

The Influence of Intellectual Capital on Islamic Banks Profitability: A Mediation Analysis of Non-Profitability Performance and Islamicity Financial Performance Index

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Abstract. *This study aims to analyze the influence of intellectual capital on Islamic banks' profitability in Indonesia, mediated by non-profitability performance and Islamicity Financial Performance Index variables. This study uses Structural Equation Modeling (SEM) analysis of secondary data from a sample of 8 (eight) Islamic commercial banks in the form of financial statements for 2018-2020. This research shows, first, intellectual capital directly has a significant positive influence on the Islamic banks' profitability in Indonesia. Second, intellectual capital mediated by non-profitability performance has a significant positive influence on Islamic banks' profitability. Also, the relationship of intellectual capital through the Islamicity Financial Performance Index has a positive significant influence on the Islamic banks' profitability. This indicates that intellectual capital gives new strength for Islamic banks to compete with conventional banks.*

Keywords: *intellectual capital, profitability, non-profitability performance, Islamicity Financial Performance Index*

Abstrak. *Penelitian ini bertujuan untuk menganalisis pengaruh intellectual capital terhadap profitabilitas bank umum syariah di Indonesia yang dimediasi oleh variabel kinerja non profitabilitas dan Islamicity Financial Performance Index. Penelitian ini menggunakan analisis Structural Equation Modelling (SEM) terhadap data sekunder dari sampel 8 (delapan) bank umum syariah berupa laporan keuangan tahun 2018-2020. Temuan pertama menunjukkan bahwa intellectual capital memiliki pengaruh yang positif secara signifikan terhadap profitabilitas bank syariah di Indonesia. Kedua, intellectual capital yang dimediasi oleh variabel kinerja non profitabilitas menghasilkan pengaruh yang positif secara signifikan terhadap profitabilitas bank syariah. Dan hubungan intellectual capital melalui Islamicity Financial Performance Index juga menghasilkan pengaruh yang positif secara signifikan terhadap profitabilitas bank syariah. Hal ini mengindikasikan bahwa intellectual capital memberikan kekuatan baru bagi bank syariah untuk bersaing dengan bank konvensional.*

Kata kunci: *intellectual capital, profitabilitas, kinerja non-profitabilitas, Islamicity Financial Performance Index*

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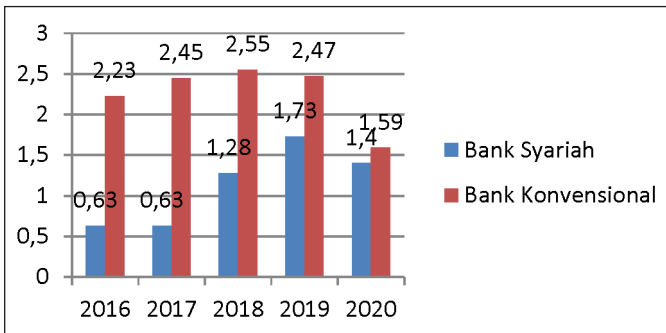
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Introduction

The phenomenon of globalization in various sectors that create economic progress nowadays makes the level of business competition, and the mobility of people are getting high. It requires companies to constantly give new creativity and innovation to improve their performance in creating profitability. In this case, Islamic banking, which serves as a mediator of intermediary between the surplus and deficit community, also requires the profit achievement to be able to maintain the stability of the financial condition and its business development.

Geroski et al. (1993) stated that the company's profitability creates financial information, basic planning, control, and financial decision making, and determines the work plan and product innovation for the company in the next period. The achievement of the performance projected by profitability in Islamic banks have be able to dominate after the long journey of Islamic banking development. Although on the other hand, conventional banks are already running first. Here is a comparison of conventional and Islamic banks' profitability during the 5 (five) years.

Figure 1. Comparison of Conventional and Islamic Banks' Profitability



Source: Statistik OJK

The comparison chart above provides the information that the ratio of the profitability of conventional banks in Indonesia has always occupied a higher position than Islamic banks. In 2016, Islamic banks recorded the position of Return On Asset (ROA) amount 2,23 while the same year Islamic bank only reached 0,63. In 2017, the conventional bank recorded 2,45, which is higher than the stagnant achievement of Islamic banks based on previous year. In 2018, conventional banks occupied 2,55, which is higher than the ROA of Islamic banks, which only reached

1,28. Although it is higher than the previous year, Islamic banks have not be able to catch up with conventional banks in 2019. Recorded in 2019, conventional banks still outperformed in 2,47 compared to Islamic banks, which reached 1,73. And in 2020, although the profitability ratios of both banks have decreased, the achievement of conventional banks is still leading in numbers 1,59 compared to Islamic banks, which reached 1,4.

Based on the comparison above, it can be concluded that the growth of Islamic banks is still difficult to compensate conventional banks. However, the composition of the population of Indonesia is predominantly Muslim. Therefore, to achieve better profitability from the previous period, Islamic banks need to run good business management. In addition to the utilization of both tangible and intangible assets also need to be measured and evaluated (Wernerfelt, 1984). Intangible assets in a company, namely intellectual capital (Stewart, 1997).

Intellectual capital, which is run by the human capital in Islamic bank business, become a new action to create assets efficiency to be measured and evaluated periodically (Nedrum & Erickson, 2001). In addition to the involvement of the knowledge, resources can improve the performance of the company, the application of sharia principles that give the difference for the existence of Islamic banks, which also need to be considered to keep *maqashid syariah* and customer loyalty to keep doing economic activity in the corridors of sharia (Masyhadi, 2018).

Literature Review

Intellectual Capital

Resource-Based theory (1959) became the embryo theory of intellectual capital concept, which explain that intangible assets contribute a lot in achieving business success. This term first appeared and was introduced by Jon Kenneth Galbraith in 1969 (Khalique et al., 2019). In developing the theory of intellectual capital, many researchers agree this theory is an advanced resource-based theory that evolved into a knowledge-based theory. According to Stewart (1997), intellectual capital is the accumulated wealth of a company from intangible assets to give a competitive advantage. The wealth is knowledge, information, technology, skills, expertise, competence, intellectual property, loyalty, and experiences that can be used as the company's capital.

To create a good performance, intellectual capital should be used with the

capabilities of good knowledge management. Indeed, intellectual capital gives innovation and competitive advantage, but the management knowledge managed by human resources can develop and retain intellectual capital (Grant; 1996 & Prusak; 2001). Good management will create the whole process in the company, better processes in humans or products, and increase company performance (organizational performance) to give a value-added and profitability (Daud & Yusoff, 2011). Pulic (1998) stated that intellectual capital could be measured through VAIC (Value Added Intellectual Capital) method, which was observed from 3 (three) indicators, namely physical capital, human capital and structural capital.

Financial Performance

Non-Profitability

The measurement of organizational performance is important and needs to be evaluated periodically. Organizational performance, especially financial performance, becomes vital for the business's sustainability. It can be an indicator for the company to develop its business which is analyzed based on financial ratios. According to Sabir et al. (2012), Islamic banks good conditions and performance can be seen and analyzed through the financial statements. One of the goals of the evaluation of financial performance is to provide management information to determine the profitability and decision-making.

Several aspects become the source of the assessment and measurement of financial performance in Islamic banks. They are capital ratio, asset quality ratio, management quality, earnings and liquidity ratio (Bank Indonesia). In general, financial ratios are divided into 2 (two) categories, namely the financial performance of explaining profitability which measured through Return On Assets (ROA) and Return On Equity (ROE), and the non-profitability performance which explained by the Capital Adequacy Ratio (CAR), Financing to Deposit Ratio (FDR), Non Performing Financing (NPF).

Profitability

To run their business, Islamic banks require stability profitability. Sustainable and stable profitability is very important for maintaining a good system for Islamic banks (Idris et al, 2011). Islamic banks profitability is affected by many factors: company performance achievement. Alfredo & Reig (2018) stated that the profitability is a one factor determining characteristic and reputation of the

firm. But it also needs a good quality of the financing provided accumulatively to the society. Problematic financing is also be a challenge for the bank to maintain profitability.

Profitability is largely determined by the Islamic banks' ability to manage the financing as its function as an intermediary institution. Although there are several financial ratios, generally, the condition of the Islamic banks profitability of the banking sector in Indonesia propped based on two main indicators. First, Return on Assets (ROA) shows the percentage of profit (net margin) obtained by the company in connection with the overall resources. Therefore, ROA can help the management convert their assets into a profit. The second is the Return on Equity (ROE), which is the net profit yield to equity.

Islamicity Financial Performance Index

Measuring the performance of Islamic banks is not only for its financial performance, but applying the sharia principles is also a necessity. Because the increase of public awareness made an Islamic principle implementation of sharia compliance is one of the factors for the success. Hameed et al (2004) claim that as one of the Islamic business institutions, islamic banks are obliged to report economy performance information and sharia compliance information. In other words, an indicator of financial performance through profitability is not enough to represent the condition of the Islamic bank as a whole.

Islamic banks need measurement tools that evaluate financial performance and sharia compliance to keep *maqashid syariah* principles (Mutia et al, 2018). Evaluating Islamic financial institutions is equally important. The role and responsibility of Islamic financial institutions is not only limited to the financial needs as a basis of its profit orientation, but the most important is to ensure the business activities run according to Islamic principles. To measure the Islamic banks performance for it Islamic principles implementation in this research is through by an index initiated by Hameed et al. namely Islamicity Financial Performance Index which measured through *Profit Sharing Ratio* (PSR), *Zakat Performance Ratio* (ZPR) dan *Equitable Distribution Ratio* (EDR).

Hypothesis Development

If intellectual capital directly influences the human resources productivity in Islamic banks, it is automatically assumed that the profitability will also increase. This is supported by a study analyzed by Octavio and Soesetio (2019),

intellectual capital will create value-added to make a competitive advantage for sustainable profitability. Based on the background, the authors propose the following hypothesis:

H₁ Intellectual Capital directly influence the profitability

In addition to improving financial performance based on profit or non-profit indicators, Hameed, et al. (2004) states that intellectual capital can boost the performance of the Islamic principle. This can be measured through the Islamicity Financial Performance Index. Based on this theory, the authors propose the following hypothesis:

H₂ Intellectual Capital influence the Non-Profitability Performance

H₃ Intellectual Capital influence the Islamicity Financial Performance Index

According to Hassan and Bashir (2003), the improvement of financial performance and implementing Islamic principles is an achievement earned by management. It can provide a positive contribution to the profits. Based on these statements, then the hypothesis is:

H₄ The Non-Profitability Performance influence the profitability

H₅ Islamicity Financial Performance Index influence the profitability

The management and utilization of strategic resources of the company through the intellectual capital run by the human capital will lead to improved financial performance and sharia implementation. The important resources could consist of tangible or intangible assets (Daud & Yusoff, 2011). Based on these conclusions, the proposed hypothesis is:

H₆ Intellectual Capital indirectly through the Non-Profitability Performance influence the profitability

H₇ Intellectual Capital indirectly through the Islamic Financial Performance influence the profitability

Research Methodology

This study uses the quantitative analysis approach. In particular, this study uses Structural Equation Modelling (SEM) for causality relationship between the variables. This research consists of three variables: exogenous, endogenous, and intervening.

The population in this research is the Islamic banks in Indonesia. Through purposive sampling, the sample taken in this study is 8 (eight) Islamic banks

in Indonesia, namely BCA Syariah, Bank Mega Syariah, Bank BPTN Syariah, Bank Victoria Syariah, Bank Muamalat, Bank Bukopin Syariah, Bank Panin Dubai Syariah and Bank Aceh Syariah. The data used in this research is secondary data sourced from Islamic banks financial statement years 2018-2020.

The exogenous variable in this research is the intellectual capital that was observed using several manifest variables, namely Physical Capital (VACA), Human Capital (VAHU) and Structural Capital (STVA). The endogenous variable is profitability that observed using several financial ratios, such as Return On Asset (ROA), Return On Equity (ROE) and Net Operating Margin (NOM). Mediating variable (intervening variable) is being analyzed from the non-profitability performance, which is measured by Financing to Deposit Ratio (FDR), Capital Adquency Ratio (CAR), Non-Performing Financing (NPF). And *Islamicity Financial Performance Index* is measured through *Profit Sharing Ratio* (PSR), *Zakat Performance Ratio* (ZPR) and *Equitable Distribution Ratio* (EDR).

Result and Discussion

Model testing in this research was conducted through a two-stage validity test, namely convergent validity and discriminant validity. Validity convergent tested each latent variable that can construct its manifest variable at least by 50% or 0.5 explained by outer loading and Average Variance Extracted (AVE). Manifest variables will be eliminated from the measurement model if it constructs under 0.5 to its manifest variable.

Table 1. Recalculating The Outer Loading and AVE Performance

Variabel	Item	Outer Loading	AVE
Intellectual Capital	VACA	0,905	0,766
	VAHU	0,811	
	STVA	0,905	
Kinerja Non Profitabilitas	NPF	1	1
IFPI	EDR	1	1
Profitabilitas	ROA	0,988	0,930
	ROE	0,932	
	NOM	0,972	

Based on the result above, all the results of recalculating the outer loading and AVE have good validity. It can be analyzed from the Intellectual Capital (IB-VAIC). VACA's external loading is 0,905, VAHU is 0,811, and STVA is 0,905. The intellectual capital variable has an AVE qualifying value to 0,766. Furthermore, the non-profitability performance described by the NPF has an outer loading value, and AVE is 1. And Islamicity Financial Performance Index described by the EDR create AVE and outer loading 1. The profitability shows the outer loading by ROA is 0,988, by ROE is 0,932 and by NOM is 0,972. This variable has an AVE of 0.930. After reconstructing the re-testing and measurement model, all the variables were declared to have good validity.

In addition, testing the validity of the measurement model can be seen from the discriminant validity indicated by cross-loading.

Table 2. The Measurement Model of Discriminant Validity

Indicators	Intellectual Capital	Non Profitability Performance	IFPI	Profitability
VACA	0,905	-0,406	0,772	0,520
VAHU	0,811	-0,081	0,240	0,221
STVA	0,905	-0,308	0,417	0,337
NPF	-0,361	1	-0,706	-0,600
EDR	0,643	-0,706	1	0,820
ROA	0,406	-0,522	0,782	0,988
ROE	0,568	-0,661	0,826	0,932
NOM	0,359	-0,516	0,759	0,972

Based on these data, the variables of intellectual capital has a higher correlation value with the manifest variable than other indicators. It can be shown from the value by VACA is 0,905, by VAHU is 0,811 and by STVA is 0,905. These values are higher than the correlation value of intellectual capital with other indicator variables. Non-profitability performance variable shown by NPF gives 1 and is higher than the correlation with other indicators. Islamicity Financial Performance Index (IFPI) shown by EDR creates 1 and is higher than the correlations of the main variables to other indicators. And profitability variable measured by ROA shows 0,988, ROE shows 0,932 and NOM shows 0,972. In conclusion, the discriminant validity test results show good results.

After the validity test, the next analysis to test reliability to see the composite reliability and Cronbach alpha values. The variable has a good reliability if it has a minimum value of 0.7.

The table shows that the value of composite reliability for all variables were above 0.7. Intellectual capital has 0,907. Non profitability performance has 1. Islamicity Financial Performance Index has 1. And profitability has 0,903. Based on this analysis, it can be concluded that the highest reliability value is 1, and smallest reliability value is 0,903.

Table 3. The Value of Composite Reliability and Cronbach Alpha Performance

	Composite Reability	Cronbach Alpha
Intellectual Capital	0,907	0,872
Non Profitability Performance	1	1
IFPI	1	1
Profitability	0,903	0,962

According to cronbach alpha, the value of each indicators is already above the 0.7. Intellectual capital shows the value of cronbach alpha 0,872. Non profitability performance shows 1. Islamicity Financial Performance Index shows 1. And profitability shows the numbers 0,962. Based on this analysis, it can be concluded, that the highest cronbach alpha is 1, and smallest cronbach alpha is 0,872. In conclusion, the variables were tested using these approaches have been fulfilled its reliability.

Table 4. R-Square Performance

	R-Square
Non Profitability Performance	0,130
Islamicity Financial Perfomance Index	0,413
Profitability	0,679

The results of r-square of non-profitability performance shows 0,130. It means the intellectual capital can explain non-profitability performance by 13% and 87% by other variables. Islamic Financial Performance Index shows 0,413.

IFPI described by the intellectual capital is 41,3%, and other variables explain 58.7%. Profitability shows 0,679. It implies that profitability can be explained by non-profitability performance, and Islamicity Financial Performance Index is 67,9%, and other variables explain 32,1%.

From the this results, it can be concluded that the research model which consists of intellectual capital, non profitability performance and Islamicity Financial Performance Index to influence the profitability has reached the coefficient numbers of more than 50%, which means that this model shows a good existence and strong relationships by 67,9%. And next, the calculating and data analysis to answer the hypothesis.

Table 5. The Calculating and Data Analysis Performance

	Original Sample	Sample Mean	Std. Deviasi	T-Statistics	P-Value
IB-VAIC → Profitability	0,104	-0,138	0,147	2,709	0,048*
IB-VAIC → Non Prof. Perform	-0,361	-0,383	0,181	1,987	0,047*
IB-VAIC → IFPI	0,643	0,674	0,082	7,815	0,000*
Non Prof. → Perform Profitability	-0,024	0,188	0,188	0,126	0,900*
IFPI → Profitability	0,870	0,900	0,220	3,953	0,000*
	Original Sample	Sample Mean	Std. Deviasi	T-Statistics	P-Value
IB-VAIC → Profitability	0,568	0,621	0,145	3,928	0,000*
IB-VAIC → Profitability	0,568	0,621	0,153	3,707	0,000*

The table above shows the results to confirm the hypothesis proposed in this study. By involving the 5% error level, the results of t-statistics above 1,96 mean that the hypothesis is accepted. If the results of the t-statistics are below 1,96, the hypothesis is rejected. Or if it is seen from the p-value, the relationship that shows numbers below 0,05 means that a significant influence between the variables. However, if it above 0,05 means that no significant influence between these variables.

The first measurement shows the relationship intellectual capital on profitability directly shows 0,104 with p-value of 0.04. It means, intellectual

capital directly has a significant positive influence on profitability. So the first hypothesis of this research is accepted. That means that the if the intellectual capital is good, it can give good sustainability profitability. Intellectual capital is an element and a resource that has a role in increasing the competitive advantage to increase financial performance described by profitability. Of course, profitability can be new power for the company to maintain the business's existence in the future.

Furthermore, the second result shows that the relationship of intellectual capital shows $-0,361$ with p-value of $0,047$. It means, intellectual capital represented by the NPF has significant negative influence on non-profitability performance. It can be concluded, that the second hypothesis in this study is accepted. In explains that good intellectual capital will create low NPF of Islamic banks. And the low intellectual capital value will create high NPF of Islamic banks. The conclusion is that intellectual capital can be considered part of the company's assets.

And next, the third result shows the relationship of intellectual capital to the Islamicity Financial Performance Index is $0,643$ with p-value of $0,000$. It means intellectual capital has a significant positive influence on Islamicity Financial Performance Index. So the third hypothesis proposed in this study is accepted. The good intellectual capital affected the better implementation of sharia principles in Islamic banks. Applying Islamic principles in this research is represented by the income distribution proportional variable distributed to all stakeholders such as community, employees, shareholders, and the company. Examples include the distribution of qard and donations, payment of the employee expenses or salary, distribution of dividends to shareholders. Intellectual capital of goodwill affects the income distribution decision is proportional for all stakeholders.

Then, the fourth result shows the relationship of the non-profitability performance to profitability variable is $-0,024$ with p-value of $0,900$. It means non-profitability performance has no significant influence on profitability. Thus, the fourth hypothesis in this study was rejected. The NPF is not the only indicator of financial performance that affects the profitability of Islamic banks. However, there are indicators on the out of this measurement that can affect the profitability of Islamic banks. The presence of a negative value on the indicator NPF Islamic banks explain that the high NPF of Islamic banks is a problem of Islamic banks profitability growth.

The fifth result shows the relationship Islamicity Financial Performance Index on Profitability is 0,870 with p-value of 0.000. It means the Islamicity Financial Performance Index has a significant influence on profitability. Thus, the fifth hypothesis of this study is accepted. If the income distribution has been running well and proportional, it will increase Islamic banks profitability. This can be a challenge for the stakeholders of Islamic banks to run consistently Islamic principles implementation. The income distribution will increase the confidence of employees and all stakeholders involved in the company's internal and external so that it will encourage the maximization of performance.

The sixth result is indirect effects. The relationship of intellectual capital on profitability mediated by non-profitability performance is 0,568 with p-value of 0,000. And the seventh result, the relationship between the intellectual capital on profitability through mediated by Islamicity Financial Performance Index is 0,568 with p-value of 0,000. Thus, it was stated that the intellectual capital has a significant positive influence on profitability through non-profitability performance and Islamicity Financial Performance Index. The existence of non profitability performance and sharia performance reflected by the Islamicity Financial Performance Index will better contribute to the progress and existence of Islamic banks.

Conclusion

Based on the results, it can be concluded several things. The first conclusion shows that intellectual capital directly has significant positive influence to Islamic banks profitability in Indonesia. It gives great strength to the role of intellectual capital in holding control of Islamic banks profitability. The second conclusion stated that intellectual capital mediated by the non-profitability variable has a significant positive influence on Islamic banks profitability. And intellectual capital mediated by Islamicity Financial Performance Index has a significant positive influence on the Islamic banks profitability. The existence of the intellectual capital, non-profitability performance and Islamic principles implementation, which the Islamicity Financial Performance Index reflects, will contribute to the Islamic banks progress. Islamic financial institutions are important because Muslims dominate Indonesia's population. Therefore, it requires a solution of Islamic finance to create welfare. The role of intellectual capital as a manifestation of intangible assets expands and develops the business world in the Islamic banking sector in Indonesia.

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