The 1st International Conference on Technopreneurship and Education 2018 - November 14, 2018, Surabaya, Indonesia

ISBN: 978-602-5649-417

INFLUENCE OF *MARGIN PROFIT NET* AND *DEBT TO EQUITY RATIO* ON THE VALUE OF CONSTRUCTION COMPANIES LISTED IN INDONESIA STOCK EXCHANGE (BEI) 2014-2017

Hidayatul Khusnah

S1 Accounting Study Program, Faculty of Economics and Business, Nahdlatul Ulama University of Surabaya
Surabaya, East Java
Hidayatul.khusnah@unusa.ac.id

Abstract

This study aims to investigate the effect of Net Profit Margin (NPM) and Debt to Equity Ratio (DER) on the value of construction companies listed on the Indonesia Stock Exchange (BEI) for the period 2014-2017. The hypothesis in this study was tested using multiple regression analysis with SPSS software. The results of this study are several findings. The first finding is that NPM has a positive effect on firm value, which indicates that the greater the NPM company, the profits generated by the company are greater. This will increase the attractiveness of the company more attractive to investors and impact on the increase in the value of the company. The next finding is also in line with previous findings, namely DER has a positive effect on the value of the company.

Keywords: Net Profit Margin (NPM), Debt to Equity Ratio (DER) and Corporate Value

Introduction

Today's competitive era of globalization, companies must be able to improve competitiveness both in the domestic market and in the international market to achieve company goals. The potential of contracting services business is very influential in economic activities. The more developed construction services, the more developed the country's economy.

Continue to work on infrastructure development, making Indonesia the largest construction service market share in ASEAN. In the world, Indonesia's construction market is the fourth largest. From the data of the Ministry of Public Works and Public Housing (PUPR), China is the largest where the market share of its construction services has potential worth US $ 1.78 trillion. Followed by the Japanese construction market worth US $ 742 billion. Then India was US $ 427 billion, and Indonesia was valued at US $ 267 billion. Indonesia's potential far outperforms ASEAN countries such as Malaysia, which only has potential worth US $ 32 billion. While Singapore is worth US $ 24 billion. Utilizing the potential of the Director General of Construction Development of the Ministry of Public Works and Public Housing (PUPR) Syarif Burhanuddin said that the Construction Service Business Entity plays an active role.*kontan.co.id Thursday, December 07 2017*.

Government efforts to build infrastructure have a positive impact on construction companies in Indonesia. The amount of competition that occurs in construction companies demands to complete construction projects in an efficient time, good quality and minimal costs. All that can be achieved with a good concept. The rise of development in Indonesia influences the performance of construction companies, therefore competition in the construction world is getting higher due to foreign contractors participating in the implementation of national construction. The government's efforts to develop development not only benefit the country to improve connectivity throughout Indonesia but provide the benefits for construction companies to attract investors by presenting the best financial statements.

A company is established with clear objectives. There are several objectives the company established, among others, is to achieve maximum profit or maximum profit, to prosper the owner of the company or shareholders, maximizing the value of the company reflected in the stock price. Of the several objectives of the company actually not substantially different just the emphasis that each company wants to achieve is different from one another (Martono, 2005).

The company's goal in the long run is to optimize the value of the company (Wahyudi and Pawestri, 2006). The value of the company or also referred to as the market value of the company is the price that is willing to be paid by prospective buyers if the company is sold (Nurlela and Ishaluddin, 2008 in Kusumadilaga, 2010).

According to (Sujoko and Soebintoro, 2007) the value of the company is the investor's perspective on the level of success of the company which is often associated with stock prices.

Company value can be seen from *Price to Book Value* (PBV) which is a comparison between stock prices and book value per share (Ang, 1997). The amount of PBV cannot be separated from several factors, one of which is Profitability. Profitability is the company's ability to make a profit in relation to sales, total assets or capital (Sartono, 2001). There are several ratios that can be used to measure the profitability of a company. This research focuses on *net profit margin* (NPM).

The next factor is a policy that is very sensitive to PBV, namely debt policy (Euis and Taswan, 2002). According to Brigham and Gapenski (1996), company value can be increased through debt policy. Debt policy includes external funding policies. Some companies consider that the use of debt is safer than issuing new shares. According to Babu and Jaine (1998), there are four reasons why companies prefer the use of debt rather than new shares, first the benefits of interest payments; Both transaction costs of debt issuance are cheaper than the costs of issuing new shares; Third, it is easier to get debt funding than stocks; And the fourth is greater management control with new debt than new shares. Thus the higher the debt policy carried out, the higher the value of the company. The value of the company will be maximum, if the company uses more debt (Mutamimah, 2003).

Firm value is the most important measure used by investors to determine whether capital investment is profitable or harmful. The value of the company can also identify how much investors are willing to be paid for every profit reported by the company, so that it is one of the tools to measure the performance of a company. Research related to the value of the company is important, because the assessment of the company*(corporatevalue)*is an important part in the privatization process of the company. This process often only pays attention to the financial aspects that focus on the value of*tangible assets*that are reflected in the form of *balance sheets and income statements.* The potential value of a company can be seen from two things, namely financial capital and intellectual capital. Corporate CEOs often only pay attention to aspects of financial capital, while the role of intellectual capital becomes a necessity in the organizational paradigm in the global era (Ria, 2013).

Research conducted by Ferina (2015) shows that debt policy does not have an influence on the value of the company. While research conducted by Hidayat (2013) debt policy affects the value of the company. Based on this, this study wants to reexamine the effect of debt policy on firm value.

The findings in this study that either DER or NPM both have a positive influence on the value of the Company.

Research Methods

This research uses quantitative methods. The sample in this study is construction companies listed on the Indonesia Stock Exchange (BEI) in 2015-2017. This study uses IDX as a place of research because the IDX is a place to obtain the necessary data in the form of financial statements and stock prices that were sampled in this study. The variables used in this study are debt policy, dividend policy, and investment decisions on firm value.

This study uses purposive sampling in sampling, namely sampling techniques with predetermined criteria. The criteria used in this study are construction & building sub-sector companies listed on the Stock Exchange and dividends distributed during 2014-2017.

Data analysis techniques In this study using multiple regression models. This analysis is used to measure the relationship between two or more variables and also shows the direction of the relationship of the dependent variable and the independent variable. Data analysis technique used is multiple regression which is carried out with a statistical data processing program, namely SPSS.

Research Results and Discussion

Table 1. Test Results F

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	10.479	2	5,239	18,108	.000[b]
	Residual	9,259	32	.289		
	Total	19,738	34			

ANOVA[a]

a. Dependent Variable: PBV

b. Predictors: (Constant), NPM, DER

Source: Secondary data processed by SPSS, 2018

Based on Table 1. shows that the F test value is 18.108 with a probability of 0.000. Based on the probability value is smaller than 0.05, it means that the data above can be continued in the next test, namely the t test.

The statistical test t basically shows how far the influence of an explanatory / independent variable individually in explaining the variation of the dependent variable.

Table 2. Test Results T

Model	Unstandardized Coefficients	Standar dized Coeffici ents		t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Toleran ce	VIF
.118.878 .387		.135			(Constant)		
DER 1	.176 .460.966			3,732	.001	.656	1,036
NPM	.045 .487. 000 .966			3,949		.177	1,036

Coefficients[a]

a. Dependent Variable: PBV

Source: Secondary Data processed by SPSS, 2018

The regression model of model 1 can be written as follows:

PBV = 0.118 + 0.656DER + 0.177NPM + ε

Testing the hypothesis 1 regarding the effect of DER on PBV shows a value of t count of 3.732 with a significance of 0.001 (p <0.05). This means that DER affects PBV. Hypothesis 1 is accepted. This indicates that the more corporate debt, investors consider the company has an opportunity to use its capital for development in the hope that the more the company develops, the advantage for investors will increase so investors are interested in buying company shares. The higher the stock price will increase the value of the company. The higher the DER value, the higher the value of the company.

Testing of hypothesis 2 regarding the effect of NPM on PBV shows that the t value is 3.949 with a significance of 0.000 (p <0.05). This means that the NPM affects PBV. Hypothesis 2 is accepted. This shows that the higher the NPM value, the PBV value will also be high. Company profits can be increased by increasing sales volume and selling prices, and by reducing costs. This positive signal will attract investors to invest their capital in companies with high levels of profit from sales, so that stock prices will rise and further increase the value of the company.

4.1. Description of Research Results

4.1.1 According to the calculation of *Existing* conditions Company

Recording the amount of raw material inventory that comes and is used is done every working day in PT. ABC. For the cost of ordering raw materials is the cost incurred by the company PT. ABC, regarding the purchase of raw materials that are not affected by the number of raw materials ordered. PT ABC's raw materials are imported directly from several countries outside Indonesia.

The total annual cost of raw material inventory with the actual concept applied by the company is the sum of the total annual ordering costs and total storage costs per year. The total order cost is obtained from the calculation of total transportation costs/transportation costs, administrative costs and communication costs. Then, the total storage cost per year is obtained from the total cost of storage facilities (electricity, etc.), inventory insurance costs, inventory handling costs.

4.1.2 Calculations according to Wagner-Within (AWW) Algorithm Method

The results for the ordering frequency using the Wagner Within Algorithm (AWW) method for each raw material are the same, in 5 times per year. From these calculations, it can be concluded that the ordering frequency

of each raw material by using the Wagner Within Algorithm (AWW) method is smaller than the actual concept that has been applied by the company that is 7 times a year.

4.1.3 Comparison of Raw Material Inventory Costs

The results of the calculation of the total cost of raw material inventory using the Wagner-Within (AWW) Algorithm method then compared total inventory costs generated by the actual concept applied by the company.

Based on the results of the calculation of raw material inventory costs between the *existing* conditions that have been applied companies with the Wagner-Within Algorithm (AWW) method, there are differences in each aspect in the table above. Order frequency according to the current concept applied by the company is 12 times, while based on the Wagner-Within (AWW) algorithm method, the order frequency is 6 times the order, the frequency of this order should be done in order to reduce the order cost as much as possible. As previously explained, there are many ordering frequencies and followed by the increasing number of order quantities, the ordering costs are also increasing.

It can also be concluded that the calculation of the *lot sizing* method with the Wagner-Within (AWW) Algorithm method approach resulting in lower total raw material inventory costs than the actual concept that had been applied by the company.

4.2 Discussion

4.2.1 Efficiency of Raw Material Inventory Costs with Wagner-Within (AWW) Algorithm Method

From the results of the calculation of the cost of raw material inventory with the Wagner-Within (AWW) Algorithm method before, it is known that the *lot sizing* method with the Wagner-Within (AWW) Algorithm approach can minimize the cost of raw material inventory compared to the actual concept that has been applied by the company. The following presentation of raw material inventory cost savings using Wagner-Within Algorithm (AWW) at PT. ABC.

Based on the calculation of the percentage that has been done, there is a difference in the total cost of raw material inventory between the existing conditions of the company with the Wagner-Within (AWW) Algorithm method. Where there is a saving 14.8% if the Wagner-Within (AWW) algorithm is applied compared to the existing conditions applied to PT. ABC.

In the existing condition of the company, the company makes an order every time there is a production to be carried out or in this case 12 times in 1 year. Whereas by using the Wagner-Within Algorithm (AWW) method, the ordering of raw materials carried out varies (order frequency) according to the algorithm calculation that has been carried out which is 8 times in 1 year.

Wagner-Within Algorithm Method (AWW) provides raw material inventory planning which results in a smaller total inventory cost when compared to raw material inventory planning which is only based on the actual concept applied by the company. So the company should start implementing the Wagner-Within (AWW) Algorithm method in order to minimize the total cost of raw material inventory that is very influential on the business process of PT ABC.

Conclusions and recommendations

From the research that has been done on the planning of PT. ABC's raw material inventory, using the Wagner-Within Algorithm (AWW) method can be concluded as follows:

a. The Frequency of ordering raw materials according to the calculation of the Wagner-Within Algorithm (AWW) method, ordering raw materials carried out 5 times in 1 year, while according to the calculation of the existing condition of the company, ordering raw materials is done 7 times in 1 year. With a smaller order frequency (5 times / year) will result in a more efficient and optimal ordering fee compared to more order frequency (7 times / year).

b. The Wagner-Within (AWW) Algorithm method still results in more efficient and optimal ordering costs than ordering costs according to the existing conditions of the company. For the total cost of raw material inventory, the Wagner-Within (AWW) Algorithm method is a method that produces the optimal and efficient total cost of raw material inventory.

References

Assuari, Sofjan. 2004. *Manajemen Produksi dan Operasi.* Jakarta: FE UI Press.

Bahagia, Nur. 2006. *Sistem Inventori*. Bandung: Penerbit ITB.

Baroto, Teguh. 2002. *Perencanaan dan Pengendalian Produksi*. Jakarta: PT Ghalia Indonesia.

Harjanto, Eddy. 1999. *Manajemen Produksi dan Operasi.* Jakarta: PT Grasindo.

Heizer, Jay & Barry Render. 2009. *Operations Management: Manajemen Operasi.* Jakarta: Salemba Empat.

Maulana & Setyorini. 2012. *Perencanaan Kebutuhan Bahan Baku Produk Windlass Dengan Menggunakan Metode Lot Sizing Pada PT Pindad (Persero)*. Jurnal. Fakultas Komunikasi dan Bisnis, Universitas Telkom.

P Katias, A Afandi. 2018. Implementasi Algoritma Wagner-Within Pada Manajemen Inventori di PT. X. Business and Finance Journal.

Pardede, Pontas M. 2005. *Manajemen Operasi dan Produksi.* Yogyakarta: ANDI.

Rajhans & Kulkarnia S. 2013. *Determination of Optimum Inventory Model for Minimizing Total Inventory Cost.* Jurnal Internasional. Nirma University International Conference on Engineering.

Rangkuti, Freddy. 2004. *Manajemen Persediaan: Aplikasi di Bidang Bisnis.* Jakarta: PT Raja Grafindo Persada.

Rasjidin, dkk. 2007. *Penentuan Kombinasi Metode Lot Sizing Berbagai Level pada Struktur Produk Spion 7024 Untuk Meminimasi Biaya Persediaan di PT. Cipta Kreasi Prima Muda*. Jurnal Inovasi. Teknik Industri , Universitas Indonusa Esa Unggul.

Sugiyono. 2010. *Metode Penelitian Bisnis (Pendekatan Kuantitatif, Kualitatif, dan R&D)*. Bandung: Alfabeta.

Sumayang, L. 2003. *Dasar-dasar Manajemen Produksi dan Operasi*. Jakarta: Salemba Empat.

Tampubolon, Manahan P. 2004. *Manajemen Operasional (Operations Management)*. Jakarta: Ghalia Indonesia.

Wagner, Harvey M. & Whitin, Thomson M. (2004). *Dynamic Version of the Economic Lot Size Model*. Jurnal Internasional. Management Science, Vol.50(12) Supplement, pp.1770-1774.

Yamit, Zulian. 2005. *Manajemen Persediaan*. Jakarta: Ekonisi.