

An Exploration Study on the Relationship between Intellectual Capital, Earning Management and Banking Financial Performance in Indonesia

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Abstract: The purpose of this research is to explore the intellectual capital and earning management of the Indonesian banking sector and discusses their impact on the banks' financial performance. In measure the intellectual capital applies the VAIC TM method. For measuring earning management, the study uses discretionary accrual in Modified Jones Model. And for measuring the financial performance, EPS (Earning Per Share) ratio is used. In order to analyze, this research use the data of 29 Indonesian banks for the period 2012-2016. Initial data analyses, this research was conducted with PLS-SEM. The result of this study found that there is no relationship between Intellectual Capital and Earning Management. Then, there is a positive significant relationship between Intellectual Capital and Financial Performance. And there is a positive significant relationship between Financial Performance and Earning Management. In practical banks should concentrate especially in upgrading their human capital and increasing their structural capital.

1 INTRODUCTION

Since the growth of communication technology and internet technology makes the competition change. This change turns the environment into an era of digital technology that affects the challenges of the ever-changing world of competition. Technology and information make the character of business, organizations, companies and individuals constantly changing. This condition change the organizational characteristics that in the 1980s and early 1990s focused on "cost", now replaced by an interest in the concept of "value". In assessing the value, the intangible assets of an organization that tends to be of much higher value than the tangible assets so that the Intangible Asset needs to be understood and identified. (Mayo, 2000).

Traditionally, the only intangible assets recognized in the financial statements are intellectual property, such as patents and trademarks, and goodwill. But in recent years, knowledge has become a new driver for the development of the company has become one of the greatest thinking. Value can be generated by intangible assets that are not always reflected in the financial statements.

There is no doubt that corporate success tends to begin with people who continue to innovate, relying on new technologies and skills and knowledge of employees compared to the assets such as plants or machines. Companies that have a vision of the future have realized that intangible assets are an integral part of their full understanding of business performance (Starovic and Marr, 2004).

Companies should be aware of managing and communicating the value of their business beyond the nominal figures listed in the financial statements. Companies must begin to implement various intellectual capital (IC). For example, one of the biggest oil companies in Indonesia, Pertamina won awards at 2011 Indonesian Most Admired Knowledge Enterprise (MAKE) as 'the Winner of 2011 Indonesia MAKE study' and 'Special Recognition for Enterprise Intellectual Capital Management'. In the program of Knowledge Management (known as Komet), Pertamina is considered as a company that capable in managing knowledge for business progress. (Media Pertamina, 2011).

2 LITERATURE

2.1 Financial Performance

Financial performance can be observed by Earning per share (EPS) of a company. Therefore, the size of company's EPS will be an indicator of a successful company. On the other side, the benefit of investment which investors will expect is in the form of earning per share. Earnings per share represent the amount of earnings gathered for common stock. The preference of earnings per share over dividend per share is for the articulation of real earnings per share irrespective of whether dividend is paid out or not (Deberg and Murdock, 2014). There are several studies which study the relationship between EPS and Intellectual Capital for example the study of (Anuonye, 2015) concluded that human capital (HC), structural capital (SC) and relational capital (RC) each had a statistical insignificant relationship with EPS of insurance companies. Beside that the research of (Ozkan, 2017) found that VAIC consist of capital employed and human capital positively affect the financial performance of banks.

2.2 Intellectual Capital

All of resources in organization which used to calculate organization's value and the corporation's competing position named intellectual capital. In other words, it is hard to interpret intellectual capital in financial term. Meanwhile, all of the corporation's asset others than intellectual capital has standard criteria to measure their value. Presumably, this intellectual capital term could be more suitable as nonfinancial asset (Sullivan, 2000).

2.3 Earning Management

Earning management is a concept that companies do in managing financial statements so that the financial statements appear to have the quality (quality of financial reporting) (Basilico, 2014). The most frequently manipulated financial statements by a company are profit and loss statements. Earnings management is a management action to influence the reported income and the report will provide information on improper economic benefits for reasons of reporting earnings at the manager's desired level. However, these actions are still within the limits of generally accepted accounting principles.

3 RESEARCH METODOLOGY

This paper aim to explore the impact of intellectual capital and earning management on bank performance. Banking industry have a great influence of a country's economic. Moreover, bank as a financial service institution considered to be focus on human resource as the company's asset in doing business. This show the importance to explore the association between intellectual capital and earning management and performance in the banking industry. The sample of this study consist of all Indonesian Banks that listed in Indonesian Capital Market over period 2012-2016. The secondary data were collected from Indonesia Capita Market database and annual financial reports. The model was proposed in this research is to explore whether financial performance will be predicted by the intellectual capital and earning management. Financial Performance (EPS) = $f(\text{IC}, \text{EM})$ whereas: EPS = Earning Per Share as an indicator for financial Performance, IC = Intellectual Capital, EM = Earning Management proxy by Discretionary Accrual.

4 RESULT

4.1 The Result of Validity Test

Outer loadings test results show more than 0.7 score. From these results it can be concluded that all variables have good convergence validity, in the sense of qualification (valid).

Table 1: Outer Loading.

Variabel	Indikator	Outer Loading
Structural Capital Value Added	STVA	0.688
Value Added Human Capital	VAHU	0.831
Earning Management	EM	1.000
Financial Performance	EPS	1.000

Average Variance Extracted test results show the value of AVE obtained > 0.5. From this result it can be concluded that all variables can be declared valid.

Table 2. Average Variance Extracted.

Variabel	Indikator	Average Variance Extracted
Intellectual Capital	IC	0.582
Earning Management	EM	1.000
Financial Performance	EPS	1.000

Fornell-Lacker of each latent variable must be greater than the correlation between latent variables. Table 3 show that each latent variable value of EM, IC, FP is 1.000 that is bigger than IC to EM is 0.004, FP to EM is 0.088, FP to IC is 0.147. It can be concluded that all variables have discriminant validity.

Table 3. Fornell-Lacker.

	EM	IC	FP
EM	1,000		
IC	0,004	0,763	
FP	0,088	0,147	1,000

The Cronbach Alpha test results showed a score of more than 0.6. Thus, the cronbach alpha validity requirement in the case of this study is met.

Table 4. Cronbach Alpha value.

Variabel	Cronbach Alpha
Intellectual Capital	0.687
Earning Management	1.000
Financial Performance	1.000

Composite Reliability test results showed a score of more than 0.6. Thus, the validity requirements of composite reliability in the case of this study are met.

Table 5. Composite Reliability.

Variabel	Composite Reliability
Intellectual Capital	0.734
Earning Management	1.000
Financial Performance	1.000

From Table 6 show the result of VAHU has the maximum value of 8,907,431,483.000, the minimum value of -9,635,885,511.000. It showed that there are still some companies tend to have negative value of VAHU. For the STVA, it has the maximum value of 1,063,482,463.000 and the minimum value of -4,445,672,217.000. The EPS as the financial

performance proxy showed that the maximum value of EPS is 851,660.000 and the minimum value is -43,000.000. Earning management that exist has maximum EM 14,513.000 and the minimum EM -186,972.

Table 6. Descriptive Analysis.

	MIN	MAX
VAHU	-9,635,885,511.000	8,907,431,483.000
STVA	-4,445,672,217.000	1,063,482,463.000
EPS	-43,000.000	851,660.000
EM	-16,633.000	14,513.000

4.2 Regression Result

4.2.1 Relationship of Intellectual Capital on Earning Management

Based on Table 7, it showed that relationship between Intellectual Capital and Earning Management which is p value = 0.875 > 0.05 and T statistic is 0.157 < 1.96 so H_0 accepted and reject H_1 , it means that there is no relationship a between Intellectual Capital and Earning Management.

4.2.2 Relationship of Intellectual Capital on Financial Performance

Based on Table 7, it showed that relationship between Intellectual Capital and Financial Performance which is p value = 0.004 < 0.05 and T statistic is 2.900 > 1.96 so H_0 rejected and accepted H_1 , it means that there is a positive significant relationship between Intellectual Capital and Financial Performance.

4.2.3 Relationship between Financial Performance and Earning Management

Based on Table 7, it showed that relationship between Financial Performance and Earning Management is p value = 0,004 < 0,05 and T statistic is 2.898 > 1.96 so H_1 rejected and accepted H_0 , it means that there is a positive significant relationship between Financial Performance and Earning Management.

Table 7. Bootstrapping.

	O. Sample	(STDEV)	T Stat.	P Values
IC -> EM	-0,010	0,061	0,157	0,875
IC -> FP	0,147	0,051	2,900	0,004
FP -> EM	0,089	0,031	2,898	0,004

4.2.4 R Square

The value of R² is used to measure the level of variation of the independent variable changes to the dependent variable. The R² value of this study can be seen in the following figure. Based on Table 8, it can be concluded as follows:

1. R Square value for Earning Management variable of 11.6% which means that earning management can be explained by Intellectual capital by 11.6%. While the remaining 88.4% is explained by other variables not include in the research model.
2. The R Square value for the Financial Performance variable is 17.9% which means that financial performance can be explain by intellectual capital and earning management by 17.9%. While the remaining 88.1% is explained by other variables not include in the research model.

Table 8. Output R Square

	R Square	R Square Adjusted
EM	0.116	0.079
FP	0.179	0.136

5 DISCUSSION

Preliminary Testing revealed that the empirical model has met the requirement of outer loading, AVE, composite reliability, Cronbach alpha. The VAIC model only approve for the VAHU and STVA as the indicator of Intellectual Capital. The result of this study showed that there is no relationship between intellectual capital and earning management which is $p \text{ value} = 0.875 > 0.05$ and T statistic is $0.157 < 1.96$. This result support by (Vakilifard and Rasouli, 2013) who found that all variables used to measure IC are not associated with earning management. But the research of (Mojtahedi, 2013) reveals that there is a significant and positive relationship between human capital efficiency and earning quality. This means that if there is an increasing in the level of knowledge and experience among executive management as an

indicator of human capital, they have more ability to manage accrual and accordingly it will increase the quality of earnings.

However, this study reveals that there is a positive significant influence of Intellectual Capital on Financial Performance (using indicator of Earning Per Share) which is $p \text{ value} = 0.004 < 0.05$ and T statistic is $2.900 > 1.96$. It means that if an increasing in Intellectual Capital, then there will be an increasing in Financial Performance. This result is support by the research of Pasaribu, 2012. This indicate that VAHU as part of VAIC TM model proved to have significant effect on financial performance. This is because the VAHU (Value Added Human Capital) as saying as the Human Resource is the lifeblood of the company especially in banking firm. Banking is the firm where innovation, information technology development and improvement always take place. Human Capital can also be the source of a very useful knowledge, skills and competence in a bank. It reflects the collective ability of the bank to produce the solution based on knowledge. This condition suitable for the company that are very regulated such as Bank because Bank depend on its human capital in doing their business. Therefore, bank have to make sure that its human resource has knowledge, skills, capability, competence in their job. The banks will improve its performance if human capital is capable of using the knowledge, skills and competence. Another part of VAIC TM model in this research is STVA (Structural Capital Value Added) can be said to have an impact on Financial Performance. The research of (Ahangar, 2011) concluded that the performance of a company's intellectual capital (human capital and structural capital) can explains the financial performance. Also, this result consistent with (Bontis, 2000), using a survey instrument and conducting PLS one Malaysian sample, found a significant relationship between structural capital and financial performance.

6 CONCLUSIONS

VAIC in this research is formed only by the indicator of VAHU and STVA. This means that the company's Intellectual Capital affects its performance improvement due to the factors such as human resource, physical funds, equity, and profits. Thus, the greater the Intellectual Capital consist of human capital and structural capital, the higher the bank's performance. But the result also shows that there is no relationship between intellectual capital

and earning management. It means some other variables may affect the earning management. High and low intellectual capital is not incentive for the bank to do earning management.

The main practical conclusion of this research that banks should concentrate especially in upgrading their human capital and increasing their structural capital for example creating convenient and efficient information systems, designing and applying mechanisms and tools for stepping up cooperation and information exchanges between their staff, cataloguing organizational knowledge, and providing easy access to all of the above facilities to all links of the production chain.

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