Analysis Of Financial Distress With Intellectual Capital In Bumn Companies Listed On The Idx Period 2015-2018

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Abstract: The background of this research is to determine the effect of intellectual capital. the authors examine whether the performance of intellectual capital can reduce the likelihood of bankruptcy. The independent variables used in this study are intellectual capital measured by VAIC consisting of VAHU (Value Added Human Capital), VACA (Value Added Capital Employed), and STVA (Value Added Structural Capital). The dependent variable used is financial distress as measured by the financial distress prediction model by Altman Zscore. The sampling technique uses a purposive sampling method with a total sample of 15 state-owned companies from a total population of 20 companies listed on the Indonesia Stock Exchange in the period 2015 to 2018. The analysis technique used is multiple linear regression. The findings show that the performance of intellectual capital negatively influences financial distress.

Keywords: Performance, VAIC, Intellectual capital, financial distress

INTRODUCTION

Company inability or failure can be caused by two things, namely economic failure and financial failure. The economic failure of a company is associated with an imbalance between income and expenditure. Meanwhile, a company is categorized as financially failing if the company is unable to pay its obligations at maturity even though total assets exceed its liabilities (Aryati and Manao, 2000) in Sihombing (2008). One of the causes of company bankruptcy starts from financial difficulties. Conditions like this make investors and creditors worried if the company experiences failure or financial difficulties that could lead to bankruptcy. According to Atmini (2005) in Wahyuningtyas (2010) states that financial distress is a broad concept consisting of several situations where a company faces financial difficulties. Common terms to describe such situations are bankruptcy, failure, inability to repay debts and default. According to Atmini (2005) in Wahyuningtyas (2010), the inability to pay off debts indicates a lack of liquidity, while default means a company violates an agreement with creditors and can lead to legal action. Meanwhile, according to Emery and Finnerty (1997) in (Suciati, 2008) states that a company is said to be experiencing financial distress, namely when the company does not have the ability to meet the repayment schedule of its debts to creditors at maturity. Continuous inability of a company to fulfill its

financial obligations can cause the company to go bankrupt. So it can be concluded that financial distress is a situation that will cause bankruptcy if the company cannot improve the situation Humans must have a proactive and innovative nature to manage changes in the living environment (economic, social, political, technological, legal, etc.) at a very high speed. Those who do not adapt to this super fast change will be hit by difficulties. Like a boat trip, at this time an organization is no longer sailing on a calm river where everything can be predicted precisely. Now the river being navigated is a rafting river where the uncertainty of the boat's course is increasingly unpredictable because of the many unexpected obstacles. In conditions marked by super fast changes, humans must continue to expand and sharpen their knowledge. and develop their creativity to innovate.

Human capital has become a central concern in the 20th century. This is related to the development of development economics and sociology. Experts in both fields agree on one thing, namely that human capital can play a significant role, as important as technological factors, in spurring economic growth. Human capital is not only concerned with quantity, but what is much more important is quality. A new look at productivity growth, which began in the late 1980s with pioneers such as Paul Romer and Robert Lucas, emphasized human capital development.(Rylander, Anna and Jacobsen, Kristine and Roos, 2000). Intellectual capital can be thought of as knowledge with potential value. When this knowledge is confirmed by ownership, this knowledge becomes intellectual property which has a value that can be measured depending on its use. Knowledge that has certain value and specific use for certain purposes can become an intellectual asset for its owner. Intellectual capital shows knowledge that is transformed into something of value for the company, while intellectual assets or knowledge assets are an exchange form for the product of this knowledge transformation. Thus in accounting terms, intellectual assets are next to the debit of individual assets such as patents, while intellectual capital is next to the credit or the total assets of the organization invested in intellectual assets.

According to PSAK No.19 (revised 2015) intangible assets are non-monetary assets that do not have a physical form that are used to support the company's operational activities, where these assets must have the characteristics of identification, control and economic benefits. Employee knowledge, intellectual ideas, employee skills are examples of intangible assets called intellectual capital. According to the International Federation of Accountants (IFAC), this capital is considered knowledge-based capital owned by the company. IFAC also estimates that currently company value is no longer determined by fixed assets, but company value is determined more by the management of the intellectual capital it owns. Therefore, over the last few years an approach has emerged that is used in assessing and measuring intangible assets which are referred to as intellectual capital or usually often called intellectual capital and abbreviated as IC. Intellectual capital consists of three components, namely human capital, structural capital, and customer capital.

The first component, human capital (HC) is the most important component in a company. HC becomes the life blood of intellectual capital which contains the source of innovation and improvement. Because it contains the knowledge, skills and competencies possessed by company employees. Human Capital can increase if the company can utilize and develop the knowledge, competencies and skills of each employee efficiently. The second component, structural capital (SC) is the ability of an organization or company to fulfill routine company processes and structures that support employee efforts to produce optimal performance and overall business performance. The third component, relational capital (RC) or customer capital (CC) is a harmonious association network relationship that the company has with its partners, both from suppliers, customers, and also the government and society. Relational capital can arise from various things outside the company environment that can add value to the company.

Ardhan et al, (2015)states that intellectual capital is a very valuable asset that is also needed by external parties, but recognition of this intellectual capital is not included in the financial statements. To be able to measure intellectual capital is not an easy thing,(A Pulic, 1998)developed a VAIC (value added intellectual coefficient) method which is designed to present information about the value creation efficiency of tangible assets and intangible

assets owned by the company. VAIC is a tool used to measure the performance of a company's intellectual capital because the advantage of this method is that it is relatively easy and very possible to carry out because the required data is easily obtained from various sources and types of companies. The data needed to calculate these various ratios are standard financial figures that are generally available in company financial reports. There are three components in assessing a company's intellectual resources, namely VACA (Value Added Capital Employed), VAHU (Value Added Human Capital), and STVA (Structural Capital Value Added).

Intellectual capital has an influence on improving the performance of a company. Where intellectual capital management is getting better, the company's performance will also be assessed as good and if intellectual capital management is not running well it will result in the company's performance being assessed as bad so that it will be seen that the existing resources within a company are experiencing a decline in performance. A decline in performance will lead to company profits which can be seen in the financial reports. This will have an impact on the possibility of financial distress in a company. Companies must be able to realize the important role of intellectual capital management. If the performance of intellectual capital can be maximized, then the company will have added value which can provide its own characteristics(Puspitasari, Elen and Srimindarti, 2014). Thus, companies must be able to improve their performance in order to maintain their competitive advantage and remain considered competitive by the company itself. Referring to research(Jovian, Robertus and Al Musadieq, Mochammad and Iqbal, 2016), there is a positive relationship between intellectual capital and company performance, which indicates that if intellectual capital management is better, the company's performance will also be better. For example, with good human resource management within the company, employee productivity will also increase. By increasing employee productivity, it is hoped that the company's profits will increase, which will result in the company's performance being assessed as good by stakeholders. Meanwhile, on the other hand, if the management of intellectual capital within the company is not managed well, it will result in the performance of the company itself being considered poor/decreasing. A decline in company performance will have an impact on financial distress. This research explores whether a company's intellectual capital performance reduces the likelihood of default and can help predict bankruptcy. In a knowledge-based economy, intellectual capital plays an important role when it comes to improving a company's competitiveness and performance(Massaro, Maurizio and Dumay, John and Bagnoli, 2015). Several studies show that intellectual capital has a positive impact on a company's financial performance and market value and can be considered an indicator of future financial performance(Cabrita, Maria do Rosario and Bontis, 2008).(Riahi-Belkaoui, 2003)using a sample of 81 US multinational companies, found a positive relationship between intellectual capital and financial performance. In the same vein(Tan, Hong Pew and Plowman, David and Hancock, 2007)investigates a sample of companies listed on the Singapore stock exchange using the VAIC model. They found a significant positive relationship between intellectual capital and current and future performance.

Research conducted by(Cenciarelli, Velia Gabriella and Greco, Giulio and Allegrini, 2018)hypothesized and found that intellectual capital performance is negatively related to the probability that the firm will default. The authors also found that bankruptcy prediction models that include intellectual capital performance have superior predictive ability than standard bankruptcy prediction models

More broadly, the use of intellectual capital indicators to predict default can help reduce the likelihood of misclassifying bankrupt companies as healthy companies. These errors lead to misallocation of financial resources, destruction of economic value, loss of jobs and overall negative social consequences(Slavianska, nd). Considering intellectual capital in bankruptcy predictions can help allocate financial resources to companies that manage their intellectual capital and invest it properly. The company drives contemporary knowledge-based economic and social growth.

Bankruptcy prediction models are usually built using accounting ratios from financial statements(Altman, Joseph and Das, Gopal D and Anderson, 1968). Classic study

by(Altman, Joseph and Das, Gopal D and Anderson, 1968)using discriminant analysis and financial ratios to predict bankruptcy. Specifically, it uses ratios such as working capital on total assets, retained earnings on total assets, EBIT on total assets, market value of equity on total debt, sales of total assets.(Ohlson, 1980)introduced the use of logistic regression and found that high debt, low liquidity and low profitability increase the probability of default.

This research can also contribute to the study of bankruptcy. Intellectual capital measures are often overlooked in financial analysis and credit scoring. The findings show that intellectual capital performance measures effectively complement traditional performance measures and improve bankruptcy prediction models

Based on the description and background that has been explained, the researcher is interested in taking the title "Bankruptcy Analysis with Intellectual Capital in BUMN companies on the Indonesia Stock Exchange for the 2015-2018 period"

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

According to Jensen and Meckling, (1976) Agency theory is a form of contractual relationship between a person or persons acting as principal and another person or persons acting as agents, to provide services for the interests of the principal and includes delegation of authority in decision making from the principal to the agent. In the modern economy, corporate management and control are increasingly separated from ownership. The manager is responsible for the owner who then impacts the company's funding from investors or creditors.

The aim of this separation system is to create efficiency and effectiveness by employing professional agents in managing the company. Control of the company is held by the agent so that the agent is required to always be transparent in carrying out control of the company under the principal. One form of accountability is by submitting financial reports. Financial reports are prepared to report the company's financial condition in a certain time period.

Information from these financial reports can be used by external parties to assess the company's financial condition. If the profits obtained by the company are high over a relatively long period of time, then it can be said that the company can carry out its operational activities well. This also indicates that from the net profit value obtained, the company can distribute dividends to each of its investors.

Apart from that, it can also be seen from the value of cash flow obtained by the company. If the cash flow obtained by the company is high in value over a relatively long period of time, then the company is considered able to repay the credit provided by the creditors. Therefore, the trust given to the company will be stronger and the company will get credit easily in all its operational activities.

On the other hand, if the profit and cash flow values of a company are small over a relatively long period of time, then it can be seen from these values that external parties will consider the company incapable of carrying out its operational activities well. This condition will result in the company experiencing

financial problems or financial distress. This means that external parties will not entrust their funds to be managed in the company's activities

The thinking framework is below:

| X1=Intellectual Capital | → | Y=Financial Distress |
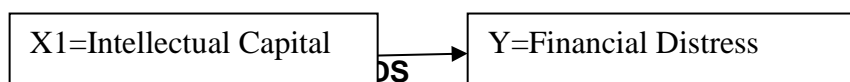
A. Type of Research

This type of research is a process of collecting and analyzing data that is carried out systematically and logically to achieve certain goals. In this research, the type of research used is quantitative research, where the data is expressed in numbers and analyzed using

statistical techniques. Quantitative analysis acc(Sugiyono, 2009)is a data analysis based on the philosophy of statistical positivism with the aim of being able to test predetermined hypotheses.

According to Sugiyono*(Sugiyono, 2003)* Research can be based on the level of explanation (level of clarity) classified into descriptive research, comparative research, associative research. This research uses an associative approach. Associative research aims to determine the influence or relationship between two or more variables. This research can build a theory that is able to explain, predict and control a symptom.

B. Data Source

1. Primary data (primary data) According to Sugiyono (2016: 308) Primary data sources are data that directly provide data to data collectors.

2. Secondary data according to Sugiyono (2010:137) is "data sources that do not directly provide data to data collectors, for example through other people or through documents". Secondary data is presented, among other things, in the form of data, tables, diagrams, or regarding research topics. In this research, the type of data used is secondary data on the Indonesian Stock Exchange (BEI).

According to(Arikunto, 1998), the data source is the subject from which data can be obtained. In this research, the sources used come from data obtained indirectly through the media, which originates fromwww.idx.co.id. In this research, using library research is an alternative for obtaining data by reading or studying various kinds of literature and scientific writings related to this research.

C. Population and Sample
Population
Population is a generalization area consisting of objects or subjects that have certain qualities and characteristics determined by researchers to be studied and then conclusions drawn (Sugiyono, p.115). The population in this study were 20 state-owned companies that were registered on the Indonesia Stock Exchange.

Sample
The sample is part of the number and characteristics of the population (Sugiyono, p.116). The technique used in sampling this research was the purposive sampling method. According to Sugiyono (2012 p.122) purposive sampling is a technique for determining samples with certain considerations or criteria. In this research, the number of samples was 15 state-owned companies registered on the IDX for the 2015-2018 period.

Sampling Criteria

No	Criteria	Amount
1.	Companies that are included in state-owned companies listed on the Indonesian Stock Exchange	20
2.	Companies that publish complete financial reports from 2015-2018 are listed on the Indonesia Stock Exchange	15
Number of research samples		15

No	Company name
1	PT Adhi Karya (Persero) Tbk
2	Aneka Tambang Tbk
3	Garuda Indonesia (Persero) Tbk

4	Jasa Marga Tbk
5	Kimia Farma (Persero) Tbk
6	Krakatau Steel (Persero) Tbk
7	Perusahaan Gas Negara (Persero) Tbk
8	Bukit Asam Tbk
9	PP (Persero), Tbk
10	PT Semen Baturaja (Persero) Tbk
11	Semen Indonesia (Persero) Tbk
12	PT Timah Tbk
13	PT Telekomunikasi Indonesia (Persero) Tbk
14	Wijaya Karya Tbk
15	PT Waskita Karya (Persero) Tbk

Source: idx.co.id2015-2018

RESULTS AND DISCUSSION

Partial test results (t test)

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	5.779076	1.659934	3.481509	0.0010
VAIC	-0.160485	0.077505	-2.070638	0.0429

R-squared	0.067515
Adjusted R-squared	0.051438
SE of regression	5.401915
F-statistic	4.199410
Prob(F-statistic)	0.044970

In the table above it can be seen that the Prob (f-Statistic) value has a value of0.044970, this number is smaller than the alpha value. Thus, it can be said that the regression model in this research is suitable for use.

A. Analysis Results
Based on the t statistical test value for the intellectual capital variable with a beta coefficient value of -0.1604 and a calculated t value of -2.0706 with a probability value of (0.0429) 4.29% < (0.05) 5% is below alpha 0.05 intellectual capital has a negative effect on financial distress.

B. Discussion
The Influence of Intellectual Capital on Financial Distress
The research results show that the Intellectual Capital variable has a negative effect on Financial Distress. Companies must be aware of the important role of intellectual capital management. If the performance of intellectual capital can be maximized, then the company will have added value which can provide its own characteristics (Puspitasari and Srimindarti,

2014). The results of this research show that if the company's intellectual capital increases, the company will avoid financial distress, and vice versa, if the company's intellectual capital decreases, there is a possibility that financial distress will occur. When this happens, the company should start making improvements because financial distress is the beginning of bankruptcy. The results of this research are in line with the results of research conducted by Cenciarelli et al (2018) that the performance of intellectual capital has a positive and significant effect on intellectual capital on financial distress (Puspitasari and Srimindarti, 2014). Companies must be able to improve their performance in order to maintain their competitive advantage and remain considered competitive by the company itself. Referring to the research of Puspitasari and Srimindarti (2014) and Jovian et al (2016), there is a positive relationship between intellectual capital and company performance, which indicates that if intellectual capital management is better, the company's performance will be better as well.

CONCLUSION

Intellectual Capital has a negative effect on Financial Distress. Intellectual Capital is considered knowledge and has potential value. When this knowledge has been confirmed by ownership, then this knowledge becomes intellectual property which has value that can be measured depending on its use. If intellectual capital management is better, the company's performance will also be better.

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