UNIVERSITY’ CHARACTERISTICS, ACCREDITATION STATUS, AND INTELLECTUAL CAPITAL DISCLOSURE: EVIDENCE FROM INDONESIA

Muhammad Mufti Fathony
Accounting Department, University of Muhammadiyah Malang, Indonesia
Jl. Raya Tlogomas 24 Malang, Indonesia 6545
E-mail: m.mufti0806@gmail.com

Ihyaul Ulum (Corresponding author)
Accounting Department, University of Muhammadiyah Malang, Indonesia
Jl. Raya Tlogomas 24 Malang, Indonesia 6545
E-mail: ihyaul@umm.ac.id

Abstract:
This study aims to describe and examine the influence of age, size, and status of accreditation on the disclosure of intellectual capital (IC) public universities in Indonesia, by using the website 44 best public universities in Indonesia 4ICU version in 2018 as an object of study. Components in this study is a component constructed By Ulum (2012) which is the development of (Leitner 2004). Consists of 46 items: 8 item human capital, structural capital 23 items and 15 items of relational capital. Test the effect is done by using multiple linear regression analysis. The regression analysis carried out showed that the variables of age and accreditation status did not significantly affect the disclosure of intellectual capital, while the size of a significant effect on the disclosure of intellectual capital.

Keywords: Intellectual Capital Reporting, Disclosure, Website, University, 4ICU

JEL Classification Codes: E44, G23

1. INTRODUCTION

The growths Intellectual Capital in Indonesia coincided with the emergence regulations of accounting especially about intangible assets, is called PSAK 19 in Indonesia. The origins of this emerging field with the recognition of a significant difference between the book value and the market value of the company (Constantin 2009). Most knowledge management and analysis of Intellectual Capital over the last decade tend to be developed by private companies (Ulam and Novianty 2012).

Intellectual Capital began to be heard among community organizations, from research centers to the college. According to Ulum and Novianty (2012), Intellectual Capital disclosure practices research universities is widely available in European countries, such as Canada, The United Kingdom, Austria, and Spain. Research IC disclosure practices in Asia is already sounded like in Taiwan (Wen-Min-Lu 2012), in Thailand (Dost et al. 2016), in Indonesia (Ulam 2012) and also on the Australian continent (J.Guthrie and Abeysekara 2006). Seeing the development of Intellectual Capital disclosure practices research, discovered the factors that affect the disclosure of Intellectual Capital, such as age, size, status of the company, and profit center.

Intellectual Capital is defined as a combination of intangible resources and activities of the organization in changing the quantity of material, financial and human resources in a system where it all can create a value (Europe K 2006). College is a part of science, education and innovation systems of nations and producers of knowledge. The Output of the
most important university is knowledge incorporated in new research results, publications
and students are educated, with the most valuable resources of the university is the students
with their organization's network. These resources can be defined as an intangible asset,
although so far these terms have not been disclosed in the context of the university (Leitner
2002).

Results of research conducted Ulum and Novianty (2012) Offical website at
college, proved that there was no effect among college-age with a disclosure of Intellectual
Capital. Purnomosidhi (2006) conduct research on disclosure practices intellectual capital in
public companies in the Indonesia Stock Exchange, found that company size affects the
disclosure of intellectual capital. A similar study conducted by Bruggen et al. (2009), which
examined the factors that affect the disclosure of intellectual capital in Australia. The results
show that company size affects the disclosure of intellectual capital. This is in contrast with
Fariana (2016), which conducts research on the official website of IC disclosure of financial
service companies that go public, the results of which states the size of the company have no
significant effect.

The same research was conducted Ulum and Novianty (2012) prove the existence of a
profit center on the disclosure of significant influence on the official website IC. This study
also revealed factors that affect disclosure IC on a college official website that one of them is
the status of the college. The result is that the status of the college significant effect on
disclosure IC (Ulum and Novianty 2012). The study was comparable or supports research
conducted at the official website of financial services firms that go public, that significantly
affect the company status to the disclosure IC (Fariana 2016).

This study uses data public universities number in the list of universities in Indonesia
4ICU version. The sample used is 44 of public universities enrolled in the best universities in
the State Indonesia 4ICU 2018 version 4ICU been due to the visibility of data required. As
4ICU, this study also relied on secondary data published on the official website of each State.

Disclosure practices intellectual capital in Indonesia is still very rare in the universities
but tend to do on a profit-oriented organization with (Ulum and Novianty 2012). Broadly
speaking, several factors such as age, size, and status of the companies have not been able to
explain the real extent of the disclosure of the IC at a financial services company (Fariana
2016). The lack of disclosure practices of the IC with the object of higher education, and
there are several factors that result is not yet known whether affect disclosure IC at
universities such as the size and status of accreditation, the researchers wanted to prove empirically the effect of age, size and status of accreditation of a comprehensive disclosure of
the intellectual capital of universities state universities in Indonesia.

2. LITERATURE REVIEW AND HYPOTHESES

2.1 Stakeholders Theory

In this theory, the management company is required to perform the activity expected
by the stakeholders, because the stakeholders have a right to know on what information
activities within the company. According to Roberts (1992), Stakeholders as "... any group or
individual who can Affect or is affected by the achievements of an organization's objectives".
Stakeholders have any claim on the contract they made with the company's management
based on attributes of their (Mitchell et al. 1997). The main purpose of the stakeholder theory
is to help managers to understand the stakeholder environment, which can create an effective
management of the relationship in a corporate environment. Stakeholder theory emphasizes the
accountability of the organization, exceeding a financial or economic performance that is
both simple (Deegan 2014). This statement is in line with the Purnomosidhi (2006), which
states that reporting on an organization is not limited to performance reporting, economic or financial nature, but intellectual capital reporting is also important.

2.2 Intellectual Capital (IC)

The difference between the market value and the book value of the company, in general, is as the value of Intellectual Capital (IC) (Edvinsson and Malone 1997). When a company doing management IC properly, it will have an impact on the market value of the company (Ulum 2017). Differences in market value and the book value, based also by observations in the late 1980s, that the market value of the business mostly or exclusively is knowledge-based business has become larger than the value reported in the financial statements which have been calculated by accountants (Roslender and Ficham 2004). Intellectual Capital is defined as well as intellectual material that has been formalized, captured and exploited useful produce higher valued assets (Klein and Prusak 1994). Therefore, Intellectual Capital is considered an important and precious thing in the performance of the company's financial statements are useful for competitive advantage.

Definition and understanding of a variety of IC. According to Stewart (1997) IC is an Intellectual material - knowledge, information, Intellectual Property, experience and number of everything contained in the company to compete in the market and is also used to create prosperity. Intellectual Capital covers processes and assets that are not obviously visible on the balance sheet, and intangible assets (trademarks, patents and brands) that concerns modern accounting (Roos et al. 1997). Definition of Intellectual Capital by Brooking (1996) not just on human resources (human capital), but also a combination of intangible assets such as intellectual property, employees and infrastructure that enable the company to function properly.

Based on the understanding and definitions vary, it makes Intellectual Capital is not an ordinary accounting concept (Mouritsen et al. 2001). There would be enough to say Intellectual Capital represents the difference between the book value and the market value of the company, which is in fact when talking about the Intellectual Capital report, then indeed expressed interest in controlling and managing an enterprise (Ulum 2017; Ulum et al. 2017; Ulum et al. 2016).


Other researchers serving broader classification Drapper compiled by Williams (2001), said that the main component of Intellectual Capital consists of six categories: Human Capital, Structural Capital, Customer Capital, Organizational Capital, Innovation Capital and, Process Capital. Intellectual Capital by Bontis (2001) consists of three main elements, namely:
2.2.1 Human Capital
Human capital is the container or the source of all knowledge, competencies, and skills possessed and very useful for the organization or company (Ulum and Novianty 2012), Human capital by Edvinsson and Malone (1997) is a combination of knowledge, innovation, skills and capabilities of individual employees to complete tasks well in a company.

2.2.2 Structural Capital
Edvinsson and Malone (1997), States that the structural capital is a company's infrastructure that supports employee productivity. Williams (2001) journal summaries of the IC component description, which states that structural capital is the infrastructure supporting the first component is Human capital. Furthermore, structural capital is also defined as the value of something left in the company when the employee returns home. Structural Capital the bottom line is the ability of the organization to support the routine process of the company in generating optimal business performance.

2.2.3 Relational Capital
Relational Capital is a relationship (relationship) is good, harmonious / association network company with its partners, such as customers loyal and satisfied with the service companies as well as a quality supplier (Ulum and Novianty 2012). This component arises from a variety of activities outside of the company, which is a real intellectual capital and can provide added value for the company.

2.3 Disclosure of Intellectual Capital in college

Ulum and Novianty (2012) states that there are two types of disclosure. First, the disclosure is compulsory (mandatory) that the disclosure of information shall be carried out by the company based on the rules that have been created or standards applicable in the company. Secondly, a disclosure is not mandatory that are exceeding the standards or minimum requirements that already exist. Disclosure of intellectual capital at universities has been demonstrated by the evidence of studies Intellectual Capital disclosure practices in various countries of Europe, Asia, and even Australia. Basically, the Intellectual Capital report on college requires preparation more difficult than the preparation of a report on the industry, because the University has a wide variety of goals and objectives that determine their performance (Leitner 2002).

2.4 Hypothesis development

This study is testing the effect of the three variables attached to the university on the disclosure of intellectual capital, ie age, size and status of accreditation. Relationships college age with intellectual capital disclosures had been done already Ulum and Novianty (2012) conduct research on the analysis of the factors that affect the disclosure of the IC on the Official website of universities in Indonesia, and the results were college age variable no significant impact on Intellectual Capital disclosure on the official website. The study does not support previous research pramono (2010) which states that the age of the company significant influence on the disclosure of intellectual capital. This study aimed to examine the relationship of age to the disclosure of intellectual capital, with the same object at different colleges but the sample is Top college 4ICU version. Based on the above, this research proposed a hypothesis, namely:

H1: Age universities affect the disclosure of Intellectual Capital.
The size of the company with regard to the disclosure of intellectual capital as described in legitimacy theory. The large size of the company, the greater the company's responsibility towards society. Many forms of these responsibilities one of which is reported Intellectual Capital. The Course of a study on the relationship with the size of broad disclosure of intellectual capital at universities has not been found, but there is research that is considered relevant enough that Hermuningsih (2012) which states that the size has a positive effect on the capital structure. Based on the above, this research proposed a hypothesis, namely:

H2: The size of the university affects the disclosure of Intellectual Capital.

University accreditation status is an important thing that is seen by many people. The better the accreditation status it should also be better for the disclosure of intellectual capital. Accreditation status is strongly influenced by the quality of human resources owned by the university, which can be seen and the quality of the items identified components of Intellectual Capital. Not to the discovery of the relationship between the accreditation status of the university with the disclosure of intellectual capital. Based on the above exposure, the study proposed a hypothesis, namely:

H3: Comprehensive accreditation status affect the disclosure of intellectual capital.

3. DATA AND METHODOLOGY
3.1 Sample

This research is associative which is a type of research that aims to analyze the relationship between a variable and the other variables (Ulum and Juanda 2016). The three variables are analyzed, namely, age, size and status of accreditation of higher education. The research sample is based on 4ICU ranking public universities in Indonesia. 4ICU has been selected for the visibility of data required. Number of Universities the sample is 44.

The data in this study using secondary data, ie data published or used by the organization that is not the author (Ulum and Juanda 2016). All information required, is obtained from official websites of each State. Framework Intellectual Capital Disclosure (ICD) used the framework to university consists of 46 items that are constructed Ulum (2012) which is a modification of (Leitner 2004). And other data is also needed in this study were college age data, the size (number of students) and the accreditation status of the college. Here are 46 items Intellectual Capital used in this study:

<table>
<thead>
<tr>
<th>Human Capital</th>
<th>Structural Capital</th>
<th>Relational Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Full-Time Professors</td>
<td>Investment in an electronic media library</td>
<td>The number of 3rd party research foreign grants</td>
</tr>
<tr>
<td>The number and type of study</td>
<td>Income from licenses</td>
<td>The number of 3rd party research Higher Education</td>
</tr>
<tr>
<td>Total Full-time</td>
<td>The number of licenses granted</td>
<td>International scientists at universities</td>
</tr>
<tr>
<td>Total Lecturer Variable</td>
<td>Measurement and laboratory services</td>
<td>The number of conferences held</td>
</tr>
<tr>
<td>Lecturer achievements (awards, grants and program funding)</td>
<td>Vision courses</td>
<td>Research / community service</td>
</tr>
<tr>
<td>Qualifications (number of positions) academic lecturers</td>
<td>The mission of the study program</td>
<td>Scientific publications in international journals</td>
</tr>
<tr>
<td>Aims and objectives</td>
<td>delivery strategy</td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Components of Intellectual Capital
3.2 Variables

3.2.1 Dependent variables
The dependent variable in this study is the Intellectual Capital Disclosure (ICD) which has been mentioned is divided into three components: Human capital, structural capital and relational capital.

3.2.2 Independent variables
The independent variables in this study the age, size (number of students) and the accreditation status of the college. College-age counted since the founding of the college. The size is calculated based on the number of students. Obtained accreditation status from the National Accreditation Board of Higher Education (BAN-PT). Of the 44 state universities are only 2 types of accreditation, A and B, which are then graded on a scale dummy, if A and B are numbered 1 is assigned a value of 0.
3.3 Data analysis technique

3.3.1 Content Analysis
At this stage, it is intended to describe the disclosure of Intellectual Capital colleges constructed Ulum (2012), with a total of 46 items, while the stages are performed in the content analysis as classified information be obtained from the respective State website into three components, human capital, structural capital and relational capital. After that, give a score for each disclosure. Disclosure of IC was scored using numeric code as follows:
- 0 = Item not disclosed
- 1 = Item is expressed in narrative form
- 2 = The items disclosed in the form of numbers
- 3 = The items disclosed in rupiah
- 4 = Item is expressed in the form of images / graphics
After scoring on any disclosure, then summing the IC disclosure items by 3 groups, human capital, structural capital and relational capital.

3.3.2 Regression analysis
Regression analysis is used here to examine the factors that affect the disclosure of intellectual capital at universities in Indonesia. The regression analysis used is multiple regression analysis, the dependent variable is the disclosure of intellectual capital and the independent college age, size (number of students) and accreditation status, with the equation:

\[ ICD = a + b_1 \text{AGE} + b_2 \text{Size} + STAD + e \]

Information:
- ICD = Disclosure index \textit{intellectual capital}
- AGE = Age colleges
- SIZE = The size of the college
- STAD = Status college accreditation
4. RESULTS AND DISCUSSION

At this stage, it is presented on the stages of data analysis to test hypotheses about the influence of age, size, and status of accreditation of intellectual capital disclosure Universities in Indonesia. According to Leitner (2002), there are three groupings Intellectual Capital disclosure practices, taking into account the standard of higher education in Indonesia that has been set by the standards of accreditation of the National Accreditation Board of Higher Education (BAN-PT) that also uses 46 items to the university which had been constructed Ulum (2012) is human capital, structural capital and relational capital.

Describing the disclosure of intellectual capital at universities in Indonesia, the first using content analysis that provides a score for each disclosure. Scores are used to give a value of "1" if the item is expressed in narrative form, a "2" items expressed in the form of numbers, the value "3" if the item is expressed in the form of rupiah, "4" if items in the format of images / graphics and "0" if the item was not disclosed. Here is the presentation of data disclosure IC consists of 3 components, Human Capital, Structural Capital and Relational Capital.

4.1 Descriptive Statistics

Table 2. Descriptive Analysis

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICD</td>
<td>44</td>
<td>43.478</td>
<td>39.130</td>
<td>82.609</td>
<td>61.858</td>
<td>11.020</td>
</tr>
<tr>
<td>Age</td>
<td>44</td>
<td>57</td>
<td>12</td>
<td>69</td>
<td>53.159</td>
<td>14.325</td>
</tr>
<tr>
<td>Size</td>
<td>44</td>
<td>39000</td>
<td>6000</td>
<td>45000</td>
<td>22068</td>
<td>9000</td>
</tr>
<tr>
<td>Akred</td>
<td>44</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0.727</td>
<td>.451</td>
</tr>
<tr>
<td>Valid N</td>
<td>44</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Seen from Table 2, the intellectual capital information disclosed universities produce 11.020 standart deviation. The resulting standard deviation value is smaller than the average value, shows the IC disclosures made each college has the same magnitude between each sample college. In the first independent variables such as age, which is the oldest university in which the Gadjah Mada university by age 69, while the youngest university: the University of Education Ganesha at the age of 12 years. In Table 2, showed that the average age of college have an average of 53.159 years, with a standard deviation of 14.325.

In the second and third independent variable is the size and the accreditation status also results in a smaller standard deviation. The size here is to use the number of students, while the status of accreditation only 2 A and B was then measured using a scale dummy, the number 0 for accreditation of B and the numbers 1 to accreditation A. The size of the college have a standard deviation of 9000 with an average of 22068, whereas the accreditation status has a standard deviation of 0.451 with an average of 0.727.
Furthermore, in Figure 2 presented the results of content analysis of intellectual capital disclosures public universities in Indonesia.

4.2 Results of Content Analysis

![Figure 2. Results of Content analysis](image)

Based on the results of the content analysis, from 44 top universities revealed three components, but no one has fully revealed an overall 46 item IC. Most IC disclosure expressed by Airlangga University, as many as 83% or 38 items disclosed on 46 items. This supports previous research carried out by Ulum and Novianty (2012) which examined the factors that affect the disclosure of IC on Offical Website University, producing the highest IC disclosure expressed by Airlangga University. While the Universities fewest disclosure IC, namely the University of Lampung with a percentage of 39% or 18 items disclosed on 46 items. This is in contrast to other research Ulum and Novianty (2012), Which states lowest IC disclosure: University of Jember.

Based on Figure 2, of the three components of the most widely expressed relational capital is the component that is as much as 70%, then 62% human capital and structural capital the latter is as much as 56%. In the first component, namely human capital, as many as 38% were not disclosed, 16% disclosure in narrative format, 37% in the number format, 0% in rupiah and image formats or graphics by 9%. In this component of information regarding potential competencies presented by each college, which explains why the eight items that have been described on the previous page. Of the whole, there is no college that discloses the components of HC in full, on average only 7 items disclosed. In this component.

On the next component that is structural capital (SC), of the 23 items on average colleges express as much as 13 items. As well as the components of HC, none of the colleges that reveals all of the components SC. SC Component is a component in which there is important information to those who need such information for new students and the general public. In this component, the college most revealing item vision, mission, goals and objectives as well as facilities and infrastructure owned by the college. Disclosure least is the
ratio of drop-outs, only two colleges which reported that the University of Brawijaya and Universitas Pendidikan Indonesia. In the last component that is relational capital (RC), many provide information on research and publications to national and international journals, dedication to the community, and also information about the alumni relations. Disclosure most on items other research and publications as well as community service. Disclosure of such items as a sign that the university as a manufacturer in the field of science in which scientific works produced not only written and published in journals of local, national and international, but the result of knowledge gained can be useful to help people as a form of devotion.

4.3 Regression Results

Table 3. Regression Analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>beta</th>
<th>t</th>
<th>sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constan)</td>
<td>52 033</td>
<td>8,741</td>
<td>.000</td>
</tr>
<tr>
<td>Age</td>
<td>-129</td>
<td>-802</td>
<td>.427</td>
</tr>
<tr>
<td>Size</td>
<td>580</td>
<td>3,806</td>
<td>.000</td>
</tr>
<tr>
<td>Accreditation Status</td>
<td>-32</td>
<td>-196</td>
<td>.846</td>
</tr>
<tr>
<td>F</td>
<td>5236</td>
<td>.004</td>
<td></td>
</tr>
<tr>
<td>Adjusted R square</td>
<td>.228</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In regression analysis aimed to test variables college age, size and universities accreditation status on the disclosure of intellectual capital. Analysis conducted not only determine the influence of the independent variables on the dependent variable, but also show the direction of influence. The Analysis here using multiple linear regression analysis. Based on Figure 3, presented test results f and t, where f test aims to determine whether or not the influence together (simultaneously) given variable (X) to a variable (Y), while the t test aims to determine whether or not the effect itself ( partial) given variable (X) to a variable (Y).

Based on Table 3, the value of F for 5.236 with the significance 0.004, which means that the independent variables age, size and affect the accreditation status of intellectual capital disclosure variables simultaneously. This is because the value is significantly smaller than 5% (0.05), and the count is greater f f table. Furthermore, from table 3, can be seen first variables such as age did not significantly affect the disclosure of intellectual capital with significant values above 0.05 (5%). It also can be seen by comparing t arithmetic with t table. T count on it is the -802 while t table is 2.021. T count is smaller than t table which means that the independent variable has no significant effect on the dependent variable, and vice versa if t is greater than t table.

Furthermore, the second variable is the size (number of students), resulting in a significant probability of under 0.05 (5%), and t 3.806, which means greater than t table is 2.021. This shows the size (number of students) public universities have a significant effect
on the disclosure of intellectual capital. In the third variable is the accreditation status generates a significant probability of above 0.05 (5%), and t count equal to -196. This shows the accreditation status did not significantly affect the disclosure of intellectual capital due to the probability of significant college above 5% and the t’s accreditation status is smaller than t table.

Based on the analysis performed, from 3 independent variable only one significant effect on the disclosure of the intellectual capital of universities in Indonesia, namely the size (number of students), whereas age and does not affect the accreditation status. Therefore, hypothesis 1 and 3 rejected, while the second hypothesis can be accepted.

5. Conclusions and Limitations

Disclosure of intellectual capital at universities 4ICU version, generally still low because there is no college that revealed 46 items in full. Multiple regression analyzes were performed turns out that age and accreditation status did not significantly affect the disclosure of intellectual capital steeper domestic universities in Indonesia. While the size (number of students) have a significant effect on the disclosure of intellectual capital. In this study certainly has its limitations, such as the researcher subjectivity factor when making a checklist of items. The next limitations regarding information disclosed items of IC components that are often incompatible with years of research carried out today (up date). Based on this, universities should pay more attention to the update information that might be done each new school year. It would be easier for the next researcher to obtain more recent information (up to date).
REFERENCES


