MANAGERIAL ABILITY, MANAGEMENT COMPENSATION, BANKRUPTCY RISK, AND TAX AGGRESSIVENESS

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Abstract

This study aims to examine the effect of managerial ability, management compensation and bankruptcy risk on tax aggressiveness. The sample used in this research are manufacturing companies listed on the Indonesia Stock Exchange (BEI) during the period of 2011 to 2015. Using purposive sampling, this research obtained data from 36 companies. So the total sample in this study amounts to 180 observation data. Managerial ability is measured by Data Envelopment Analysis (DEA) and Tobit regression referring to Park et al. (2015). Management compensation is measured by the total compensation received by the director during the fiscal year (Armstrong et al., 2012). Then the risk variables of bankruptcy will be measured by Altman's prediction model of bankruptcy (Altman and Hotchkiss, 1995, 2006). The result suggests that managerial ability has a positive effect on tax aggressiveness. Meanwhile, management compensation has a negative effect on tax aggressiveness. Furthermore, the bankruptcy risk has a positive effect on tax aggressiveness.

Keywords: Managerial ability; Management compensation; Bankruptcy risk; Tax aggressiveness

INTRODUCTION

The shortfall in tax revenue that occurred in Indonesia from 2009 to 2016 is a problem that needs to be resolved by the government. The fall in tax revenues from these set targets indicates how low tax revenues in Indonesia, whereas tax revenues are vital to national development. Besley and Persson (2014) reveal that one of the causes of low taxes in developing countries is the leak of tax revenue due to tax avoidance and tax evasion. In line with these statements, the OECD Economic Survey Report (2016)

shows that the tax evasion rate in Indonesia is categorized as high, resulting in low tax revenues. Tax evasion can be interpreted as an act that violates the law in order to minimize the tax burden. Meanwhile, tax avoidance is an act undertaken to reduce or avoid taxes by utilizing loopholes in the tax regulation. Basically, both tax evasion and tax avoidance are a form of tax aggressiveness committed by the Taxpayer through the manipulation of taxable income. (Frank et al., 2009).

The case of tax aggressiveness in Indonesia is nothing new. At the end of 2006, there was a case of tax evasion involving PT Asian Agri Group in the form of transfer pricing to its affiliated companies abroad. In addition, as reported by tempo.co (2010), there are also tax aggresiveness cases conducted by three mining companies, namely PT Bumi Resources, PT Kaltim Prima Coal and PT Arutmin Indonesia, resulting in the potential loss of the state up to 2.1 trillion rupiahs. In March 2016, the Indonesian Tax Authority in liputan6.com (2016) stated that 2.000 multinational companies in Indonesia are indicated to conduct tax aggressiveness through a loss mechanism. In the same year, there were indications of massive and global tax avoidance which is called the Panama Papers scandal. Panama paper is a collection of documents containing the ownership of shell companies and property in a tax-exempt country or a tax haven country in order to defraud taxes in certain countries.

According to Park et al. (2015), one of the factors affecting tax aggressiveness is managerial ability. When managers show low performance, they tend to minimize the burden. One of the pressured expenses is the tax burden. This is because the minimization of the tax burden can provide the required cash saving in meeting the operational needs. Park et al. (2015) prove by his research in Korea suggests that managerial abilities affect tax evasion significantly negative. Similarly, Francis et al. (2013) also state that managerial abilities have a negative effect on tax avoidance. That is, the higher the ability of managers to manage corporate resources efficiently, the smaller tax evasion activities will be. Both of these studies measure managerial abilities by Data Envelopment Analysis method which refers to Demerjian et al. (2012). Using the same method with managerial ability variables, the study is continued by Koester et al., (2016). However, the results suggest that managerial abilities have a positive effect on tax avoidance.

Research on managerial ability has been rarely conducted in Indonesia. Some research related to managerial ability is conducted to examine its effect on earnings management. The study is initiated by Isnugrahadi and Kusuma (2009) who examine the effect of managerial ability on earnings management. The results suggest that managerial ability has a positive effect on earnings management. This research is continued by Simamora (2013) by adding managerial ownership as a moderating variable. The results of this study conclude that managerial ownership strengthens the effect of managerial ability on firm value. Research on taxes is conducted by Handayani (2013) by examining the effect of managerial ability on effective tax rate (ETR). The results suggest that managerial skills negatively affect the ETR. It means that the higher the managerial ability, the ETR will be lower. That is, tax avoidance is higher along with managerial ability.

Another determinant that affecting tax aggressiveness is management compensation. Desai and Dharmapala (2004) state that management compensation is a determinant of tax avoidance. Furthermore, the research concludes that the higher the incentive that management receives the tax avoidance activities will be lower. On the other hand, Armstrong et al., (2012) find that management compensation had a positive

effect on tax evasion by GAAP ETR measures. Similarly, the research of Rego and Wilson (2008) prove that tax aggressiveness is positively affected by compensation received by the executives. This positive relationship illustrates that tax aggressiveness is an opportunity which is taken by management in reducing costs. It is conducted to obtain higher compensation from the company.

Another variable that may affect tax aggressiveness is bankruptcy risk. Bankruptcy is the inability of the company to pay the maturity debt. The company will certainly attempt to manage the risk of bankruptcy, especially when pushed by internal factors in the form of debt and external factors in the form of weakening of economic condition, rising of interest rates and weakening of local currency. In line with this statement, the economic condition in Indonesia over the past few years has decreased followed by the weakening of the rupiah against foreign currencies and the rising of interest rates. If the company uses a debt scheme to obtain raw materials and run its operations, even more so if raw materials are obtained through imports, the weakening of the rupiah can increase the amount of debt to be paid. In addition, on the weakening economic conditions, demand for the company's products also tends to decline. This will ultimately impact on the rising of company's bankruptcy risk. When companies have high levels of bankruptcy risk, firms need "fresh funds" to pay off debts and run their business. Therefore, managers need to work hard in order to manage cash saving better. Under these conditions, the alternative to reduce the tax burden becomes one of the options worth considering. This is what lies behind the company's actions to be more aggressive.

The effect of financial distress on tax aggressiveness is proved by Richardson et al., (2014) through his research in the United States. The results suggest that financial distress has a positive effect on tax evasion. Richardson et al., (2014) use Altman Z-score modified by Graham et al (1998) as a measure of financial distress. On the other hand, Jalan et al. (2016) state that bankruptcy risk has a negative effect on tax aggressiveness. This conclusion is obtained through a study of corporate financial report data in the United States during the period 1986 to 2012. Jalan et al. (2016) argue that in a situation while companies have high bankruptcy risks, creditors and other stakeholders will also provide tighter supervision to reduce the manager's space for tax aggressiveness. In Indonesia, it is rarely research that tries to reveal the effect of bankruptcy risk on tax aggressiveness.

Based on the description above, there is an indication that managerial abilities, management compensation, and bankruptcy risk can affect tax aggressiveness. Therefore, this study aims to examine the effect of these variables on tax aggressiveness. Managerial ability variables were measured by Data Envelopment Analysis (DEA) and Tobit regression referring to Park et al. (2015). In addition, management compensation variables will be measured by the total compensation received by the director during the fiscal year as proposed by Armstrong et al. (2012). Then the risk variables of bankruptcy will be measured by the prediction model of bankruptcy by Altman and Hotchkiss (1995, 2006). This model is a revision of Altman's bankruptcy prediction model which is appropriate to be used in manufacturing, non-manufacturing, and emerging market issuers. Finally, the tax aggressiveness variable is measured using the formulas from Desai and Dharmapala (2006) in Park et al. (2016).

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Literature Review
Agency Theory

Jensen and Meckling (1976) explain that agency relationships are a contract whereby one or more principals ask another person (agent) to do a job in the interest of the principal through delegation of authority to the agent in decision making. Basically, each party in this agency relationship has its own economic interests. Therefore, if the relationship between the two parties is utility maximizers, the agent does not always act in the interest of the principal. This is what lies behind the agency problem in a company. Byrd, Parrino, and Pritsch (1998) argue that agency issues can affect corporate functions, including investment, operations, and financial policies.

In carrying out its work, the agent has the authority to make decisions so that they can transfer the wealth for their own benefit if the principal does not intervene. (Godfrey et al. 2010). In addition, agents/managers actually have bargaining power in managing company information. On the other hand, the principal needs information provided by the agent as a decision-making consideration. The presence of information asymmetry has an impact on the increase of the agency problem. Therefore, in agency theory, information becomes an important thing and even becomes a commodity that can be traded. (Eisenhardt, 1989).

A cost to keep agents from acting in the best interests of the principals is called agency cost. Jensen and Meckling (1976) divide the agency costs into three types: the costs incurred by the principal to conduct monitoring of the agent's behavior (monitoring cost), the cost to bind the agent to keep behaving in the interest of the principal (bonding cost), and the costs incurred while there is a fundamental difference between the interests of the agent and the principal interest in the decision making (residual loss). In addition, Byrd, Parrino, and Pritsch (1998) suggest several mechanisms to mitigate agency problems through managerial ownership, management compensation, the board of commissioners, career assurance for better-performing managers, market use as a control tool, majority shareholder, and pressure from debt and dividends.

Regarding the phenomenon of tax aggressiveness in Indonesia, agency theory is an underlying theory that can explain how the manager's behavior as agents of shareholders to take tax decisions, to comply or to avoid. If shareholders consider tax aggressiveness as a risky action then they also need to make sure that managers have acted according to their expectations and strive to maximize the value of the company. Therefore, it's also required an optimal bonding cost in the form of compensation or other awards. On the other hand, if managers consider that their economic interests different from the stockholders' interest then managers act to maximize their own profits even if the actions they undertake can degrade company value. This causes the residual cost, especially if there are financial pressures that threatening managers position as a decision maker.

Previous Research

Park et al. (2015) conduct a study to reveal the effect of managerial abilities on tax avoidance. In this study, Park used a sample of manufacturing company listed on the Korean Stock Exchange from 1999 to 2011. By conducting purposive sampling, they obtain 2941 observations. Managerial ability is measured in two stages as proxy introduced by Demerjian et al. (2012). The first step is measuring the efficiency of the

company by using Data Envelopment Analysis (DEA) approach. The next step is doing Tobit regression to get a residual value which is referred to the managerial ability level of the company. In this study, Park et al. (2015) used tax avoidance proxy in the form of book-tax difference (Desai and Dharmapala 2006). The results suggest that managerial abilities have a negative effect on tax evasion. It means that the higher ability of managers in the efficiency of corporate resources, the lower rate of tax avoidance. Besides, Park et al (2015) also seek the influence of tax avoidance on firm value. The result suggests that tax avoidance has a negative effect on firm value.

Francis et al. (2013) conduct a study of companies in the United States based on Standard and Poor's Compustat Database data to look for managerial ability's effect on tax avoidance. By conducting purposive sampling, the number of research objects as much as 42.340 objects from 1988 to 2009. In that study, the managerial ability is measured by the same proxy as Park et al (2015) but uses different measures for tax avoidance. Francis et al. (2013) follow Dyreng et al. (2010) and Hope et al. (2013) to use GAAP ETR and Cash ETR to measuring tax avoidance. In line with Park et al (2015), the results of the study indicate that managerial ability has a negative effect on tax avoidance.

Research activities to reveal the effect of managerial abilities on tax avoidance is conducted by Koester et al. (2016) later. A sample of the study is conducted on 44,616 research objects obtained from the company's financial data in the Compustat during the period of 1994 to 2010. Koester et al. (2016) use the same method as Park et al (2015) and Francis et al. (2013) to measure managerial ability variables, referring to Demerjian et al (2012). However, tax avoidance variable is measured by using Cash ETR and Long Run Cash ETR. The results suggest different facts with Park et al and Francis et al study. Koester et al. (2016) conclude that managerial abilities have a positive effect on tax avoidance.

In Indonesia, research that connects managerial and tax avoidance is conducted by Handayani (2013). This study is conducted by a manufacturing company listed on the Indonesia Stock Exchange in 2009 to 2011. The measurement of managerial skills adopts the use of DEA as introduced by Demerjian et al. (2012) but does not use Tobit regression against DEA scores. Thus DEA score is defined as a proxy for managerial abilities. This is different from the measurement of managerial abilities as suggested by Demerjian et al. (2012). Measurement of tax avoidance in Handayani's study (2013) is conducted with Effective Tax Rate (ETR). The result suggests that managerial ability has a positive effect on tax avoidance. The result is in contrast to Park et al (2015) and Francis et al. (2013) studies but in line with Koester et al. (2016).

Besides managerial abilities, another variable affecting tax aggressiveness is management compensation. Desai and Dharmapala (2004) through their research find that increased management incentives can reduce the sheltering activity. Further, Desai and Dharmapala disclose that the decision-related in tax aggressiveness depends on the financial decisions of corporate managers on how to take advantage of opportunities, how to interact with other financial decisions and how the consequences of actions against shareholder wealth. The different result is presented by Armstrong et al. (2012). This study reveals the fact that management compensation has a positive effect on tax aggressiveness with an aggressive proxy using GAAP ETR. However, if it is measured using Cash ETR the results show that management compensation has no effect on tax aggressiveness. In line with Armstrong et al. (2012), Rego and Wilson (2008) also find that management compensation has a positive effect on tax aggressiveness. The study is

conducted on CEO and CFO compensation data recorded on Compustat, CRSP, and Execucomp during the period 1992 to 2006. The number of research object as much as 18,827-panel data.

In Indonesia, there are several studies that discuss the effect of management compensation on tax aggressiveness. Yet these studies obtain conflicting conclusions. Irawan (2012) conduct a research on manufacturing companies that entered in the JASICA index during the period 2004 to 2009. The result suggests that management compensation negatively affects corporate tax avoidance. The results of this study are supported by Amri (2017) who found that management compensation has a negative effect on tax avoidance. On the other hand, Mayangsari (2015) and Hanafi and Harto (2014) find results that executive compensation has a positive effect on tax avoidance. Meanwhile, Vabriani (2016) find that management compensation has no effect on tax avoidance.

In addition to managerial abilities and management compensation, another factor affecting tax aggressiveness is bankruptcy risk. Jalan et al. (2016) conduct a study to reveal the role of bankruptcy risk on tax aggressiveness. This study use distance to default and Altman z-score in measuring bankruptcy risk level of the company. The result suggests that bankruptcy risk has a negative effect on tax aggressiveness. A different result is found by Richardson et al. (2014) who argue that financial distress has a positive effect on tax avoidance. Both studies are conducted in the United States.

Hypothesis Development

Park et al. (2015) conduct a study to reveal the effect of managerial ability on tax aggressiveness. The result suggests that managerial ability is inversely proportional to tax aggressiveness. In the study, Park et al. (2015) also reveal how high managerial ability can decrease tax avoidance activities, which in turn can increase firm value. Meanwhile, Koester et al. (2016) who also examine this issue obtained results that managerial abilities have a positive effect on tax avoidance. Thus, high-ability managers have a good understanding of the company's resources as both the strengths and weaknesses of the company. In addition, highly capable managers have smarter thoughts in taking advantage of the opportunities that can provide benefits for the company. One such opportunity is tax management. Tax expense is a burden that can eliminate the marginal benefit for the company. Therefore, tax management is very important to do in order to increase cash saving, so it can be used for more profitable investments. This can ultimately improve the performance of managers that lead to increasing the value of the company. In addition, the higher managers ability, the broader understanding of risk management so that the tax aggressiveness cannot detect by the tax authorities. Thus, the first hypothesis proposed in this study is:

H$_1$:   Managerial ability has a positive effect on tax aggressiveness

Desai and Dharmapala (2004) find that management compensation negatively affects tax avoidance. The result suggests that in accordance with the explanation of agency theory, management will act in the best interests of shareholders if there is enough incentive for them. Therefore, shareholders tend to be risk-averse party associated with tax aggressiveness activities. This is reasonable because if the company is subject to tax sanctions due to aggressive actions that will actually lower the value of the company and cause losses.

Research on the influence of management compensation on tax aggressiveness is also conducted by Rego and Wilson (2008) and Armstrong et al. (2012). The results suggest a different conclusion that management compensation has a positive effect on tax aggressiveness. So do research conducted in Indonesia. There is a research gap between several studies that have been conducted. The result obtained by Hanafi and Harto (2014) suggest that executive compensation has a positive effect on tax avoidance. On the other hand, Irawan (2012) and Amri (2017) obtain the result that management compensation negatively affects tax aggressiveness. Meanwhile, Vabriani (2016) find that executive compensation has no effect on tax avoidance. Thus, high compensation will encourage management to perform better tax management. In addition, the existence of bonus motivation due to the efficiency of performance performed can make managers perform actions that maximize their economic interests (utility maximizer). Therefore, the second hypothesis in this study is:

H$_2$: Management Compensation has a positive effect on tax aggressiveness

Jalan et al. (2016) suggest that bankruptcy risk has a negative effect on tax aggressiveness. Furthermore, Jalan et al. (206) explain that firms with high bankruptcy risk tend to be less aggressive due to the tighter supervision of creditors and other related parties. A different result is obtained by Richardson et al. (2014) who state that financial distress has a positive effect on tax avoidance. This study explains that taking risky or costly aggressive strategies will turn into the close, or at least reduce, the company's financial difficulties. Richardson et al. (2014) argue that financial pressures can encourage the aggressive behavior of a taxpayer is a logical statement. When bankruptcy risk is high, the company is under financial pressure and needs more liquid funds. This provides motivation for managers to take aggressive action. The reason that the existence of high bankruptcy risk causes increased supervision of stakeholders may also be logical. However, the condition of supervision in Indonesia is not as tight as supervision in the United States so the third hypothesis in this research is:

H$_3$: Bankruptcy risk has a positive effect on tax aggressiveness

RESEARCH METHODS

Data and Sample Research

The research object taken in this study is secondary data in the form of financial statements of manufacturing companies obtained from the Indonesia Stock Exchange (ISE) within the period 2011 to 2015. This research is focused on manufacturing companies as a sector with the most dominant number of registered companies in Indonesia Stock Exchange. In addition, the manufacturing industry is a business sector whose financial condition is strongly influenced by economic condition and the rupiah exchange rate. When economic conditions weaken, demand for the product will decrease, whereas the cost of production will actually rise. Moreover, this industry uses a lot of raw materials from imported products purchased with foreign currency through debt scheme. As a result, the weakening of the rupiah exchange rate in Indonesia over the past few years can result in the debt value being doubled, resulting in increased bankruptcy risk. Therefore, the more dominant population and the specific characteristics of manufacturing companies are suitable for research on the influence of managerial abilities, management compensation, and bankruptcy risk to tax aggressiveness. The companies listed in this business sector amount to 144 companies.

The next step is sampling. Sampling is conducted by purposive sampling (judgment sampling) which is part of the method of non-probability sampling. It means the selection of samples not randomly with certain criteria. The sample used in this study is a manufacturing company listed on the BEI in 2011 to 2015. To obtain a panel of balanced panel data, then the companies are eliminated with following criteria:
1. companies that listed (Initial Public Offering/IPO) after January 1, 2011,
2. companies that do not have the data needed to measure the research variables,
3. companies that use foreign currency in their financial reporting.

Operational Variable
Dependent Variable
Dependent variable used in this research is tax aggressiveness. The variables are measured using the abnormal Book-Tax Difference (BTD) model introduced by Desai and Dharmapala (2004) with slight modification when looking for taxable income as used by Park et al (2016). Through this measurement, tax aggressiveness is shown in the part which can not be explained by the company's earnings management activity, which is part of BTD after deducted by total accrual (profit management activity). This will show the true value of the tax aggressiveness that is carried out in the absence of bias caused by the firm's earnings management activities. To find the value of tax aggressiveness, the first step is to find profit management activities with the total accruals of the company through the equation as follows:

$$TAcc_{it} = \frac{NI_{it} - OCF_{it}}{TA_{it-1}}$$

Where:
$Tacc_{it}$ = Total Accrual of company i in year t
NI_{it} = Net Income of company i in year t
OCF_{it} = Operating Cash Flow of company i in year t
TA_{it-1} = Total Asset of company i in prior year

Then, the second step is to determine for taxable income (IT). Since taxable income is not always disclosed, this study calculates it using a corporate tax burden model introduced by Manzon and Plesko (2002) in Park et al (2016) through the following equation:

$$TI_{it} = \frac{CTB_{it}}{\gamma}$$

Where:
TI_{it} = Taxable Income of company i in year t
γ = Corporate Income Tax Rate
CTB_{it} = Corporate Tax Burden of company i in year t, is searched using the following equation:
CTB_{it} = corporate tax expense$_s$+ (deferred tax assets–deferred tax asse$_{t-1}$) – (deferred tax liability– deferred tax liabilityt$_{-1}$)

After getting the value of taxable income, the next step is to find the total BTD through the following equation:

$$BTD_{it} = \frac{Book\ Income_{it} - Taxable\ income_{it}}{TA_{it-1}}$$

If the total value of BTD has been obtained then the last step is to do the OLS (Ordinary Least Squares) regression with the following equation:

$$BTD_{it} = \alpha TAcc_{it} + \varepsilon_{it}$$

Where:
BTD$_{it}$ = Total *book-tax difference* company i in year t
TAcc$_{it}$ = Total Accrual company i in year t
ε_{it} = Tax Aggressiveness value of company i in year t

Independent Variable
Managerial Ability

Managerial ability is the understanding level of managers in a corporate business activities which are reflected through efficient and effective decision making to add value to the company. According to Demerjian et al (2012), more capable managers have a better understanding of technology and industry trends, invest in higher value projects, and guide their employees to work efficiently. Similarly, Berk and Stanton (2007) also state that managers who have high ability visible from the way of generating a return.

This study used a model of managerial ability measurement introduced by Demerjian et al. (2012) which was then followed by Park et al. (2015). In this method, the managerial ability is seen as the level of managers expertise in the efficiency of the company's resources. This efficiency is reflected from the financial statement data presented by the company. The steps in finding managerial ability consist of two stages. The first stage is to calculate efficiency at the company level using Data Envelopment Analysis (DEA) approach in the same industry. DEA is a mathematical programming technique that measures the efficiency of decision-making units (DMU) or decision-making units relative to similar DMUs when all these units are at or below the efficient "frontier" curves. (Rusdiyana, 2013). This approach was first introduced by Charnes, Cooper, and Rhodes in 1978. DEA's approach emphasizes a task-oriented approach and focuses on the important task of evaluating the performance of decision-making units. The analysis is based on an evaluation of the relative efficiency of the comparable DMU. The efficient DMUs will then form the frontier line. If the DMU is on the frontier line, then the DMU can be stated to be relatively efficient compared to other DMUs in its peer group. In addition to generating the efficiency values of each DMU, the DEA also shows units that are in reference to inefficient units.

The DEA score for the most efficient company is 1, and referred to as frontier. The farther away from the company with the frontier the lower is the efficiency score. Park et al. (2015) refer to Demerjian et al. (2012) using a combination of inputs in the form of COGS, Selling and General Administrative Expense, PPE, and Intangible Asset and Sales-output in measuring the efficiency of a DMU. Referring to the research, the relative efficiency of the firm is measured based on data from BEI using the following DEA model:

$$\max_{v} \theta = \frac{SALES}{v_1 COGS + v_2 SGNA + v_3 PPE + v_4 INTAN}$$

Where :
SALES = Sales
COGS = Cost Of Goods Sold

SGNA   = Sales, General, and Administrative Expense
PPE   = Plant, Property, and Equipment
INTAN   = Intangible Asset

After company efficiency is measured and obtained in the form of DEA score, the next step is to find the residual value (managerial ability) of Tobit regression using DEA score and firm characteristic factor by the following model:

$$FE = \beta_0 + \beta_1 SIZE_t + \beta_2 MS_t + \beta_3 FCF_t + \beta_4 AGE_t + \beta_5 BUSEG_t + \beta_6 FCI_t + \sum_{t=1}^{T} \varphi_t YEAR_t + \varepsilon$$

Where:
FE   = Efficiency score as a result of DEA
SIZE   = Natural logarithm of total asset
MS   = Revenue company i divide industry revenue per year
FCF   = Dummy variable, score 1 if free cash flow more than 0, and score 0 if free cash flow is 0 or less.
AGE   = Natural logarithm of the sum of year listing in BEI at the end of year t
BUSEG   = Business segment in the company
FCI   = The absolute value of income or loss in foreign exchange divided by total revenue
ε   = **managerial ability scores**

Management Compensation

Management compensation represents the rewards received by a company executive for what has been done. Rego and Wilson (2008) use the amount of cash compensation received by corporate executives as a proxy for management compensation. Meanwhile, Armstrong, et al. (2012) use the total compensation value received over the year by corporate executives. Most of the data on the financial statements and annual reports in Indonesia do not provide details of compensation per month but the aggregate compensation value provided during the year. Therefore, this study will follow Armstrong et al. (2012) using natural logarithm proxies from the total compensation value received by the company directors.

a. Bankruptcy Risk

Bankruptcy risk is the level of vulnerability that the company closer to the failure of the operation and the economy so that the function of the company is no longer running properly. High bankruptcy risk can create financial pressure for the company. According to Altman and Hotchkiss (2006), bankruptcy is a legal bankruptcy statement accompanied by an asset liquidation or recovery program. Furthermore, Altman began introducing the bankruptcy risk measurement model known as Altman Z-Score in 1968 which was later revised with the model of 1984, 1995 and last in 2006. In this last revision, the predicted model proposed is more suitable when used for emerging markets and can be used in manufacturing and non-manufacturing industries.

The study using the Altman Z-score model as a proxy for bankruptcy risk has been used in various studies because it has a higher prediction rate. In addition, the Altman model also incorporates four major types of financial ratios. Therefore, this study will use Altman Z-Score (2006) as a proxy for bankruptcy risk. The equation model is:

Z-Score = 3.25 + 6.56 (X1) + 3.26 (X2) + 6.72 (X3) + 1.05 (X4)

Where:
X1 = Working Capital/Total Asset
X2 = Retained Earning/Total Asset
X3 = Operating Profit/Total Asset
X4 = Book Value of Equity/Total Liabilities

The z-score interpretation is inversely proportional to the risk of bankruptcy. That is, the higher the value of z-score then the risk of bankruptcy will be lower and vice versa. Referring to Richardson et al. (2014) research, to facilitate the interpretation of measurement results, the definition of bankruptcy risk in this study is the z-score multiplied by -1.

Initially, this model was used to assess financial bonds and z-score results were classified according to the bond rating. Therefore, when using this model in other sectors it is necessary to modify the grouping of test result criteria. With reference to Paolone and Rangone (2015) research, the categorization of bankruptcy risk variables used in this study is as follows:

Safe zone   = < -5,85
Grey zone   = -5,85 to -4,15
Distress zone   = > -4,15

Control Variable
Firm Size
The size of the company is related to the scale of the economy encountered. The larger the size of the company, the higher the tax aggressiveness will be. This is because large companies have more resources and thus have the potential to make better tax management. Therefore, companies will increase the number of political costs that indicate that large companies tend to do tax smoothing strategy. (Zimmerman, 1983; Porcano, 1986; Wang, 1991 in Park et al., 2016). The size of the company in this study used natural logarithm proxies from total assets.
Performance
The company does tax aggressiveness to reduce costs that can impact on the company's performance improvement. Ayers et al. 2009; Atwood et al 2010 in Park et al. (2016) suggest that profitable companies tend to be more aggressive in order to reduce cash outflow. This company's performance measurement uses Return on Assets (ROA) ratio with net profit formula divided by total assets.
Inventory Intensity
Firms with higher inventory intensity tend not to be aggressive. Thus, inventory intensity negatively affects tax aggressiveness. (Stickney and McGee, 1982 in Taylor and Richardson, 2014). Inventory intensity in this study is calculated by dividing total inventory by total assets.

Research Model
This study aims to examine the effect of independent variables on the dependent variable. This research also used the control variable so that the effect of the independent variable on the dependent variable is not disturbed by other factors outside the factor under study. The main equation model that will be used in this research is as follows:

$$TAGR_{it} = \alpha_{it} + \beta_1 MASCORE_{it} + \beta_2 COMP_{it} + \beta_3 BR_{it} + \beta_4 SIZE_{it} + \beta_5 ROA_{it} + \beta_6 INVIN_{it} + \varepsilon_{it}$$

Where:
TAGR   = Tax Aggressiveness company i in year t
MASCORE = Managerial ability company i in year t
COMP   = Management compensation company i in year t
BR   = Bankruptcy risk company i in year t
SIZE   = Firm Size company i in year t
ROA   = Performance company i in year t
INVIN   = Inventory Intensity company i in year t

RESULT AND DISCUSSION

Sample Selection Result

The data used in this research is all financial data of manufacturing companies listed in Indonesia Stock Exchange during the period 2011 until 2015. The population of Manufacturing companies listed on the Indonesia Stock Exchange (ISE) at the end of 2016 amounted to 144 companies. There are several criteria to determine the sample. The first elimination was conducted on the manufacturing company which is conducting Initial Public Offering (IPO) after 1 January 2011 to obtain a balanced panel data. Based on the selection of the criteria obtained a sample of 123 companies. The next stage is eliminating companies whose financial statements use foreign currency. This criterion is used because the effect of different reporting currencies can lead to bias and difficulties in comparing the information presented in the financial statements. This stage has obtained a sample of 96 companies. The last stage of purposive sampling is eliminating companies which do not have the required data in order to find the value of managerial ability, management compensation, and bankruptcy risk. In this stage, there are 13 companies that do not disclose the compensation data of the management (commissioners and directors), 46 companies do not disclose compensation received by the director, and 1 company does not find the financial report data because it is in the process of delisting. Thus, this phase eliminates 60 companies. The final sample is 36 companies. The result of sample selection criteria is as follows:

Table1
Research Sample

Sampling Process	Total
Manufacturing companies listed in ISE	144
Deducted by :	
- Companies listed in ISE after January 1, 2011	(21)
- The company uses Foreign currency in Financial Reporting	(27)
- The company doesn't have complete data about the research variable	(60)
Total sample company	36
Year (2011-2015)	5
Observation	**180**

Source: Processed from Company's Financial Statement in BEI for 2011- 2015

To find the value of managerial abilities required two stages. The first stage is seeking efficiency at the company level with Data Envelopment Analysis (DEA) approach. Then the next step is finding the residual value from the Tobit regression to the DEA score and the firm characteristic factor. Furthermore, the descriptive statistics of all research variables follows :

Table 2
Descriptive Statistics

	TAGR	MASCORE	COMP	BR	SIZE	ROA	INVIN
Mean	6.51×10^{-18}	0.003679	22.58159	-8.853405	27.95012	0.084344	0.207079
Median	-0.000453	0.007202	22.69649	-7.338363	27.91732	0.052866	0.187792
Maximum	0.209093	0.215015	25.35417	-1.121687	31.27263	0.426766	0.474823
Minimum	-0.263447	-0.683781	19.89724	-22.06312	25.55305	-0.168249	0.014911
Std. Dev.	0.058297	0.108979	1.199724	4.246657	1.187652	0.107819	0.100423

Source: Processed from Eviews 9 output data

The average value of tax aggressiveness in this study is 6.51×10^{-18}. A positive average score indicates that the average firm used as the research sample is tax aggressive. Mean for managerial ability variables during 2011 to 2015 shows a positive value of 0.0037. A positive value means that average manager has the ability to efficiently manage the company's resources in order to generate sales output. The higher value of managerial abilities, the higher ability of corporate managers in making resource efficiency to earn better corporate income. The mean for management compensation variable is 22.58 basis points or equivalent to Rp12.592.631.911,-. The amount is the average compensation received by managers per year during the period 2011 to 2015. The average of management compensation variables is not much different from the median so it indicates that there is a fairly symmetric concentration of data. The average bankruptcy risk of all firms used in this study was -8.85. Paolone and Rangone (2015) provide the category that companies are experiencing financial distress (distress zone) when the value of bankruptcy risk is higher than -4.15. If the bankruptcy risk is between -5.85 to -4.15 then the company is in a gray area. Meanwhile, if the value of bankruptcy risk is lower than -5.85 then the company is in a safe condition (safe zone). Thus the average is in a safe condition. But this can not be directly used to conclude that all firms are at a safe point because the bankruptcy risk of the firm varies.

Hypothesis Testing

The regression model used for panel data testing consists of three types: ordinary least square model (OLS), fixed effect model (FEM), and random effect model (REM). Model selection in this research is done according to econometric expert's consideration as well as by statistical test. The selection of models according to econometric expert is based on the criteria for selecting the model by Nachrowi and Usman (2006) and the criteria refer to Gujarati and Porter (2008). Meanwhile, the selection of models with statistical tests was performed using the Chow test, Breusch & Pagan Lagrange Multiplier test, and Hausmann test. Based on the test results it was decided that the most appropriate panel data regression model to be used in this research is to use Fixed Effect Model (FEM).

Regression Testing on Panel Data

The result of determination coefficient test in this research can be seen on the adjusted R-squared value that is equal to 0,7363. Thus, 73.63% of tax aggressiveness variation (TAGR) can be explained by the variables observed in the study. Meanwhile, the remaining 29.34% is explained by other causes outside the model. The standard error of estimate (SEE of regression) is 0.044945. The smaller the value of SEE will make the regression model more appropriate in predicting the dependent variable. (Ghozali and Ratmono, 2013).

Table 3
Coefficient of Determination Test

R-squared	0.796716	Mean dependent var	0.004583
Adjusted R-squared	0.736320	S.D. dependent var	0.092144
S.E. of regression	0.044945		

Source: Processed from Eviews 9 output data

F test is conducted to determine the effect of simultaneously variable in research on tax aggressiveness. Based on Table 5 it can be seen that the value of Prob (F-statistic) is 0.0000000. This value is below the level of significance ($\alpha = 0.05$) so it can be concluded that the independent variables and controls used in this study simultaneously have an effect on tax aggressiveness.

Table 4
F-Test

F-statistic	13.19154	Durbin-Watson stat	2.095150
Prob(F-statistic)	0.000000		

Source: Processed from Eviews 9 output data

Hypothesis testing conducted in this study is to conduct a t-test to determine the effect of each independent variable on the dependent variable partially. If the probability value is smaller than the level of significance ($\alpha = 0.05$) then the independent variables partially have an effect on the dependent variable, vice versa. The positive (+) and negative (-) sign at the beginning of the regression coefficient value determines the direction of the effect of the independent variable to the dependent variable.

Table 5
t-Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
MASCORE	0.041260	0.023487	1.756.722	0.0406
COMP	-0.013332	0.005880	-2.267.202	0.0125
BR	0.001523	0.000383	3.973.127	0.0000
SIZE	0.025163	0.011108	2.265.255	0.0126
ROA	0.514580	0.026624	1.932.730	0.0000
INVIN	-0.141512	0.012911	-1.096.060	0.0000
C	-0.403027	0.199125	-2.023.989	0.0225

Source: Processed from Eviews 9 output data

Hypothesis 1: The effect of managerial ability on tax aggressiveness
Managerial ability (MASCORE) variable has a coefficient value of 0.041260 with a probability value at 0.0406. The probability value at 0.0406 is smaller than the significance level at 0.05. This means that at the 5% level of significance, managerial abilities affect a company's tax aggressiveness. The positive direction indicates that any increase in managerial ability is direct affected by the increase in tax aggressiveness. Thus, the research hypothesis (H1) is **accepted**.

Hypothesis 2: The effect of management compensation on tax aggressiveness
Management compensation variable (COMP) has a coefficient at -0.013332 with a probability value at 0.0125. The probability value at 0.0125 is smaller than the significance level of 0.05. This means that at the 5% significance level, management compensation has a negative effect on the tax aggressiveness of a company. Thus, the research hypothesis (H2) is **rejected**.

Hypothesis 3: The effect of bankruptcy risk on tax aggressiveness
Bankruptcy risk variable (BR) has a coefficient value at 0, 001523 with a probability value at 0.0000. The probability value at 0.0000 is smaller than the significance level of 0.05. This means that at the 5% significance level, bankruptcy risk has a positive effect on the aggressiveness of a company's taxes. Thus, the research hypothesis (H3) is **accepted**.

Discussion

The Effect of Managerial Ability on Tax Aggressiveness
Managers are the main parties who act as a decision maker in a company. Any actions and decisions taken by the companies cannot be separated from the involvement of managers. Therefore, the managerial ability in managing the company becomes an important factor influencing the success of the company in carrying out its operational activities. A competent manager has a better ability to manage the efficiency of a company's resources. This is what then stimulate the company to remain to comply or avoid in carrying out its tax obligations. According to Koester et al. (2016), there are three reasons behind the relationship between managerial abilities and tax avoidance activities. The first reason says that a capable manager has a better understanding of the company's environment. The second reason is that managers can be "tone at the top" in driving cost savings and higher-up managers can achieve those goals better. The third reason is that tax payments do not provide direct returns for the company. When a company pays taxes, the cost incurred is a contribution to a reciprocal state that will not directly affect the company. The tax already paid will actually be a "lost fund". In addition, some people think that they can become free riders by expecting tax payouts from others. The characteristics of this tax burden are certainly different from other expenses, such as electrical loads, water loads, research and development expenses, and sales expenses that generally have a direct impact on the company's operations. As the company reduces its operating expenses, the smooth operation can be disrupted. This will also affect the decrease in the level of sales that can be done by the company. Similarly, when the emphasis is placed on the cost of material purchases. The low price of raw materials affects the quality of raw materials

that lead to low quality of the company's products. Therefore, the tax burden becomes an attractive option to be suppressed in the framework of cost efficiency.

In line with these conditions, the results of this empirical study show the result that managerial abilities have a positive effect on corporate tax aggressiveness. The positive direction of this study shows that managerial ability is directly proportional to tax aggressiveness. That is, the higher the ability of managers in managing the efficiency of resources, the higher the activity of tax avoidance.

The results of this study are in line with the results obtained by Koester et al. (2016) for his research on 44,616 observational data in the United States. Koester et al. (2016) argue that higher-ability managers have a better understanding of the company's operating environment. It also gives managers the ability to align corporate decisions with tax strategies and identify opportunities for tax planning. In the end, managers with better ability can do the right strategy in doing tax aggressiveness. This condition then encourages managers to be more aggressive in order to carry out its tax obligations.

This research is also in line with the results obtained by Handayani (2013). Both Koester et al. (2016) and Handayani (2013) use ETR proxy as the tax avoidance measure while this research uses the book-tax difference (BTD). In addition, in measuring managerial abilities, Handayani (2013) did not regulate Tobit over DEA scores. Thus, the study defines the DEA score as managerial abilities. This is in contrast to what Koester et al (2016) do, which states that Tobit regression is needed to identify managerial abilities. According to Demerjian et al. (2012), DEA scores measure efficiency at the enterprise level (firm level). Furthermore, Tobit regression is required to identify efficiency at the manager level which is then defined as managerial abilities. Therefore, this study also used the Tobit regression of the DEA score to find managerial ability values as suggested by Koester et al. (2016) and Demerjian et al. (2012).

The results of this study contrast with Park et al. (2015) and Francis et al. (2013). Both studies suggest that managerial abilities have a negative effect on tax aggressiveness. That is, the higher the ability of managers in managing resources the lower the activity of tax aggressiveness is conducted. Park et al (2015) suggest that higher-ability managers will be more focused on improving company performance through other strategies different from tax planning. This is because tax avoidance activities can pose a higher risk to the company.

Differences in the results of this study may be led by several things such as firm characteristics, geographical location, economic conditions, the number of samples used and so forth. Park et al. (2015) research are conducted in South Korea with a sample of 7349 observational data. Research conducted by Francis et al. (2013) is in the United States with a total sample of 42340 observation data. Meanwhile, research by Koester et al. (2016) is conducted in the United States with a total sample of 44,616 observation data. In the study, Park et al. (2015) and Francis et al. (2013) used ETR and BTD proxies to measure the tax aggressiveness of the company. Meanwhile, Koester et al (2016) use ETR proxies to measure the level of corporate tax aggressiveness. This study uses the number of samples as many as 180 observations and abnormal data BTD as a measure of corporate tax aggressiveness.

In general, conditions that occur in Indonesia is different from conditions in South Korea and the United States. Based on the empirical results obtained in this study, managerial abilities have a positive effect on corporate tax aggressiveness. The

probability of detection by the tax authorities in Indonesia on Taxpayers' aggressiveness is not necessarily the same as in the United States or South Korea. Logically, managers will take advantage of opportunities to gain more benefits. So even if there are loopholes in tax regulations that can be utilized for tax planning. If managers have a better ability to see opportunities and have sufficient understanding of the strengths and weaknesses of companies (SWOT) then aggressive tax planning becomes an attractive option to do. This relates to the characteristics of the tax burden as a burden that does not bring direct benefits to the company. Tax is a compulsory contribution imposed by the state. Not everyone wants to pay taxes voluntarily. In fact, some people think that tax evasion is a smart way to maximize the benefits (utility maximizer). In line with these conditions, Erdward et al. (2013) in Richardson et al. (2014) argue that tax aggressiveness can increase marginal benefit and generate cash flow that is useful for the survival of the company. The cash flows can be utilized to invest in other more profitable sectors.

Managerial abilities prove to have an effect on tax aggressiveness. Especially if the opportunity to conduct tax aggressiveness is also wide open. This is also evidenced by Koester et al. (2016) in their research. The possibility of tax aggressiveness adds to the motivation for high-ability managers to be more aggressive. Such aggressive action is done through income shifting to shell companies in tax haven country, through increased research and development expenses, and through increased investment in fixed assets that generate more depreciation expense.

In accordance with the agency theory, managers act as agents who perform the duties of shareholders as principals to manage the company. By demonstrating better efficiency and performance, the company can maintain its sustainability. In addition, high-ability managers have better tax strategies that can reduce the risk of detection by the tax authorities. As long as manager behavior is not known then the company is at a safe point and even its performance will increase as a result of shifting the tax cost to other more profitable investments. Based on these conditions, shareholders will also receive benefit by increasing the value of the company.

The Effect of Management Compensation on Tax Aggressiveness

Aggressive action by the Taxpayer aims to reduce the tax burden. Aggressive actions can include tax avoidance and tax evasion. The motive underlying aggressiveness conducted by the Taxpayer also consists of various reasons. One is the reason for bonuses or compensation. Armstrong et al. (2012) state that the compensation received by management, especially the director of taxation has an influence on corporate tax management. The higher the amount of compensation received, the higher the activity of tax aggressiveness. This indicates that the company pays the manager to perform cost efficiency, one of which is done by suppressing the tax burden. The tax burden is selected as a management tool because it can provide a cash tax saving yield.

If managers can do a good job that is reflected in the company's earnings performance, the principal shareholder will reward them accordingly. In accordance with the agency theory, bonding costs to keep managers behaving in the interests of shareholders will also increase. In addition, the existence of compensation plays an important role in maintaining good relations between agents and principals. (Gerhart et al., 1994). In fact, the behavior of managers to be able to obtain bonuses and compensation provided by the company can be done in certain ways. Good or bad way

managers in managing the company's performance back to the point of view of managers and owners of the company.

The results of this study suggest that the compensation received by the management (directors) has a negative effect on corporate tax aggressiveness. This indicates that high compensation will precisely make managers consider further in aggressive action. Tax aggressiveness is a risky act because it can make the company bear a greater cost. These costs are sanctions and fines if aggressive action is detected by the tax authorities. In addition, aggressive tax aggressiveness is a less ethical act. If this action is revealed in the public sphere, it can degrade the company image that leads to the decline in the value of the company. Therefore, managers are more motivated to obtain additional compensation and bonuses through increased sales performance and other ways that are not a high risk of causing harm to the company.

The results of this study are relevant with Desai and Dharmapala (2004) but are contrary to Armstrong et al. (2012), and Rego and Wilson (2008). Desai and Dharmapala (2004) state that the higher incentives given to management will reduce tax sheltering activities undertaken by the company. This is because managers will not take the excess risk for aggressive actions that may result in additional costs for companies such as fines and sanctions if aggressive acts are known by the tax authorities. The existence of fines and tax penalties will actually provide a great burden for companies that can disrupt the efficiency of the company in running operations and optimize sales. In addition, Desai and Dharmapala (2004) add that the negative effect of increased management compensation on tax aggressiveness is vulnerable to firms with low corporate governance quality. In companies with low corporate governance quality, managers tend to prioritize their own interests (utility maximizer) so as to be more aggressive. Therefore, aligning the interests of shareholders and managers through higher compensation can make managers reduce their aggressiveness and do what the stockholders want to do not take too risky action. However, this does not apply to companies that have good corporate governance.

Companies that have good corporate governance quality have well-functioning governance functions such as audit function, internal control, whistleblowing system, adequate remuneration and other factors that can make good corporate governance. In this case, the increase in compensation has no effect or it has a different effect on tax aggressiveness. This is because, in companies with good corporate governance, space for managers to perform illegal actions is quite limited. In addition, firms with good governance of interest alignment between managers and shareholders have gone hand in hand so that managers will also think twice about doing things that can hurt shareholders' trust.

Similarly, in Indonesia, the empirical results of this study suggest that management compensation has a negative effect on tax aggressiveness. The presence of higher compensation can reduce the agency problem between shareholders and managers to make managers act in accordance with the will of shareholders. This condition is in line with the argument stated by Desai and Dharmapala (2004) that management compensation negatively affects tax aggressiveness if applied to companies with low quality of corporate governance. As covered by Kontan.co.id (2015), the quality of corporate governance in Indonesia does show a low category when compared with ASEAN countries. In addition, based on the Asian Development Bank (2016) study, the average quality of corporate governance in Indonesia during 2012 to 2014 is always at the bottom two. The best quality of corporate governance is

achieved by Thailand followed by Malaysia, Singapore, and Philippines. More specifically, corporate governance scores of six countries with the largest capital markets in ASEAN during 2012 through 2014 are shown in the following figure.
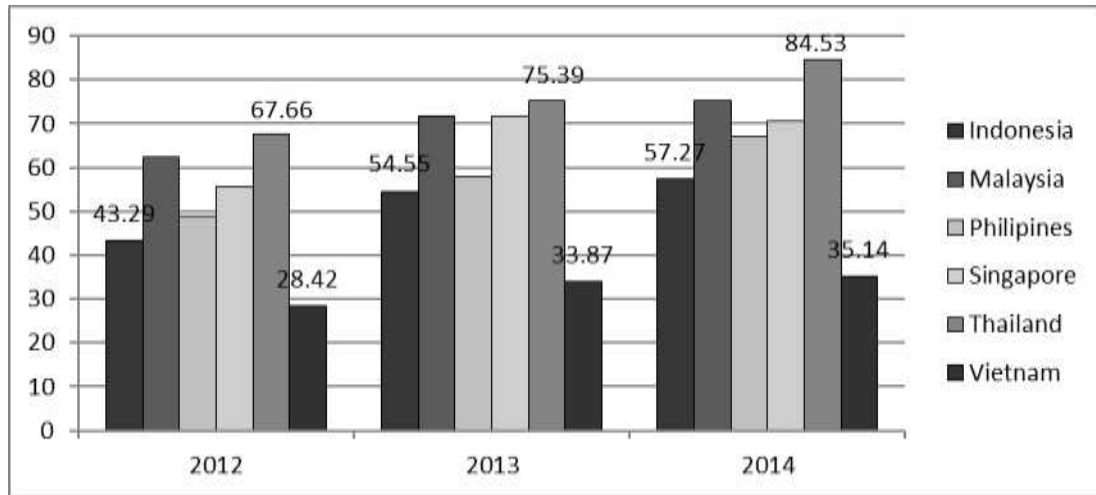
Figure 1
Corporate Governance Score in ASEAN
Source: processed from *ASEAN Corporate Governance Country Reports and Assessments 2014* (Asian Development Bank, 2016)

The results of this study are in line with the results of research conducted by Irawan (2012) and Amri (2017) but are a contrast to the results found by Hanafi and Harto (2014). Irawan (2012) states that providing high compensation to directors is not an effective way of improving tax management efforts by minimizing tax payments. As a more conservative party, the owner of the company does not expect excessive risk that can result in the decline in corporate value. Meanwhile, Amri (2017) add that giving incentives to managers can prevent opportunistic actions being taken. However, when Amri (2017) includes the variable characteristics of gender diversification and risk preference as a moderating variable, management compensation has a positive effect on tax evasion. This means that the amount of management compensation will be more influential on tax management activities when given to managers who have risk taker properties.

The fundamental difference between Irawan (2012), Hanafi and Harto (2014) and Amri (2017) is in determining the definition of management compensation variable. Irawan (2012) defines management compensation as the amount of compensation received by the company's directors only while Amri defines management compensation as the sum of all the compensation received by the key management company consisting of directors and commissioners. Meanwhile, Hanafi and Harto defined management compensation as the amount of compensation received by corporate executives. According to the author's view, the task of managing the company in carrying out its operational activities is more the responsibility of the manager while the task of the commissioner is more as an oversight function and supervision. This is in accordance with the function of the pillars of governance in

Indonesia that adopt a two-tier system. In further detail, the definition of the variables proposed by Armstrong et al. (2012) also specifies that management compensation consists of the amount of compensation received by the CEO, CFO and the Director of Taxation in a company that in fact acts as manager of the company. Therefore, this study also defines management compensation as the amount of compensation received by the directors only.

This study also uses tax measurement proxies different from Hanafi and Harto (2014) and Irawan (2012). Both of these studies used ETR as a proxy for tax evasion while this study used BTD (book-tax different). BTD is a better proxy if used to measure tax aggressiveness because it can capture the activity of tax aggressiveness either implicit or explicit. Meanwhile, ETR proxies can only capture the explicit and non-conforming tax aggressiveness.

In the end, the manager of the party who plays an important role in the decision maker has a great influence on every action taken by the company. In accordance with the agency theory, the compensation can make the manager be more responsible and do his job as the agent of the principal. Shareholders want an increase in corporate value that can bring benefits for themselves. Therefore, shareholders compensate managers to align the interests of agents and principals. In particular, the higher the compensation obtained by management will further decrease the aggressive action taken. This is in accordance with the conditions occurring in Indonesia as has been proven by this study.

The Effect of Bankruptcy Risk on Tax Aggressiveness

As stated by Wahlen et al. (2015), viewed from the financial side, bankruptcy is the last statement of the inability of a company to continue its operations and debt obligations that led to the process of liquidation. The risk of bankruptcy is a risk that causes the company to go bankrupt or fail in business. Bankruptcy risk is closely related to financial problems. The existence of these financial problems resulted in disruption or even cessation of company operations. This will certainly impact on the stakeholders both shareholders, creditors, and the government.

Managers who are in charge of managing companies with high bankruptcy risk should think of the best way to save the company's life. Of course, it can be realized by reducing the burdens that become the responsibility of the company and always trying to increase revenue. In these circumstances, companies need fresh money to cover debts and run their business activities. Therefore, the characteristics of the tax burden as one of the burdens that do not generate direct returns for the company becomes an attractive option to be suppressed.

The risk of corporate bankruptcy will be higher when faced with unstable economic conditions. Especially if many companies do the debt agreement scheme abroad without hedging. The weakening of the domestic exchange rate compared to the USD currency will worsen the company's financial condition. This happens because the company's debt can be multiplied. As expressed by the World Bank's Senior Vice President in worldbank.org (2016) that the weakening global financial condition may cause loans to rise by fourfold.

In line with these conditions, Richardson et al. (2014) state that in the case of the global financial crisis (Global Financial Crisis), financial distress has a positive effect on tax evasion. The existence of financial pressure encourages the company to make tax savings because of its more favorable characteristics. Activities of tax aggressiveness can increase the company's cash flow. This cash flow can then be used

to do something more profitable to sustain the company's life in the face of bankruptcy risk.

Although bankruptcy risk has increased and caused the company is threatened with bankruptcy, keep in mind that stakeholders always pay attention to the company's financial condition. Jalan et al. (2016) in his research of 10,451 companies in the United States stated that the risk of bankruptcy, debt and leverage level of a company negatively affect the tax aggressiveness. This is due to strict supervision of stakeholders such as creditors and shareholders (investors). These investors do not want to take excessive risks by tax aggressive actions that can actually harm the financial condition of the company. Especially if the illegal act of tax evasion by the company is known by the tax authorities. This will further increase the amount of tax burden in the form of fines and even possible criminal sanctions taxation.

The results of this study indicate that bankruptcy risk has a positive effect on tax aggressiveness. That is, the higher the risk of bankruptcy experienced by the company the higher the tax aggressiveness. As discussed earlier, the risk of bankruptcy is closely related to the company's financial problems. Companies that are under higher financial pressure will do their best to save the company. One of them is done by doing more tax management. Tax management is chosen because it can provide more cash flow for the company so it can be used to pay maturing debt or make other profitable investments.

The results of this study support the results of previous research conducted by Richardson et al. (2014) but contrary to the results obtained by Jalan et al. (2016). Both tudies were conducted in theUnited States which is have different conditions with ndonesia. Different conditions may include stakeholder oversight, firm characteristics, managerial capabilities, economic, political, cultural and other conditions. Supervision of companies experiencing financial distress in Indonesia may not be as tight as in the United States. This gives the company the flexibility to be more aggressive as has been proven based on the results of this empirical study.

In addition, differences in research results may also be due to the number of samples used in the study. Jalan et al. (2016) used a sample of 73,515 observational ata, Richardson et al. (2014) using 3,765 observational data, while this study used 180 observational data. Both Jalan et al. (2016) and Richardson et al. (2014) use Altman Z-Score to measure bankruptcy risk. However, Jalan et al. (2016) use the modified Altman Z-Score in 1984 while Richardson et al. (2014) use the modified Altman Z-Score Graham et al. (1998). Meanwhile, this study used Altman Z-Score (1995, 2006) with modification of yield criteria by Paolone and Rangone (2015) which is more suitable if used for emerging country. Therefore, the use of a proxy in this study is more suitable for use in Indonesia.

CONCLUSIONS, LIMITATION, AND SUGGESTION

Conclusions

Based on the results and discussion that has been conducted, it can be concluded that Managerial abilities have a positive effect on tax aggressiveness. The positive direction shows a comparable relationship, meaning that the higher the managerial ability the higher the tax aggressiveness is done and vice versa. Higher-capacity managers have a better understanding of the company's operations and resources. In addition, managers who have better skills can also take advantage of opportunities that exist to improve the benefits gained. One of the minimized expenses in terms of

efficiency is the tax burden. The tax expense is chosen because of its characteristics that do not generate direct benefits to the company. In addition, tax management provides marginal benefit for the company in increasing cash flow so that it can be used for other investment activity. Secondly, management compensation has a negative effect on tax aggressiveness. The negative direction shows the opposite relationship, meaning the higher the management compensation the lower the aggressiveness of taxes conducted and vice versa. This suggests that an increase in the level of compensation received by management can lower the level of corporate tax aggressiveness. Thirdly, bankruptcy risk has a positive effect on tax aggressiveness. The positive direction indicates that bankruptcy risk is directly proportional to the corporate tax aggressiveness. That is, the higher the bankruptcy risk the higher the tax aggressiveness is done and vice versa. Firms with high bankruptcy risks are in a state of financial difficulty. This encourages managers to make efforts to save the company so as not to go bankrupt. Under these conditions, companies need fresh money through a decrease in tax burden. The tax burden is chosen because of its characteristics that can provide marginal benefit for the company in increasing cash inflows. In addition, the tax burden also does not bring direct contracting for the company.

Limitation

Based on the discussion that has been conducted in the previous sections, this research has several limitations. The data used in this study is the financial statements of manufacturing companies listed on the Indonesia Stock Exchange during the period of 2011 to 2015. The results of this study may be different if using data on corporate financial statements in other sectors or at the different time period of the study. In addition, the results of this study cannot be used generally for other industries in Indonesia. Otherwise, managerial ability variables cannot observe day-to-day decisions made by management. This variable is measured from the financial information contained in the financial statements to identify strategic management decisions of the company that became the object of research. Furthermore, the company's financial statements in Indonesia do not exhibit the compensation details per company director so this study uses the total amount of compensation received by the director for one year.

Suggestion For Further Research

The result of this research suggests that bankruptcy risk has a effect on tax aggressiveness. Further research can use samples from other sectors contained in the Indonesia Stock Exchange or use all listed companies in order to generate a more representative conclusion. This study uses Altman Z-Score (1995, 2006) to measure the risk of corporate bankruptcy. Subsequent research can use other proxies such as Distance to Default (Bharath and Sumway 2008), Zmijewski (1984), Springate (1979) and others. In addition, this study used Book-Tax Different (Desai and Dharmapala 2006 in Park et al 2016). Subsequent research can use other proxies in measuring the aggressiveness of corporate taxes. Some other proxies such as ETR, Discretionary BTD, and Tax Shelter can be used to develop research results

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