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CONTENTS

Determinants of Intellectual Capital Performance
(Empirical Study: Indonesian Syariah Bank 2010 – 2015)

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Article Info

Abstract

The purpose of this research is to examine the determinants of Intellectual Capital performance in Indonesia's *syariah* banks over the period 2010 – 2015. Multiple regression analysis is used to test the relationship between the independent variable and the dependent variable–intellectual capital performance. *The value added intellectual capital (VAIC)* developed by public is used to measure the intellectual capital performance in Indonesia's *syariah* banks. Results indicate that market concentration level as the independent variable has a positive and significant relationship with the intellectual capital performance. The other independent variable, bank profitability and bank risk, has a negative influence to the intellectual capital performance. Meanwhile, barriers to entry in the corporate sector, bank size, and bank size are not significantly influencing the intellectual capital performance. There are several measurements of intellectual capital performance such as Pulic (VAIC), VAIC modification by Ulum (M-VAIC), or Tobin-Q. Those methods difference lower the research validity. This research may give information related to the determinants of intellectual capital performance for *syariah* banks in order to take it as the consideration in making operational decision. This research is the first research that tests the determinants of intellectual capital performance in Indonesia's *syariah* banks over the period 2010 – 2015.

1. Introduction

World Bank (in El-Bannany, 2012) stated that knowledge is the key factor influencing the regional or national life standard. Usoff *et al* (2002) stated that knowledge, as an economical resource, play a vital role in increasing the competitive advantage. Porter (in Smit, 2010) identified four basic determinants of the competitive advantage of a nation, namely factor condition, demand condition, industrial relation and support, and enterprise's strategy. The fact proved that countries which have advance technological economics use knowledge as the basis.

Organization for Economic Cooperation and Development (OECD) (in Godin, 2006) defined knowledge-based economics as "Economics that is directly based on production, distribution, and used knowledge and information". Countries, which are able to apply knowledge-based economics, will achieve high success in developing their economic continually. For instance, Finland and South Korea are those which use knowledge-base economics. Hence, they can compete and excel in economical growth compared with those which use resource-base economics. (Tjakraatmadja & Adityawarman, 2012).

In term of knowledge-base economics, Usoff et al (2002) stated that intellectual capital has a crusial role in generating value and maximize the shareholders' property. Intellectual capital is a source of competitive advantages and the stimulus of production activity which is able to add the output value of knowledge-base enterprise. Intellectual captal may also help to differentiate the output of a enterprise to that of the other enterprise. Therefore, the strong intellectual capital performance can maximize the stakeholders' property (El-Bananny (2012).

Though the acknowledgement of the importance of intellectual capital in supporting enterprise's value and competitive advantage is increasing, accounting standard regulating about intellectual capital is still limited. In Indonesia, implicitly, intellectual capital has been admitted and discussed on Standard Statement of Financial Accounting (PSAK) 19 about the intangible asset. Standard regulating intellectual capital does not explicitly explain that. However, the components of intellectual capital describe the accounting treatment to the components (Ulum *et al*, 2014).

Services-based companies depend on the intellectual capital in term of their employees' knowledge and creativity rather than that of their tangible fixed assets such as land, machine, and monetary wealth to enhance and maximize a business value (El-Bannany, 2012). Firer and Williams (2003) classify banking sector as a sector with high intellectual capital value-added. According to Mavridis (2003), banking sector is an appropriate place for conducting intellectual capital research due to the reliable data availability, the intellectually intensive business character, and the more homogenous staff (intellectually) than the other sectors.

In operational term, Indonesia's banks are classified as commercial banks based on both *non-syariah* and *syariah* principle (Ulum *et al*, 2014). According to Abduh and Omar (2012), after "the 1998 multi-dimension crisis", since a decade ago, Indonesia changed to be one of the biggest democracies systems. Large changes occur on various aspects, included rapid *syariah* banking development. *Syariah* banking has given stronger fundamental sustainability to the recently Indonesia's economic development.

Due to the development, Bank of Indonesia released the blueprint of *syariah* banking development in Indonesia in 2002. The blueprint consisted of vision, mission, and objective of *syariah* banking development in term of a decade (Utomo *et al*, 2014). One of the blueprint objectives is to achieve the number of five percent of *syariah* banks market in 2009. However, in fact, the objective is not fulfilled. The *syariah* banking development, thought has not reached to what the blueprint declared, keeps showing a significant development. From 2011 to 2012, *syariah* banks' asset increased 25.81% from Rp 116.53 billion to Rp 146.62 billion, and their profit is also

increased 60.66 % from Rp 1,064 billion to Rp 1,709 billion (Utomo *et al*, 2014).

The rapid *syariah* banking growth in Indonesia should be equilibrated with the well understanding of intellectual capital on each bank. In term of knowledge-based economics, the competence of knowledge will deliver a business to survive and compete. Due to the important contribution, intellectual capital can be valueable asset for *syariah* banks.

This research aims to analyze the determinants of intellectual capital performance where the intellectual capital is measured by three constituent components existed. Those three components are internal capital, external capital, and human capital. The previous research had examined the determinants of intellectual capital performance using different theories such as bank size, global financial crisis, investation on IT, enterprise's value, directors' education level, etc (El-Bannany, 2012; Al-Musalli and Ismail, 2012; Joshi, 2010; Nuryaman, 2015). That research has not used Indonesia's *syariah* banks over the period 2010-2015 as the sample yet.

2. Literary Review and Hypothesis Development

2.1 Intellectual Capital

In recent years, many individuals and groups from various disciplines strive to agree on the standard definition of intellectual capital (Nazari and Herremans, 2007). Edvinsson and Malone (1997) simply defined intellectual capital as a knowledge that can be changed into value. Stewart (1997) expanded the definition of intellectual capital as "intellectual components (knowledge, information, intellectual property, and experience) which are able to be utilized to wage property" by developing competitive advantage in an organization. Here is the table consisting of the intellectual capital definitions from several researchers:

Table 1. Intellectual Capital Definitions

Researcher	Intellectual Capital Definition
Akpinar (in Nuryaman, 2015)	The result of knowledge, experience, invention, market, and society which can influence the enterprise.
Bukh *et al* (2005)	Source of knowledge in form of employee, customer, process, or technology which can drive the value generating process.
Bontis (in Goh, 2005)	Each employee and knowledge in an organization contributingthe continuous competitive advantage.
Itami (in Goh, 2005)	Intangible asset including particular technology, customers' information, brand, reputation, and organizational culture which is useful for enterprise's competitiveness.
Kamath (2007)	Each creature of either human intelligence or human thought.
Maleki and Serkani (in Maressa 2016)	Intangible asset portfolio not generally reflected on the enterprise's balance.
Mavridis (in El-Bannany, 2008)	An intangible with the potential to create value for the enterprise and the society itself.
Mouritsen (in El-Bannany, 2008)	The entire unique organizational knowledge on aenterprise, which allows us to keep adapting to the currently conditional changes.
Nuryaman (2015)	The difference between enterprise's market value and enterprise's replacement asset.Enterprise's market value equals to book value added by enterprise's intellectual capital.

Roos and Roos (in Ulum, 2014)	Enterprise's intangible asset such as brand, trademark, and copyright, and all assets not presented on financial statement. Intellectual capital is an important source for the company's continuous competitive advantage.
Yaundt (in Ulum, 2014)	The number of knowledge which can be utilized by the organization in the business process to gain the competitive advantage.

Intellectual capital can be described by acknowledging the constituent components. Three main intellectual capital constituents suggested by Sheivy (1997) are human capital (employee), internal (structural) capital, and external (relational/customer) capital(Whiting & Woodcock, 2011). Many researches also utilized those components as the references related to the intellectual capital concept (El-Bannany, 2012). Here is the definitions of those three components:

1. Human capital

    Human capital can be described as the source of business power to form and maximize the business value (El-Bannany, 2012). Human capital not only covered the enterprise's tangible asset such as the number of employees but also covered the intangible asset derived from the competence, behavior, and intellectual intelligence (Roos *et al*, 1997). Human capital of an enterprise is useful to help the enterprise in determining the appropriate strategy in various business situations and to help the enterprise to create either tangible or intangible asset.

2. Internal capital

    Internal capital can be described as the internal power driving the enterprise (El-Bannany, 2012). Whereas, according to Petty and Cuganesan (in El-Bannany, 2012), internal capital is knowledge built in the organization's structure and process. Intellectual capitals based on internal capital component are enterprise's culture, leadership, communication, managerial process, information system, IT, network, computer software, and telecommunication (El-Bannany, 2012).

3. External capital

    According to Marti (in Nazari, 2007), external capital the organization's capability to positively interact to business community members to motivate the potential of property's creation. External capital can be described as the boosting power from the outside of the enterprise, including brands, goodwill, customers' loyalty, customers' satisfaction, customers' recognition, and distribution network. (El-Bannany, 2012). External capital useful for the creation of positive relationship between the enterprise and various external parties such as customers or business network.

Nazari and Harremans (2007) stated that when intellectual components are effectively formulated and applied, they can make profit through the higher asset value named intellectual capital.

Several methods to measure the assessment of intellectual capital has been found, Tobin-Q traditional method with Kaplan and Norton Balance Scorecard approach, intangible asset assessment sheet by Sveivy, and Value-Added Intellectual Capital (VAIC) developed by Public (Kamath, 2007). On the literature related to banking intellectual capital performance, Value-Added Intellectual Capital (VAIC$_{it}$), introduced by Pulic (1997), is the only method consistently used to measure the intellectual capital performance (El-Bannany, 2012). VAIC$_{it}$ can be stated as the easy, appropriate, and common method used to measure the intellectual capital performance in this research.

VAIC method assesses the enterprise value-added resulted from the efficiency of the existing intellectual capital (Joshi *et al*, 2010). According to Kamath (2007), there are several significances in using VAIC as the tool of measuring the performance, namely: (1) Intelectual potency is the most important

resource of enterprise's success, especially on knowledge-based ecnomics; (2) Enhancing the eficiency of intelectual potency is the simplest, cheapest, and most secure way to ensure the continuous business success; (3) VAIC has proved the appropriateness as the tool to measure the intelectual capital and; (4) Fact shows that enterprise has higher expense for intelectual potency than that of physical capital, and VAIC is the reliable indicator of the intelectual potency.

Instead, Saengchan (2008) argued that data needed to estimate $VAIC_{it}$ are available in the financial statement. It will ease the estimation, allow it to have consistant and standard measure for bank's intelectual capital performance, and support the effective comparison analysis among banks.

2.2 Market Structure and Intellectual Capital Performance

Act No. 5/1999 defines market structure as market condition giving guidance about the determinants of businessman concurrent and market performance, including the number of seller and buyer, barriers to entry and to exit of the market, product diversity, distribution system, and market control. The benefit of knowing market structure is that the enterprise can adapt the existing strategy because market structure in industry will influence either the concurrent or the enterprise's performance (El-Bannany, 2012).

Market structure reflects the relationship between particular goods or services buyer and seller that can determine the market condition. Based on the condition, market structure can be classified into perfect and imperfect competition (El-Bannany,2012). Perfect competition market is a market with enormous buyer and seller and homogenous product. Price is formed by market mechanism and interaction of demand and supply, so the buyer and seller can not influence the price (Arijanto). Imperfect competition market is opposite of the perfect one. There is a few buyer and seller and the seller can determine the price. In banking literature, sale concentration is the most used indicator to measure the market structure (El-Bannany, 2012).

Dennis and Perloff (in Fajri, 2013) described market concentration as the ownership of most economical resources by a few economic actors. The concentration level may influence the competition level of an industry. The purpose of competition among enterprises will affect to the more maximum enterprise's value. The existing competition level may be used as a motivation to enhance the intellectual capital performance in order to maximize the enterprise's profit (El-Bannany, 2012). On the other hand, if there is no competition, the enterprise will not be motivated to enhance the three components of intelectual capital performance (El-Bannany, 2012).

The high concentration level means that market leads to monopoly form. On the other hand, the low market concentration means that market leads to the imperfect market structure form. The higher the market of a bank, the higher intellectual capital. It is caused by the bank capability in managing its operation in high concentration level. Instead, bank's intellectual capital value with high concentration will be higher because they have financial resource power that supports them to recruit employees with great qualification that can create competitive advantage (Maressa, 2016). Research conducted by Maressa (2016) shows the significantly positive result between market concentration and intellectual capital performance.

H1a: There is a positive relationship between market concentration level and intellectual capital performance.

Bain (in Carlton, 2004) described that barriers can determine the number of enterprises that also influence the industrial competitiveness. It will also influence the return level of each enterprise Stingler (in Carlton, 2004) defined barriers to entry as the profit of the existing sectors of the enterprise rather than that of the new ones. Having had the advantage, enterprise on the sector can raise the price and gain a good profit.

The joint of a company in an industry is another aspect of market structure that can affect the intellectual capital performance (El-Bannany, 2012). Barriers to entry in a sector include the high regulation or term of minimum capital. El-Bannany (2008) argued that the higher the barriers to entry in a sector, the lower the competitive motivation through the enhancement of intellectual capital performance. The result of research conducted by El-Bannany (2008& 2012) shows a significantly negative relationship between the barriers to entry in an enterprise's sector and the intellectual capital performance.

H1b : There is a negative relationship between barriers to entry in an enterprise's sector and intellectual capital performance.

2.3 Bank Risk and Intellectual Capital Performance

Risk can be defined as loss potency rising from different sources, for example, transaction risk, removal risk or economical risk (El-Bannany, 2012). Al-Musalli and Ismail (2012) argued that based on market discipline perspective, bank with high risk and insecurity will drive hesitance in customers' mind. It will also affect to the decrease of bank reputation. To overcome it, bank needs good intellectual capital to face the condition change.

El-Bannany (2008, 2011) argued that good intellectual capital performance can decrease negative risk efficiency higher by managing those risks. Hence, risky banks will intellectually be better than those that are less risky because they attempt to minimize the negative effect of the risks. The research result of El-Bannany (2008, 2011 & 2012) shows a significantly positive result between the bank risk and the intellectual capital performance.

H2: There is a positive relationship between bank risk and intellectual capital performance.

2.4 Bank Size and Intellectual Capital Performance

Dewi *et al* (in Maressa, 2016) argued that the higher the business, the higher the intellectual capital that it has. Large enterprises having many activities tend to have better internal IT management system. It will enhance the intellectual capital performance possessed. Moreover, large enterprises are considered to be more progressive and innovative. Strong capital of large enterprises allow them to make developments and innovations (Maressa, 2016).

Facilities available in large enterprises help their operational matter better than those of the small enterprises do. The facilities include the access to external funding and the clarity of their economic activities. They reflect the enterprise's significance and opprotunity to obtain the government support in order to attract more investors and good-qualified staff (El-Bannany, 2012). Therefore, bank size variable has a positive relationship with intellectual capital performance. The result of El-Bannany (2012) research shows a significantly positive relationship between the bank size and the intellectual capital performance.

H3: There is a positive relationship between bank size with the intellectual capital performance.

2.5 Bank Profitability and Intellectual Capital Performance.

Profitability is the ratio of management effectiveness based on the repayment result which is produced from the sale and investment (Hermuningsih, 2013). Generally, the enterprise financial performance is categorized into two parts. The positive financial performance states that the enterprise gains profit and the negative financial performance states that the enterprise gain loss. The profit produced by the enterprise is considered as a regular financial performance, and the loss suffered by the enterprise is considered as irregular financial performance (El-Bannany, 2008).

Loss is considered as a remarkable result because it will spend the board of directors' time to

investigate the causative factor of profitability failure and to work out to fix and raise the enterprise profitability. The investigation activity of the loss will waste the time to do other useful activity, including the chance to motivate the employee to innovate rising the enterprise profitability. The profit gained is also considered as a remarkable result for the enterprise. The enterprise's board of directors in well-performed profitability motivates the employee more to do training, researching, and developing its enterprise to raise either the enterprise profit or the organization value (El-Bannany, 2008 & 2012). The research result of El-Bannany (2008, 2011 & 2012) shows a significantly positive relationship between the bank profitability with the intellectual capital performance.

H4 : There is a positive relationship between bank profitability with the intellectual capital performance.

2.6 The Bank Age and the Intellectual Capital Performance.

The age can be stated as the achievement proxy of an enterprise (El-Bannany, 2012). The flexibility ratio of the older bank is lower than that of the younger one. The stated bank flexibility is related to the ability to transform the bank strategy adapting the market changes. The rapidly growing of the industrial condition needs the bank ability to preserve the enterprise stability. Bank with younger age can perform various activities supporting its performances growth. When the growth keeps developing, it can raise the staffs motivation to work better to enhance the bank's value-added (Maressa, 2016). The research result of El-Bannany (2011,2012) shows a significantly negative relationship between the bank age with the intellectual capital performance.

H5 : There is a negative relationship between bank age with the intellectual capital performance.

3. The Research Method

3.1. Sample

The sample used after doing the approved provision is Indonesia Syariah Bank over the period 2010-2015. In 2010-2013 there are 11 BUS and in 2014-2015 there are 12 BUS. There is one bank margin in 2014-2015 from the previous period because Bank Tabungan Pensiunan Nasional Syariah (BTPN S) starts to operate in becoming Syariah Bank at 2014. The total sample used is 68 samples.

3.2. The Variable Measurement

The Intellectual Capital Performance

The intellectual capital performance is measured by using Value Added Intellectual Capital (VAIC) method which is developed by Public (1998). Three main components in constructing the intellectual capital performance suggested by Sheivy (1997), they are: *human capital (employee)*, *internal (structural) capital* and *external (relational/customer) capital* (Whiting & Woodcock, 2011). These steps below are conducted to measure the intellectual capital performance using VAIC method:

1. Output = Gross income.
2. Input = Operational Expense (employee salaries are not included).
3. Value Added (VA_{it}) = Output – Input.
4. Human Capital (HC_{it}) = Employee salaries expense.
5. Internal Capital (IC_{it}) = Year-to-Date Nett Asset Book Value.
6. External Capital (EC_{it}) = $VA_{it} - HC_{it}$
7. Human Capital Efficiency (HCE_{it}) = VA_{it} / HC_{it}
8. Internal Capital Efficiency (ICE_{it}) = VA_{it} / IC_{it}

9. Extenal Capital Efficiency (ECE$_{it}$) = EC$_{it}$ / VA$_{it}$

10. VAIC$_{it}$ = (HCE$_{it}$)+ (ICE$_{it}$) + (ECE$_{it}$)

3.3. The Independent Variable

Carlton and Perloff (in Fitriani, 2014) states that the market concentration level can be measured by using consentration ratio. The concentration ratio is measured by the third party's fund value of the 2 biggest banks in the t year and is divided with the total third party's fund of all banks in the t year (El-Bannany, 2012). The bank risk is measured by the debt total ratio of bank i in t year and is divided with the total asset of bank i in the t year (Abdel-Hameed, 2003). The total asset is valued as the most appropriate measurement to describe the bank size (El-Bannany, 2012). Profitability is symbolized with ROA, using the annual earnings before tax (EBT) of bank "i" is divided with total asset, at the "t" year. The bank age is measured with the algorithm from the bank "i" age at the "t" year of research since the *syariah* bank starts to operate.

3.4. Statistical Analysis

The regression model used in this research is as follows:

VAICit = αo + α1aCRt + α1bFATAit+ α2RISKit + α3LSIZE + α4ROAit + α5LAGEit+ uit

Explanation

VAICit	= Value Added Intellectual Capital at the bank "i" at the year "t". The Calculation Steps are in sub-chapter 3.1.1
αo	= Constant
α1a,1b,2	= Independent Variable Coefficient
uit	= Error
CRt	= Industrial Concentration Ratio based on the 4 banks with the total third party's biggest fund value at the year "t"
FATAit	= Fixed Asset Ratio against the total asset of the bank "i" at the year "t"
RISKit	= Total debt divided with the total asset "i" at the year "t"
LSIZEit	= Total asset bank "i" at the year "t"
ROAit	= Nett Revenue before tax bank "i" divided with total asset at the year "t"
LAGEit	= Bank Age "i" at the year "t"

4. Result Discussion

Table 2. Descriptive Statistics

Variable	Minimum	Maximum	Average	Median	Deviation Standard
CR$_2$	0.58	0.714	0.66	0.68	0.05
FATA	0.00	0.061	0.02	0.01	0.01
RISK	0.08	0.783	0.47	0.48	0.18
LSIZE	26.54	31.885	29.40	29.31	1.34
ROA	-0.22	0.05	0.01	0,01	0.03
LAGE	0	3.18	1.59	1.61	0.84
VAIC	-74.28	43.51	7.88	7.48	16.35

Table 2. shows the statistical descriptive for the intellectual capital performance and the independent variable used in this research. VAIC average value at this research period is 7.88.

It is higher than the invention of Al-Musalli and Ismail (2012) at GCC countries banks (4.04) and Joshi (2010) at banks in Australia (3.80), but a bit lower than El-Bannany (2012) inventions at UEA banks (10.80). Independent variables, market concentration level, barriers to entry in the enterprise's sector, bank risk, bank size, profitability, and bank age, own varieties value increasing reliability of the research result.

Table 3. Hypothesis Testing Result

	Coefficients	t-ratio		Probability
(Constant)	.30	-0.76		0.45
CR2	.04	2.60	**	0.01
FATA	.43	0.40		0.69
RISK	.20	3.78	***	0.00
LSIZE	-.15	-0.31		0.76
ROA	.06	1.81	*	0.08
LAGE	-.30	-0.88		0.38
F	4.55		0.00	
Adjusted R^2	0.24			

* Statistically significant at the level 0,10
** Statistically significant at the level 0,05
*** Statistically significant at the level 0,01

The result presented in table 3. shows that the regression model is significant (F=4.55, P<0.00). It shows that the independent variable jointly affect the intellectual capital performance. Adjusted value R square is 0.24 or 24% shows that the intellectual capital performance can be explained by six used independent variables, and the other 76% is explained by other variables.

Table 3. as hypothesis testing result table shows that the significance value of market concentration level is 0.01, lower than significant level at 5%. Besides, the beta signal shows positive mark that corresponds to the proposed hypothesis. It can be concluded that the market concentration level variables measured by concentration ratio (CR$_2$) have the significantly positive influence to the intellectual capital performance measured by Pulic VAIC methods. This research supports the Maressa (2016) research, which shows the positive relationship between concentration level of market and intellectual capital performance. The higher the market that the bank has, the higher the value of the intellectual capital. It is caused by the bank's capability to manage its operations in a high concentration level. As the result, bank with high concentration level has the ability to monopoly the market. Consequently, the bank's intellectual capital value with high concentration is bigger because it has the financial resource intensity to support it in recruiting the employee with the best qualification and gaining the competitive advantage.

Table III shows the significance value at the barriers to entry variable to the enterprise sector, which is 0.69 bigger than the significance level at 10%. It has the result that the independent barriers variable to entry in the enterprise sector has no effect to the dependent variable of intellectual capital performance. This research result shows contradiction to the El-Bannany (2008 & 2012) research. El-Bannany (2011 & 2012), states that the barriers to entry the enterprises sectors, can prevent new comer to enter the market. The high barriers to-entry can cause the actor do nothing innovative to compete just because the actor feels that no competition happened in the market. The barriers variable affects nothing to get in the enterprises sector since the Indonesian government fully supports the development of *Syariah* Banking (Utomo et al, 2010). The support

has been stated at the year 2002 when the blueprint of *syariah* banking is formed and consists of vision, mission, and objective for the development of syariah banking in Indonesia. This statement has been proven when in 2010,5 BUS start to operate in Indonesia. Dr Halim Alamsyah in the 8[th]Anniversary of IAEI stated that Indonesia is considered to have better system of constructing the policy of *syariah* financing than other countries. In Indonesia, the policy is concentrically made by DSN-MUI so that the act (fatwa) can be stated out independently.

The testing result to the second hypothesis states that the bank risk has the positive influence to the intellectual capital performance (VAIC). The significance value of the market risk independent variable shows at 0.00. This value is lower than the significance level at 1%. Besides that, the beta signal indicates the positive direction corresponding with the proposed hypothesis. It can be concluded that the bank risk independent variable (RISK) can affect the level of intellectual capital performance owned by a bank. This research is at the same page with the research conducted by (El-Bannany, 2012) that shows a positive relationship between bank risks with the intellectual capital performance. El-Bannany (2012) stated that the higher the bank risk, the higher the intellectual capital it has. In order to minimize the risk effect, the bank should utilize and maximize the intellectual capital that the bank has because the intellectual capital can bring the bank regains its' competitive advantage to compete.

Table 3. reveals the significance value at the bank size variable 0.76, higher than the significance level at 10%, so the proposed hypothesis is declined. It can be concluded that the bank size variable has no significant effect to the intellectual capital performance. The research is in contrary with the El-Bannany (2011 & 2012) research result. El-Bananny (2012) stated that bank having larger size provides the better intellectual capital performance because it has higher resource and the potency of greater government support. But this kind of table III research result matches with Maressa (2016). Maressa (2016) stated that the variation of the intellectual capital on all banks is not significantly relied on their size. According to Laeven et al (2015), the bigger the bank size, the more the complexity inside the organization. The organization complexity needs the human resources which are capable to handle the mechanism of organization and create chances to make the organization advance. But, according to Widyaningrum (2011), the growth happened in the *syariah* bank is not followed with the preparedness of the human resources. Karim (2013) emphasized that the *syariah* banking commonly dealing with the problem of human resources. So, it can be concluded that insignificance the bank size variable to the intellectual capital performance is caused by the unprepared *syariah* bank human resources in facing the rapid growth of *syariah* banking itself.

The testing result of the forth hypothesis states that profitability has the positive influence to the intellectual capital performance. Table III as the hypothesis testing result table shows the value 0.08 smaller than the credibility level at 10%. Besides, the regression result shows the positive signal in the profitability corresponding to the hypothesis proposed in the research. This research supports the El-Bannany (2011&2012) research. El-Bannany (2012) stated that the directors working in the banks with the more profit gained are more motivated than they who are associated in banks with less profit gained. This thing appears in order to support the dimension efficiency of intellectual capital performance enhancing method, which can bring better financial profit. Besides, when the bank gains its profit, the bank also provide the fund that can be used as reward to the employee with the best intellectual performance and impacts in the enhancement of the intellectual capital performance (El-Bannany, 2011).

The hypothesis testing result of the fifth variable shows the significance profitability value of the bank age at 0.38 or higher than the significance level at 10%. It emphasizes that the bank age hypothesis brings no influences at all to the intellectual capital performance. This research result

indicates in contradiction to the finding result of El-Bannany (2012 & 2011) research. El-Bannany (2012) stated that the bank with older age depends on the success that has been achieved to gain the future success rather than that with the younger-age. Thereby, the older-bank tends to ignore the enhancement of intellectual capital performance as a potential infrastructure to financially profit better in the future. Moreover, bank with older age is having the lower the intellectual capital performance because of the lower the risk level it handles with (El-Bannany, 2011). The insignificance of the proposed hypothesis can be caused by the Indonesian *syariah* banking which is still in the relatively young age. In 2010, there are 5 BUS start to operate and increase to 12 BUS nowadays. The bank that is relatively young tends to form the operational immaturity. Karim emphasized (2013) that the *syariah* banking commonly deals with the problem of incapable human resources. This phenomenon occurs because most of the human resources entering the *syariah* banking have no fiqih muamalah background of study, banking background of study, or the comprehensive understanding about the *syariah* banking itself, while these three stated items are so important to be able to run the *syariah* bank well.

5. Conclusion

The research result shows the determinants the intellectual capital performance. From the six tested-factors (market concentration level, barrier to entry in enterprise sector, bank risk, bank size, profitability, and bank age), it is proven that market concentration level, bank risk and profitability have significant positive influences to the intellectual capital performance. They show that the higher the market concentration level, the higher the bank risk and the profitability that push the intellectual capital value of the *syariah* banking in Indonesia. While other factors such as the barrier to entry in the enterprise sector, bank size, and bank age are proven to have no influence to the intellectual capital performance. These things stated that the intellectual capital performance level that an enterprise has is not influenced by the barrier to entry in the enterprise sector, bank size, and bank age.

The research has few limitations. Firstly, there are measurement methods of intellectual capital performance used such as using Pulic (VAIC) method, modification of VAIC method by ulum (M-VAIC), or Tobin Q. The difference of those methods made the validity of the research low. Secondly, the research related to intellectual capital is still developing and there are chances to have other determinants related to the intellectual capital performance. Meanwhile, the advice to the next research, first, the research related to the intellectual capital can be broadened to other sectors. Second, the next research needs to explore the other determinants which might have the influence to the intellectual capital performance. Third, the enterprise managers need to pay more attentions to the determinants of the intellectual capital performance. These determinants might affect to the better enterprise performance.

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