

Determinants of Debt Policy of Listed Manufacturing Companies in Indonesia Stock Exchange: in an Agency Perspective

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The aim of this study is to investigate determinant of debt policy of listed manufacturing companies in Indonesia Stock Exchange (IDX). Population of this study is listed manufacturing companies in IDX in the periode of 2010-2014. The purposive sampling is used to determine the number of sample. Based on purposive sampling, 600 company-year observations were selected as the sample of this study. Regression analysis was executed, the study found that managerial ownership has a negative and significant effect on debt policy, diversification of business negatively and significantly influence debt policy and company size negatively and significantly affected debt policy. Nevertheless, institutional ownership and shareholder dispersion could not influence debt policy of listed manufacturing companies on IDX

Keywords: Debt Policy, Managerial Ownership, Institutional Ownership, Shareholder Dispersion, Diversification and Size

JEL Codes: G32, G34

1. Introduction

Conflict of interest between the owner and the management is not exist at all when an entrepreneur or an owner owns all company shares. However, when an entrepreneur sells a fraction of the share to outside investors, an agency conflict between owner and the agent (manager) might appear. This is because the owners of the company hire managers to provide some services for them and thus the managers should act according to the interests of shareholders or the owners. In reality, however, a manager tends to make decisions based on his or her interests rather than on the shareholders; particularly on issues related to debt policy

Theoretically speaking, separation between decision making and risk bearing could create agency conflict between managers and shareholders. In agency perspective, debt could reduce using of free cash flows to unprofitable project. However, excessive debt could create agency conflict between managers and shareholders against debtholders. It could make shareholders tend to choose riskier project with higher expected return. If the project could work, return would increase but debtholders only receive as much as interest rate and it's rest reaped by shareholders. Debt policy in this study is measured by debt to equity ratio.

Debt policy of company could be influenced by some variables such as managerial ownership, institutional ownership, shareholder dispersion, diversification of business and company size. When manager owns the company shares, he/she might be more carefully in using of debt since he/she is not only employ but also owner of the company. Institutional ownership also affected the debt policy. Institutional investors tends to hold a large number of company shares so they have high motivation to control manager in make decision, specially in using of debt. Concentrated or dispersion of shareholders influences company debt. Shareholder dispersion is proxied by the number of shares owned by the public investors. More disperse of shareholders makes the company is controlled by many people, hence manager acts based on shareholder interest.

Diversification may take place when a company operates in more than one business segment, and it could either create or destroy the value of the company (Berger & Ofek, 1995). It could be inferred that diversification of business is also related to debt policy. If companies could exploit the benefits of diversification which include cost savings, greater efficiency and synergy among divisions through sharing of company assets, increasing debt capacity and economies of scope so company earnings would increase. In other words, it can reduce company earning if the cost of diversification outweighs the benefits. In fact, the cost of diversification comes from the agency relationship when managers choose to diversify their interests. Managers can avoid the destruction by allocating resources correctly or avoiding over investment in a poor division which can reduce the company's value. Normally, managers diversify or increase a company's size to defend themselves to avoid a takeover. Such agency problems generally lead to increased agency costs. According to internal capital market hypothesis (Lins & Servaes, 2002) that division with high cash flows could finance division with low cash flows. Furthermore, the diversified company would use internal financing as compare to external financing such as debt.

Larger company size can also affect company debt as shareholders face some difficulties in monitoring managers and knowing whether or not the managers are pursuing shareholders' wealth maximisation. A larger company is usually supported by skilled employees but it can be related to high agency costs. It is believed that without effective monitoring, benefits of economies of scales cannot be achieved. Driffield, Mahambare and Pal (2007), Gupta (1969), and Lang and Stulz (1994) indicated that a larger company generally outperforms a small

company because the former provides benefits of economies of scale, easy access to funds and human capital investment. Moreover, the company could provide enough earning to finance its business, hence the using of debt might decrease in large company.

When managers diversify business and enlarge company size based on shareholders' interest, their decisions could hopefully increase shareholders' wealth and thus contribute to company debt. Such an ideal situation might not exist as managers normally act based on their interests. As a result, an agency conflict might arise between shareholders and managers against debtholders. Therefore, a mechanism to mitigate agency conflict between managers and shareholders against debtholders is needed.

Managerial ownership is considered as a good monitoring agent because they are not only employs but also the owner of company. Institutional investors may have the experience and expertise in controlling agency conflicts. Dispersed ownership also implies that greater proportion of shares are not controlled by certain parties which may instead reduce agency cost and decrease company debt.

2.1 Agency Theory

The separation between ownership and control of the company (Berle & Means, 1932) creates agency conflict between owners and agents (Jensen & Meckling, 1976). This leads to the possibility that managers may make decisions based on their interests at the expense of the shareholders. As a result, such conflict of interests in using of debt causes a market reaction, which reduces company value. This loss of company value is known as agency cost. Therefore, agency theory exists to explain about the relationship between principal (owners) and agent (managers).

2.2 Entrenchment Hypothesis

Large shareholders enjoy the power over the designation and monitoring of managers. They might become entrenched and pursue their own interests by expropriating minority shareholders (Yet, 2008). Entrenchment theory suggests that high level of stock ownership, defined by researchers as ownership above 7.5% (McConnel & Servaes, 1990; Morck et al., 1998), leads to executive decision that is inconsistent with increasing shareholders' wealth. High levels of ownership control may lead managers/investors to choose non-pecuniary benefits and, as a result, take away resources from projects that could otherwise be profitable (Demsetz, 1983).

2.3 Internal Capital Market, Minority Shareholders Hypothesis and Pecking Order Theory for Diversification of Business

Corporate diversification could influence company performance in two ways (Lins & Servaes, 2002). Firstly, the use of internal capital market hypothesis can lead to higher values for diversified companies. Internal capital market refers to the division with high cash flows that can finance the division with low cash flows; thus it is hoped that this will influence a company's debt. Furthermore, the internal capital market hypothesis proposes that diversification provides greater benefits for companies operating in less institutionally developed environments (Chakrabarti, Singh, & Mahmood, 2007) such as Indonesia. The second hypothesis states that minority shareholders can be more easily expropriated in diversified companies. Large shareholders tend to divert resources for their personal use or to invest funds in unprofitable projects or divisions that provide private benefits (Lemmon & Lins, 2003). This situation might imply a lower company valuation. There is a strong support for the expropriate hypothesis, but not for the internal capital market hypothesis (Lins &

Servaes, 2002). This is because every country has its own institutional characteristic. In a less institutionally developed and greater imperfection of external market such as the emerging market, the internal capital market could perform better (Khanna & Palepu, 1997).

According to pecking order theory (Brigham & Houston, 2010), the company would employ internal financing as compare to external financing. If the company needs fund, internal financing such as retained earning is used. Once it is not enough to finance business so external financing such as debt is employed.

2.4 Diversification of Business

Diversification of business is explained by the number of business segments a company owns. If a company has only one business segment, it is known as a focused company. On the other hand, if the company has more than one business segment, it is called a diversified company. Diversification of business is anticipated to have an effect on company debt. Berger and Ofek (1995) argued that diversification can either create or destroy company value. They found that diversified companies could influence debt policy.

Previous studies remain inconclusive on the influence of diversification on company debt. While some researchers reported a positive impact of diversification on a company's debt, others reported a negative effect. However, the most of previous studies were carried out in developed economies. The studies that focused on diversification and company debt in emerging markets were very few conducted. Thee (1980) noted that a wider economies of scope through corporate diversification needs more capital. Diversified corporations have a greater debt capacity than corporations with a single segment of similar size (Lewellen, 1971). Generally, cost of debt is cheaper than cost of equity. This circumstance probably increases company debt.

With reference to emerging economies, Khanna and Palepu (1997; 2000) explained that imperfection in capital markets, contract enforcement, business-government relations, product markets, and labor markets make it more difficult for focused or non-diversified companies to survive. Greater imperfection in the external capital market should make internal capital market relatively more attractive for diversified companies in emerging markets. In a similar way, Guillen (2000) and Kock and Guillen (2001) proposed that diversification is more likely to be profitable in emerging economies since in emerging economies, intermediate institutions, such as financial and market intermediaries, are inefficient or absent.

2.5 Company Size

Company size had an ambiguous effect on company debt because it can either increase or decrease company performance. Large companies might turn out to be more efficient as they are likely to exploit economies of scale, employ more skilled managers, and have greater specialization and formalization of procedures, all of which might lead to better performance (Driffield et al., 2007; Gupta, 1969; Lang & Stultz, 1994). It also could be inferred that company size could affect company debt. Company size also measures a company's market power or the level of concentration in the industries. Transaction costs involved in the issuance of securities are also related to company size (Gupta, 1969; Smith & Watts, 1992).

3. Methodology

This study used secondary data which come from the annual reports of listed manufacturing companies on the IDX from the end of 2010 to 2014 financial years. Based on the purposive

sampling, 600 company-year observations were selected with a set of criteria as follows: (1) manufacturing companies have managerial ownership, institutional ownership and public ownership, (2) the availability of financial statements during the analysis period which included the number of business segments and total assets. This study employs regression model with debt policy as a dependent variable while the independent variables consist of managerial ownership, institutional ownership, shareholder dispersion, diversification of business (NoSegment), and company size (LnAssets). Tabel 1 explains the measurement of each variable in this study.

Table 1: Variables and Their Measurements

Measurement	Description of Variables
$DER = \frac{\text{Total Debt}}{\text{Equity}}$	Debt policy (DER) is total debt divided by equity (Brigham & Houston, 2001)
$MNGR = \frac{\text{Number of shares held by managers and directors}}{\text{Number of common shares outstanding at the end of fiscal year}}$	Managerial ownership (MNGR) is percentage of shares held by managers and directors (Bathala et al., 1994; Moh'd et al., 1998; Rozef, 1982).
$INST = \frac{\text{Number of shares held by institutions}}{\text{Number of common shares outstanding at the end of fiscal year}}$	Institutional ownership (INST) is percentage of shares held by institutions (Bathala et al., 1994; Kumar, 2005).
$SDP = \frac{\text{Number of shares held by public investors}}{\text{Number of common shares outstanding at the end of fiscal year}}$	Shareholders dispersion (SDP) is developed as percentage of shares held by public investors.
No_Segment = Number of business segments	Diversification of business (Segment) is measured by the number of business segments of company (Berger & Ofek, 1995; Chen & Ho, 2000; Denis et al., 1997; Lang & Stultz, 1994).
LnAssets = Natural log of total assets	Company size (LnAssets) is proxied by the natural log of total assets (Li et al., 2006).

The regression model of this study was formulated as follows:

$$DER = a_0 + a_1Mngr + a_2Inst + a_3SDP + a_4Diver + a_5Size + e$$

Data was analysed by SPSS 17. Multivariate outliers were assessed by Mahalanobis distance (less than 22.458, $p < 0.001$) and normality data were tested (Kolmogorov-smirnov Z is insignificant since significant value was 0.091 which was more than 0.05), both were conducted before the main analysis was run (Tabachnick & Fidell, 2007). There is no outlier case; hence the final data is 600 company-year observations. The variables with non-normally distribution were transformed through squared root (sqrt/sq/rsq) and natural log (Ln) depending on the severity of skewness (Manning & Munro, 2004) in order to achieve the

normality assumption. If data transformation caused other problems such as missing values, they were replaced by their mean.

4. Results of Analyses

There were 600 company-year case data during the period of analysis from 2010 to 2014. The data could fulfill the assumptions of regression such as there is no multicollinearity since Tolerance was more than 0,10 and Variance Inflation Factor (VIF) was less than 10. Data was homogen and there was no autocorrelation because of the value of Durbin Watson is 1.706 ($-2 < DW < 2$). The result of regression model is showed in Table 2.

Tabel 2: Result of Regression Model

	Unstandardized Coefficients		T	Sig.
	B	Std. Error		
Mngr	-3.320	1.169	-2.763	0.006***
Inst	-0.366	0.327	-1.119	0.264
SDP	- 0.059	0.518	-0.114	0.909
Segment	-13.181	5.532	-2.463	0.014**
Size	-3.601	1.632	-2.207	0.028**

F value = 3.360, p value = 0.006; $R^2 = 0.028$

* Significant at $\alpha = 0.10$; ** Significant at $\alpha = 0.05$; *** Significant at $\alpha = 0.01$

4.1 H1: Managerial Ownership is related to Debt Policy

The results indicate that the relationship between managerial ownership and debt policy was statistically negative and significant where its p-value was 0.01 which was less than 0.05. Hence, the Hypothesis 1, managerial ownership is related to debt policy, was accepted. This means that the increasing of managerial ownership would be decreasing debt policy. The insider investors of company such as managers, board of directors, have more company shares, they can exert their rights to discipline managers in using of debt, could be supported. Managerial investors were an effective monitoring agent in IDX. Since manager is not only as employee but also owner of the company, so they could provide a valuable monitoring function in reducing agency conflict related to debt policy in listed manufacturing companies on IDX. This result is therefore consistent with the works of Yulius (2011); and Erni (2005).

Furthermore, the negative coefficient between managerial ownership and debt policy indicated that an increase in managerial ownership brought about a decrease in debt policy. According to this hypothesis, managerial investors have greater interest to ensure that the company can generate returns. Therefore, they can exert their voting rights to control their decision in using debt. Such evidence could be observed in Indonesian market.

4.2 H2: Institutional Ownership is Related to Debt Policy

Institutional ownership has a negative and insignificant effect on debt policy since its p-value is 0.264 more than 0.05. It means that Hypothesis 2 is rejected. The result shows that although institutional investors had more company shares, they appear not to be able to exert their right to discipline managers in using of debt. This result did not support the agency theory (Jensen & Meckling, 1976). Institutional ownership in manufacturing listed companies on IDX was rather large with an average value of 42.57%. This might cause entrenchment problem where institutional investors would probably only pursue their own interests as compared to all shareholders interests, hence agency conflict might increase and institutional investors were

not an effective monitoring agent to control debt policy. Nevertheless, since the variable was found to be insignificant, perhaps at low levels of institutional ownership, an increase in institutional ownership increases effective monitoring of managers that reduces agency costs of debt. However, at high levels of institutional ownership, an increase in institutional ownership may increase complicity of the institutional owners with managers in expropriating wealth from individual shareholders. The finding is inconsistent with the works of Yulius (2011); Erni (2005) and Taswan (2003). The empirical evidence provided in previous studies are different from the finding of manufacturing companies in the Indonesian market. It is more likely that these large shareholdings by institutional investors may have led to them to pursue their interest which could not affect company debt.

4.3 H3: Shareholder Dispersion is Related to Debt Policy.

This study shows that shareholder dispersion had an insignificant and negative influence on debt policy with p-value of 0.90, which was more than 0.01. It shows that shareholder dispersion was not an effective monitoring agent to mitigate agency conflict. Dispersed ownership as a monitoring mechanism to reduce misallocation of funds that could in turn affect debt policy, could not work for manufacturing companies listed on IDX. Dispersed ownership could not effectively control agency conflict for these companies. If the rules and regulations were more stringent in the Indonesian capital market, this might protect the minority shareholders and encourage greater shareholder activism in taking action against managers. In such a case, the minority shareholders could more easily exercise their right. Hence, in this context, greater dispersed ownership may result in an decrease of debt policy.

4.4 H4: Diversification of Business is related to debt policy

This study supported Hypothesis 4 since diversification of business had a negative and significant effect on debt policy (p-value = $0.01 < 0.05$). This indicates that diversification of business was a determinant of debt policy in IDX as measured by debt to equity ratio. Internal capital market as suggested by Lins and Servaes (2002) could be supported. According to it, division with high cash flows can finance divisions with low cash flows so the number of debt might decrease.

Internal capital market as a source of funding did seem to be a determinant factor of company debt. When the companies could reap benefits of diversification such as internal capital market, it could reduce debt policy. In brief, Hypothesis 4 was accepted. This finding supported Lins and servaes (2002) in that through diversification, companies in emerging market could get additional fund from internal capital market and share the expertise.

4.5 H5: Company size is related to company performance

Company size influenced company performance since its coefficient was statistically significant at 0.05 level of significance. Thus, Hypothesis 5 was accepted. The result shows a negative coefficient between company size and debt policy, which reflected that larger company size would decrease the using of debt in the company. This finding indicates that listed companies on IDX could reap benefits of company size such as economies of scale, skilled managers, and greater specialization, which could probably reduce transaction costs, which in turn caused an increase of company earning (Driffield et al., 2007; Gupta, 1969; Lang & Stultz, 1994; Smith & Watts, 1992). A large company is associated with being more established, and having managers with a lot of experience to manage a company, which contribute to company earning. This result is consistent with pecking order theory (Donaldson, 1961) that the company make a priority to use internal financing as compare to external financing such as debt. The company only employs debt if the internal fund could not

finance it. Moreover, large company usually could reach a large return which might finance the business. This study supported previous evidences that company size has a negative and significant effect on debt policy (Steven & Lina, 201). Based on the result, company size is a significant determinant of debt policy for listed companies on IDX. The finding is not consistent with the implication stated in the agency theory where it is rather difficult for shareholders to monitor top management of a large company.

Taken collectively, the independent variables have a significant effect on the DER at 0.01 level with *F*-value of 3.360 and *R* square of 0.028. This means 2.8 percent of the variation in DER could be explained by managerial ownership, institutional ownership, shareholder dispersion, diversification of business and company size; and the remaining 97.2% could be explained by other variables which were not included in this study.

5. Implication of the Findings

The results showed that managerial ownership had significant effect on debt policy. Because if managers had a large number of company share so manager might be carefull in related to using of debt in the company. Diversification of business could influence debt policy since division with high cash flows can finance division with low cash flows. Internal capital market could work in listed manufacturing comapnies in IDX, hence the using of debt could be decreased. Company size had a significant effect on debt policy. Based on this finding, it could be inferred that large companies are associated with an increase in company earning. This is probably due to a larger company has generally more effective management arising from greater economies of scale, more skilled managers, greater specialization and easier access to funds. Moreover, that company earning could be used to finance the business as compare to using external fund such as debt

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