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DETERMINANTS OF FINANCIAL PERFORMANCE AND ITS IMPACT ON THE GROWTH OF ISLAMIC BANK ASSETS ON INDONESIA

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ABSTRACT

This study aims to examine and analyze the determinant of financial performance (return on assets), namely intellectual capital that consist of human capital, structural capital, capital employed and good corporate governance (GCG) that consist of board size and board of demography and its impact on the growth of Islamic banks assets in Indonesia for the period 2014 – 2018. Research data is annual report and GCG report of 12 Islamic banks in Indonesia for the period 2014-2018. The sampling method used was purposive sampling from 12 Islamic banks met the criteria to be the sample. The method of analysis used in this study is multiple linear regression. The results showed by model-1 that intellectual capital measured by human capital efficiency (HCE), structural capital efficiency (SCE) and capital employed efficiency (CEE) and GCG measured by board size (BS) and board of demography (BD) simultaneously are having significant influence to the return on assets (ROA) of the banks. The results showed by model-2 that intellectual capital measured by human capital efficiency (HSE), structural capital efficiency (SCE) and capital employed efficiency (CEE) and GCG measured by board size (BS) and board of demography (BD) simultaneously are having non-significant influence to the assets growth (AG) of the banks.

Contribution/Originality: This study contributes to the existing literature by examining and analyze the determinant of financial performance (return on assets), namely intellectual capital that consist of human capital, structural capital, capital employed and good corporate governance (GCG) that consist of board size and board of demography and its impact on the growth of Islamic banks assets in Indonesia for the period 2014 – 2018.

1. INTRODUCTION

The development of Islamic banks in Indonesia is significant; it is due to the legalization law of Islamic banking in 2008 which became a factor driving the growth of Islamic banks in Indonesia. In order to meet ASEAN Economic Community Banking in 2020 the financial services industry competition will be more stringent, for which Islamic banks are required to continue to grow (Siswanti *et al.*, 2017). As a concrete step in the efforts to develop Islamic banking in Indonesia, Bank Indonesia has formulated a Grand Strategy for Islamic Banking Market Development, as a comprehensive strategy for market development covering strategic aspects, namely: Establishing a vision of 2010 as the leading Islamic banking industry in ASEAN, image building new national Islamic banking that is inclusive and universal, more accurate market mapping, more diverse product development, service improvement, and new communication strategies that position Islamic banking more than just banks. The volume

of Islamic banking business in the past three years, particularly Islamic Commercial Banks (ICB) and Islamic Business Units (IBU), experienced very rapid growth. Total assets in 2014 amounted to IDR 198.2 trillion, an increase of 50.3% to IDR 298.0 trillion at the end of 2018. In terms of achieving profit increased 4.63 times from IDR. 0.82 trillion in 2014 to IDR 3.81 trillion in 2018. However, compared to conventional banking the Islamic Banking Business volume has only reached 1.79%. This shows that the volume of Islamic Banking Business is still very small, so there is still a very large opportunity in an effort to improve its Business.

In the knowledge driven economy, IC has become the dominant resource to obtain a competitive advantage and to achieve superior Business performance (Amin *et al.*, 2018). Practitioners and academicians also have paid significant attention to the role of knowledge for global competitiveness and they all believe that intangible assets or IC is the lever for maintaining competitive advantage and sustainable corporate performance. In reality the wealth of the modern economy no longer depends on physical assets rather it depends on intangible assets (Mondal and Ghosh, 2012).

IC is considered the most important resource of enterprise in order to provide financial health and value for Business partners. In today's economy, knowledge of an enterprise is a vital resource for economic growth and value creation for Business partners (Gioacasi, 2014). Generally, researchers in the field have identified three main constructs of IC that include: human capital, structural capital and customer capital (Bontis *et al.*, 2000).

IC also deals with corporate governance, namely the implementation of corporate reporting practices. Good corporate governance (GCG) and its impact on corporate financial performance is a highly debated field. In the past decade, empirical research on corporate governance has shown(CG) a significant relationship between various corporate governance features and corporate financial performance. According to the Indonesian Financial and Development Supervisory Agency (BPKP), CG can be seen from a practical background and academic background.

From a practical background, it can be seen from the experience of the United States that had to restructure corporate governance as a result of the market crash in 1929. Bad CG was allegedly one of the causes of Indonesia's political economic crisis that began in 1997 whose effects are still felt today. The current financial crisis in the United States is also suspected due to the non-implementation of the CG principles, several financial scandal cases such as Enron Corp., WorldCom, Xerox and others involving the company's top executives illustrate the non-application of the CG principles. From an academic background, the need for CG arises in relation to principal-agency theory, which is to avoid conflicts between the principal and its agents. Conflicts arise because these differences in interests must be managed so that they do not cause harm to the parties. A corporation formed and a separate entity is a legal subject, so the existence of the corporation and the stakeholders must be protected through the application of CG. CG in the Islamic perspective constantly links all concepts related to behavior in Business governance with spiritual matters. This is a consequence of a Muslim's belief in Allah SWT, as stated in Quran Surah Al Baqarah: 282. From the above paragraph it can be interpreted that Islam is very intense in teaching the application of principles such as *'is, tawazun, mas'uliyah, ashlar, shiddiq, amanah , fathanah, tabligh, hurriyah, ihsan, wasathan, aqidah, ijabiyah, and raqabah* (El Junusi, 2012). The importance of corporate governance in Islamic Banking reflects the results of research by Chapra and Habib (2002) declare that the implementation of corporate governance practices has not been implemented properly. In accordance with Bank Indonesia Regulation Number 11/33 / PBI / 2009, Regarding the Implementation of Good Corporate Governance for Islamic Commercial Banks and Islamic Business Units, which is referred to as CG is a bank governance that applies the principles of transparency, accountability, responsibility, professional, and fairness. The objective of this study is to analyze the determinant of financial performance (return on assets), namely IC that consist of human capital, structural capital, capital employed and good corporate governance (GCG) that consist of board size and board of demography and its impact on the growth of Islamic banks assets in Indonesia.

2. RESEARCH GAP

In the last 20 years of academic research that IC is one of the key factors responsible for the success of knowledge-intensive organizations (Serenko *et al.*, 2009). According to Feiwal (1975) and Ding (2010) the term 'intellectual capital' was first introduced by John Kenneth Galbraith in 1969. Galbraith argues that intellectual capital represents more than just 'intelligence as pure intelligence' but also includes the level of 'intellectual action'. According to this argument, intellectual capital is not only intangible assets but is an accumulation of the sum of all organizational intangible assets. These assets must be used to create value-added products and services.

Generally, previous researchers conducted a separate study between Intellectual Capital or Corporate Governance and its influence on the financial performance of a company's finances. Several studies related to Intellectual Capital and its influence on the financial performance of corporate finance, for example by Ozkan *et al.* (2017) in Turkey, Zakery and Afrazeh (2016) in Iran, Ginesti *et al.* (2018) in Italy, as well as Sardo and Serrasqueiro (2017) in Western Europe. Likewise, research by Bontis *et al.* (2018) of 151 social cooperatives (SCE) in Italy from March 2016 to January 2017 found a positive relationship between IC sub-components (ie human capital, structural capital and relational capital) and financial performance SCE based economy and mission based financial performance. Bontis findings highlight that human resources contribute to explaining economic financial performance which is positively influenced by the presence of postgraduate employees and added value per employee. Several other studies also focus on the relationship between IC and corporate financial performance, such as conducted by Tran and Duc (2018) of several banks in Thailand, Bontis *et al.* (2000) in India, Joshi *et al.* (2012) in Australia, Amin *et al.* (2018) in Pakistan, Suroso *et al.* (2017) and Siswanti *et al.* (2017) in Indonesia.

Other research focusing on the influence of corporate governance on the financial performance of companies (banks) has been conducted by García-Meca *et al.* (2015) in Portugal, Tulung and Ramdani (2018) of 26 BPD in Indonesia, Makhlouf *et al.* (2014) in Jordan, Arora and Sharma (2016) in India, Azeez (2015) in Sri Lanka, Buallay *et al.* (2017) in Saudi Arabia, Akbar *et al.* (2016) in the United Kingdom, Hussain *et al.* (2016) in the United States, Ahmed and Hamdan (2015) in Bahrain, Shamsudin *et al.* (2018) in Malaysia, and Karayel and Doğan (2016) in Turkey.

In this study, researchers conducted both partial and simultaneous research on IC and CG which are factors that influence the financial performance of Islamic commercial banks in Indonesia.

3. LITERATURE REVIEW

3.1. Intellectual Capital

Intellectual capital (IC) is considered the most important strategic asset for corporate success (Rezaei, 2014). IC is the knowledge shared by everyone in an organization that can provide added value to an organization (Cantú *et al.*, 2009). IC is an intangible asset that is not displayed in the company's financial statements. If the asset is well managed, it is an advantage for the company as it will improve the organization's performance and generate added value in achieving competitive advantage (Cater and Cater, 2009). Value added intellectual coefficient is a method used to measure the coefficient of intellectual capital. This method was discovered by Pulic (1998). This model is used to determine the efficiency of overall values in the organization. The total value of the organization is the difference between output and input. The resulting value is profit from operations, personnel costs, depreciation and amortization. The contribution of physical capital to value added is calculated as the ratio of physical capital used for the total value made. Based on the Scandia model, HCE and SCE are the main components forming intellectual capital. HCE contribution is calculated as the ratio between personnel costs incurred to the added value obtained. While SCE's contribution is to calculate the ratio between capital arrangement and the resulting added value.

The explanation is that HCE refers to the efficiency of human capital in creating value. This is calculated by dividing Value Added (VA) by Human Capital (HC). HC refers to personnel costs. SCE refers to the added value of structural capital efficiency, measured by dividing Structural Capital (SC) by VA. SC is defined as the difference between VA and HC. While CEE refers to the efficiency of value added from the capital used (CE). CE represents

the total book value of tangible assets. CEE is defined by dividing value added (VA) by CE. In more detail it can be explained that the MI components in an economic system are as follows:

3.2. Human Capital (HC)

HC is the value that Business workers provide through the application of abilities, know-how and experience. HC is evaluated through the sum of knowledge, skills, competencies, ideas, energy and motivation; this is a joint ability of the economic system to solve Business problems and use its intellectual property (Svitlana, 2017).

3.3. Structural Capital (SC)

SC is a part of IC owned by a company, as secured by documents, systems, processes, databases, publications, reference books and organizational structure, which is supportive infrastructure and ensures the functioning of HC (Svitlana, 2017).

3.4. Capital Employed (CE)

Efficient CE by companies is able to create competitive advantage, by combining employee (physical and financial) capital (Pulic, 1998). The combination of capital managed by the company will affect the company's financial performance, by using minimal capital it will result in increased sales or with maximum capital used, it will result in increased sales.

3.5. Corporate Governance (CG)

In the theory of governance, a good company can increase the value of a company's stock, reducing the risks that the board of directors can make with their favorable decisions. Good Corporate Governance (GCG) can further increase investor confidence to invest. In turn will have a positive effect on the value of the stock (Suroso *et al.*, 2017). Corporate Governance for Islamic Commercial Banks (ICB) refers to Bank Indonesia Regulation Number 11/33 / PBI / 2009 dated 7 December 2009 concerning Implementation of Good Corporate Governance for SCB and Islamic Business Units, which came into force on January 1, 2010.

3.6. Board Size (BS)

The board of directors is the company's top executive unit and is responsible for overseeing company management and is legally and ethically responsible for shareholders. Board Size is an important element in achieving board effectiveness and improving the company's financial performance. Shorter communication distances between members help improve the efficiency of board decision making, so that small boards have a positive relationship with the company's financial performance (Guest, 2009). The definition of board size is the total number of directors on the board (Panasian *et al.*, 2003; Levrau and Van, 2007). Optimal board sizes must include executive and non-executive directors (Goshi, 2002). Effectiveness in structuring the board is important to regulate the company. Council size has been found to vary between one country and another because each country has a different culture. This means that there is no optimal board size and standard among companies in the world (Zabri *et al.*, 2016).

3.7. Board of Demography (BD)

Many economic theories, organizational behavior, and social psychology provide some understanding of the nature of the relationship between board diversity and financial performance (Carter *et al.*, 2010). Resource dependency theory suggests that diversity holds the potential to increase information provided by the board to managers because of the unique information held by diverse directors. Gender and national differences are likely to produce unique sets of information available to management for better decision making (Carter *et al.*, 2010; Berger

and Neugart, 2012). In contrast, theories from social psychology suggest that decision making may be slower and more conflicting with various directors. Demographic diversity consists of board members who have different characteristics and backgrounds, such as gender, age, and ethnicity. These differences can lead to benefits for company success (Hassan and Farouk, 2014; Hassan and Marimuthu, 2016). In this study, BD is measured based on the age of the director. From various studies, BD has a negative and significant influence on corporate financial performance (Bennedsen *et al.*, 2008; Chiang and Lin, 2011; Darmadi, 2011; Nath *et al.*, 2015).

3.8. Return on Assets (ROA)

The company's profit is one of the economic indicators that gets the most attention. Profitability provides a summary measure of a company's success or failure and thus serves as an important indicator of economic financial performance. Profit is also often used in measuring the rate of return on investment and the relationship between earnings and equity valuations (Evans, 2002).

Return On Assets (ROA) is used to measure the ability of banks to get overall profits. The greater the bank ROA, the greater the level of profit achieved by the bank and the better the bank's position in terms of use of assets (Mulyana, 2018). ROA standards set by Bank Indonesia for banks considered healthy above or equal to 1.5%. This ratio is calculated by the formula:

$$ROA = (\text{Net Income}/\text{Total assets}) \times 100\%$$

3.9. Assets Growth (AG)

Every Business has the ultimate goal of obtaining profits and maintaining its Business. It is very important that the Business that has been initiated still exists and is sustainable, so that it can provide welfare for all stakeholders. Likewise, with Islamic banks, the owner needs to invest some capital first to start his Business. As time changes, after a Banking Business that develops and is profitable, the bank's wealth will grow or expand.

According to the Financial Services Authority (OJK) Regulation No. 8 / Pojk.03 / 2014, every Islamic bank is required to maintain and / or improve the Bank's Soundness by applying the principle of prudence, Islamic principles, and risk management in carrying out Business activities.

4. METHODOLOGY

4.1. Population, Sample and Data Sources

Criteria for determining the population of this study are Islamic banks that publishes Corporate Governance Reports, annual reports and financial statements for the period 2014-2018. The reasons for using this time span are as follows: First, this study uses panel data or pooled data, which is a combination of cross section data and time series data. So, the wider the time span used, the more samples can be obtained; Second, with a span of 5 years is expected to adequately represent the consistency in the impact of the implementation of intellectual capital and policies related to corporate governance on ROA and AG.

The sample in this study used the census sampling method, the number of samples in this study were 12 Islamic commercial banks, out of 14 existing Islamic commercial banks. The data used are secondary data in the form of Corporate Governance reports, annual reports and financial reports for the 2014-2018 periods.

4.1. Definition Operational

4.1.1. Islamic Commercial Banks

This research is focused on Islamic commercial banks in Indonesia. Islamic Bank is a Bank that conducts Business activities based on Islamic principles and by type consists of Islamic Commercial Banks and Islamic Financing Banks Unit (Law of the Republic of Indonesia Number 21 Year 2008 concerning Islamic Commercial Banks).

4.2. Determinant of Financial Performance

Intellectual capital (IC) consisting of Human Capital Efficiency (HCE), Structural Capital Efficiency (SCE) and Capital Employed Efficiency (CEE) and Corporate Governance (CG) consisting of Board of Size (BS) and Board of Demography (BD) is a determinant of financial performance with a Return on Assets (ROA) as proxy.

4.3. Intellectual Capital

Intellectual capital (MI) as an independent variable consists of:

a) Human Capital Efficiency (HCE) with the indicator: Value Added (VA) refers to total value added created by the bank (OP+HC+D) OP refers to Operating Profit of the bank, HC refers to employment expenses of the bank, D refers to the depreciation and amortization of the bank; divided by Total Employee Expenses (HC). As for the formula as follows:

$$HCE = VA / HC$$

b) Structural Capital Efficiency (SCE) with indicators: SC divided by VA. SC refers to VA – HC.
As for the formula as follows:

$$SCE = VA / HC$$

c) Capital Employed Efficiency (CEE) with indicators: VA divided by CE. CE refers to the capital employed (book value of assets) or in other words is equity value of the bank. As for the formula as follows:

$$CEE = VA / CE$$

4.4. Corporate Governance

Corporate governance as an independent variable consists of:

a) Board Size (BS) with indicator: number of directors in the studied bank.

b) Board Demographics (BD) with indicators: average age of directors in the studied bank.

4.5. Return on Assets

Return on Assets (ROA) with the indicator: net income (NI) divided by total assets (TA). As for the formula as follows:

$$ROA = NI / TA$$

4.6. Assets Growth

Asset Growth (AG) with indicator: total assets in year n, subtracted by total assets in n-1. As for the formula as follows:

$$AG = (TA\ n / TA\ n\text{-}1)\text{-}1 \times 100\%$$

4.7. Hypothesis

This research attempts to test following hypotheses:

H1: There is influence on Intellectual Capital (HCE, SCE, CEE) and Corporate Governance (BS, BD) both partially and simultaneously on ROA.

H2: There is influence on Intellectual Capital (HC, SC, CE) and Governance (BS, BD) both partially and simultaneously on AG.

H3: There is an influence on ROA on AG.

4.8. Framework for the Study

This research focuses on empirical testing of models developed based on the proposed theoretical basis, that is IC and CG variables. The data are taken from the report of Islamic bank publications in Indonesia, using yearly data during 2014-2018, so there are 60 observations.

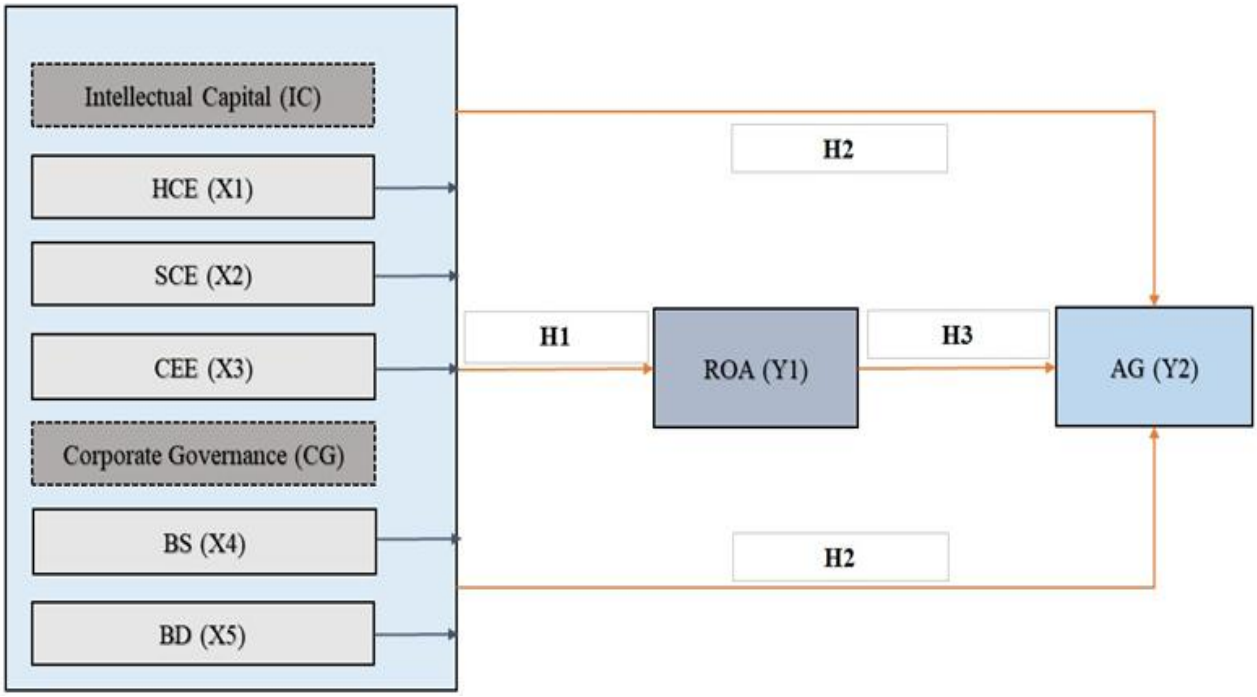

Figure-1. Theoretical model for testing the relationship among variables.

4.9. Econometric Specification

To analyze the results of this study used panel data regression analysis. Panel data is data that has two dimensions, namely individuals (cross section) and time (time series). By accommodating information both related to cross-section variables and time series, panel data can substantially reduce the problem of omitted-variables, a model that ignores relevant variables (Gujarati and Porter, 2015). The panel data analyzed includes the influence of intellectual capital and governance variables (HCE, SCE, CEE, BS and BD) on ROA. Furthermore, the effect of the variables HCE, SCE, CEE, BS and BD on AG was also analyzed as well as an analysis of the effect of the ROA variable on AG.

Basically the use of panel data method has several advantages that allow us for not having to test classical assumptions in the panel data model (Gujarati and Porter, 2015). Some models that can be used for panel data consist of Pooled Least Square (PLS) or Common Effects Model (CEM), Fixed Effect Model (FEM) and Random Effect Model (REM).

The equation of model in this study is as follows (Dencik *et al.*, 2018): The equation of the CEM model in this study is as follows:

$$ROA_{it} = \alpha + \beta_1 HCE_{it} + \beta_2 SCE_{it} + \beta_3 CEE_{it} + \beta_4 BS_{it} + \beta_4 BS_{it} + \beta_5 BS_{it} + \varepsilon_{it}$$

$$AG_{it} = \alpha + \beta_1 HCE_{it} + \beta_2 SCE_{it} + \beta_3 CEE_{it} + \beta_4 BS_{it} + \beta_4 BS_{it} + \beta_5 BS_{it} + \varepsilon_{it}$$

$$AG_{it} = \alpha + \beta ROA_{it} + \varepsilon_{it}$$

4.10. Estimation Result

Model-1

Based on the results obtained from data processing using Eviews, the following Table 1 is presented, which is the effect of HCE, SCE, CEE, BS and BD on ROA as below.

Table-1. Estimation result model-1.

Deskripsi / Variable	Common Effect Model (CEM)		Fixed Effect Model (FEM)		Random Effect Model (REM)	
	b	sig.	b	sig.	b	sig.
HCE	0.0124	0.0000	0.0118	0.0000	0.0119	0.0000
SCE	-0.0012	0.5741	-0.0010	0.4976	-0.0011	0.4662
CEE	0.0150	0.0198	0.0072	0.1839	0.0110	0.0286
BS	0.1135	0.3575	-0.1521	0.5318	0.0704	0.6198
BD	0.1829	0.0112	-0.0527	0.5987	0.1066	0.1440
C	-12.7482	0.0048	3.0008	0.6501	-8.0322	0.0818
Chow test				0.0000		
Hausman test						0.0059
R-squared	0.8180		0.9356		0.8371	
F-statistic	48.5447	0.0000	39.0283	0.0000	55.5163	0.0000

The model-1 test was carried out using three techniques, namely: Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). To determine the best model between CEM and FEM, a Chow Test was performed. Chow test results show that the cross-section probability value F = 0.0000 <0.05 then H0 (CEM) is rejected and Ha (FEM) is accepted. Thus the chosen model is FEM. Then the Hausman Test is performed to choose between FEM and REM. Hausman test results show that cross-section probability value F = 0.0059 <0.05 then H0 (REM) is rejected and Ha (FEM) is accepted. Thus the chosen model is FEM.

Panel data regression including independent variables HCE, SCE, CEE, BS and BD on the dependent variable ROA produces a constant of 3,0008 with a regression coefficient of the variable HCE 0.0118; SCE -0.0010; CEE 0.0072; BS -0.1521; and BD -0.0527. Based on the constants and regression coefficients above, it can be formulated as follows. ROA = 3,0008 + 0.0118 HCE - 0.0010 SCE + 0.0072 CEE - 0.1521 BS - 0.0527 BD

From the results of the regression model-1 it can be interpreted that the independent variables consisting of HCE, SCE, CEE, BS, and BD together have a positive and significant effect on Return On Assets (ROA). This indicates that the presence of attention in managing intellectual capital and good corporate governance will have a very good impact on the financial performance of Islamic commercial banks. These results are in line with the research of Mondal and Ghosh (2012); Yusof *et al.* (2014); Siswanti *et al.* (2017); Suroso *et al.* (2017) and Amin *et al.* (2018).

Human capital (HC) is the basic part of intellectual capital and the most important resource in an organization's efforts, not apart from Islamic commercial banks, to compete and survive. Therefore, it is not excessive if Bontis (1998) asserts that in an organizational perspective, it refers to human capital as a source of innovation and strategic renewal. However, human resources must also be combined with relational and structural elements in the organization, to create value. From the results of the t-test research it is known that human capital measured by Human Capital Efficiency (HCE) partially has a t- statistic value of 11.41 and sig. 0.00 <0.05. This means that HCE has a positive and very significant effect on Return on Assets (ROA) of Islamic Commercial Banks in the 2014-2018 period.

This indicates that banks get satisfactory financial performance if they are able to manage human capital well and efficiently. The results of previous studies conducted by Bontis *et al.* (2000); Bryl and Truskolaski (2015) also show that human capital is the most important in creating value added companies and HCE, SCE and CEE are partially very influential on ROA, which is in accordance with previous studies on companies in Poland. In addition, from descriptive statistics, we know that HCE has a mean (average) of 89.63% and a median of 137.82%, the highest value, so partially HCE has the most influence on ROA compared to other variables.

Structural capital (SC) is the ability of companies to manage and develop knowledge and organizational structures so as to be able to create operational systems and procedures, both in the form of software (hardware) and hardware (hardware). In this study SC is measured by structural capital efficiency. From the results of the study note that SCE partially has a t-statistic value of -0.68 and sig. 0.50> 0.05. This means that SCE has a negative and

not significant effect on ROA of Islamic Banks in the 2014-2018 period. This indicates that banks are not optimal in managing structural capital so that their resources have not been able to provide tangible results on the bank's financial performance. From the processed financial data, it even shows that there are several banks that experience negative SCE. In line with research conducted by Al-Musali and Ismail (2014) of all banks listed in Saudi Arabia for the period 2008-2010, which stated that SCE had no significant effect on ROA.

Efficient capital employed (CE) by companies will be able to create competitive advantages, namely by combining human capital and financial capital to achieve organizational goals. In this study CE was measured by capital employed efficiency. From the results of the study note that CEE partially has a t- statistic value of 1.35 and sig. 0.18> 0.05. This means that CEE has a positive and not significant effect on ROA. This indicates that financial capital remains a key factor in the development of a bank, but it seems that Islamic commercial banks have not been able to manage this financial capital optimally so that it has not been able to influence the ICB financial performance in the 2014-2018 period. This is also in line with research conducted by Al-Musali and Ismail (2014) on all banks listed in Saudi Arabia for the period 2008-2010, which stated that CEE had no significant effect on ROA.

Board size (BS) is an important element to achieve board effectiveness and improve the company's financial performance. In this study the number of management consists of the number of supervisory boards, boards of commissioners and boards of directors of Islamic commercial banks. From the financial data obtained, it can be seen that there are 9 ICB that use the number of management 8-10 while the other 3 ICB use the number of management 11-13 or more. Can be interpreted that the use of the number of management in ICB is quite balanced with an average of 10.15.

From the research results, it was obtained that partially BS has t-statistic -0.63 and sig. 0.53> 0.05. This means that BS has a negative and not significant effect on ROA. This indicates, regardless of the number of BS owned, it turns out that BS has not been effective in influencing ICB financial performance in the

2014-2018 period. These results are in line with the results of previous studies by Bublykova (2014) and Ghabayen *et al.* (2018) in his study of the relationship between the number of management and financial performance of banks in Jordan, which states that there is no significant influence between BS and ROA as previous studies in countries in the Middle East. Meanwhile, Akpan and Amran (2014) examined that BS had a significant effect on the financial performance of 90 listed companies in Nigeria in the 2010-2012 period.

Demographic diversity such as gender, age and differences in the background of board members (board of demography) should benefit the company's success. In this study BD is measured based on the age of the ICB management board. From the results of the study it was found that partially BD has a t- statistic of -0.53 and sig. 0.60> 0.05. This means that BD has a negative and not significant effect on ROA. This indicates that the maturity and age diversity that exists between the board of management has not been able to make strength in improving the financial performance of ICB. Research in Turkey conducted by Ararat *et al.* (2015) showed no consistent or significant results regarding the effect of BD on financial performance.

Model-2

According to the Financial Services Authority (Otoritas Jasa Keuangan, 2015) one (of five) ICB strategic issues are inadequate capital, small scale industries and individual banks, and low efficiency. Limited capital conditions are an important factor affecting the low expansion of Islamic Banking assets. Currently,

among of 12 ICB, ten ICB has capital of less than IDR 2 trillion, and no ICB has capital of more than IDR 5 trillion. This causes the Islamic banks are not free enough to open branch offices, develop infrastructure, and develop service segments. In addition, the quantity and quality of Human Resources (HR) is inadequate and information technology (IT) is not yet supporting the development of products and services. HR and IT are the two main factors that determine the success of Banking product and service development, and Banking operations in general.

Related to the OJK study above, from this study conducted to measure the effect of HCE, SCE, CEE, BS, BD and ROA on AG, the results are obtained simultaneously by the F-test results with an F-value of 1.12 and the significance value 0.37> 0.05 as shown in Table 2. Regression Results Effects of HCE, SCE, CEE, BS, BD, and ROA on AG. This can be interpreted that the independent variables consisting of elements of IC, CG and ROA together do not have a positive and significant effect on Assets Growth (AG). This indicates that IC, CG and ROA have not optimally impacted the growth of Islamic commercial bank assets in the 2014-2018 period. This can be understood as described previously, that the ranking achieved by Islamic banks is still low in the criteria of profitability (ROA). This means that with the small profit and even the number of Islamic banks that lose money and the lack of injection of funds, it becomes difficult for Islamic commercial banks to develop ICB business by adding assets.

Table-2. Estimation result model-2.

Deskripsi / Variable	Common Effect Model (CEM)		Fixed Effect Model (FEM)		Random Effect Model (REM)	
	b	sig.	b	sig.	b	sig.
HCE	-0.2001	0.2928	0.4777	0.0702	-0.2001	0.2727
SCE	-0.0185	0.9202	-0.0904	0.6367	-0.0185	0.9167
CEE	0.3813	0.5026	0.2028	0.7644	0.3813	0.4845
BS	-5.1403	0.6304	-25.3892	0.4026	-5.1403	0.6157
BD	-1.3905	0.8281	-1.3554	0.9131	-1.3905	0.8208
ROA	13.4795	0.2555	-40.9901	0.0358	13.4795	0.2358
C	174.1232	0.6668	307.8768	0.7078	174.1232	0.6533
Chow test				0.0076		
Hausman test						0.0191
R-squared	0.0548		0.3117		0.0548	
F-statistic	0.5112	0.7967	1.1186	0.3695	0.5118	0.7967

The model-2 test also was carried out using three techniques, namely: Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). To determine the best model between CEM and FEM, a Chow Test was performed. Chow test results show that the cross-section probability value F = 0.0076 <0.05 then H0 (CEM) is rejected and Ha (FEM) is accepted. Thus the chosen model is FEM. Then the Hausman Test is performed to choose between FEM and REM. Hausman test results indicate that the cross-section probability value F = 0.0191 <0.05 then H0 (REM) is rejected and Ha (FEM) is accepted. Thus the chosen model is FEM.

Panel data regression which includes the independent variables HCE, SCE, CEE, BS, BD, and ROA on the dependent variable AG produces a constant 307.8768 with a regression coefficient of the variable HCE 0.4777; SCE -0,0904; CEE 0.2028; BS -25,3892; BD -1,3554; and ROA -40.9901.

Based on the constants and regression coefficients above, it can be formulated as follows. AG = 307,8768 + 0,4777 HCE - 0,0904 SCE + 0,2028 CEE - 25,3892 BS - 1,3554 BD - 40,9901 ROA HCE results of t-test research, it is known that human capital measured by Human Capital Efficiency (HCE) partially has a t-statistic value of 1.86 and sig. 0.07 <0.05. This means that HCE does not significantly influence Islamic Commercial Bank Assets Growth (AG) in the 2014-2018 period. These results are in line with the studies of Mondal and Ghosh (2012) and Tran and Duc (2018). This indicates that the management of human capital has not been able to boost the growth of ICB assets.

SCE results of the t-test research it is known that structural capital measured by Structural Capital Efficiency (HCE) partially has a t-statistic value of -0.48 and sig. 0.64> 0.05. This means that SCE has a negative and insignificant effect on Assets Growth (AG) of Islamic Commercial Banks in the 2014- 2018 period. These results are in line with the research of Joshi *et al.* (2012); Al-Musali and Ismail (2014) and Ginesti *et al.* (2018). This indicates that structural capital management has not been able to boost the growth of ICB assets.

CEE results of the t-test research, it is known that capital management as measured by Capital Employed Efficiency (CEE) partially has a t-statistic value of 0.30 and sig. 0.76> 0.05. This means that CEE has a positive and

not significant effect on Assets Growth (AG) of Islamic Commercial Banks in the 2014- 2018 period. These results are in line with the research of Joshi *et al.* (2012); Al-Musali and Ismail (2014) and Ginesti *et al.* (2018). This indicates that capital management has not been able to boost the growth of ICB assets.

BS results of the t-test research, it was found that the BS measured by the number of management consisting of the supervisory board, the board of commissioners and the board of directors partially had a t-statistic value of -0.85 and sig. 0.40> 0.05. This means that BS has a negative and not significant effect on Assets Growth (AG) of Islamic Commercial Banks in the 2014-2018 period. These results are in line with Topak (2011). This indicates that the size of the management has not been able to influence the growth of ICB assets.

BD results of the t-test research, it is known that BD measured by the age of the bank's management partially has a t-statistic value of -0.11 and sig. 0.91> 0.05. This means that BD has a negative and not significant effect on Assets Growth (AG) of Islamic Commercial Banks in the 2014-2018 period. This result is in line with research by Taljaard *et al.* (2015). This indicates that the level of age maturity has not been able to influence the growth of ICB assets.

ROA results of the t-test research, it is known that ROA partially has a t-statistic value of -2.17 and sig. 0.04 <0.05. It means that ROA has a negative but significant effect on Assets Growth (AG) of Islamic Commercial Banks in the 2014-2018 period. This indicates that good and efficient financial performance is able to boost the growth of ICB assets. This is in line with the results of research conducted by Cohen and Scatigna (2016) that banks that have high profitability will affect the growth of their assets.

4.11. Direct and Indirect Effects

The direct effect is the influence of the elements of intellectual capital (HCE, SCE, and CEE) and governance (BS and BD) on ROA and on the AG, while the indirect effect is the influence of ROA on the AG.

Based on research results, intellectual capital and governance have a greater influence on ROA than on AG. This shows that if the ICB pays attention in developing human capital (HCE), structural capital (SCE), and capital management (CEE) as well as developing governance (BS and BD) will affect the success of the bank in improving financial performance and asset growth. The influence of intellectual capital and governance is still relatively small because there are other factors that may need to also get attention such as in strengthening capital, ICB business scale and improving efficiency.

The indirect effect which is the effect of ROA on AG, based on the results of the study, has an influence although it is the smallest of the two direct effects. This can be understood because the size of ROA is influenced by intellectual capital and governance. If human resources, systems and capital as well as governance continue to be developed effectively and efficiently, it will improve the bank's financial performance. With the benefits achieved, banks have a strong ability to develop their capital.

5. CONCLUSIONS AND RECOMMENDATIONS

After conducting an in-depth study, the conclusions that can be conveyed from the results of this study are as follows.

IC and CG simultaneously have a positive and significant effect on financial performance of Islamic commercial banks in the 2014-2018 period. The partial effect of these variables on financial performance is as follows:

a. HCE has a positive and significant effect; b. SCE has a negative and not significant effect; c. CEE has a positive and not significant effect; d. BS has a negative and not significant effect; e. BD has a negative and not significant effect on the financial performance of Islamic banks in 2014-2018.

IC and CG simultaneously have positive and insignificant effect on the growth of Islamic commercial bank assets in the 2014-2018 period. The partial effect of these variables on the growth of Islamic commercial bank assets is as follows:

a. HCE has a positive and significant effect; b. SCE has a negative and not significant effect; c. CEE has a positive and not significant effect; d. BS has a negative and not significant effect; e. BD has a negative and not significant effect; f. ROA has a negative but significant effect.

The following recommendations can be conveyed with the hope of providing benefits, given the prospect of Islamic Banking in the future is quite bright, especially in May 2019 the government has launched the Indonesian Islamic Economic Master Plan (MEKSI) 2019-2024.

1. Practical Implications of Managerial:

a. The management of Islamic commercial banks need to set a measurable budget to develop human capital effectively and efficiently so that they are able to improve services which in turn will improve financial performance and the growth of Islamic commercial bank assets.

b. The management of Islamic commercial banks needs to be consistent and sustainable in compiling plans in increasing structural capital (structural capital) so that it can be a strength in increasing excellence, service, financial performance and asset growth of Islamic banks.

c. Islamic commercial bank management needs to be consistent, measurable and sustainable in improving capital management (capital employed) to be able to develop Banking products and services as well as Islamic commercial bank operations, which in turn will be able to improve financial performance and asset growth of Islamic commercial banks.

d. The management of Islamic commercial banks needs to maintain the composition of the board of directors (supervisory board, board of commissioners, and board of directors) to be productive in developing products and services, which in turn can improve financial performance and asset growth of Islamic commercial banks.

e. Islamic commercial bank management needs to take advantage of the age diversity and experience of the board of directors (supervisory board, board of commissioners, and board of directors) in order to create productive, creative, and innovative synergies in developing products and services, which in turn will be able to improve financial performance and asset growth Islamic commercial banks.

2. Future studies should develop more specific research in terms of capital and Business scale development and optimization of Islamic commercial banks in managing three aspects which are the main indicators of Islamic Banking, namely: assets, disbursed financing (PYD), and funds from third parties (DPK).

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