 15, 1231-1263. <https://doi.org/10.1007/s13132-023-01114-1>
- Azzahra, K. (2020). The influence of intellectual capital and Sharia compliance to the banking financial performance in Indonesia. *Journal of Academic Research and Sciences*, 5(1), 14-26. <https://doi.org/10.35457/jares.v5i1.900>

The average growth of many intellectual capital components — such as customer, structural, and human capital — over a specific time period is used to compute the average growth. The average growth of intellectual capital, as determined by the Islamic performance index, which is a stand-in for the PSR, has a major influence on Sharia bank performance.

The average growth of intellectual capital and the Islamic performance index are positively correlated, according to the study's findings. This implies that Sharia bank performance improves when the index's value increases in tandem with the average growth of intellectual capital.

The success of Sharia banks is significantly influenced by intellectual capital, according to the PSR. Additionally, bank performance is significantly impacted by the average growth of intellectual capital. The intangible asset known as an organization's intellectual capital is essential for increasing value and competitiveness.

There are flaws and limits in the current study that need to be fixed in the future.

The performance of the profit-sharing financing element is positively impacted by intellectual capital, which enhances the bank performance. Islamic banking entails a variety of transactions that are very different from those in traditional banking for the management. The Islamic banking industry should keep working to build up its intellectual capital because its constituent parts — human capital, capital employed, and structural capital — have an effect on how Islamic banks use added value to their advantage. This includes developing new bank products, educating staff, and advancing technology.

There are a number of restrictions on this study, including the fact that the independent variables it employed were restricted to intellectual capital and its average increase. The performance of Sharia banks was assessed in this study using the Islamic performance index, which was limited to the PSR. Sharia banks are the sole objects used as samples in this research.

It is believed that future studies can incorporate additional independent factors to better enhance the conversation regarding Sharia bank performance based on the Islamic performance index. This is predicated on the aforementioned limitations and recommendations for more study. Another index from the Islamic performance index may be included in further studies. It is advised that study items other than Sharia banks be included in future investigations.

- Baroroh, H., Azka, M. S. T., & Afifah, S. N. (2023). Oil price volatility and macroeconomics, does it affect the performance of Islamic stocks in the Jakarta Islamic index? *AL-ARBAH: Journal of Islamic Finance and Banking*, 5(2), 125–150. <https://doi.org/10.21580/al-arbah.2023.5.2.18037>
- Chabachib, M., Setyaningrum, L., Hersugondo, H., Shaferi, I., & Pamungkas, I. D. (2020). Does financial performance matter? Evidence on the impact of liquidity and firm size on stock return in Indonesia. *International Journal of Financial Research*, 11(4), 546–555. <https://doi.org/10.5430/ijfr.v11n4p546>
- Chen, M.-C., Cheng, S.-J., & Hwang, Y. (2005). An empirical investigation of the relationship between intellectual capital and firms' market value and financial performance. *Journal of Intellectual Capital*, 6(2), 159–176. <https://doi.org/10.1108/14691930510592771>
- Chinnasamy, G., Madbouly, A., Vinoth, S., & Chandran, P. (2024). Intellectual capital and bank's performance: A cross-national approach. *Journal of Financial Reporting and Accounting*, 22(2), 366–391. <https://doi.org/10.1108/JFRA-04-2023-0172>
- Dang, H. N., Vu, V. T. T., Ngo, X. T., & Hoang, H. T. V. (2019). Study the impact of growth, firm size, capital structure, and profitability on enterprise value: Evidence of enterprises in Vietnam. *Journal of Corporate Accounting and Finance*, 30(1), 144–160. <https://doi.org/10.1002/jcaf.22371>
- Dwiputri, R. M., Suyono, E., & Laksana, R. D. (2023). Intellectual capital, green innovation, and financial performance: The mediating role of sustainability. *International Journal of Management and Sustainability*, 12(3), 448–462. <https://doi.org/10.18488/11.v12i3.3477>
- Dwiputri, R. M., Suyono, E., Laksana, R. D., & Febriyanto. (2023). Financial literacy, risk aversion, financial performance, and innovative behavior in Indonesian SMEs. *Journal of Behavioral Science*, 18(2), 15–31. <https://so06.tci-thaijo.org/index.php/IJBS/article/view/260530>
- Hameed, A., Kang, W., & Viswanathan, S. (2010). Stock market declines and liquidity. *The Journal of Finance*, 65(1), 257–293. <https://doi.org/10.1111/j.1540-6261.2009.01529.x>
- Haris, B., Abd Rahman, B. H., Sahudin, Z., & Osman, I. (2024). A comparative analysis on Islamic bank performance and efficiency risk: Pre and post IFSA 2013. *Environment-Behaviour Proceedings Journal*, 9(SI19), 151–156. <https://doi.org/10.21834/e-bpj.v9iSI19.5761>
- Hersugondo, H., Wahyudi, S., & Laksana, R. D. (2021). Financial reforms and technical efficiency: A case study of Islamic commercial banks in Indonesia. *The Journal of Asian Finance, Economics and Business*, 8(4), 849–855. <https://doi.org/10.13106/jafeb.2021.vol8.no4.0849>
- Laksana, R. D., Shaferi, I., & Naznii, H. (2023). The effect of operational risks for digital banking services at banks. *Jurnal Manajemen Bisnis*, 14(2), 451–468. <https://doi.org/10.18196/mb.v14i2.19302>
- Mawardi, W., Mahfudz, Laksana, R. D., & Shaferi, I. (2020). Competition and financial effects between Islamic and conventional banking. *WSEAS Transactions on Business and Economics*, 17, 101–111. <https://doi.org/10.37394/23207.2020.17.12>
- Mawardi, W., Mahfudz, Laksana, R. D., & Shaferi, I. (2022). Risk hazard of banking in emerging countries. *WSEAS Transactions on Systems*, 21, 372–381. <https://doi.org/10.37394/23202.2022.21.41>
- Muhammad, R., Mangawing, M. A., & Salsabilla, S. (2021). The influence of intellectual capital and corporate governance on financial performance of Islamic banks. *Jurnal Ekonomi & Keuangan Islam*, 7(1), 77–91. <https://doi.org/10.20885/jeki.vol7.iss1.art6>
- Nawaz, T., Haniffa, R., & Hudaib, M. (2021). On intellectual capital efficiency and shariah governance in Islamic banking business model. *International Journal of Finance and Economics*, 26(3), 3770–3787. <https://doi.org/10.1002/ijfe.1986>
- Ousama, A. A., Hammami, H., & Abdulkarim, M. (2020). The association between intellectual capital and financial performance in the Islamic banking industry: An analysis of the GCC banks. *International Journal of Islamic and Middle Eastern Finance and Management*, 13(1), 75–93. <https://doi.org/10.1108/IMEFM-05-2016-0073>
- Prasojo, P., Yadiati, W., Fitrianti, T., & Sueb, M. (2022). Cross-region comparison intellectual capital and its impact on Islamic banks performance. *Economies*, 10(3), Article 61. <https://doi.org/10.3390/economies10030061>
- Pratama, B. C., Kamaluddin, A., & Saad, S. (2022). Intellectual capital and social performance of Islamic banks in Indonesia and Malaysia: The moderating role of Sharia supervisory boards. *Asian Journal of Accounting & Governance*, 18, 85–95. <https://ejournal.ukm.my/ajac/article/view/59893/13579>
- Pulic, A. (1998). Measuring the performance of intellectual potential (IP) in knowledge economy. In C. Tiffany & S. Jennifer (Eds.), *19th Annual National Business Conference*. DeGroote School of Business. <https://www.bib.irb.hr/35384>
- Pulic, A. (2008). *The principles of intellectual capital efficiency — A brief description*. Croatian Intellectual Capital Center. <https://shorturl.at/hm1eP>
- Putri, I. A. J., Budiyanto, B., Triyonowati, T., & Ilham, I. (2023). Growth, intellectual capital, financial performance and firm value: Evidence from Indonesia automotive firms. *International Journal of Science, Technology & Management*, 4(1), 139–146. <https://doi.org/10.46729/ijstm.v4i1.723>
- Rachmawati, R. (2020). Opportunities and challenges of Shari'ah based banking In Jember District. *ABM: International Journal of Administration, Business and Management*, 2(1), 1–11. <https://jurnal.itsm.ac.id/index.php/abm/article/view/386>
- Rehman, A. U., Aslam, E., & Iqbal, A. (2022). Intellectual capital efficiency and bank performance: Evidence from Islamic banks. *Borsa Istanbul Review*, 22(1), 113–121. <https://doi.org/10.1016/j.bir.2021.02.004>
- Sardo, F., & Serrasqueiro, Z. (2017). A European empirical study of the relationship between firms' intellectual capital, financial performance and market value. *Journal of Intellectual Capital*, 18(4), 771–788. <https://doi.org/10.1108/JIC-10-2016-0105>
- Shaferi, I., Laksana, R. D., & Wahyudi, S. (2018). The effect of risk leverage on investors' preferences in manufacturing companies listed on the Indonesia stock exchange. *Investment Management and Financial Innovations*, 15(3), 190–198. [https://doi.org/10.21511/imfi.15\(3\).2018.16](https://doi.org/10.21511/imfi.15(3).2018.16)
- Shaferi, I., Wahyudi, S., Mawardi, W., Hidayat, R., & Puspitasari, I. (2020). The manufacture and service companies differ leverage impact to financial performance. *International Journal of Financial Research*, 11(2), 281–286. <https://doi.org/10.5430/ijfr.v11n2p281>



- Sri, R., Mahdi, F., Julkarnain, Triastuti Kurnia, N. H., & Habibie, A. (2022). Intellectual capital and Islamic corporate social responsibility on the financial performance of Sharia commercial banks in Indonesia. *E3S Web of Conferences*, 339, Article 05003. <https://doi.org/10.1051/e3sconf/202233905003>
- Vu, T.-H., Nguyen, V.-D., Ho, M.-T., & Vuong, Q.-H. (2019). Determinants of Vietnamese listed firm performance: Competition, wage, CEO, firm size, age, and international trade. *Journal of Risk and Financial Management*, 12(2), Article 62. <https://doi.org/10.3390/jrfm12020062>
- Wahyudi, S., Muharam, H., Laksana, R. D., Hersugondo, H., & Robiyanto, R. (2018). Liquidity characteristics of government bond markets: A comparative study with generalized autoregressive conditional heteroskedasticity (GRACH) model. *International Journal of Civil Engineering and Technology (IJCIET)*, 9(7), 985-993. [http://eprints.undip.ac.id/79334/1/LIQUIDITY\\_CHARACTERISTICS\\_OF.pdf](http://eprints.undip.ac.id/79334/1/LIQUIDITY_CHARACTERISTICS_OF.pdf)
- Wahyuni, S., Pujiharto, P., Pratama, B. C., & Azizah, S. N. (2023). Analysis of the rate of growth of intellectual capital ability in predicting present and future profitability of Sharia commercial banks in Indonesia. *Asian Journal of Accounting Research*, 8(2), 194-206. <https://doi.org/10.1108/AJAR-10-2021-0226>