

## Intellectual Capital Disclosure and Information Asymmetry in General Banking Listed in Indonesia Stock Exchange

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**Abstract:** The purpose of this study is to present an overview of intellectual capital disclosures with content analysis approach and explain the effect of disclosure of intellectual capital and information asymmetry. The research method used is explanatory research. The data used is secondary data (1999-2015) and primer. Primary data is determined to improve the objectivity score disclosure of intellectual capital. Data analysis using Structural Equation Modeling (SEM) and test equipment PLS. Result in 25 commercial banks listed on the Indonesia Stock exchange show that the disclosure of intellectual capital is still low, both the internal capital disclosures (56%), external capital disclosures (68%) and human capital disclosures (76%). Overall disclosure intellectual capital is high (6.7%); medium (33.3%) and low (60%). Path coefficient results show that the disclosure of intellectual capital negatively affect the asymmetry of information with a significance level of 5%. The results show that the disclosure of intellectual capital affect the information asymmetry of 16.8%.

**Key words:** Intellectual capital disclosure, internal capital disclosure, disclosure of external capital, human capital disclosure, information asymmetry

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### INTRODUCTION

The asymmetry of information is a condition/situation when managers have access to information about the company's prospects who do not have by outsiders. The existence of information asymmetry is evidenced by Salehi and Rostami (2013) who is research and explore different perceptions about the quality of financial reporting between standars setters, investors and the state government in Iran. The results showed that reporting gapis caused by inadequate disclosure of non-financial information in the financial statements. Results of the study showed there was a gapperceptions between the legal reporting and reporting model in Iran so it does not find what the user needs. This is makes differences perception between who is serving with the received information.

Asymmetry of information can occur in various situations. The existence of asymmetry in the banking sector is evidenced by the results of research through a market approach to book value. Further research conducted by Nurjanati and Rodoni approach bid ask sperad. the results of research Wijayanto which conducts research in the banking sector and explains the asymmetry of information.

Information asymmetry is caused by the gap between the data presented to the user's needs, survey conducted

by Price Waterhouse Coopers, describes the information needed by investors. There are 10 types of information needed by investors and only three in the form of financial information such as cash flow, profit and gross margin. Of the seven types of break, two of which came from internal data companies and others can be considered as intangible such as growth market, quality/experience of the management team, market size, market share and share responses.

Price Waterhouse Coopers declared 14 types of information and divided them into three groups, namely customers (distribution channels, brand equit/visibility and the turnover of customers), employees (intellectual capital, the level of employee retention and revenue per employee) and innovation (revenue from new products, new product success rate, expenditures for research and development and product development cycle). The most important of information which is regarded as the intellectual capital and have not been fully disclosed in the financial statements.

The accounting profession often describe Intellectual Capitalas loss of relevance of financial reporting to stakeholders (Andriessen, 2004; Abeysekera, 2008). The loss of relevance it did not get real information, because it does not explain how the intellectual capital in banking. It has become a new issue and has shown that the financial reporting system has not been able to present

the necessary and sufficient information regarding the value and strength of the company for all stakeholders (Thyatul, 2009; Bhasin, 2012). The difference between the market value and the book value of the company is already irrelevant evidence of traditional financial reporting methods which raises questions about the ability and relevance of accounting information for decision-making, because it does not describe the actual value.

According to Albrech *et al.* (2002) and Abeysekera (2008), intellectual capital is important information that is not recognized in the financial statements. Furthermore Bhasin (2012) has shown, the difference between the book value and market value that occur at this time caused by the Intellectual capital. Although, it is still contradictory, because there are some opinions that said that intellectual capital can not be measured only by comparing of both aspects.

In the terminology of financial accounting, intellectual capital is intangible assets Bhasin (2012) or often also known as “non-financial assets” (Moore and Graig, 2008). According to Yeh *et al.* (2011) intellectual capital is defined as a hidden value. Hidden value is characteristic of the Intellectual capital as intangible resources (Alves and Martins, 2014) which will have implications on the emergence of hidden information in the form of information asymmetry Abeysekera (2008), so if the sectors have high intellectual intensity will have high information asymmetry. Whiting and Woodcock (2009) classifies banking sectors as the high intellectual intensity, therefore, the banking sector has a high risk of information asymmetry.

The risk of information asymmetry is happening in the banking sector will have a wide impact, not only would eliminate banking market itself, otherwise it will lead to underestimate the potential and strength in the banking sector. In fact, the banking sector has to compete in the face of the ASEAN economic community by 2015. Based on several studies have shown, to reduce information asymmetry and increasing financial relevance can be served by disclosure Bhasin (2012), Ferreira *et al.* (2012), Singh *et al.* (2008) and Healy and Palepu (2001). Disclosures in the financial statements is required in order to reduce uncertainty information (Hsu and Chang, 2005).

Characteristics of Intellectual Capital as a hidden value (Yeh *et al.*, 2011), require more voluntary disclosure. Intellectual capital disclosure are categorized as voluntary disclosure, although there are some items of disclosure of intellectual capital has been change became mandatory

disclosure. There is about the role which made by Financial Services Authority and (OJK), Bapepam LK. Some intellectual capital disclosures that have been set, for example related to the disclosure of good corporate governance, risk management. The impact of the role relates to these two things seen on the extent of disclosure of good corporate governance and risk management in banking. namun sector because there is no necessity for the provision and management of intellectual capital to reveal other items, of course, can lead to the emergence of an a question and the reluctance of companies to make disclosures.

Voluntary disclosure is additional information beyond what is required by law, it has the aim of providing an actual value of the condition of the company Sartawi *et al.* (2014). According to Cotter *et al.* (2011), voluntary disclosure is an “unregulated communication between firms and their stakeholders”. According to Cotter *et al.* (2011), the voluntary disclosure in the annual report can be classified into three types of information:

- Strategic and forward-looking
- Financial
- Non financial Information

Based on PSAK No. 1, the basic framework and presentation of financial statements, disclosure is an integral part of the financial reporting process. An information can be complete when the inside is to provide additional information that is both non-financial disclosure (disclosure) (Steven, 2012).

The phenomenon of the disclosure in the banking was said by Rosita Uli Sinaga who explain the opinion of two standard setter FASB and IASB, who has criticized the weakness of the banking sector’s efforts to improve their transparency. Both institutions have tried to force the banks to reveal the troubled assets in an effort to reduce the potential for damage arising from the unhealthiness of the financial system of the world today. The fact that this happens when there are still some banks that violated the financial statements due to not presenting factual information such as that experienced by the Central Bank of Asia (BCA) which BCA shares decreased by 150 points.

According to Nurhaida, Chief Executive pengawas Pasar Modal Otoritas Jasa Keuangan (OJK), OJK finding 33 potential violations of the law in the Indonesian capital market in 2013. The case of violation of law in the capital market is cases relating to the disclosure of listed companies and public companies among other alleged

violations of the provisions of the transaction containing conflict of interest, material transactions, disclosure of certain shareholders, information or material facts which must be announced to the public. It is supported by an annual report Supervisory Board Capital markets and Financial Institution (Bapepam-LK) in 2011 which states that the offense and the disclosure of financial statements for the biggest portion of all cases related to the issuer or public company in the year, it is indicated with some of the cases handled.

According to Solikhah (2015), Soebyakto and Agustina (2015) conduct research on IC disclosure practices at the company in Indonesia. Based on the results of their study proved that the average disclosure of intellectual capital in Indonesia is still very low. This shows that the lack of awareness of banking disclose information intellectual capital.

Facts about the lack of intellectual capital disclosure, will certainly reduce the relevance of accounting information, because some of the information Intellectual capital does not appear in the financial report. A survey conducted by PwC in 2014 stated that one of the important information that should be communicated to stakeholders is information about intellectual capital. According to Suwarjono (2008), the problem of disclosure often occurs and many causes, among others: the reluctance of companies to convey information, the difficulty of determining the usefulness of information, the overload of information (information overload), the cost of disclosure, any other information that is more effective and the group who oppose the idea of disclosure.

To overcome the problem of reluctance in making the disclosure, the rules of the regulator wants the company to disclose information. The regulations is a tools that can be used to protect investors from the actions of others through transactions and the dissemination of information.

For a public company in Indonesia, the obligation to implement the disclosure rule number VIII.G.7 lampiran Keputusan Ketua Badan Pengawas Pasar Modal and Lembaga Keuangan no. KEP-3o47/BL/2012 tanggal 25Juni 2012, about Presentation and Disclosure of Financial Statements public companies and regulatory XK6 lampiran keputusan Ketua Badan Pengawas Pasar Modal dan Lembaga Keuangan Nomor: KEP-431/BL/2012 tanggal 1 Agustus 2012 tentang Penyampaian Laporan Tahunanemitenatauperusahaanpublik. Peraturan VIII G.7 dan X.K.6 tersebutmerupa kanupaya untukmening katkankualitas keterbu kaanin formasi dalamla porantahun anemiten dansejalandenganperubahan.

Effort to increase the transparency of the financial services authority issued a check list of financial statements for the entire industry capital market in Indonesia, where all corporate issuers and public companies are required to use a checklist disclosure of financial statements. Based on the check list such disclosure, the disclosure of intellectual capital a few items that have become mandatory consists of:

- Research and development
- Consumer loyalty
- The number of employees, the age of employees, employee education
- Board of Directors
- Duties and responsibilities
- Directors Competence Development, Education and Training Board

Several items of intellectual capital has become mandatory if referring to some of the regulations issued by Bank Indonesia, Bapepam-LK and the Ministry of State-Owned Enterprises Although there has been some rules related to disclosure but the most of Intellectual Capital disclosure in Indonesia is still categorized as a voluntary disclosure (Solikhah, 2015) because of the lack of specific accounting standards can be used as a reference in measuring and reporting Intellectual capital. The absence of this reporting standard did not only happen in Indonesia is the meaning conveyed by Abeysekera (2008) and Lipunga (2013) which states that the impact of the lack of standard reporting of Intellectual Capital in the banking causing the gap to the enthusiasm of the company and the lack of effort the company to provide clues about the strength of the company. The absence of such reporting standards led to the emergence of the question of what and how to report that led to the present of a reason for non-disclosure (Lipunga, 2013).

#### **Literature review**

**Grand theories relevant to intellectual capital disclosures:** This study used Signaling Theory as a starting point to explain the relation intellectual capital disclosure (Alhtaybat *et al.*, 2012) which is mapping the theories of disclosure and found an association complex between the existing theories with the phenomenon of disclosure at this time.

At a certain condition mandatory disclosureis sufficient to reduce information asymmetry when the company does not require external financing, therefore it only requires a small level of voluntary disclosure. But

when the condition of the company has the ability to grow high enough, the mandatory disclosure to be not yet sufficiently (low) thus, causing high information asymmetry.

The urge to provide voluntary disclosure has been presented in several writings as a theoretical explanatory to see the relationship between the impulse manager Healy and Palepu (2001) with user satisfaction regarding voluntary disclosure in a company. Manager incentives theory, suspect that to reduce the asymmetry of information managers will disclose information more through the financial statements, whether it is printed/internet for a couple of reasons (Alhtaybat *et al.*, 2012).

According to Cotter *et al.* (2011) theory are relevant for being the paradigm of thinking is going to depend on the type of disclosure that will be researched and outsiders will be considered.

**Signaling theory:** Signaling theory indicates that the organization will attempt to show signs of positive information to investors through the mechanism of annual reports (Muller, 2000), Alhtaybat *et al.* (2012) and Cotter *et al.* (2011). Managers have the motivation to reveal private information voluntarily because they hope the information can be interpreted as a positive signal about the company's performance and can reduce information asymmetry (Conelly *et al.*, 2011). Disclosure of intellectual capital allows for investors and other stakeholders to better assess the ability of the company in the future, conduct a proper assessment of the company and reduce their risk perception (Williams, 2001; Whiting and Miller, 2005).

Based on the Signaling theory Hamrouni *et al.* (2015), explains that the purpose of the disclosure is to inform the company that can help analysts and investors about the company's quality and value. Hasanezhadnisi and Mazraeh have proved that, a significant difference between the intellectual capital on the ability to generate profits or profitability. By revealing the Intellectual Capital, the management gives a message/signal or the good news of the ability and the strength of the company is expected to have an impact on stock prices. Because profitability is a form of high quality companies which encourage the management to disclose voluntarily.

**Intellectual capital: human capital, structural (Internal) and relational (External):** Andriessen (2004) stated that in the context of intellectual capital in the accounting has the same meaning as intangible assets. "International Accounting to Standards Board (IASB) provides a

definition of intangible assets: "An identifiable non-monetary asset without physical substance held for use in the production or supply of goods or services, for rental to others or for administrative purposes".

Intellectual capital is a resource and a decisive factor for the company's ability to compete, economic success as well as the creator of enterprise value defines Intellectual capital as knowledge that can be converted into value and profit. The value attached to the ideas of employees, value added to the process and the added value inherent in the consumer/user.

In terms of value creation is also presented by Yeh *et al.* (2011) which has defined Intellectual capital as the company's ability to make profits in the future (future earning capabilities). According to Wall *et al.* (2004) and Sonnier (2008), intellectual capital into three components, namely:

- Talents, skills and know-how of existing knowledge on human resources (Human capital)
- Capital structure includes organizational culture, intellectual property and processing (capital structure)
- Customer relationships, customer loyalty and the relationship with the supplier (Relational capital)

**Disclosure of intellectual capital:** Disclosure in view of accounting is to "inform the company's financial statements to the public". Furthermore, written by Owusu-Ansah (1998) the disclosure is defined as the communication of economic information, through financial or non-financial, analytical quantitative or others regarding the position corporate finance and performance. In line with the above opinion delivered by Healy and Palepu (2001), that the financial reporting and disclosure are important for management to communicate firm and governance performance to outside investors. When linked with the financial statements, disclosure should provide sufficient information and explanations regarding the results of the activities of a business unit.

Most of Intellectual Capital disclosures are categorized as voluntary disclosure. Voluntary disclosure is not required by accounting standards and regulation (Swardjono, 2008), created to complement and addition to the disclosure required by accounting standards and regulations (Cotter *et al.*, 2011) are not required by law or regulation and the information beyond the minimum requirements. On the other hand voluntary disclosure is additional information beyond what is required by law, it has the aim of providing a clear picture

of condition of the company. According to Bhasin (2012) voluntary disclosure is necessary because of its capacity to reduce the asymmetry of information or the information gap between stakeholders and management. Lipunga (2013) conducted a study of disclosure intellectual capital through an approach of content analysis in commercial bank listed and unlisted in the country of Malawi but in Indonesia there are several items disclosure intellectual capital which has become mandatory disclosure.

Based on literature prior intellectual capital disclosure is still a gap due to lack of enthusiasm, gestures and attempts to report intellectual capital is still not visible. In an effort to improve the disclosure of intellectual capital still needs to be discussed not only for the banking industry alone. In this case it is also necessary standards for reporting due to the emergence of some questions of what and how to report it, so that it becomes a reason for non-disclosure (Lipunga, 2013).

Based on the explanation, the disclosure of intellectual capital is the communication of information related to the human, structure and relational capital, to stakeholders (Cotter *et al.*, 2011), through financial or non-financial, analytical quantitative or others whose aim is to reduce the gap between the book value of the company by market value, providing information about the real value of a company, reducing information asymmetry, provides an assessment of Intangible and enhance the company's reputation (Bhasin, 2012).

Measurement disclosure of intellectual capital in this study using content analysis. Husin *et al.* (2012) explains, content analysis is a method of encoding the text written to a group or specific criteria. Criteria agreed in the disclosure of intellectual capital is divided into three capital Internal, external and human capital. Based on the classification, the criteria, items and the disclosure of intellectual capital indicators are can be seen in Table 1.

**Asymmetry of information:** Asymmetry of information is a condition where a party has information that no other party so that certain consequences will only be known by one party without the knowledge of others who also need such information, occurs because of the difference/gap between party serving with the received information Salehi and Rostami (2013) and Connelly *et al.* (2011) explains that the information asymmetry arises when "different people knows different thing".

Information asymmetry occurs when one or more parties involved in a transaction process have good information or more as compared to others who are also involved in the transaction process. In this study, the

parties get more information is to the company, (insider) while the outsider in this case Stakeholders are less informed about the intangible resources that are managed by the company. Stakeholders theory can be applied to financial reporting and business ethics. According to Cotter *et al.* (2011) stakeholders may consist of a group/individual who benefited or harmed and whose rights are violated or considered by the company's activities. Stakeholder theory assumes that management decisions can not be taken without considering the interests of stakeholders. The company would act to meet the expectations of certain stakeholders who have the power and impact to the performance of them.

Measurement information asymmetry can use bid-ask spread . In the capital market, bid ask spread represents the difference between the highest buying price which the trader (stock traders) want to buy shares, the lowest selling price where traders are willing to sell their shares. Callahan *et al.* (1997) reviewed the literature on factors that empirically dominant influence on the bid-ask spread.

$$SPREAD = \alpha_0 + \alpha_1 PRICE_{i,t} TRANS_{i,t} + \alpha_3 VAR_{i,t} + \alpha_4 DEPTH_{i,t} + ADJSPREAD_{i,t}$$

Where:

- Ask <sub>i,t</sub> = Price ask highest shares of the company i happened on day t
- Bid <sub>i,t</sub> = Price of the bid the lowest shares of the company i happened on day t
- PRICE <sub>i,t</sub> = Closing price of the shares of the company i on day t
- TRANS <sub>i,t</sub> = The volume of transactions on the shares of the company it
- VAR <sub>i,t</sub> = variance of stock returns i on day t
- DEPTH <sub>i,t</sub> = Average number of shares in all the companies i quates
- ADJSPREAD <sub>i,t</sub> = Residual error is used as a measure of spread Yag was adjusted (adjusted spread) and is used as a proxy for information asymmetry firm i on day t

**Hypotheses development:** Disclosure Intellectual capital is communicating human, relational, structure capital of the company with stakeholders (Cotter *et al.*, 2011). Disclosure means that the financial reports should provide information and adequate explanation of the results of the activities of a business unit. When linked with the financial statements, Intellectual capital is the intangible assets that are not reported in the financial statement (Albrech *et al.*, 2002; Abeysekera, 2008), so

**Table 1: Classifying intellectual capital disclosures**

Dimension 1: internal capital	The items were assessed in the Annual Report
Corporate culture	Vision Mission Code of ethics, code of conduct The operating principle, the principle of prudential Creating value, improving welfare, promoting the interests of shareholders, Value The company's growth, asset growth, credit growth
Management philosophy	Environmental concerns (eg less paper, green office, etc.), social care, Nationalism (example: have attention to economic progress, memperingari the big day, providing support to cultural sites, etc.) *Business communities business group, subsidiaries Commitment Social Responsibility (CSR)*
Monitoring and process technology	Process control, quality, by the Board of commissioners and board of directors Organizational structure, existence of the assignment of responsibilities and authority Technology and service processes, management information openness Their management committee* Internal rate control* Risk management assessment* Rate structure of Corporate Governance (GCG)* Process efficiency cost*
Information systems and networks	Computer networks, data base Explanation IT investment*,the explanation of TTG presence*information technology systems, IT suport explanation of facilities and recovery system* Internal communication systems* wishle blowing system, bulletin, Teletext, pamphlet, e-mail
Research and development infrastructure	Infrastructure development, human resource development Output and development success
<b>Dimension 2: external capital</b>	
Financial relations	Relations with shareholders, bankers, and other funders, (Financial Relations), GMS
Brand building	Brand products, product quality, product development
Consumer	Consumer loyalty, become a follower twitter consumer confidence customer service consumer satisfaction
The company's reputation	The company name, profile corporate identity CSR activities appreciation Scope and relations with mass media Relations with the regulator and Stakeholder
Cooperation	Cooperation with the government, the introduction of products to the community literacy another example of cooperation related to the distribution of funds, etc Business cooperation, marketing cooperation, a Memorandum of Understanding (MOU)* **Alliance Strategy, Objectives and Strategic Reasons
Distribution network	Ads, promotional activities, marketing, product launches, grand launching products The office location*Address office Network Electronics/E-Channels*, ATM, mobile phone-based applications
<b>Dimension 3: Human capital</b>	
Measurement of Employee	The number of employees, age of the employee, the employee Education Qualification (skills)
Board of directors and its measurement	Board of directors Duties and responsibilities Directors competence development, education and training board
Training and development	Further education is offered, career development Education and training of employees, development of expertise Recruitment, Recruitment
Relationship with employees	Activities community of employees, employee activities in the arts, sports, etc Acknowledgments to employees, Gifts to employees, respect for employees, reward
Welfare employee	Share ownership and option plans for employees *Employee benefits, loans for employees, salary, bonus etc
Safety Employees	Procedures and the safety of employees, work environment, work climate Adapted from Husin <i>et al.</i> (2012)

that said the hidden value Yeh *et al.* (2011) and often described as the one of relevance lost (Abeysekera, 2008).

As a value that is not visible is certainly cause asymmetry of information between companies and

stakeholders, so that in certain circumstances the disclosure shall be not yet enough to be able to provide information about the quality of the company.

Asymmetry of information will appear because the stakeholders are not informed about the development of

intangible resources. If stakeholders are not informed of such information, the risk perception is high (Healy and Palepu, 2001). Risk perception that high pictured on the company's stock price is lower by Ferreira *et al.* (2012). The company developed the disclosure of intellectual capital to reduce their cost of capital costs and reduce asymmetri information and reduce the risk of information Hsu *et al.* (2012). Disclosures in the financial statements is required in order to reduce the cost of the analysis of information and reduce uncertainty informasi (Hsu *et al.*, 2012).

Van der Meer-Kooistra and Zillstra, argues that the lack of intellectual capital disclosure may cause an underestimation of the future profits, therefore will increase the cost of capital. Intangible assets have an impact on information asymmetry. It was submitted by Alves and Martin (2014) where a company which there are intangible assets that large, it will tend to have a high asymmetry information. This is because the Intellectual capital is the intangible resources which has the property of hidden value (Andriessen, 2004), the asymmetry of information becomes high because the stakeholders do not know the actual value of the company.

Research on voluntary disclosure by asimmetri information has been carried out. Results of studies have shown that the disclosure of intellectual capital adversely affect the asymmetry of information (Bhasin, 2012; Singh *et al.*, 2008; Healy and Palepu, 2001) and Signaling theory underlying the disclosure there are significant intellectual capital to the asymmetry of information. Based on the explanation above, it can be developed following research hypothesis: The increased disclosure of intellectual capital, the lower information asymmetry.

**MATERIALS AND METHODS**

**Content analysis and data collection:** Data required in this study was composed of two, ie secondary data (Annual report 2009-2013 year) and primary data. Data processing is done by using Partial Least Square (PLS) and hypothesis testing. This research is descriptive analysis and verification is used by using structural equation modeling (structural equation model)

**Variable operationalization**

**Quality of intellectual capital disclosures (Y):** Based on the definitions proposed by Shehata (2014), Owusu-Ansah (1998), Healy and Palepu (2001) and Branswijk and Everaert (2012) explains that the disclosure of intellectual capital is the communication of human, structural and relational capital. Intellectual capital disclosure in this study using the approach of content analisis. Total scores for each indicator /IC category can be seen from Table 1.

**Information asymmetry (Z)** Such imbalances arise because of the differences in perception between providers and users of information. Salehi and Rostami (2013), explains that the perception of users and information providers such as professional organizations about the qualitative characteristics of accounting information is often different The differences in perceptions proxied by Adjusted Bid Ask Spread (Table 2 and 3).

Table 2: Foms of disclosure

Disclosure forms	Weight	Explanation
Unclear	1	Intellectual capital indicators discussed by means of detailed narrative in one sentence
Descriptive	2	IC indicators discussed (no items other IC), using the detailed narration (without the support of visual images or numbers) Several indicators IC discussed, it is considered as medium quality for disclosure has been providing information specific IC and delivered more than one sentence
Very descriptive	3	Indicators IC has been expressed using narration and supported by some figures (monetary and non-monetary) or visual images This information is regarded as as the highest quality, because the use of information not only written text but is supported by visual images and numbers

Adapted from Husin *et al.* (2012)

Table 3: Variable operationalization

Variable	Dimension	Indicator	Scale
Disclosure of intellectual capital Healy and Palepu (2001) Branswijck and Everaert (2012), Bhasin (2012)	Internal capital disclosures; External capital disclosures; Human capital disclosures	Total quality disclosure IC = $\Sigma(\text{Weighting of the disclosure form } x$ Total a score for each indicator / IC category)	Ordinal
Information asymmetry Muller (2000) Salehi and Rostami (2013)	Spread the adjusted	$\text{SPREAD} = \alpha_0 + \alpha_1 \text{PRICE}_{it} + \alpha_2 \text{TRANS}^{it} + \alpha_3 \text{VAR}^{it}$ $+ \alpha_4 \text{DEPTH}_{it} + \text{ADJSPREAD}_{it}$	Ratios

**RESULTS AND DISCUSSION**

**Descriptive statistics for quality intellectual capital disclosures:**

An overview of data disclosure Intellectual capital assessment and verification score disclosure of intellectual capital created the table as follows Table 4. Table 5 can be seen that the majority of the internal disclosure is at the low category that is as much as 56.0% as well as with external disclosure is also on the low category that is as much as 68.0%, for the human capital disclosures are also in a lower category that is counted 76.0% and for disclosure of intellectual capital are also in a lower category that is as much as 60.0%.

**Descriptive statistics for information asymmetry:**

Table 6 can be seen that the average asymmetry of information in 2012 amounted to -0.302 with the highest value 4.521 and the lowest value of -3.186. The average of Information Asymmetry in 2013 amounted -0.127 with the highest value 2.970 and the lowest value of -4.431. The average of information asymmetry in 2014 amounted to 0.158 with the highest value 3.990 and lowest value -5.086.

**Measurement model variable disclosure of intellectual capital:**

Disclosure of intellectual capital is measured using three dimensions consisting of 17 indicators. Based processing using second order obtained by the measurement model for variable disclosure of intellectual capital are described as follows.

**Analysis of first order variable measurement model disclosure of intellectual capital:**

The first order of analysis was used to test the validity and reliability of each indicator of each dimension that make up the variable disclosure of intellectual capital. Based on the results of data processing using Software Smart PLS 2.0 obtained the test results of each indicator on variable Disclosure of intellectual capital using first order as presented in the following Table 7.

Based on the results of the first order confirmatory factor analysis can be seen the value of each indicator weighting factor greater than 0.50. This means that all indicators are valid as a measure for each dimension. Then the Composite Reliability (CR) of each dimension is greater than 0.70 indicating that the indicators have consistency in measuring the for each dimensions.

On the dimension of the internal capital disclosures, information systems and networks (Y1.4), has the greatest weighting factor. These data indicate that information systems and networks (Y1.4) the most powerful in reflecting dimension internal capital disclosures, otherwise culture company (Y1.1) weakest in reflecting the

Table 4: Classification disclosure

Interval scores	Category
288-803	Low disclosure
804-1319	Medium disclosure
1320-1834	High disclosure

Table 5: Overview disclosure of intellectual capital

Variables	Category	Frequency	Percent
Internal disclosure	High	9	12.0
	Moderate	24	32.0
	Low	42	56.0
External disclosure	High	3	4.0
	Moderate	21	28.0
	Low	51	68.0
Human capital disclosures	High	4	5.3
	Moderate	14	18.7
	Low	57	76.0
Disclosure of intellectual capital	High	5	6.7
	Moderate	25	33.3
	Low	45	60.0
Total		75	100.0

Table 6: Overview information asymmetry

Tests	Information asymmetry			Total
	2012	2013	2014	
Mean	-0.302	-0.127	0.158	-0.091
SD	1,453	1,466	1,505	1,467
Min.	-3.186	-4.431	-5.086	-5.086
Max.	4.521	2,970	3,990	4.521
N	25	25	25	75

dimension of the internal capital disclosures. furthermore, the value of Average Variance Extracted (AVE) of 0.634 indicates that on average 63.4% of the information contained in each of the indicators can be represented by the dimension of the internal capital disclosures.

On the dimension of external capital disclosures, distribution network (Y2.6) has the greatest weighting factor. These data indicate that the distribution network (Y2.6) the most powerful in reflecting external dimensions capital disclosures, otherwise brand building (Y2.2) weakest in reflecting external dimensions capital disclosures. Furthermore, the value of average variance extracted (AVE) of 0.612 indicates that on average 61.2% of the information contained in each of the indicators can be represented by external dimensions capital disclosures. On the dimension of human capital disclosures, safety of employees (Y3.6) has the greatest weighting factor. These data indicate that the safety of our employees (Y3.6), the most powerful in reflecting the dimensions of human capital disclosures, otherwise measuring employee (Y3.1), reflecting the dimensions of the weakest in human capital disclosures. Furthermore, the value of Average Variance Extracted (AVE) of 0.719 indicates that on average 71.9% of the information contained in each of the indicators can be represented by the dimension of human capital.

**Analysis of second order measurement model variable disclosure of intellectual capital:**

The second order



Table 7: Summary test validity and reliability first order variable measurement model disclosure of intellectual capital

Dimension	Indicator	Weighting factor	t-value	CR	AVE
Internal capital disclosures	Culture company (Y1.1)	0.602	6.624	0.895	0.634
	Management philosophy (Y1.2)	0.779	17.079		
	Supervision and process technologies (Y1.3)	0.751	9.081		
	Information systems and networks (Y1.4)	0.937	76.942		
	Research and development infrastructure (Y1.5)	0.871	18.855		
External Capital Disclosures	Financial relationships (Y2.1)	0.709	6.638	0.904	0.612
	Brand buliding Y2.2	0.702	7.828		
	Customers Y2.3	0.778	14.669		
	The company's reputation Y2.4	0.763	7.572		
	Cooperation Y2.5	0.858	20.706		
	Network distribusiY2.6	0.868	18.491		
Human Capital Disclosures	Measurement employees Y3.1	0.754	8.049	0.938	0.719
	Directors and measurement Y3.2	0.876	32.530		
	Training and development Y3.3	0.767	12.235		
	Relationships with employees Y3.4	0.859	15.600		
	Customers welfare Y3.5	0.891	26.431		
	Employee safety Y3.6	0.925	40.962		

Output Smart PLS

Table 8: Summary validity and reliability test results second order variable measurement model disclosure of intellectual capital

Dimension	Weighting factor	R <sup>2</sup>	Error variance	t-value	CR	AVE
Internal capital disclosures	0.936	0.877	0.125	66.768	0.961	0.597
External capital disclosures	0.952	0.907	0.091	63.057		
Human capital disclosures	0.968	0.938	0.061	95.672		

Output smart PLS

analysis is used to test the validity and reliability of each of the dimensions that make up the variable disclosure of intellectual capital . Dimensions considered valid if it has a weight factor of greater than 0.50.

Based on the results of the second order at Table above can be seen the value of each dimension weighting factor greater than 0.50. That is valid in three dimensions latent variables disclosure of intellectual capital . Value Composite Reliability (CR) of 0.961>0.70 which indicates that the third dimension has consistency In measuring latent variables disclosure of intellectual capital. Furthermore, the value of Average Variance Extracted (AVE) of 0.597 indicates that on average 59.7% of the information contained in each dimension can be represented through latent variables Disclosure of Intellectual Capital.

Based on Table 8 above also can be seen that the estimated coefficient of determination (R<sup>2</sup>) the disclosure of intellectual capital declared by the dimensions of human capital disclosures. These data indicate that the human capital disclosures dimension is the dimension of the most important in reflecting the disclosure of intellectual capital compared to the other two dimensions. Other explanations related to disclosure of intellectual capital which is the most important dimension because it is based on the value of the path coefficients, the disclosure of the value of human capital is the greatest (0.989), it shows that the exposure of human capital means having the most dominant influence on the disclosure of intellectual capital.

**Structural model:** Structural model is a model that connects with the latent variable exogenous or endogenous latent variable endogenous variable relationship with the other endogenous variables. Here’s a summary of the values used in the structural model.

Asymmetry of information (Z) can be explained by 12.8% by the disclosure intellectual (Y) .Hipotesis on a research model that will be tested is the influence disclosure of intellectual capital to the asymmetry of information.

The path coefficients between disclosure of intellectual capital with information asymmetry of -0.357 with a negative direction. This means that the higher the disclosure of intellectual capital will reduce information asymmetry. Furthermore, the path coefficients tested to prove whether there is influence disclosure of intellectual capital to the asymmetry of information.

Based on the test results can be seen the value of t-statistics (2,435) is greater than t<sub>critical</sub> (1.65). Because the value of t<sub>statistics</sub>>t<sub>critical</sub>, then the error rate of 5% was decided to reject ho. So based on the test results can be concluded that there is a negative and significant impact on the intellectual capital disclosure of information asymmetry. The study provides empirical evidence that the higher the disclosure of intellectual capital will reduce information asymmetry, because the direction of negative relationships (Table 9 and 10).

Disclosure of intellectual capital is the communication of information related to the internal, external and human capital, to stakeholders

Table 9: Summary statistics

Structure	Coefficient	t-value*	R <sup>2</sup>
Y->Z	-0.357	2.435	0.128

\*t<sub>critical</sub> = 1.65. Results output smart PLS

Table 10: Effect of intellectual capital disclosure to asymmetry information

Coefficient	t-statistics	t <sub>critical</sub>	H <sub>0</sub>
-0.357	2,435	1.65	Rejected

Output smart PLS

(Cotter *et al.*, 2011), through financial and non-financial, quantitative analysis and others who have a goal In an attempt to reduce the information asymmetry (Bhasin, 2012).

The study provides empirical evidence that increasing the disclosure of intellectual capital will reduce the asymmetry of information. In other words, it can be interpreted disclosure of intellectual capital needs to be improved if the banks want to reduce information asymmetry.

The low influence on the Intellectual Capital disclosure of information asymmetry coefficient path indicated by the value of  $(-0.357)^2 = 0.12\%$ . This information asymmetry has proved there is a gap between management and banking information of all stakeholders. Broadly speaking, research data, have shown that there is a gap between what the nature of the data presented to the user needs. According to Whiting and Woodcock (2009) is one of the banking industry's capital intensity is high enough intellectual. The same was delivered by Muhammad and Ismail that the banking industry is based on the knowledge, skills and requires a broad partnership. Intellectual capital is the financial accounting terminology is considered as an intangible asset Bhasin (2012) has the character of hidden value that is implicated in the emergence of information asymmetry.

According to Whiting and Woodcock (2009) banking is one of the industries that are high intellectual capital intensity . The same thing also delivered by Muhammad and Ismail that banking is an industry based on knowledge, skills and requires a broad partnership. Intellectual capital is the financial accounting terminology regarded as intangible assets (Bhasin, 2012) has the character of hidden value that has implications for the emergence of information asymmetry. In an effort to reduce the asymmetry of information can be done through the disclosure of intellectual capital.

Disclosure of intellectual capital is one way in order to reduce information asymmetry, so it does not make a difference in perception between the parties present and use information. In an effort to increase transparency has issued several rules that are relevant to the disclosure of Intellectual capital indicators.

Disclosure of intellectual capital are generally categorized as voluntary disclosure even though there are some items-the items in the disclosure has become mandatory. Disclosure of intellectual capital which has become mandatory for example, disclosures relating to good corporate governance, risk management secaraanya details can be seen in the attachment.

Intellectual capital disclosure is necessary to reduce the perception among the parties present information with the use of the information. Disclosure of intellectual capital is a bridge to connect the management with all relevant stakeholders with the prospect of the bank. Thus the disclosure of intellectual capital is expected to reduce the information asymmetry.

Model calculations score disclosure of intellectual capital in this study combines visual media and images to be analyzed, because the visual media and the image is one way of presenting the disclosure of intellectual capital with different styles in the adaptation of Husin *et al.*, (2012). Model approach in calculating the score disclosure uses content analysis , the procedure includes codifying qualitative and quantitative information into predetermined categories, in order to obtain a pattern in the presentation of information. This method is considered to be a systematic and objective and is an approach that can be trusted to determine the factors that affect the contents of the report were published and can be used to create a replicable and correct conclusions (Guthrie and Petty, 2000).

In the category of internal capital, the company's management is most often disclose information related to the service process and information technology (Y1.3), this is evidenced by the average score of the disclosure of the most high at 127. Higher scores indicate that the company's management considers this information be important to convey, driven by the absence of some items in this category has become mandatory disclosure. Authority financial Services (OJK) has issued 2/ POJK 04/2015 on Implementation of Corporate governance, Kep Directors PT. JSX: Kep-315/BEJ/ 06-2000 Obligations firms listing on the capital market to form a board of governance comprised of independent directors, audit committee and corporate secretary. Decision of the Chairman of Bapepam LK No. KEP-643/BL/2012 on Establishment and Implementation Guidance of the Audit Committee KepSek Ministry of SOEs No.Sk-16/ S.MBU/ 2012 Assessment of the implementation of corporate governance. Thus the role of the regulator on the rules that applied to be one of the effective ways to improve the disclosure of intellectual capital.

The company's management considers that the information related to the research and development

Infrastructure (Y1.5), not important enough to say this is evidenced by the average score of the disclosure is generated most low at 17.

In the category of external capital, the company's management considers the bank's reputation is the most important factor to be delivered this is evidenced by the high average score highest disclosure score of 61. The high reputation of the company among other items indicate that management recognizes the company's reputation is the most valuable thing, so it was important to be revealed. Further consumer items associated with generating the lowest score.

In the category of human capital training and development (Y3.3) obtained the highest score that is equal to 2607, the board of directors as well as the measurement (Y3.2) amounted to 2.507 employees and measurement (Y3.1) of 1575, indicating that management provides important concern related to training and human resource development. The high disclosure with respect to them is encouraged by the regulations made by the financial services authority that focuses on the importance of efforts to increase transparency by issuing checklist financial statements for the entire industry capital market in Indonesia (Point 7 d), where all corporate issuers and public companies are required to use a checklist disclosure of financial statements. Based on the check list such disclosure, the disclosure of some items of intellectual capital which has become mandatory

Thus the role of the regulator on the rules that applied to be one of the effective ways to improve the disclosure of intellectual capital. The results have shown that the internal capital is the item most frequently expressed, followed by external capital and the least expressed is human capital.

The phenomenon of poor disclosure of intellectual capital at commercial banks can be explained that the Intellectual capital has not been so aware of its existence, in addition to reporting it is still inadequate and inconsistent, examples of deficiencies in the disclosure of intellectual capital is usually are qualitative and not quantitative which is not surprising when the measurement to be minimal explanation but the phenomenon of lack of disclosure of intellectual capital is not only happening in the country, the same thing happens in a foreign country as the result of research conducted by Lipunga (2013) and Abeysekera (2008).

Bhasin (2012) explained that the purpose of the disclosure of intellectual capital is to reduce the gap between the book value and the value of the company, providing information about the real value of a company, reducing information asymmetry, provides an assessment of intangible and enhance the company's reputation.

## CONCLUSION

Intellectual capital disclosure negatively affects information asymmetry due to lack of explanations related to intangible factors, because of the unavailable specific accounting standards and the reason for non-disclosure. In an effort to increase, the intellectual capital disclosure rules/standards that will improve the disclosure of intellectual capital are needed. The magnitude of the effect is not too large, indicating that disclosure of intellectual capital is not influenced by financial factors, so further research can use non-financial factors, for example, Initial Public Offering (IPO), right issue, good corporate governance, corporate social responsibility, etc.

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