**East African Scholars Journal of Economics, Business and Management**
OPEN ACCESS
*Abbreviated Key Title: East African Scholars J Econ Bus Manag*
ISSN 2617-4464 (Print) | ISSN 2617-7269 (Online)
Published By East African Scholars Publisher, Kenya

Volume-3 | Issue-4 | Apr-2020 | DOI: 10.36349/EASJEBM.2020.v03i04.047

**Research Article**

# The Influence of Firm Size, Age, And And Profitability on Intellectual Capital Disclosure of Indonesian Banking Industry

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**Article History**
**Received:** 18.02.2020
**Accepted:** 19.04.2020
**Published**: 21.04.2020

**Journal homepage:**
https://www.easpublisher.com/easjebm

**Quick Response Code**

**Abstract:** The purpose of this study is to measure the effect of firm size, age and profitability on intellectual capital disclosure both partially and simultaneously in Indonesian Banking Industry. The research is conducted by using the census method to all commercial banks listed at Financial Service Authority (OJK) until December 2016. The data obtained are secondary data deriving from individual annual report of banks since 2012-2016. By employing hypothesis testing using panel regression estimation method, it indicated that firm size and age have a positive effect on intellectual capital disclosure. This study also found that profitability negatively affects intellectual capital disclosure. The major research limitations are its inability to prove all hypothesis that caused by merely three research variables and limited year of data observation of which it is just from the annual report with data period since 2012-2016.

**Keywords:** Intellectual capital disclosure, firm size, firm age and profitability.



## INTRODUCTION

In the digital age, the competition not only rely on tangible asset but also supported by intangible one. The existence of intangible assets will increase the utilization of tangible assets so as to increase the value of the company. Intangible assets that have been standardized, implemented and developed to create wealth are called intellectual capital (Stewart, 1997). The information about corporate intellectual capital can help stakeholders to evaluate strength and weakness of the company, so that intellectual capital disclosure should be done by the company to stakeholders to analyze the ability of companies in the stricly business competition of banking industry. therefore, it is very important to examine the variables affecting intellectual capital disclosure, especially variable size, age, and profitability of the company.

Not all of intellectual capital are disclosed in the Statement of Financial Position, despite had the economic benefits of the future. In addition to having an economic advantage, the intellectual capital included in paragraph 9 shall qualify for the identification and control of the reseurces. Lipunga (2013) found that companies reported intellectual capital in their annual reports, but the absence of a standard turns the company's reason for not disclosing it fully (full disclosure) in the annual report.

In this study, it is only used size, age and profitability of the company to examine the influences to intellectual capital disclosure. The selection of these three factors is done because based on the disclosure theory it is closely related to the intellectual capital disclosure. In addition, the results of the previous studies of these three factors still show inconsistent results on the intellectual capital disclosure.

Firm size is supposed to affect intellectual capital disclosure because large companies have awareness to provide more information to shareholders. Large companies are generally managed by competent managers so that many ideas will be made for the continuation of the company in the future. Kusnia (2013) proved that firm size significancy influences intellectual capital disclosure. This is because large companies have extensive ownership, so more disclosure is required, including intellectual capital disclosure due to shareholder demands. These result are in line with the results of Istanti (2009) and Suhardjanto and Wardhani (2010) stated that companies with large size have a higher awareness of intellectual capital disclosure practices. Instead the result of Nugroho (2012) showed that firm size has no effect on intellectual capital disclosure. Nugroho assumes that in order to preserve the competitive adventage already possessed, the company deliberately reduce the extent of disclosure in an attempt no signal to competitors.

Another factor that is thought to affect intellectual capital disclosure is the firm age. Firm age shows the maturity of the company in conducting business process. Mature companies are expected to know what disclosure policies shareholders want. Kusnia (2013) proved that firm age significant affect on intellectual capital disclosure. This in because older companies are more aware of their constituent information needs, which will reveal more information including intellectual capital owned. Otherwise, studies of Suhardjanto and Wardhani (2010) and Nugroho (2012) shows that firm age has no affect on intellectual capital disclosure. Intellectual capital disclosure are not affecting because a new companies that also wants to compete with a mature companies is aware of the importance of intellectual capital disclosure to gain investor confidence to make it easier for companies to do business development.

## LITERATURE REVIEW

### The Influence of Firm Size on Intellectual Capital Disclosure

Large companies have large resources that can be exploited to enlage their market share. It shows a number of investments that invested by shareholders in the company. As an owner, shareholders may demand relevant information on the utilization of resources owned by the company as a management accountibility of the utilization of investment and assignment of authority granted. The larger size of the firm, so the higher of the demanding disclosure of information than the smaller company. More disclosure of information is a way for companies to try to imply that the company has applied Good Corporate Governance (GCG) principles. Increasing of information disclosure will reduce information asymmetry. Applying agency theory, agency costs arise due to conflicting interests of shareholders, managers, and customers (Jansen and Meckling, 1976). Large company are required to provide information that supports their business strategy and estimate the impact of such disclosure for the company.

Studied by Kusnia (2013) shows that firm size has a positive influence on intellectual capital disclosure, shareholders demand put pressure on the company to disclose the intellectual capital that owned by the company widely. Suhardjanto and Wardhani (2010) also reveal the same thing that firm size has a significant effect on the extent of intellectual capital disclosure, because the actions of the large company will impact on the industrial environment so that stakeholders want a breadth disclosure of intellectual capital as an analytical supports for decision making.

**Hypothesis 1:**

Firm size has a positive affect on intellectual capital disclosure at Indonesian banking industri.

### The Influence of Firm Age on Intellectual Capital Disclosure

Stakeholders information needs are match by the extent of intellectual capital disclosure, but it also puts pressure from competing companies. Therefore, the company’s experience and supported by management capabilities can provide the information according to stakeholders needs effectifely and efficiently. Experience provides an opportunity for the company ability to managing the resources owned by the company and evaluating ability of the management about company’s resources as an analytical supports for better resouces management in the future. Referring to the disclosure theory, the company’s experience can provide the breadth of information from different perspectives, making it easier for stakeholders to monitor the company’s business activities.

The company’s experience is shown by the age of the company. Firm age is expected to have a positive relationship to the quality of corporate information disclosure. The underlying reason is that older companies have more experience in the face of business competition and the ever-changing business environment, thus knowing the information needed by stakeholders and their impact on the company’s business. Kusnia (2013) found that there is a positive relationship between firm age and intellectual capital disclosure. Kusnia argues that older companies will disclose intellectual capital broadly according to the information of their constituents need. Studied of Lina (2013) also found that there is a positive relationship between firm age and intellectual capital disclosure. Companies are required to develop sustainably in order to face competitive business, than older companies have more opportunities to grow so that the resulting information output is expected to continueing the improvement according to the stakeholders expectations.

**Hypothesis 2:**

Firm age has a positive affect on intellectual capital disclosure at Indonesian banking industri.

### The Influence of Profitability on Intellectual Capital Disclosure

Management will be motivated to reveal the intellectual capital owned by the company more in their annual reports. Supported by signaling theory, it is done to provide a good signal to external parties that the company has intellectual capital that is expected to provide economic benefits for the company in the future and also to reduce the information asymmetry that occured. Otherwise, if the company’s performance indicates an improving trend, it may be wise for the management to hide their intangible assets by not disclosing it in the company's annual reports. This is done to protect their strategic information from competitors, so that the company's did not lost their competitive advantage (Sonnier *et al.,* 2007).

Stakeholders generally want to be profitable company that can increase their market share or at least able to survive facing the business competition. Therefore, stakeholders need the information that can convicing them that company has the ability to generate profits continuesly. Information needed by stakeholders are including at intellectual capital disclosure that is business strategy and business processess. Suhardjanto and Wardhani (2010) explain that the higher profitability can earned by the company will improving their financial capability, so that management is expected to be able to managed the company's financial ability to enable maintaning or evan improving it. The extensive disclosure of intellectual capital demonstrated information on the company's financial statement strategy and company's resources to support the corporate strategies.

**Hypothesis 3:** Profitability has a positive affect on intellectual capital disclosure at Indonesian banking industri.

## RESEARCH METHOD

The population in this study are banking companies that included at commercial banks category and registered at OJK in 2012-2016. Banking companies are selected because the industry is included in the classification of High Intellectual Capital Intensive Industries based on Global Industry Clasification Standard (GICS) in Woodcock and Whiting (2009). Commercial Bank selected because of it is smaller amount, so that is affordable in terms of time, cost and effort to do research. Observation period in this research is 2012-2016.

The data which used in this research is secondary data. Secondary data is research data obtained indirectly through intermediate media (obtained and recorded by other party). Secondary data in this research is obtained from annual report of banking company registered in OJK since 2012-2016. The data in this study were collected through the documentation method obtained from accessing the official website of the banking company concerned and/or requested to OJK.

This research uses panel regression analysis with equation model as follows :

$$\mathbf{PMI = \alpha_{it} + \beta_1 Uk_it + \beta_2 Um_it + \beta_3 Pft_it + \varepsilon}$$

**where:**

PMI is company intellectual capital disclosure i year t; α is constant; $\beta_1, \beta_2, \beta_3$ is regression coefficient; Uk is firm size i year t; Um is firm age i year t; Pft is profitability i year t; i is company; t is year; and ε is *error.* The identification and measurement of the variables used in this study are presented in Table 1 below:

**Table 1.** Operasionalizational Variable

| Variabel | Definition | Indikator | Scale |
|---|---|---|---|
| Firm Size | The picture of company weather big or small company that shown with the natural logarithm of the total assets. (yogiyanto, 2007:282) | *Size* = Ln total assets (yogiyanto, 2007:282) | Ratio |
| Firm Age | The number of years since the company operates until the company maintains it's existence in the business world. (Jaggi, 1997:317) | *Age* = the year of study – the year of company operates (Jaggi, 1997:317) | Ratio |
| Profitability | The company ability to generate profits related to resource utilization (total assets and own capital). Sugiyarso and Winarni (2005:118) | ROA = $\frac{Net\ Income}{Total\ Assets} x100\%$ (Brigham and Houston, 2006:109) | Ratio |
| Intellectual Capital Disclosure | the amount of disclosure of intellectual capital disclosed by the company in the annual report with the maximum amount of disclosure of | *Score* $= \frac{di}{M}$ x 100 % (Bukh, 2002:54) | Ratio |

| | | |
|---|---|---|
| | intellectual capital that should be disclosed. (Bukh, 2002:54) | |

*Sources:* Processing Data Output (2017)

## RESULTSS AND DISCUSSIONS

This study with hypothesis testing using panel regression analysis method (*panel regression analysis*). Panel regression method connects one dependent variable with several independen variables in a research panel model for a certain time period to determine whether there is an influence of independent variables to dependen variable. Panel analysis is used to obtain regression coefficients which will determine weather the hypothesis will be accepted or rejected on the basis of regression analysis results.

**Table 2.** The Influence of Firm Size, Age, and Profitability for Intellectual Capital Disclosure

| Independent Variable | Coefficient | Dev. Standard | t-statistic | Prob. |
|---|---|---|---|---|
| C | -138,2244 | 34,9932 | -3,9500 | 0,0001 |
| Uk | 3,2101 | 1,4185 | 2,2630 | 0,0241 |
| Um | 2,2275 | 0,3329 | 6,6909 | 0,0000 |
| Pft | -0,2640 | 0,2325 | -1,1350 | 0,2570 |
| F- *sta.* = 16,2794, *Prob.* (F-*sta*.) = 0,0000, $R^2$ = 0,8073, Adj $R^2$ = 0,7577 | | | | |

*Source:* Secondary Data, 2018 (processed)

Based on Table 2 can be formulated the regression equations as follows:

$$\mathbf{PMI = -138{,}2244_{it} + 3{,}2101Uk_{it} + 2{,}2275Um_{it} - 0{,}2640Pft_{it}}$$

Based on Table 2, the value of coefficient influence firm size, age, and profitability for intellectual capital disclosure are 3,2101; 2,2275; and -0,2640 respectively. The coefficient value shows that firm size, age and profitability for intellectual capital disclosure is not equal to 0 ($\beta_i \neq 0$, i = 1, 2, 3). Reffering to the design of hypothesis testing, the requirement to state that firm size, age and profitability simultaneuosly affect the intellectual capital disclosure is when there is at least one $\beta_i \neq 0$, i = 1, 2, 3. Reffering to the requirement, the results of this study reject H0 (null hypothesis) and accept Ha (alternative hypothesis). Thus is can be said that the firm size, age and profitability together affect the intellectual capital disclosure.

### The Influence of Firm Size on Intellectual Capital Disclosure

The result showed that firm size had a positive effect on intellectual capital disclosure. The results of this study inform that large companies with large investments that have been invested, shareholders can demand relevant information on the use of resources owned by the company as a management accountability of the use of investment and delegation of authority given. The wider disclosure of information is the company’s way of implying that the company has adopted the principles of good corporate governance.

Turn upsite down with large companies, small companies that are ditite to be able to provide information that supports business strategies and information that affect the market. This is because small companies have limited resources to be used to enlarge the market. Shareholders demand for disclosure of small companies are still very low against large companies. Simple disclosure of information can lead to information asymetry. Reffering to agency theory, agency costs arise because of the interests of shareholders, managers and customers (Jansen and Meckling, 1976).

Based on the above discussion, it can be concluded that small companies provide limited information compared to large companies. On the disclosure gap, it is necessary to regulatory role to regulate minimum intellectual capital disclosure standard for banks so that it can provide adequate information for stakeholders to make decission. For the company, extensive intellectual capital disclosure can help the company in realizing their business plan.

### The Influence of Firm Age on Intellectual Capital Disclosure

The results showed that the age of the company has a positive effect on intellectual capital disclosure. It shows that mature companies are able to fully inform their intellectual capital and meet the stakeholders need of information. Therefore, the experiance of the company and supported by the ability of management can provide information according to the stakeholders need effectively and efficiently.

Experience provides an opportunity for companies to be able to manage the company's resources and evaluation of the company's resource management as an analysis material for better future resources management. Reffering to the disclosure theory, the company's experience can provide the breadth of information from different perspectives, making it easier to stakeholders monitoring the company's business activities.

New companies have not been able to provide information needed by stakeholders, so they should seek other relevant information. The attention of new companies tend to be a strategy to seize market share from competitor companies through new ideas to improve customer service. Therefore, management tends to inform its intellectual capital into the prospectus of the company to be submitted to stakeholders, especially shareholders and employees of the company.

**The Influence of Profitability on Intellectual Capital Disclosure**

The results showed that profitability negatively affect the intellectual capital disclosure. It shows that higher the profitability of the company, the company will tend to limit the intellectual capital disclosure. In terms of market structure, banks are in the oligopoly market, where the number of banks competing in Indonesia while the products and services offered by each bank tend to be the same. Therefore, the company will only disclose sufficient information to stakeholders for the utilization of intellectual capital held to maintain the sustainability of corporate profitability.

In addition, in order to safeguard the interest of investment from shareholders, management will be motivated to disclose the intellectual capital owned by the company more in its annual report. Supports signal theory, it is done to provide a good signal to outsiders that the company has intellectual capital that is expected to provide economic benefits for the company in the future as well as to reduce the information asymmetry that occurs.

## CONCLUSIONS AND RESEARCH LIMITATIONS

The results of this study indicate that firm size and age have a positive effect on intellectual capital disclosure. The study also found that profitability negatively affects intellectual capital disclosure. The research limitations are the inability of the study to explain all variations caused by this research. This study also uses only annual reports with data period from 2012-2016.

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