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The Influence Of Profitability, Asset Tangibility, Firm Size, Liquidity, And Agency Conflict Toward Capital Structure On Food And Beverage Companies Listed In Indonesia Stock Exchange Period 2014-2017

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ABSTRACT

This study is conducted in order to know whether profitability, asset tangibility, firm size, liquidity, and agency conflict influence the capital structure. This study would also compare the result of the previous researchers within this research. Sample of this research is food and beverage companies that are listed in Indonesia Stock Exchange for period 2014 – 2017 and publish its annual report, which is available to be accessed by the public. The research method used in this paper is the quantitative method. Purposive sampling is used as a sampling technique, where nine companies met the criteria and were analyzed using descriptive statistic and panel data regression with a random effect model to test the hypotheses. Results of this study indicate that profitability, liquidity, and agency conflict influence the capital structure, while asset tangibility and firm size do not influence the capital structure.

1. Introduction

Since 2011, we have entered the era of fourth industrial revolution which is marked by increased connectivity, interaction, and convergent between human, machine, and other resources through information technology; not only in the production process but also in the entire industrial value chain to create new business models with a digital base in order to achieve high efficiency and better product quality. The new technology that supports the development of the Industry 4.0, such as the Internet of Things (IoT), Artificial Intelligence, Human-Machine Interface, Robotic and Sensor technology, Nanotech and Biotech, also 3D Printing technology, are the key determinants of being able to contribute to this industrial revolution.

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The Global Competitiveness Report 2017 - 2018 upgraded Indonesia's rank from 41 to 36 out of 137 countries. The Ministry of Industry has designed an integrated roadmap to implement several strategies in entering the industry revolution 4.0 and promote food and beverage industry as a priority to apply those new technology by providing incentives, collaboration with relevant ministries, and expand the vocational education to improve the skills of human resources since this industry contributes 34.95% for Indonesia's gross domestic product on 2017.

This achievement is undoubtedly supported by the best decision of financing that can be seen from its capital structure combination. Capital structure decision is vital because it affects the financial performance of the firm (Gill et al., 2009, 48). Therefore, the company needs to know the external and internal factors that influence capital structure. However, external factors cannot be controlled to determine the optimal capital structure. They depend on the government regulation, economic stabilization of the country and the world; such as interest rate, political condition, inflation, social trends, and industry dynamics. While fundamental or internal factors such as profitability, asset tangibility, firm size (Janbaz, 2010); liquidity (Liu and Ren., 2009); and agency conflict (Barakat, 2008) can be classified as the most influential factors to determine capital structure, some companies are raising their finances in the public markets while other companies are using bond proceeds to pay off short – term bank debt and strengthening their balance sheets (Handoo and Sharma, 2014).

2. Literature Review

Pecking order theory of capital structure (Myers and Majluf, 1984) in Chen et al. (2014) proposes that firms usually prefer internal finance to external finance and prefer debt to equity when internal finance is insufficient. This is to avoid the adverse effect of asymmetric information that investors tend to believe that firms issue equity when stock prices are overpriced, and therefore stock price would fall after the stock issue is announced. Onofrei et al. (2015) stated that the cost of issuance of new securities override other considerations

The trade-off theory argues that a firm is faced with increased financial risk when obtaining tax saving from debt financing (Kraus and Litzenberger, 1973) in Chen et al. (2014). The optimal capital structure can be achieved when the present marginal value of the tax shield is equal to the present marginal value of the costs of financial distress arising from additional debt (Warner, 1977) in Chen et al. (2014). Company is trying through a balance between benefits and costs of debt to reach an optimal capital structure and believes that company can achieve its optimum level of debt when its marginal benefit is equal with marginal cost (Janbaz, 2010).

The Agency cost theory (Jensen and Meckling, 1976; Jensen, 1986) in Chen et al. (2014) claims that the optimal utilization of debt could increase the value of shareholders, but overwhelming debt financing may cause damage. Firms incur agency cost to ensure agents (managers) acting in the best interests of principals (shareholders). When there is a separation between ownership and management, the conflict of goals between managers and owners and between different stakeholders emerges. According to Ross et al. (2008), there are two kinds of agency cost, indirect (a lost opportunity) and direct (corporate expenditure that benefits management but costs the stockholders and expense that arises from the need to monitor management actions).

According to Emery et al. (2014), capital structure is the proportions of debt versus equity financing and the mixture of debt maturities, short – term versus long – term while Keown et al. (2005) stated that capital structure refers to the mix of long – term sources of funds used by the firm. Gitman and Zutter (2015) breakdown the total capital into its two components, equity capital and debt capital or leverage,

which refers to the effects that fixed costs have on the returns that shareholders earn (Gitman and Zutter, 2015).

Taub (1975), Nerlove (1968), Baker (1973), and Peterson & Rajan (1994) in Gill et al., (2009) found a positive relationship between capital structure and profitability of the firm, while Fama and French (1998) in Gill et al., (2009) argue that the use of excessive debt creates agency problems among shareholders and creditors, which in turn led to negative relationship between leverage and profitability. Empirical studies referred to by Mazur K (2007) in Serghiescu and Vaidean (2014) concluded the negative impact of profitability on the capital structure. According to trade-off theory, more profitable firm is less exposed to bankruptcy and have a greater incentive to take on debt in order to benefit from corporate debt tax sshields (Jensen, 1986; Frank and Goyal, 2003) in Onofrei et al., (2009) or to boost the firm's performance (Margaritis and Psillaki, 2010) in Onofrei et al., (2009). Pecking order theory argues that profitable firms prefer self – financing to using external financing resources; as a result, profitability is negatively correlated with leverage (Onofrei et al., 2009).

Siegel and Shim (2000) mentioned the asset tangibility as a one having physical substance, a life higher than one year, and it is not held for resale and used in the ordinary course of business, such as machinery, furniture, and building. Fixed assets are also called tangible assets. Higgins (2001) describes that tangible assets are assets owned by the company that used in operations and not for resale soon and can be used as collateral to borrow funds while Brealey et al. (2006) stated that tangible asset refers to the physical asset such as plant, machinery, and offices. The nature of a firm's assets impacts capital structure choice. Tangible assets are less subject to informational asymmetries and usually have a higher value than intangible assets in the event of bankruptcy (Salawu and Agboola, 2008). The trade-off theory predicts a positive relationship between measures of leverage and the proportion of tangible assets. Relative to this theory, Bradley et al.,(1984); Rajan and Zingales (1995); Kremp et al. (1999) and Frank and Goyal (2002) in Salawu and Agboola (2008) find leverage to be positively related to the level of tangibility. The agency model predicts a negative relationship between tangibility of assets and leverage. Firms with more tangible assets have a more exceptional ability to secure debt (Omet and Mashharance, 2002 in Salawu and Agboola, 2008). Nivorozhkin (2002) in Serghiescu and Vaidean (2014) classified the negative impact of tangibility to capital structure in developing countries, where Indonesia is one of the countries included in this category of developing countries.

Firm size is measured from the total asset or total capitalization that owned by the firm (White et al., 2003). According to Reily and Brown (2006), firm size refers to how the firm's market value measures large or small a firm. The firm size will affect the firm's risk and its risk-adjusted return small firms are likely to have a higher risk than larger firms. The trade-off theory predicts an inverse relationship between size and the probability of bankruptcy, i.e. a positive relationship between size and leverage (Salawu and Agboola, 2008), also Titman and Wessels (1988) in Serghiescu and Vaidean (2014). The pecking order theory of the capital structure predicts a negative relationship between leverage and size, with larger firms exhibiting an increasing preference for equity relative to debt (Salawu and Agboola, 2008).

According to Keown et al. (2005), liquidity is the ability of a firm to pay its bill on time. Moreover, how quickly a firm converts its liquid assets (Accounts receivable and inventories) into cash. While Gitman and Zutter (2005) stated that the liquidity of a firm is measured by its ability to satisfy its short – term obligations as they come due. Liquidity refers to the solvency of the firm's overall financial position, the ease with which it can pay its bills. Two fundamental measures of liquidity are the current ratio and the quick (acid – test) ratio. Juan and Yang (2002) in Liu and Ren (2009) confirm a trade-off relationship between the collateral value of assets and debt ratio. Their finding is almost contrary to the pecking order pattern of financing. They argued that even if listed firms in China are capable of repaying their debts, they would still prefer to employ equity finance. According to Janbaz (2010) and Serghiescu and Vaidean (2014), liquidity is negatively influenced by the capital structure.

According to Keown et al., (2005), agency conflict is a problem resulting from the conflict of interest between the manager (the stockholder's agent) and the stockholders. While Janbaz (2010) stated that agency conflict is the conflict of interest and idea between the different parties of a company such as shareholders, debt providers and managers, managers tend to use debt financing in order to mitigate the agency cost (monitoring cost) and maintain that share price will not fall. Hence, when agency conflict arises, the debt will be used by the company is expected increase, and agency conflict will positively influence the capital structure (Janbaz, 2010).

3. Research Methodology

To collect data requirements with specific criteria for a targeted sample, purposive sampling is used. The sampling is confined to specific types of those that can provide the desired information because they conform to some criteria set by the researcher (Sekaran and Bougie, 2016). Therefore, the requirements for the sample of this research are:

- The company is part of the food and beverage industry listed in Indonesia Stock Exchange
- The company's financial statement reported in Rupiah (IDR) denomination
- The company has a positive income during the research period, 2014 – 2017
- The company published its annual report and available to be accessed by the public

Those data are analyzed by using multiple regression analysis. The table below shows the list of the company selected.

Table 1. Research Sample

No.	Ticker	Company
1	CEKA	Wilmar Cahaya Indonesia Tbk
2	FAST	Fast Food Indonesia Tbk
3	INDF	Indofood Sukses Makmur Tbk
4	MYOR	Mayora Indah Tbk
5	MLBI	Multi Bintang Indonesia Tbk
6	SKLT	Sekar Laut Tbk
7	SMAR	SMART Tbk
8	AISA	Tiga Pilar Sejahtera Food Tbk
9	ULTJ	Ultra Jaya Milk Industry Tbk

The dependent variable in this study is the debt ratio, which is the proportion of total assets financed by the firm's creditors (Gitman and Zutter, 2015). The equation for the base model may follow as:

$$DER = = \beta 0 + \beta 1 Profitability + 2 Asset\ Tangibility + 3 Firm\ Size + \beta 4 Liquidity + \beta 5 Agency\ Conflict\ + \varepsilon \quad (1)$$

Profitability focuses on the profit-generating performance of the firm (Emery et al. 2004) and can be measured through operating profit percentage. A tangible asset is referred to the physical asset such as plant, machinery, and officers (Brealey et al., 2006). Firm size refers to how large or small a firm (Reily and Brown, 2009). Liquidity of a firm is measured by its ability to satisfy its short-term obligations as

they come due and proxied by the current ratio (Gitman and Zutter, 2015). Agency conflict plays on the capital structure (Barakat 2008), that is when internal agency conflict arises between manager and shareholders, the manager tends to use debt financing so that the debt is expected to increase as the result of the agency conflict.

Based on the theoretical review and previous researches, the model framework for the research will be pictured in the following figure.

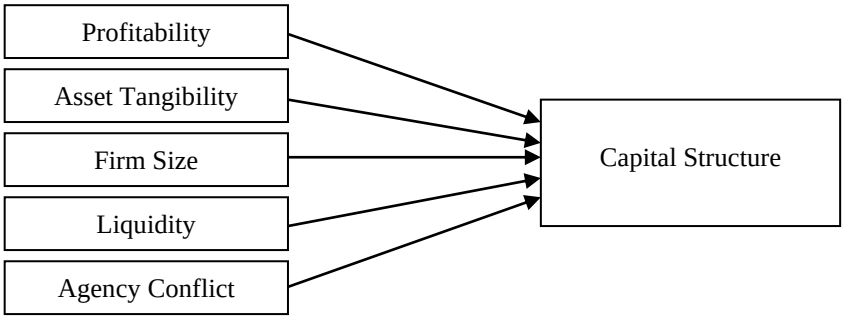

Fig. 1. Research Model

4. Result

This table below is a descriptive sample statistic.

Table 2. Descriptive Statistic

Description	OPM	AST	FSZ	LIQ	ACF	CST
N Valid	36	36	36	36	36	36
Missing	0	0	0	0	0	0
Mean	.117403	.379436	29.290642	1.779117	6.432778	.510994
Std. Deviation	.1160160	.1293423	1.5287542	.9972985	11.6406391	.1344200
Minimum	-.0111	.1567	26.5271	.2342	.3500	.1769
Maximum	.5251	.6026	32.1510	4.8436	48.6700	.7518

The analyses are conducted from the result above, thus panel data analysis (fixed and random effect model test), normality test, classic assumption test which consists of multicollinearity, heteroscedasticity, and autocorrelation tests, coefficient of correlation and determination, goodness-of-fit test, regression model, and hypotheses test. The statistical test result of 216 data can be seen in hypothesis result shown in Table 3 below.

Table 3. Hypotheses Result

Model.	Std. Coeff. (β)	t-value	p-value	Std. Error
Constant		1.240	.224	.244
OPM	-.388	-2.127	.042	.184
AST	-.026	- .247	.806	.111
FSZ	.164	1.873	.071	.008
LIQ	-.791	-8.235	.000	.013
ACF	.420	2.389	.023	.002

From the result table above, we can conclude that profitability influences the capital structure. This result is the same as the previous research by Onofrei et al., (2009, 462) and Serghiescu and Vaidean (2014), which shows that profitability is negatively correlated with leverage. Asset tangibility does not influence capital structure. This result is not the same as the previous research by Bradley et al.,(1984); Rajan and Zingales (1995); Kremp et al. (1999) and Frank and Goyal (2002) in Salawu and Agboola (2008, 77) which shows that leverage is positively correlated with asset tangibility, and Serghiescu and Vaidean (2014) that concluded the negative impact of tangibility to capital structure. Firm size also does not influence capital structure. This result is not the same as the previous research by Salawu and Agboola (2008, 76) and Serghiescu and Vaidean (2014) that shows a positive relationship between firm size and leverage. Liquidity influences capital structure. This result is the same as the previous research by Janbaz (2010, 29) and Serghiescu and Vaidean (2014), which shows that liquidity is negatively influenced the capital structure. Agency conflict influence capital structure positively. This result is not the same as the previous research by Janbaz (2010, 27), which stated that agency conflict positively influences the capital structure.

5. Discussion

From the result, we find that the more significant profit that the company can achieve, the less leverage they can make because the company can use its profit to fulfil the financial obligations and support the operation. Liquidity of a firm reduces its leverage company since the company can satisfy it is short – term obligations as they come due. As agency conflict arises in a company, managers will increase its debt in order to mitigate the agency cost (monitoring cost).

6. Conclusion

This study examined the relationship between profitability, asset tangibility, firm size, liquidity, agency conflict and capital structure of food and beverage companies on the Indonesian Stock Exchange. The result shows that three variables influence the firm's capital structure; profitability and liquidity have a negative effect, while agency cost has a positive effect. Two other variables are asset tangibility and firm size that do not influence capital structure. The limitation of this research was limited data provided for some of the variables used on this research, limited variables used on this research, and the number of companies used as a sample did not cover all companies in Indonesia. Suggestions and recommendation that could be given for future research about this topic were additional data access and provided from trusted and legal institutions or directly from the company. More variables might broaden the result of the research from this topic, such as growth opportunity, tax provision, dividend, volatility, business risk, and

more companies could get a more accurate result that could be implemented in this country for a better result on capital structure.

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