

## Development of Sharia Banking Intellectual Capital with A-IBVAIC

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### ABSTRACT

This study examines and analyzes the Intellectual Capital Development of Islamic Banking with A-IBVAIC. The variables used to test the model in this study are using VAICA-IBVAIC using three components namely HCE, INVCE, CEE. This research includes causality research. The population in this study were 24 BPRS in East Java Province. The data collection technique uses a documentation study by collecting secondary data, recording, and processing data related to this research. The data used includes: published bank financial reports from 2015 to 2021. Research results found that *Islamic Banking Value Added Human capital* effect on profitability. This matters shows that *Islamic Banking Value Added Human capital* has a positive relationship to ROA, if the value of *Islamic Banking Value Added Human capital* increases, it will give an increase in ROA. Research results found that *Islamic Banking Value Added Innovation Capital* no effect on profitability. This proves that capital management innovation will generate more wealth for the owners of capital. Research results found that *Islamic Banking Value Added Capital employed* no effect on profitability. This proves that increase or decrease from score *Islamic Banking Value Added Capital employed* not following the increase or a decrease in the company's ROA.

Keywords: Intellectual Capital, Adjusted Islamic Banking Value Added Intellectual Coefficient, Profitability



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### INTRODUCTION

In the last decade, the Islamic finance industry has developed rapidly. According to the Islamic Financial Services Council (2020), for example, industry growth increased from 3% in 2018 to 11.4% in 2019. Islamic banks, which offer a number of financial products and services, are one of the main constituents of this industry. Islamic banks are business organizations that specifically attract Muslim customers who are interested in fulfilling their religious obligations (Nomran et al., 2018). The religious aspect is one of the most important reasons for Islamic banking in recent years' substantial growth which encourages Muslims to use banks that comply with Sharia (Islamic law) rules.

Although it has shown considerable growth, Islamic Bank (IB) has been criticized for decades. Customer skepticism continues to emerge (Ashraf & Lahsasna, 2017). Expression of dissent in the ecosystem Islamic Bank can be summarized into two points. First, Islamic Bank claimed to be un-Islamic because it is operated conventionally. Second, Islamic Bank does not promote Islamic moral economic aspirations due to excessive profit maximization, and thus appears to fail socially (Hassan et al., 2017). Presence Islamic Bank is expected to articulate Sharia (Islamic law) into practice in the banking industry (Ashraf & Lahsasna, 2017). This has philosophical consequences beyond mere commercial transactions. However, there is no standard tool to measure performance Islamic Bank (Ascarya & Yumanita, 2007). Sharia banks generally apply financial ratios and efficiency as a measure of performance, similar to conventional banks.

One of the important pillars of development banking sharia is sharia compliance. This is the main differentiator between Islamic banks and conventional banks. To ensure the application of the principles of sharia in banking institutions requires sharia supervision, namely the Sharia Supervisory Board. A survey highlights, Bank Indonesia finds that a number of customers who use Islamic banking services tend not to become a customer out of doubt on consistent application of sharia principles. Clients often question compliance of sharia bank to principles of sharia. This indirectly shows that the practice of Islamic banking not yet notices sharia principles that become one of the causes of public trust in sharia banks. This too will influence loyalty of residents for services Islamic Bank. Increasing customer trust is one of the success indicators of banking sharia and can be a predictor of success of banking sharia. Consequently, sharia compliance is application of sharia principles in the system employment. Characteristics of the institution itself, specifically in banking sharia. From the point of view of society, especially users of sharia banking services, sharia compliance is key to integrity and credibility of banking sharia. It is given that trust in public trust in Islamic Bank built and maintained through application of principles of Islamic law which applied accordingly to rule in institution operations. This is because non-compliance with sharia principles will have a negative impact on the image of banking sharia and can leave the candidate customers and users of banking services sharia.

Bank sharia has shown that they can finance their operations and make profits while obeying Sharia requirements for no charge interest. Bank sharia has adjusted the profit and loss distribution with various ways. First approach is through partnerships (musyarakah) or splits investment in bank which is not part of the management team. There is also a mudraba approach based on an additional fee for resale or rent that called ijara, that is an interest-bearing western bank (Copyright, 2020). Function of this bank will increase the stability of the banking system because it encourages banks to diversify investment to minimize risk and increase profit. These practices, in turn, attract more investors and thereby help the bank to operate more efficiently. Banking system Islam is governed by four different business laws. The first is principle jointly owned by the borrower and lender. Profit and gross loss. The second is fixed cost has been determined previously. The third is free rate flow, and the fourth is combination of lenders and borrowers.

Intellectual capital is able to provide information to investors in choosing to invest, so that investors are able to give more appreciation to companies that are able to process their intellectual capital optimally by providing a higher value to the company. Therefore, measuring the performance of intellectual capital allows companies to monitor which parts need to be improved on the IC aspect, with the aim of the company being able to generate greater profits in the future. (Kamukama et al., 2011). The importance of IC management is especially present in financial sector companies that must invest in the development of human capital, organizational processes, and knowledge-based companies in order to create a sustainable competitive advantage. Financial sector companies are exploring the advantages of a new client-oriented organization and the adoption of a new supervisory management system. For this reason IC and knowledge management are emerging as core competencies for corporate growth and as safeguards for competitive advantage. The growth of service-based industries is increasing its emphasis on employee knowledge and creativity as added

value to the business and highlighting the critical need for IC measurement and management. (Joshi et al., 2013). Value added (VA) is the most objective indicator for assessing business success and shows the company's ability to create value (value creation). (Pulic, 2008). Furthermore, then proposes an indirect measurement of intellectual capital (IC) with a measure to assess the efficiency of added value as a result of the company's intellectual ability, namely using the Value Added Intellectual Coefficient (VAIC). Intellectual Capital (IC) in Islamic banking is not much different from the Pulic model, the difference lies in the accounts used to develop the VA formula (Ousama & Fatima, 2015). Intellectual Capital (IC) in Islamic banking is not much different from the Pulic model, the difference lies in the accounts used to develop the VA formula (Ulum, 2013).

As for several previous studies regarding Intellectual Capital (IC) influencing financial performance, among others, IC (VAIC<sup>TM</sup>) can be an indicator to predict company performance in the future. In addition, this study also proves that investors may give different assessments of the three VAIC<sup>TM</sup> components (namely physical capital, human capital, and structural capital). (Chen et al., 2005). Research focusing on Islamic financial institutions (i.e. banks) has found that banks can use their IC resources efficiently with higher HCE compared to structural capital (SC) and the efficiency of capital employed (Aslama, 2012). In addition, there are several previous studies which found that Intellectual Capital has no effect on financial performance, including the IC value formed from Human Capital Efficiency (HCE) has no effect on financial performance formed by the Return On Equity (ROE) indicator. These results indicate that the value added of the funds issued by the company for its employees does not contribute to improving the company's financial performance. HC is measured through the expenses incurred by the company for its employees, namely in the form of salaries and benefits (Princess & Nuzula, 2019)

This research is different from previous research in several ways, including this research there is much debate in the literature about how the performance of Islamic banks (IB) should be measured. Basically, the business model of Islamic banking is different from that of conventional banks; Thus, the performance of Islamic banking must be measured using a sharia-based approach. This research considers *Adjusted Islamic Banking Value Added Intellectual Coefficient (A-IBVAIC)* as an alternative indicator to measure the performance of Islamic banking. Inconsistent results in intellectual capital studies may be due to unclear measurements. Several criticisms of the conventional VAIC model have been put forward by several experts (Maji & Goswami, 2017; Nadeem et al., 2019; Vishnu & Gupta, 2014). One attempt to reconstruct the VAIC model was proposed by Nadeem et al. (2019), which are called models *Adjusted Islamic Banking Value Added Intellectual Coefficient (A-IBVAIC)*. The essence of the VAIC reconstruction model into the A-IBVAIC model lies in one component of intellectual capital, namely structural capital which is replaced by innovation capital calculated from R&D.

## METHODS

This research includes causality research, which is a type of research that explains the cause-effect relationship between several concepts or several variables through hypothesis testing. This study will conduct testing on the Intellectual Capital development model using A-IBVAIC.

The population in this study were 24 BPRS in East Java Province. The data collection technique uses a documentation study by collecting secondary data, recording, and processing data related to this research. The data used includes: published bank financial reports from 2015 to 2021. Data analysis technique is a technique performed by researchers in analyzing data. The secondary data will then be calculated for the value of each research variable according to the operational variables.

Multiple linear regression testing aims to determine the effect of the independent variables on the dependent variable. Multiple regression analysis is an analytical method used to determine the

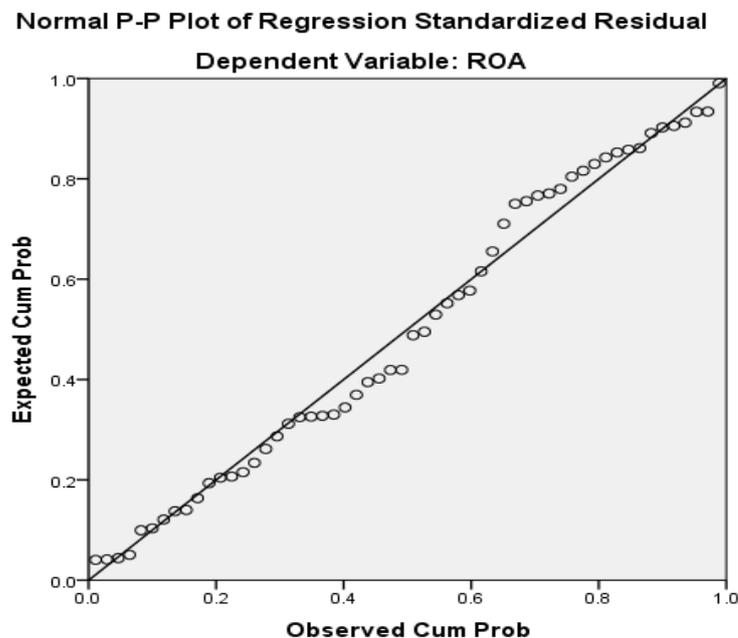
accuracy of predictions from the effect that occurs between the independent variable (X) on the dependent variable (Y).

The multiple linear regression equation is as follows:

$$ROA = \alpha + \beta_1 \text{iB-VAHU} + \beta_2 \text{iB-VACA} + \beta_1 \text{iB-INVCA} + \epsilon.$$

## RESULTS AND DISCUSSION

The normality test is used to determine whether the data used is normally distributed. In this study, the normal distribution is used in the residuals of the regression model where the model is said to be good if the residuals of the model are normally distributed and vice versa. The normality test is carried out by looking at the normal probability plot in the SPSS output, if the data distribution values are located around a straight diagonal line, the normality requirements are met. Here are the results:



Data Normality Test Results  
 Source: Results of Data Processing with SPSS, 2022

The multicollinearity test shows that there is a perfect or near-perfect linear relationship between some or all of the variables that explain the regression model or between one independent variable and another independent variable in the regression model that are linearly correlated. To find out whether the data meets the requirements for non-multicollinearity is to look at the SPSS output on the coefficients table if the VIF (variance inflation factor) value is below 10, meaning it is not multicollinearity. The test results shown in collinearity statistics to find VIF values are presented as follows:

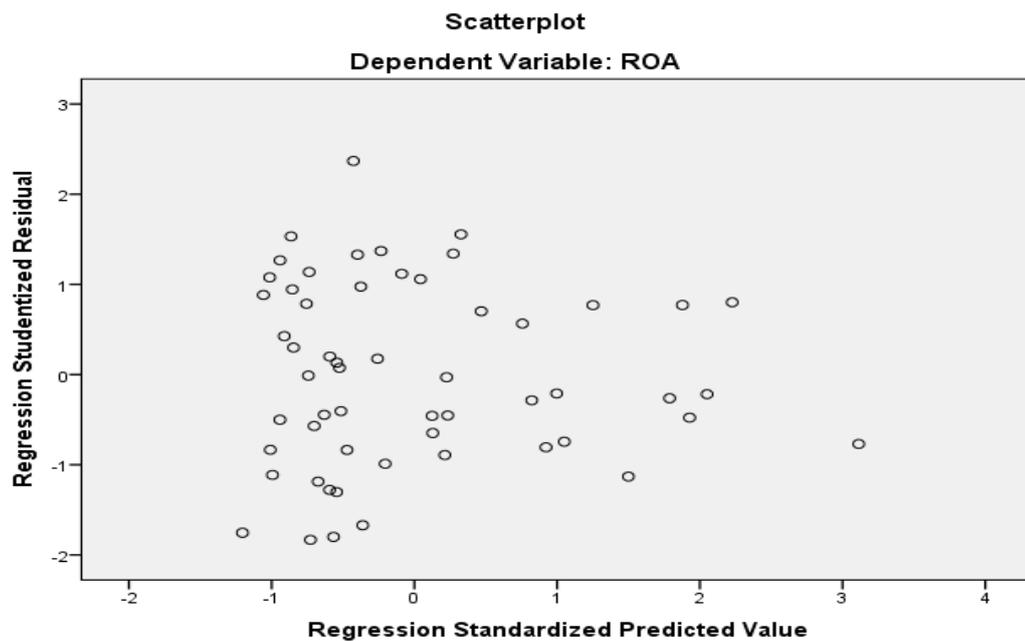
### Multicollinearity Test Results

No	Variable	tolerance	VIF	Results
1	VAHU	0.685	1,460	Multicollinearity Free
2	VACA	0.693	1,442	Multicollinearity Free
3	INVCA	0.985	1.015	Multicollinearity Free

Source: Results of Data Processing with SPSS, 2022

The test results show that all the variables used as predictors of the regression model show quite small VIF values, where all are below 10 and the tolerance value is more than 0.1. This means that the independent variables used in the study do not show any signs of multicollinearity, which means that all the independent variables in this study are mutually independent variables.

Heteroscedasticity test means that the variable variance is not the same for all observations. Means that heteroscedasticity is a condition where the data contains cross section data elements and has unequal variances. To find out whether the data used in the regression model fulfills the assumption that heteroscedasticity does not occur by looking at the SPSS output on the scatterplot dependent variable, if the data distribution values are not clear and the points spread above and below the number 0 on the Y axis, then it is not heteroscedasticity occurs. Here are the results:



Test result Heteroscedasticity  
Source: Results of Data Processing with SPSS, 2022

Based on the scatterplot output above, it can be seen that the dots are spread out and do not form a clear pattern. So it can be concluded that there is no heteroscedasticity problem, that is, there is an inequality of variance from one residual to another observation.

This multiple linear regression method is used to obtain the effect of the independent variables on the dependent variable. The multiple regression equation model that can be compiled based on the SPSS output results is as follows:

### Regression Results of VAHU, VACA, INVCA on ROA

No	Independent Variable	Regression Coefficient
1	Constant	0.016
2	VAHU	0.009
3	VACA	-0.003
4	INVCA	7,047

Source :Results of Data Processing with SPSS, 2022

$$Y = 0.016 + 0.009X_1 - 0.003X_2 + 7,047X_3$$

The t test is used to determine the effect of the independent variables on the partially dependent variable which is tested significantly. The following are the criteria for this test: The significance level used is 5 percent, in other words if P (probability) > 0.05 it is declared not significant.

#### Test Results t

No	Independent Variable	t	sig	Results
1	VAHU	2,740	0.008	Influential
2	VACA	-0.646	0.521	No effect
3	INVCA	1.152	0.255	No effect

Source: Results of Data Processing with SPSS, 2022

The results of the t test on the variables VAHU, VACA, and INVCA on ROA are summarized in table 4.7 above. Based on the results of the t test, it shows that VACA and INVCA have no effect on ROA, this is because the significance values of VACA and INVCA are more than 0.05, namely 0.521 and 0.255. Whereas the VAHU ratio affects ROA, this is because the significance value of VAHU is less than 0.05, namely 0.008.

The F statistical test is used to determine whether all the independent variables included in the regression model have a simultaneous effect on the dependent variable (Ghozali, 2006). If the significance probability value is <0.05, the independent variables jointly affect the dependent variable. Following are the results of simultaneous testing (Test F)

#### F test results

Information	F	Sig	Results
Regression	3,632	0.019	Influential

Source: Results of Data Processing with SPSS, 2022

Based on the results of the F test, it is known that the probability value is 0.019 with a calculated F value of 3.632. The probability value is much smaller than 0.019, so it can be concluded that VAHU, VACA and INVCA simultaneously have a significant effect on ROA.

The coefficient of determination is used to determine how much the independent variables affect the independent variables in this study. The value interval for this coefficient is . If so, it means that the independent variable has a 100% effect on the dependent variable, but if not, then the dependent variable in this study is influenced by other independent variables outside of this study. The results of the determination test ( $R^2$ ) are as follows:  $0 - 1R^2 = 1$

### Determination Coefficient Results

R	R Square
0.416	0.173

Source: Results of Data Processing with SPSS, 2022

The result of the coefficient of determination ( $R^2$ ) is 0.173 or 17.3%. This means that 17.3% of the ROA variation can be explained by the variation of the three independent variables which consist of VAHU, VACA and INVCA while the remaining 82.7% (100% - 17.3%) is influenced by other factors not included in the model.

#### **Islamic Banking Value Added Human Capital effect On Profitability**

The more Value Added Human Capital (VAHU) increases, the Return On Assets increases. Companies are able to maximize knowledge, expertise, networks so as to create added value, so that this can also benefit shareholders because management is able to manage the organization for their benefit. One measure of shareholder interest is ROA (Kartika, 2013). Human capital is measured by an indicator, namely Value Added Human Capital (VAHU). VAHU shows how much value added (VA) can be generated by a company from the funds spent on labor. Indicators of the quality of human resources within the company can be seen based on the VAHU. The company spends funds for labor as a reciprocal service obtained by the company in achieving its goals.

VAHU is included in the intangible assets owned by the company in the form of intellectual abilities, creativity and innovations owned by its employees. An employee who is able to use his expertise will provide added value (value added) to the company and this added value is expected to have a positive effect on improving the management of company assets and increasing the company's Return on Assets (ROA) (Saraswati, 2018).

*human capital* describes human resources with superior knowledge, skills and competencies, by having employees who have skills and expertise it can improve the performance of a company so as to achieve competitive advantage. Indications of the salaries and benefits provided by the company to employees, are able to increase employees in supporting company performance so that they can create value added and increase company income and profits, (Kartika & Hatane, 2013) (Ulum, 2013) Value Added Human Capital (VAHU) shows how much many VAs and HCs indicate the ability of HCs to create value within the company. Based on the results of previous research conducted by (Kazhimy & Sulasmiyati, 2019) VAHU has a positive and significant effect on Profitability as measured by ROA.

#### **Islamic Banking Value Added Innovation Capital Effect On Profitability**

Innovation capital (INVC) is represented by R&D investment and copyright. CEE is the VA/CE ratio and CE is the book value of total assets. As stated by resource-based theory, innovation capital must meet the criteria of being valuable, rare, inimitable and non-substitutable. If companies ignore these characteristics, innovation will not optimally generate more profits.

The A-VAIC model reveals that INVCE has no effect on the ROE of Indonesian banking companies. This research failed to prove that innovative capital management will generate more wealth for the owners of capital. The lack of R&D investment in the Indonesian banking industry may be one of the reasons. These results do not support the research by Nadeem et al. (2018a) and Bayraktaroglu et al. (2019), shows that INVCE has a positive relationship to ROE. In conclusion, the inconsistent results of the VAIC and A-VAIC warrant further research. In conclusion, the VAIC model provides evidence that is in line with innovation theory.

### ***Islamic Banking Value Added Capital Employe Deffect On Profitability***

*Capital employed*(CE) describes the company's ability to manage resources in the form of capital assets which if managed properly will improve the company's financial performance. VACA is a form of a company's ability to manage its resources in the form of capital assets. With good management and utilization of capital assets, companies can improve financial performance, company growth, and market value (Kusumo, 2012). Utilization of CE efficiency used can increase ROA, because the capital used is the value of assets that contribute to the company's ability to generate income. The better the company manages the three components of intellectual capital, the better the company manages assets. If the company is able to manage assets properly and can reduce operational costs so that it can increase added value from the results of the company's intellectual abilities. Based on the results of previous research conducted by (Cahyani, 2015) VACA has a significant effect on ROA, it is possible that companies tend to use physical capital, so it can be said that the capital employed owned by companies can have an influence on profitability.

Relational capital includes knowledge that exists in all organizational relationships developed by companies with customers, suppliers, customer associations, and the government (Bontis (2000) in Badinghatus, 2010). This component of the VAIC has no significant effect on ROA, because an increase or decrease in the VACA value does not follow an increase or decrease in the company's ROA. Because seen from the theory that the increase or decrease of all components of the VAIC must be the same as the increase and decrease of the company's ROA. Because VAIC is an important thing that must be implemented and managed properly within the company and can be used by companies to improve existing performance in the company to foster investors' intention to invest in the company. In this case VACA does not have a significant effect on ROA, this is because the condition of equity and profits in the company each year is not good or does not match the company's expectations, because it involves reduced interest from investors to be able to improve the company's equity and where the company has not been able to achieve a profit level. high as expected by the company. So it is hoped that in the next era the company will pay more attention to investors' interest in improving equity and improving profits to serve as added value for the company. Pulic (1999) in Ulum (2008:191) states that relational capital is capital employed. Where this IC describes a capital owned by a company in the form of a harmonious relationship with its partners and management of physical capital to help create added value (value added) for the company. Where is the added value received from the utilization of one unit of physical capital. Companies that can take advantage of capital employed well if the capital generates greater profits. The results of this study are consistent with research conducted by Lutfi (2015) which states that Value Added Capital Employed (VACA) has no significant effect on company profitability proxied by Return On Assets (ROA).

### **CONCLUSION**

Based on the results of hypothesis testing and referring to the formulation and objectives of this study, the following conclusions can be drawn *Islamic Banking Value Added Human capital* effect on profitability. This matters shows that *Islamic Banking Value Added Human capital* has a positive relationship to ROA, if the value of *Islamic Banking Value Added Human capital* increases, it will give an increase in ROA. *Islamic Banking Value Added Innovation Capital* no effect on profitability. This proves that capital management innovation will generate more wealth for the owners of capital. *Islamic Banking Value Added Capital employed* no effect on profitability. This proves that increase or decrease from score *Islamic Banking Value Added Capital employed* not following the increase or a decrease in the company's ROA.

This has implications for the future The management of Islamic Commercial Banks should not only be oriented towards high profit-sharing financing, but the procedures for providing financing must also be considered. Sharia Banking Management preferably not just emphasizing allocation equity only to employees and the banking sector itself, but also to society and shareholders

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