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Intellectual Capital and Financial to Deposit Ratio on the Financial Performance

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Abstract: This research examines the influence of intellectual capital and the financial to deposit ratio (FDR) on the financial performance of Indonesian Sharia Banks from 2010 to 2015. This study employed three main components of Value Added Intellectual Capital (VAIC™), including Human Capital Efficiency (HCE), Structural Capital Efficiency (SCE) and Capital Employed Efficiency (CEE). Moreover, in measuring financial performance, this study used ROA as the proxy. This study used data from Sharia Banks' financial report. The analysis technique in this study is multiple regression model with hypothesis testing by using t test. After the classical assumption tests, the empirical results reveal that all of the independent variables have significant impacts on RO. Surprisingly, the strongest influence factor in strengthening the financial performance is Human Capital Efficiency (HCE). This study has contributed to an expand understanding on the relationship between intellectual capital, FDR and financial performance. This study also contributes in giving a perspective in an emerging country. Some limitations and further studies are discussed.

Keywords: Human Capital Efficiency (HCE), Structural Capital Efficiency (SCE) and Capital Employed Efficiency (CEE), Financial to Deposit Ratio (FDR) and Financial Performance

Introduction

Banking is important for a country development. Banks should always evaluate their Financial Performance accurately and periodically to maintain their operational continuity, health and business efficiency. The bank's Financial Performance is expected to be always shown the increasing fluctuations each year. In finding out the condition of Financial Performance of a bank, it could be seen through the financial statements which are presented periodically by the bank. According to Kasmir (2011), the assessment of a bank's Financial Performance could be seen from several aspects, such as Liquidity, Solvability and Profitability. Profitability is the most appropriate indicator in measuring the Financial Performance of a bank (Bambang, 2010). Similarly, Veithzal, et. al (2011) stated that the profitability measurements in banking industry could be assessed through the company's Return on Total Assets (ROA), Return on Equity (ROE), Net Interest Margin (NIM), Ratio of Operating Expense on Operating Revenue (BOPO), and free based income ratio. Whilst, others commonly used ROA and ROE as the profitability measurements (Bambang, 2010).

ROA is employed in measuring the bank's profitability because the Bank Indonesia, as the central bank and supervisor of banking, prioritizes the profitability of a bank when its funds come mostly from public saving. According Lukman (2009), ROA is used to measure the banks profitability because the Bank Indonesia as a supervisor and controller of banking business prioritizes the profitability which is measured in terms of the bank's assets that funded mostly from public savings

The greater the ROA of a bank, the greater the level of profit which is achieved by the bank, and the better the bank's position in terms of asset employment (Lukman, 2009). Therefore, in this study the ROA was used as a measurement of the bank's Financial Performance.

The purpose of selecting of the banking industry for this study was because of the necessities of bank's activities in boosting the economy of the real sector. The study focused on sharia banks which are publicly listed in Indonesia. Moreover, the growth of sharia banks' network has been increasing rapidly. This rapid growth is mainly on the network office of Sharia Commercial Bank (BUS) and Syariah Public Financial Banks (BPRS) which are grown by more than 100% during 2005-2010. The high sharia bank's growth proves that the high attractiveness of sharia banking business in Indonesia. This growth is also supported by the government through the Office Channeling system as issued by The Bank Indonesia. Based on Regulation of The Bank of Indonesia no. 8/3 / PBI / 2006, this system provides an opportunity for conventional banks which have the Sharia Business Unit (SBU) to provide the sharia transaction services without obligation to open the SBU branches in various places.

There are many factors which affect the Financial Performance of the banks, as Lukas (2003) states that Financial Performance is influenced by debt and owned capital or by the financing structure. According to Kasmir (2012), the banks' Financial Performance is influenced by its liquidity that is measured by the bank's ability to refinance, and according to Ihyaul (2008), the intellectual capital could illustrate the ability of banks in managing its owned assets to be able to generate optimal revenue or profit.

The first factor is liquidity, which is measured by Financing to Deposit Ratio (FDR) and it can be used as affecting variable for ROA and it is also related to conflict of interest between liquidity and profitability. This ratio determines the bank's ability to repay liabilities towards customers who have invested their funds by employing the loans that have been distributed to the debtor. The higher rate of the LDR ratio, the higher level of the liquidity. If the bank wants to maintain its liquidity position by extending the cash reserves, the bank will not employ the existing loan-able funds, because some of them are returned in cash reserve, which means that it will reduce the profitability attainment. Conversely, if the bank wants to enhance its profitability, then the bank will use the cash reserve in liquidity for its business, so its liquidity will decrease (Sinungan, 2000).

Improvement of the Financial Performance of the banks should also be supported by the efficiency of asset management. The bank shall manage and use its assets optimally to generate the income in banking operation. Moreover, the existence of the knowledge society has changed the value creation of the organization. The future and prospects of the organization will then depend on the management ability to empower the hidden value of intangible assets (Astuti, 2005). Intangible assets are not reported in the conventional accounting system. Most companies more focused on their tangible assets. Therefore, it is important to assess the intangible assets; one of which is the intellectual capital.

According to Bontis, et al (2000) the Intellectual Capital affects the Financial Performance of banks. The experts state that the greater the Intellectual Capital owned by a company, the higher the Financial Performance is. Intellectual Capital is a material that has been compiled, captured, and employed to generate higher value of asset that could affect the Financial Performance and is often become a major determinant of a bank's profit.

Intellectual Capital (IC) is one of the resources which is owned by the company. Intellectual Capital (IC) is generally defined as the difference between the market value of the firm and the book value of the firm's assets or from financial capital. Intellectual Capital (IC) often becomes the major determinant of earnings of the company. A company could find the market valuation by using measurement method of Value Added Intellectual Coefficient (VAIC), by looking at the intellectual ability owned by the company and the value of the company.

VAIC was a method developed by Pulic in 1998 which is designed to present information about the value creation efficiency of tangible assets and intangible assets owned by the company. This model starts with the company's ability to create Value Added (VA). According to Pulic (in Ihyaul, 2008), VA is the most objective indicator to assess business success and demonstrate the company's ability in value creation.The main components of the VAIC, as developed by Pulic (1998), could be seen in the company's resources, namely Human Capital, Structural Capital and Capital Employed, which consist of:

a) Human Capital Efficiency (HCE)

HCE indicates how much Value Added (VA) could be generated with the spending on the workforce (Tan et al., 2007). Human capital represents a company's ability to manage the capital knowledge of individual in organization, which is represented by its employees as a company's strategic asset because of their knowledge. HCE is obtained from the expenses which are related to employees, such as salaries, benefits and others.

b) Structural Capital Efficiency (SCE)

Structural Capital Efficiency (SCE) indicates the contribution of structural capital which is needed to generate 1 rupiah from the company's value added. In this model, as developed by Pulic (1998), SCE is calculated by dividing Structural Capital (SC) with Value Added (VA). In this model, SC is derived from VA subtracted with HC.

c) Capital Employed Efficiency (CEE)

CEE is an indicator for value added which is created by a unit of physical capital to the company's value added. CEE is a comparison between Value Added (VA) and working physical model (CE). CE is obtained from the company's total equity and net income. In the process of value creation, the potential of intellectual which are represented in employee costs is not counted as costs.

The relationship between liquidity, intellectual capital and the Financial Performance of sharia banks can be shown in Figure 1 below:

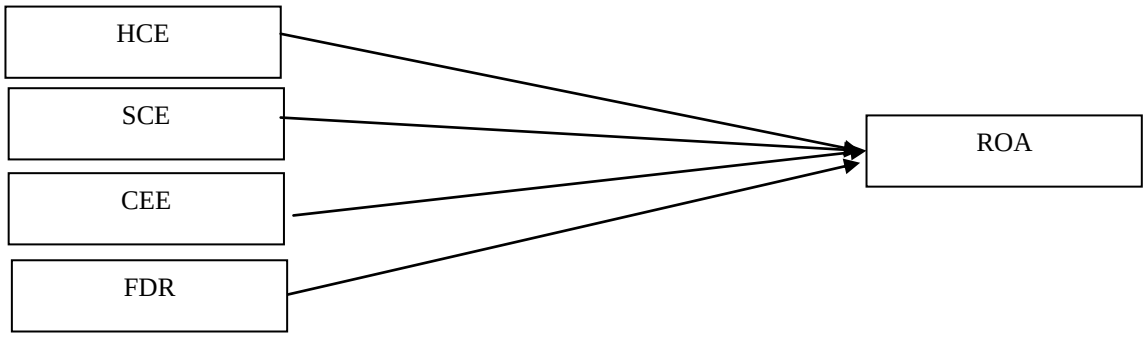

Figure 1. Conceptual Framework

Based on the theory and identification of problems which have been presented previously, this study formulates four hypotheses as follows:

H1: Human Capital Efficiency (HCE) has a positive and significant effect on Return on Assets (ROA).
H2: Structural Capital Efficiency (SCE) has a positive and significant impact on Return on Assets (ROA).
H3: Capital Employed Efficiency (CEE) has a positive and significant effect on Return on Assets (ROA).
H4: Financing to Deposit Ratio (FDR) has a negative and significant relationship with Return on Assets (ROA).

Methods

Operational Definition and Variable Measurement

Operational definition of the variables used in this study can be seen in the following table:

Tabel 1. Operational Definition and Variable Measurement

No	Variable	Conceptual Definition	Indicator
1	Financial Performance (ROA)	Measures the capability of bank's management in obtaining revenue or profit in overall	ROA = (Earnings Before Taxes / Total Assets)x 100%
2	Liquidity (FDR)	Company's ability in redelivering the received funds to the community in the form of financing.	LDR = (Credits / (Third Party Fund + KLBI + Main Capital)) x 100%
3	Human Capital Efficiency (HCE)	How many Value Added (VA) could be produced from expenses for workforces	HCE = VA/HC
4	Structural Capital Efficiency (SCE)	Contribution of structural capital which is needed to earn 1 rupiah from the company's Value Added	SCE = SC/VA
5	Capital Employed Efficiency (CEE)	Comparison between Value Added (VA) with working physical model (CE)	CEE = VA/CE

Sources: reproduced from multiple sources

The analytical tool used in this research is multiple linear regression. Before taking regression test, the first thing to do is conducting classical assumption test to know whether the data used meets the requirement of regression model. The testing includes outlier, normality test, and then observing the value of determination coefficient (R^2). Therefore, hypotheses testing conducted to find the influence of independent variables towards dependent variable.

Result and Discussion

The collected data have passed the outlier, the normality and auto-correlation test; therefore, the data can be used for regression analysis. The results can be seen in the table 2.

Table 2. Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-0,012	0,002		-5,249	0,000
HCE	0,015	0,000	0,926	35,889	0,000
SCE	0,007	0,003	0,055	2,231	0,030
CEE	0,020	0,004	0,144	5,336	0,000
FDR	-0,006	0,002	-0,075	-3,036	0,004

a. Dependent Variable: ROA

Based on the regression's result, we formulate the linear equation for this research, as follows:

$Y= -0.012 + 0.015X_1 + 0.007X_2 + 0.020X_3 - 0.006X_4$

Explanation:

Y : Company's Performance (ROA)
X_1:Human Capital Efficiency
X_2:Structural Capital Efficiency
X_3: Capital Employee Efficiency
X_4: Financial Debt Ratio

The interpretation of the regression results will be explained as follows:

1) The coefficient regression of HCE (X1) as 0.015 in a positive sign indicates each increase of one Rupiah in HCE will increase the banks performance by 0.015.
2) The coefficient regression of SCE (X2) as 0.007 in a positive sign signifies each amount of one unit SCE value will increase the banks performance by 0.007.
3) The coefficient regression of CEE (X3) as 0.020 in a positive sign means each amount of one unit of CEE value will increase the banks performance by 0.020.
4) The coefficient regression of FDR (X4) as 0.006 in a negative sign means each amount of one unit of FDR value will decrease the banks performance by 0.006.

Discussion

The Effect of Human Capital Efficiency (HCE) on the Bank's Financial Performance (Return on Asset) at Commercial Sharia Banks in Indonesia

Based on the results, Human Capital Efficiency (HCE) has a positive and significant effect on Financial Financial Performance. Thus, the first hypothesis that HCE has a positive and significant effect on ROA of Sharia Banks is accepted. This means that the bank has been able to manage the expenses incurred to increase Financial Performance of the human resources that will have an impact on the financial performance of the bank's finance optimally. There are indications that the salaries and benefits which are given by the company to employees have been able to motivate employees to improve their Financial Performance as well as good human resource management by companies, such as providing training and employee development; thereby affecting the improvement of the company's Financial Performance in the form of increased profit. The expert of human model theory (Becker, 1964) assumes that improvements in employees' skills, knowledge and abilities can contribute to improving the company's Financial Performance.

The Effect of Structural Capital Efficiency (SCE) on Financial Performance Bank (Return on Asset) at Commercial Sharia Bank in Indonesia

Based on the hypothesis testing, the regression coefficient value is of 0.001 with a significance level of 0.030 <0.050. This indicates that Structural Capital Efficiency (SCE) has a positive and significant influence on Financial Financial Performance. In other words, the increasing in SCE will increase the company's financial performance. Thus, the second hypothesis that SCE has a positive and significant effect on ROA is accepted.

This finding explains that the efficiency of structural capital can improve the company's ability in generating corporate profits. Good Structural Capital management such as system management, procedures and databases will inhibit employee productivity in generating Value Added (VA). Organizations that have strong structures will have a supportive culture that allows their employees to try new things, learn and practice them (Bontis et al., 2000).

The Effect of Capital Employed Efficiency (CEE) on Financial Performance Bank (Return on Asset) at Commercial Sharia Bank in Indonesia

Based on the results, it is found that the Capital Employed Efficiency (CEE) has a positive and significant impact on the Financial Performance of go public Sharia Bank in Indonesia 2010-2015. This is proven by the results of testing the coefficient of Capital Employed Efficiency (CEE). Hence, if the CEE has changed, it will affect the Financial Performance of the bank positively. Thus, the third hypothesis that states CEE has a positive and significant effect on the Financial Performance is accepted.

The results of this study indicate that the company has been able to manage the total revenue of assets owned by them efficiently. This research is supported by research of Muthia and Ikrar (2017) who state that CEE has a positive and significant influence on ROA. This means that the Capital Employed (CE) utilized by the company will contribute to the improvement of Financial Financial Performance. If the capital used by a company in a relatively large amount, the result in total assets of the company will also be relatively large. Thus, the income of the company is also relatively large.

The Effect of Liquidity (Financial to Deposit Ratio) to Financial Performance (Return on Asset) of Go Public Sharia Bank in Indonesia

The results found that the liquidity has a negative and significant impact on the Financial Performance of Commercial Sharia Banks in Indonesia in 2010-2015. This means that, if liquidity has increased, then the Financial Performance will be decreased. The changing in FDR value will affect the bank's ROA as the financial performance measurement. Higher credit disbursement in compared to deposits will result in greater risk for bank. If the financing disbursed failed or becomes problematic, then the bank will have difficulty to return the funds deposited by the community, so that the conditions in a bank will be problematic as well. The result of this research shows that liquidity measured by FDR ratio has a negative effect on Financial Performance, and it can be concluded that Commercial Sharia Bank must always pay attention to its liquidity ratio to get the optimal Financial Performance. This is because the increased use of liquidity that is too high in this sector can reduce the chances of banks in obtaining profit.

Conclusion

Based on the results of research on the effect of Intellectual Capital and financial to Deposit Ratio to Financial Performance of Commercial Sharia Bank in Indonesia in 2010-2015, it can be concluded that:

1. Human Capital has a positive and significant effect to Financial Performance at Commercial Sharia banks in Indonesia in 2010-2015.
2. Structural Capital has a positive and significant impact on Financial Performance proxyed with Return on Assets (ROA) at Commercial Sharia banks in Indonesia in 2010-2015.
3. Capital Employed has a positive and significant impact on Financial Performance at Go Public Sharia banks in Indonesia year 2010-2015.
4. Liquidity has a negative and significant effect on Financial Performance proxyed with Return on Assets (ROA) at Commercial Sharia banks in Indonesia in 2010-2015.

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