





#### Conference Paper

# Reflexivity of Intellectual Capital to Assets in Jakarta Islamic Index with Hahslm Approach

#### **Roikhan Mochamad Aziz and Nurul Hasanah**

UIN, Syarif Hidayatullah, Jakarta

#### Abstract

This study aims to examine the reflexivity of value added of intellectual capital that consist of three components from company sources (human capital, capital employed, structural capital) towards company's financial performance which is listed in Jakarta Islamic Index with Hahslm approach. These values added of intellectual capital has close relation with the well being function of the company. The population in this study has 30 companies that were listed in the Jakarta Islamic Index within the period 2013–2016. The sampling technique is used as subjective sampling based on 17 companies. This study uses secondary data that is obtained from the Indonesia Stock Exchange. Theory H shows the test with religiosity perspective [3]. The hypothesis of this study has been tested by using partial least square (PLS). The method used is VAIC from public information which is made into separate variables that are connected to the company's financial performance (ROA). The results showed that VAHU has no significant influence on the company's financial performance and so did STVA, while VACA has a significant effect on company's financial performance. From the result, the study showed that company should have well-being function to have a significant influence on the company's financial performance.

Keywords: human, capital, structure, ROA

## 1. Preliminary

#### 1.1. Background

Financial performance is related to the financial statements because the financial statements are often used as the basis for the assessment of company performance. The financial statements show the financial position and performance indicators of the company. Hence, the company's performance is an important thing that must be achieved by a company because the company's performance is a description of the company's ability to manage its resources.

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A knowledge-based business is an intangible asset such as the skills and knowledge of workers, information technology that supports workers and connects companies with customers and suppliers, as well as an organizational climate that encourages innovation, problem solving and development (Kaplan and Norton, 2001). Religiosity is the factor of intangible asset in company [3], this factor can be approached by Theory H. And also, there is approach to measuring intangible assets for skill and knowledge, that is the intellectual capital (IC) approach.

Intellectual Capital is the intellectual material that has been formalized, captured and leveraged to create wealth, by producing a high-value asset (Ulum, 2009: 19). The intellectual capital is still new and has not been responded to by the global business actors, whereas the difference between the book value and the stock market value (this difference is conspicuous for the knowledge-based company) shows the missing value of intellectual capital. Such conditions suggest the importance of an assessment of the type of intangible assets (Ambar, 2004).

In Indonesia, the phenomenon of intellectual capital began to grow especially after the emergence of PSAK No. 19 (revised 2000) on intangible assets. According to PSAK No. 19, intangible assets are non-monetary assets that are identifiable and have no physical form and are owned for use in producing or delivering goods or services, leased to other parties or for administrative purposes (IAI, 2002).

Resultant of three pillars in Islam is embodied in the basic theory of Islamic economics consisting of: (1) the theory of Tawheed, (2) the theory of Worship and (3) the theory of Maslahah. Implementation of the main pillar of the economy is in line with the development of existing banking in Indonesia [2].

#### 1.2. Problem formulations

The formulations of the problem in this study are as follows:

- What is the effect of value-added human capital on corporate financial performance (ROA)?
- 2. What is the effect of value-added capital employed on corporate financial performance (ROA)?
- 3. How does the structure of capital value-added influence the company's financial performance (ROA)?



# 2. Literature Review

#### 2.1. Theoretical Basis

#### 2.1.1. Shareholder theory

In the view of stakeholder theory, the company not only has shareholder but also has stakeholders including holder, employee, customer, supplier, creditor, government and society [6]. This stakeholder group is the main consideration for companies in disclosing an information in financial statements where accounting earnings are only a measure of return for shareholders, while value added is a more accurate measure created by stakeholders, then distributed to stakeholders (Meek & Gray, 1988 in Ulum et al., 2008).

According to Gunthrie et al. (2006), financial statements are the most efficient way for organizations to communicate with stakeholder groups that are considered to have an interest in controlling certain strategic aspects of the organization. In explaining the relationship of intellectual capital to corporate performance, the ethical field of stakeholder theory argues that all stakeholders have the right to be treated fairly by the organization for the benefit of all stakeholders. When a manager is able to maximally cultivate the organization, especially in the effort of creating value for the company, it means that the manager has fulfilled the ethical aspect of this theory. Value creation in this context is to utilize all potentials of the company, whether human capital, physical capital or structural capital. Good management of all these potentials will create value-added for the company that can then drive the company's performance which can then drive the company's performance for stakeholder's interest (Ulum, 2007).

#### 2.1.2. The resource-based theory

Resource-based theory, pioneered by Penrose (1959), argues that corporate resources are heterogeneous, non-homogeneous, productive services available from company resources that provide a unique character for each company. The above-average profits come from resources controlled by a company that is not merely combined to deliver a product of value, but it is difficult for other companies to imitate or acquire it (Wernerfelt, 1984; Barney, 1986 in Galabova and Abonen, 2011).

Resources-based theory considers that the company is a collection of resources and abilities (Kor and Mahoney, 2004). Differences in resources and capabilities of firms



with competing firms will provide a competitive advantage. Assumption of resourcebased theory is how companies can compete with other companies to gain a competitive advantage by managing resources owned in accordance with the ability of the company (Wernerfelt, 1984).

#### 2.1.3. Intellectual capital

Intellectual capital (IC) is generally identified as the difference between the market value of the firm (the business enterprise) and the book value of the firm's assets or its financial capital. This is based on an observation that since the late 1980s, the market value of most businesses and specifically the knowledge-based business has become greater than the value reported in the financial statements based on calculations performed by accountants (Ulum, 2009).

CEOs of Armstrong World Industries and Gordon Petrash of the Dow Chemical Company (in Ambar, 2004) divide the components of intellectual capital into:

1. Human capital

Human capital is the company's intangible assets in the form of intellectual ability, creativity and innovation owned by its employees.

2. Structural Capital

Structural capital is the ability of the organization or company in fulfilling the company's routine process and its structure that supports the employee's effort to produce optical intellectual performance as well as the overall business performance (Moehariono, 2014).

3. Customer capital

Customer capital is a harmonious relationship/association network owned by the company with its partners, both from qualified suppliers, loyal customers and corporate relationships with the government and with the surrounding community (Aty, 2013).

#### 2.1.4. The H theory

There are some intangible approaches relating to religiosity perpective that started from the philosophy of Islam, some depart from the perspective of maslahah and some are seeing from the meaning of worship. Theory H, which stands for HAHSLM, uses



the point of view of the meaning of worship. The definition of H theory from HAHSLM according to Aziz (2016) are:

- 1. Narrowly, H theory is defined as the basic theory of the three dominant with a particular context in the five dimensions of the invariant order.
- Broadly, the most general use of H theory can be interpreted as a basic conceptual theory of creation patterns with a particular relationship. H is derived from the formula H = A.H (S, L, M). Al-Qur'an Hijr letter, also stands for Huda or Guidance.

The meanings of H Theory are, as per Aziz (2016):

- A whole set or an integrated system or an integrated part which will consist of 3 (three) main elements: primary (creator/intermediary), secondary (creation/receiver) and tertiary (worship / transmitter) that may be positively or negatively charged.
- 2. These three elements will fulfill the assertion that the secondary below the primary will do tertiary (man created God to worship).

The development of epistemology in Islamic institutions such as Islamic index delivers new terminology into a more comprehensive approach. In general, the philosophy of H theory can be coherent in sequence that the background of this theory is the value of Islam with a comprehensive concept through a balanced way to embody the meaning of worship in life. This is in accordance with the contents of the Qur'an which reads 'silmi kaffah', with the explanation that the word 'silmi' is a derivation of the letters sin lam mim. The basic word 'sinlammim' is generally one of the solutions to penetrate the development of concepts in order to solve the fundamental problems. This is the need for a better method to make balance in overcoming the limitations of methodology in Islamic studies.

#### 2.1.5. Financial performance

Company performance is a display of state of the company during a certain period (Sihasale, 2001). To know the performance achieved then performed performance measurement. Firm performance can be measured from financial statements issued periodically by the company in which it provides an overview of the financial position of a company (Purnomo, 1998).



#### 2.2. Framework

The framework of thought in this study can be described as follows:



Figure 1: Source: Analyzed, 2017.

# 3. Research Methodology

#### 3.1. Scope of research

This study aims to analyze the relationship that explains the influence of independent variables, namely, VAHU (Value Added Human Capital), VACA (Value Added customer Capital), STVA (Structure Capital Value Added) to the dependent variable and the financial performance of the company. The population in this study are all companies listed in Jakarta Islamic Index in the years 2013–2016. The data used in this study are secondary data, namely, financial statements and annual reports of companies listed



in the Jakarta Islamic Index in the years 2013–2016 and have published its financial statements for the period ended on December 31, 2010–December 31, 2016.

## 3.2. Sampling method

The population in this study are all companies listed in the Jakarta Islamic Index in the period 2013–2016, as many as 30 companies. In this research, Subjective Sampling method has been used. With the aim to get samples that match the specified criteria. Company criteria used for sample selection are as follows:

- 1. Companies listed in JII in May and November for the period of 2013–2016, respectively.
- 2. Presents annual financial reports published in the period of 2013–2016.

## 3.3. Data collection method

Data collection method used in this study is documentation study with the aim to collect, record and calculate data related to research.

#### 3.4. Data analysis method

VAIC is used to determine the efficiency of three models of Intellectual Capital, in this case, customer capital, human capital and structural capital. In this study, the variables used are VACA, VAHU and STVA as separate variables and not used the sum of the three components.

Data analysis method in this research is by using Partial Least Square (PLS). PLS is an analytical method that eliminates the assumptions of OLS (Ordinary Least Square) regression, such as data must be normally distributed multivariately and there is no multicollinearity problem between exogenous variables. Basically, PLS was developed to test weak theories and weak data such as small samples of data or the problem of data normality (Wold 1982 on Ghozali: 2015).

#### 3.4.1. The H test

This methodology has the flexibility in determining the variables to be tested. This is to provide more space for interpretation of the results of the data done. Procedural



process of engineering methodology H is done from the collection of data from objects that are sampled in the implementation of this theory [3].

- 1. First, do a data collection to obtain the magnitude of the object to be reviewed in value, price, index, percentage or nominal that is in the form of the original price.
- 2. Second, review the rate of magnitude of the object to be calculated on a percentage scale of the difference from the initial price to the next price or the difference of the first quantity by the second and subsequent quantities.
- 3. The third makes the average pattern of objects to be viewed with this theoretical perspective compared to other similar objects or reviewing the position of objects comparable to the average of similar objects.
- 4. After obtaining the nominal rate and average rate, then other data are needed from the same object in the form of data that is intangible or associated with the value of religiosity to obtain the weight of the weight compared with other objects.
- 5. Furthermore, after obtaining the nominal data, rate and weight, then the calculation of multiplication of the object data is done in the form: nominal x rate of weight x.
- 6. After getting the result of the calculation of the object under study, matrix treatment is done to obtain the result category according to the format in which case the object will be categorized in straight, loads and impact formation:
  - a. If the result is positive, then it is straight (if minus, then it is turn)
  - b. If the result is greater than 0,1, then it is load
  - c. If the result is greater than the average value, then it is impact

# 4. Research Result and Discussion

This study uses a model of PLS Structural Equation Modelling (SEM), in which PLS-SEM aims to test the predictive relationship between constructs by seeing whether there is a relationship or influence between the constructs. Software used in this research is SmartPLS 3.0.

Figure 2 shows that each variable has four indicators. The indicator consists of each year's data of variables. The direction of the arrow between the indicator and the latent





Figure 2: SmartPLS 3.0 Pattern (constructed image).

collar is towards the construct indicating that the research uses formative indicators that define the characteristics or explain the constructs.

#### 4.1. Validity test

Validity testing for formative indicators indicates a change in an indicator in the construct if another indicator on the same construct is changed or removed from the model.

Validity test in this research can be seen from the test of convergent validity, discriminant validity and also seen from AVE value. The output of the validity test can be seen further.

Table 1 shows that the loading factor value in each construct is more than the loading value of the suggested factor, that is, 0.70. The lowest indicator value is in the indicator x12 with the value of 0.899 and the indicator that has the highest value y3 of 0.994, then the indicator in this study is valid or meets the convergent validity test. Then will be tested discriminant validity with output as follows:



	ROA	STVA	VACA	VAHU
X1				0.994
X2				0.992
X3				0.993
X4				0.992
Х5			0.983	
Х6			0.932	
Х7			0.994	
X8			0.997	
Х9		0.953		
Х10		0.953		
X11		0.889		
X12		0.971		
Y1	0.989			
Y2	0.983			
Y3	0.994			
Y4	0.975			

TABLE 1: Outer Loading results.

Table	2

ROA	STVA	VACA	VAHU
0.985			
0.281	0.944		
0.903	0.235	0.972	
0.060	0.657	0.001	0.993
	ROA 0.985 0.281 0.903 0.060	ROA  STVA    0.985	ROA      STVA      VACA        0.985      -      -        0.281      0.944      -        0.903      0.235      0.972        0.060      0.657      0.001

Source: Data processed with SmartPLS

An indicator is valid if the value of factor loading has the highest value to the intended construct compared to the loading factor value to another construct. Table 2 shows that the loading factor for ROA (Y) indicator has a loading factor to ROA (Y) construct is bigger than other construct with value equal to 0.985.

From Table 3, it can be seen that the AVE value of each construct is more than 0.5, that is, ROA (Y) has a value of 0.971, STVA has a value of 0.892, VACA has a value

	AVE
ROA	0.971
STVA	0.892
VACA	0.944
VAHU	0.985
Source: Data processed with SmartPLS	

TABLE 3: Average Variance Extracted (AVE) results.

o.994 and VAHU has a value of o.985. It can thus be stated that this construct satisfies the test of dicriminant validity.

#### 4.2. Reliability test

Reliability test in this research is seen from Alpha cronbachs value generated from each construct. Alpha cronbachs results that can be said to meet the reliability test if more than 0.70. The following is the output of the Alpha cronbachs test.

	cronbachs Alpha
ROA	0.990
STVA	0.959
VACA	0.980
VAHU	0.995
Source: Data processed with SmartPLS	

TABLE 4: Cronbachs Alpha results.

From the Table 4, it can be seen that Alpha cronbachs value of each construct is very good, that is, above 0.70 with ROA of 0.990, STVA of 0.959, VACA 0.980 and VAHU 0.995, so it can be concluded that all constructor indicators are reliable or meet the reliability test.

Then, the reliability test in this study can also be reinforced by composite reliability test. In order to be affiliated to meet the reliability test, the recommended value of composite reliability should be more than 0.70. Here is the output of composite reliability.

From the Table 5, it can be seen that the value of composite reliability of each construct is very good, that is, above 0.70 with ROA of 0.993, STVA of 0.971, VACA



TABLE 5:	Composite	Reliability Te	est.
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	composite reliability
ROA	0.993
STVA	0.971
VACA	0.986
VAHU	0.996
Source: Data processed with SmartPLS	

0.986 and VAHU 0.996, so it can be concluded that all constructor indicators are reliable or meet the reliability test.

It can also be seen that the composite reliability value is higher for all constructs compared with the alpha cronbachs value. It also reinforces the research that the constructs in this study satisfy the reliability test.

#### 4.3. Hypothesis test

In conducting hypothesis testing, this study conducted *T*-test and R-Square Adjusted value (R<sub>2</sub>). Criteria of acceptance and rejection of hypotheses used in the study using the *T*-test and the value of R-Square Adjusted (R<sub>2</sub>).

#### 4.3.1. T-test

The research hypothesis is acceptable if the value of t arithmetic (t-statistic) is more than t table at error level 1.96. The following is the value of t arithmetic (t-statistic) based on the path coefficient generated from the analysis.

	Original Sample	T-Statistic	P Values
STVA ROA	0.058	0.175	0.861
VACA ROA	0.889	6.671	0.000
VAHU ROA	0.021	0.059	0.953

TABLE 6: *T*-test result.

From the coefficient of path, it can be seen that VAHU does not have influence on the performance of company financial (ROA), this is because t-statistics owned VAHU less than t table 1.96 that is equal to 0.175 and p values 0.861 greater than 0.05.



With these results, the first H1 research hypothesis stating that there is a positive influence between VAHU on corporate financial performance is rejected. This means that the Company has not been able to optimize its human capital to improve the company's financial performance. This shows that data analysis of this research supports the research of Wang and Chang (2005), Siti Pratiza J and Fivi Anggraini (2007) and Febriyanti R et al. (2014).

#### 4.3.2. R-square adjusted (R<sup>2</sup>) test

The next hypothesis test is done by looking at the value of R-Square Adjusted (R2). According to Ghozali (2015), if the value of R-Square Adjusted (R2) is more than 0.67 indicates that the model is good. A R2 of 0.33 indicates that the model is moderately categorized, whereas if R2 result is less than 0.33 indicates that the category is weak.

TABLE 7: R-Square Adjusted (R<sup>2</sup>) Result.

	R-Square Adjusted (R <sup>2</sup> )
ROA	0.778
Source: Data processed with SmartPLS	

Table 7 shows that the value of R-Square Adjusted (R2) in this study is 0.778, which is greater than 0.67, it shows that the model in this research is good which means model of influence of intellectual capital which is valued by VAHU (Value added human capital), VACA (Value added capital employed) and STVA (structure capital value added) can affect the company's financial performance by 77.8 percent, while 22.2 percent is influenced by other variables not found in this study.

# 5. Conclusion

#### 5.1. Conclusion

Based on the analysis and discussion that have been done in the previous chapter, it can be concluded that:

1. The result of the research shows that VAHU (Value Added Human Capital) calculated using Public Method (1999) has no significant effect on financial performance of companies listed in Jakarta Islamic Index. This means that intangible assets owned by the company in the form of intellectual ability, creativity and



innovations owned employees have not been able to improve the company's financial performance.

- 2. The results in this study show that VACA has a significant positive effect on the financial performance of the company. This means that the relationships with the company's partners are very influential on the financial performance of the company. The better the company's relationships with its partners the higher the company's financial performance.
- 3. In this study, STVA variable (Structured capital value added) has no significant effect on the financial performance of the company, meaning that the company has not been able to optimize the infrastructure owned by the company to improve the company's financial performance.

## 5.2. Suggestions and implications

Based on the aforementioned conclusions, the authors provide some suggestions that may be useful. The suggestions and implications are as follows:

#### 5.2.1. For academics

For academicians, it is expected to increase the number of samples and increase the time period in order to increase the amount of data so as to obtain better results and can provide benefits in the form of knowledge and references on VAHU (Value added capital), STVA (structure capital value added) in subsequent research.

#### 5.2.2. For investors and potential investors

For investors and potential investors, pay more attention to Intellectual Capital company as a consideration in making investments.

#### 5.2.3. For companies

In investing, investors will be exposed to some risks. Therefore, every company should consider the matters relating to the decision of investment by considering the financial performance of the company.



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