Value Added Intellectual Capital: An Empirical Study on Islamic Banks in Indonesia

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Abstract. The purpose of this research to analyse value-added intellectual capital and its components in Islamic banks in Indonesia. The research methodology used is descriptive quantitative by comparing components of value-added intellectual capital, consisting of human capital efficiency, structural capital efficiency, and capital employed efficiency. In this research, only three of eleven Islamic banks have a positive of value-added intellectual capital. While human capital efficiency, structural capital efficiency, and capital employed efficiency, most Islamic banks have a negative value.

1. Introduction

Intellectual capital is a collective ability of employees and information systems in the company which contains relevant information for decision making process. Intellectual capital is one of the elements of voluntary reporting considered as a representative in fulfilling the wider information needs of the annual report users[1], [2]. Intellectual capital is also an intangible asset, not explicitly listed on the company's balance sheet but has a positive impact on the company's performance and success, so it is widely believed that intellectual capital will play a greater role in creating values[1].

Intellectual capital has an impact on creating values and improving the company's financial performance. Various methods have been developed to measure it[3]. Intellectual capital consists of human capital (skills), structural capital (database and organizational structure) and capital used (performance relations in the money market and stock market)[4].

Value is created through quality made by employees, such as knowledge in producing creative ideas, developing programs to support information systems or inventing new designs. Humans have knowledge, so they are treated as investments such as factory equipment investments to create value in the manufacturing industry[5].Therefore, the source of economic added-value and wealth does not only include products produced by companies but also intangible assets, namely their intellectual capital[6], [7]. Thus, intellectual capital is widely believed to play a greater role in creating value[8].

Since the establishment of the first Sharia bank in Indonesia in 1992 with a majority population of Muslims, Islamicbanks in Indonesia, in fact, have not shown a maximum development given their total assets which only around 5% compared to the total assets of conventional banks in Indonesia [9].This is caused by internal and external factors[10]. Internal factors inculde the limitations of Islamic banks in disbursing funds, products of Islamic bank still cannot compete with the ones of conventional bank and, the contribution of income from non-operational activities (income other than fund disbursement activities) are still low[11]. The external factors are caused by a lack of public understanding about Islamicbanks, where the *Murabaha* concept, the most popular term in Islamic

microfinance institutions, is only understood by 26.85% customers, customers who do not understand the concept of *Mudharabah*reach 80.72%, the same patern also applies to the concept of *Musharakah*, while for *Ijarah* products, is understood by a small percentage of customers. Most of customers do not recognize Islamic bank products[12], [13].

The purpose of this study is to analyze the added-value of intellectual capital and its components in Islamicbanks in Indonesia. There is still not much research that analyzes the efficiency of components of intellectual capital by comparing the performance of Islamicbanks. In this study, we fill in the gaps and contribute to the literature, so it can be said that this research is one of the first studies that explores the relationship between efficiency and added-value of intellectual capital by combining all Islamicbanks in Indonesia.

2. Method

Data on intellectual capital and its components are taken from the publication of the monthly reports of eleven Islamic Bank in Indonesia, from 2004 to 2016. Secondary data sources were obtained from the websites of the Central Bank and the Financial Services Authority.

The research methodology used is quantitative descriptive by comparing the value-added component of intellectual capital, which consists of efficiency of human resources, structural capital and capital used. The Added Value of Intellectual Coefficients (VAIC ™) is a component of the Human Capital Efficiency (HCE), Structural Capital Efficiency (SCE) and Capital Employed Efficiency (CEE), which are then used in various studies [14]. Value of Intellectual Coefficients ($VAIC^{TM}$) is used as a measure to evaluate the efficiency of a company by using the following formula[15]:

$$VAIC^{TM} = HCE + SCE + CEE \qquad HCE = \frac{VA}{HC}$$

$$SCE = \frac{SC}{VA} \qquad CEE = \frac{VA}{CA}$$

$$SC = VA - HC \qquad VA = output - input$$

Output = Net Premium
Input = Operating expenses (excluding personal costs).
HC = Human capital as personal cost (salaries and wages), considered as an investment.
CA = Capital employed (both physical and financial capital).

3. Results

The VAIC ™ is an important method for measuring the performance of Islamic banks which consist of HCE, SCE and CEE components Table 1 and Figure 1 below show $VAIC^{TM}$ can show IC performance and ranking of efficient Islamic banks.

Table 3.1 The performance of Islamic banks

Bank	$VAIC^{TM}$ (000.000 Rp)	$VAIC^{TM}$ Ranking	VA (000.000 Rp)	VA Ranking
Bank Jabar Syariah	850,849	1	67,265	1

Bank BNI Syariah	257,454	2	50,091	2
Bank BCA Syariah	88,537	3	-5,934	3
Bank Victoria Syariah	-74,664	4	-63,181	5
Bank Mega Syariah	-762,232	5	-120,280	6
May Bank Syariah	-851,456	2	-46,427	4
Bank Panin Syariah	-1,162,078	7	-168,074	7
Bank Bukopin Syariah	-1,279,717	8	-331,383	8
Bank Muamalat Indonesia	-2,465,586	9	-692,344	10
Bank BRI Syariah	-2,920,955	10	-584,372	9
Bank Syariah Mandiri	-3,486,235	11	-1,130,996	11

From table 1, the most efficient of VAIC ™ of Islamic Bank is Bank Jabar Syariah (VAIC ™ = 850,849) followed by Bank BNI Syariah (VAIC ™ = 257,454) and Bank BCA Syariah (VAIC ™ = 88,537). The most inefficient of Islamic bank is Bank Syariah Mandiri, where VAIC ™ = -3,486,235.99.

The VAIC ™ = 850,849 means that for every Rupiah invested by Bank Jabar Syariah will create a value of 850,849, which is the highest efficient Islamic bank among eleven Islamicbanks. Bank Jabar Syariah creates a value of Rp67.265 million, ranking it as the most efficient Sharia commercial bank since it wasable to create the highest value (VA). So far, the most inefficient company is Bank Syariah Mandiri which only creating VA efficiency of Rp-1,130,997 million.

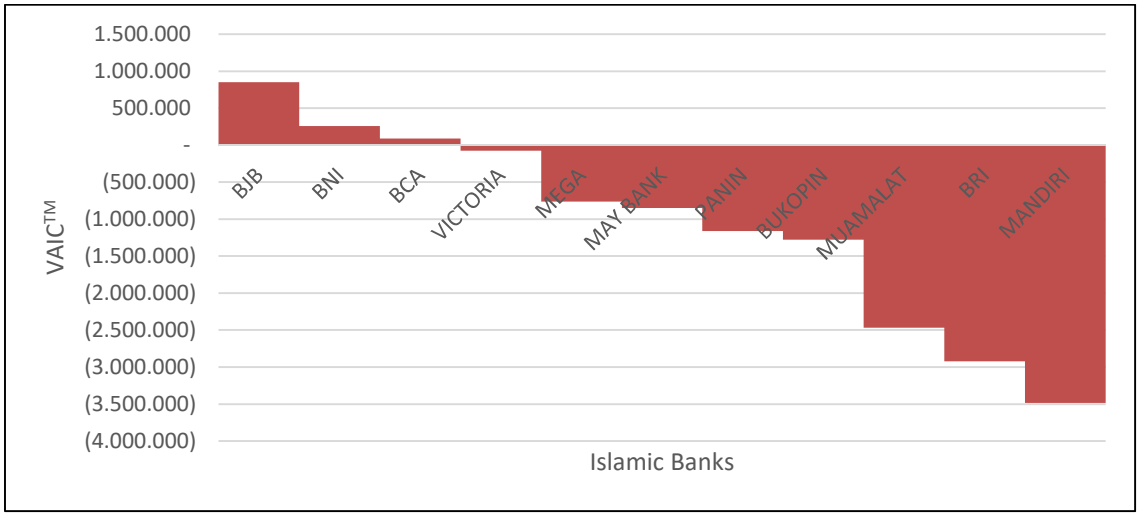

Figure 3.1 The performance of Islamic banks which consist of HCE, SCE and CEE components

Unlike the research on VAIC™ in Pakistan, where 10 out of 12 *Modaraba* sectors have positive VAIC™, indicating that *Modaraba Sector* in Pakistan has been efficient for every Pakistan Rupee (PKR) invested[14]. The value of human capital efficient (HCE), structural capital efficient (SCE), capital employee efficient (CEE), Value of Intellectual Coefficients (VAIC™) and value added (VA) is presented in Table 2 and Figure 2.

Table 3.2 The Value of Human Capital Efficient (HCE), Structural Capital Efficient (SCE), Capital Employee Efficient (CEE), Value of Intellectual Coefficients (VAIC™) and Value Added (VA)

Bank	HCE	SCE	CEE	VAIC™	VA
Bank Jabar Syariah	33,680	0.00000421	817,169	850,849	67,265
Bank BNI Syariah	19,856	0.00000085	68,681	88,537	50,091
Bank BCA Syariah	-6,022.790	-0.00000808	-68,641	-74,664	-5,934
Bank Victoria Syariah	-10,078.312	-0.00002056	-841,378	-851,456	-63,181
Bank Mega Syariah	-32,073.208	-0.00001852	-1,130,004	-1,162,078	-120,280
May Bank Syariah	-39,590.727	0.00000070	297,044	257,454	-46,427
Bank Panin Syariah	-111,214.415	-0.00000341	-1,168,502	-1,279,717	-168,074
Bank Bukopin Syariah	-154,158.176	-0.00000443	-608,074	-762,232	-331,383
Bank Muamalat Indonesia	-307,679.257	-0.00000163	-2,157,907	-2,465,586	-692,344
Bank BRI Syariah	-422,910.616	-0.00000096	-2,498,045	-2,920,955	-584,372
Bank Syariah Mandiri	-470,334.815	-0.00000091	-3,015,900	-3,486,235	-1,130,996

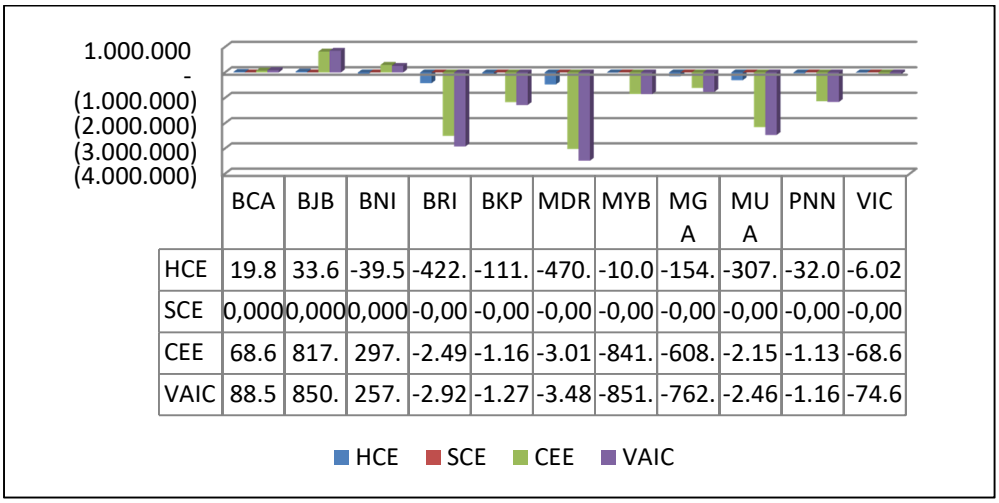

Figure 3.2 Performance components consisting of HEC, SCE and CEE

Table 2 and Figure 2 show VAIC™ performance components consisting of HEC, SCE and CEE. Two Islamic banks which have positive VAIC™, namely Bank Jabar Syariah and Bank BNI Syariah. In BNI Bank Syariah the CEE performance is relatively better than its HCE and SCE. It shows that the level of efficiency created by physical and financial capital is better than the ability to think, innovate, and make creative ideas which can support the long-term organization's sustainability or the company's ability to reach markets and others that support the company's progress. The higher the value of the Capital Employed Efficiency (CEE) of a company, the more efficient management of intellectual capital in the form of buildings, land, equipment, or even technologies that are easily bought and sold on the market.

In Pakistan, the *Modaraba* Sector have better performance of human capital efficient (HCE), relatively to structural capital efficient (SCE) and capital employee efficient (CEE)[14]. This indicates that employee capability dominates the creation of efficiency.

4. Conclusion

This study concludes that the performance of Islamic banks in Indonesia that using the VAIC approach is still not good. There are only three Islamic banks which have positive added-value,

namely Bank Jabar Syariah, Bank BNI Syariah and Bank BCA Syariah. Meanwhile, many other Islamic banks still have negative added-values. Thus, employees of Islamic banks in Indonesia are lack of skill and creativity, the non-human assets have not been used maximally, and the total amount of equity invested in a business supposes to obtain a profit is not yet maximum. To improve such conditions, employees should be included in various training programs, so they can improve their capabilities and competencies which finally improve the organizational efficiency.

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