Effect of Capital Structure, Firm Size and Leverage on Firm Value with Profitability as an Intervening Variable in Manufacturing Companies Listed on the Indonesia Stock Exchange

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Abstract

This study aims to determine and analyze effect of capital structure, firm size and leverage on firm value with profitability as an intervening variable in Manufacturing Companies listed on the Indonesia Stock Exchange. Capital structure is measured by debt to equity ratio. Profitability is measured by return on assets. Firm value is measured by price to book value. This research uses associative approach method. The population used in this study are all manufacturing companies listed on the Indonesia Stock Exchange. While the samples taken were 64 companies using purposive sampling. To obtain the data needed in this study, the authors use documentation techniques from data published by the company on the Indonesia Stock Exchange official website www.idx.co.id, as well as the company's annual report. The data used in this study is quantitative data sourced from secondary data. The research technique uses data analysis (path analysis) and the tool is the SmartPLS version 3.0 program. The results of this study indicate that: (1)Debt to equity ratio has no effect on price to book value. (2)Firm size has no effect on price to book value. (3)Leverage has no effect on price to book value. (4)Debt to equity ratio has an effect on return on assets. (5)Firm size has an effect on return on assets. (6)Leverage has an effect on return on assets. (7)Debt to equity ratio has no effect on price to book value through return on assets. (8)Firm size has no effect on price to book value through return on assets. (9)Leverage has no effect on price to book value through return on assets.

Keywords

debt to equity ratio; firm size; leverage; price to book value; return on assets



I. Introduction

According to Astuty (2019) the notion of responsibility accounting is one of the accounting systems used to measure the performance of each responsibility center in accordance with the information needed by managers to operate their responsibility centers as part of the management control system.

Management accounting is the process of identifying, measuring, collecting, analyzing, recording, interpreting, and reporting economic events of a business entity which is intended to enable management to carry out the functions of planning, control and decision making. Bambang (2002:3). The purpose of management accounting is to submit financial reports to certain companies for the benefit of internal parties. Management Accounting Information has 3 (three) types. This was disclosed by Mulyadi (2001:16), consisting of full accounting information, differential accounting information and responsibility accounting information. From these three it can be concluded that this

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research is a type of responsibility management accounting information. Djasuli in Sihombing *et al* (2020) explained that the function of accounting is to provide accounting information used for organizational decision making purposes. Accounting information is information obtained from economic activities and the condition of the organization itself. Mangkunegara in Arif (2019) stated that Organizational culture is a pattern of beliefs and organizational values that are believed and imbued by all members in doing work as an appropriate way to understand, think, and feel about related problems, so that it will become a value or rule within the organization. This will encourage members of the organization to work harder and create work motivation.

The company as a business actor must have a financial strategy in maintaining the company's credibility to maintain the company's survival and excellence in the face of business competition. Basically, a business strategy is a financial strategy. A company's assets, cash flows and liabilities are involved in every business decision. According to Bernstein (Sjahrial and Purba, 2013:1), financial strategy can be reflected in the financial statements. Financial statement analysis includes the implementation of analytical methods and techniques to see certain measures and relationships used for decision making.

Firm value is a certain condition achieved by a company which is reflected in the market price of the company's shares. Rahayu and Sari (2018). Firm value is measured by price to book value, which is a ratio that measures firm value by comparing the share price per share. Several factors that affect the value of the company, namely capital structure, liquidity, company size, dividend policy and profitability, but the results obtained so far are still inconsistent.

Companies that continue to experience growth with safe profits and cash flows will be viewed favorably by investors (Brigham and Houston, 2010:151). Wahyudi in Yustitianingrum explains that market and stock prices are an illustration of the company value that occurs from transactions between sellers and buyers which can be influenced because of investment opportunities that produce a positive influence on the company's growth in the future, then the stock price is increased which results in increased company value.

An indication of the good view of the investor or the company is the ratio of the market price of a stock to its book value. The share price is a proxy for the value of the company in the form of the price to be paid by the prospective buyer as proof of ownership of a company. The higher the share price, the higher the level of shareholder prosperity. In achieving this, investors hand over their management to professionals, namely company managers or commissioners (Nurlela and Islahudin, 2008).

Wrong funding decisions result in high fixed costs in the form of capital and low company profitability. Capital structure is measured by debt to equity ratio is one of the financial risks belonging to the solvency ratio group. Debt to equity ratio is a ratio that uses debt and equity to measure the size of the ratio. Capital Structure can see the percentage of provision of funds by shareholders to lenders.

Firm size is the number of assets owned by the company, large assets owned by the company must be used optimally, so that it affects the value of the company which results in a high share price compared to its book value and vice versa if large assets are not used optimally then the value of the company will decrease or the stock price will be low compared to its book value.

Leverage, namely the company has a large dependence on debt. Research conducted by Aulia (2013:318), Financial Leverage shows the use of loan capital in the context of corporate financing which is expected to increase returns on capital.

Companies must be able to issue funds and manage assets with company debt, so that profits can be obtained in increasing the value of the company.

This study aims to determine and analyze effect of capital structure, firm size and leverage on firm value with profitability as an intervening variable in Manufacturing Companies listed on the Indonesia Stock Exchange.

II. Review of Literature

Previous research linking firm value to firm size, conducted by Manoppo & Arie (2016), showed that firm size had no significant effect on firm value, i.e. investment decisions could be seen from investors' assessment of firm size. Company size is measured based on the amount of total assets owned because in general its value is very large compared to other financial variables. This is not a consideration for investors in investing. This profitability indicator is because it knows the extent of the investment that will be made by investors in a company that is able to provide returns that are in accordance with the level required by investors. Profitability is measured by return on assets Equity value, sales value or asset value can be used to determine the size of the company, called company size (Riyanto, 2013). The company really needs profit/profit to expand/expand its business field. The shareholders (stakeholders) will certainly see how much the company's performance or ability to generate net profits/profits in an accounting period is called profitability (Sari and Abundanti, 2014).

III. Research Methods

This research uses associative approach method. According to Juliandi et al. (2014) the associative approach is used because it uses three variables that aim to analyze the problem of the relationship between a variable and a variable. Descriptive research is a type of research that aims to make a systematic, factual and accurate description of the facts and characteristics of the population of a particular area (Pandiangan, 2015). The research approach used is quantitative research which is fundamental in nature, including data collection and analysis of quantitative data which is tested by statistical methods.

According to Sugiyono (2014), the population is the entire collection of elements that show certain characteristics that can be used to draw conclusions. The population used in this study are all manufacturing companies listed on the Indonesia Stock Exchange. According Pandiangan et al. (2018) in Sugiyono, purposive sampling is the selection of samples based on certain characteristics that are considered to have relevance to the characteristics of the population that have been known previously. While the samples taken were 64 companies using purposive sampling.

To obtain the data needed in this study, the authors use documentation techniques from data published by the company on the Indonesia Stock Exchange official website www.idx.co.id, as well as the company's annual report. Library research is a form of research that uses library facilities by examining theoretical discussions from various books, articles, and scientific works related to writing (Pandiangan, 2018). The data used in this study is quantitative data sourced from secondary data.

The research technique uses data analysis (path analysis) and the tool is the SmartPLS version 3.0 program. The research used path analysis to find out how far the influence of independent variables on dependent variable (Tobing et al., 2018). A hypothesis is a tentative conclusion that must be proven true. Criteria for rejection and

acceptance of the hypothesis in this study is to assess the value of t-statistics or t-table. The t-statistic value is compared with the t-table value.

IV. Results and Discussion

4.1 Descriptive Statistics

Descriptive statistical analysis is a general description of the amount of data used in this study and can show the minimum value, mean and standard deviation of each variable. The independent variables are debt to equity ratio, firm size, and leverage, the dependent variable is price to book value and the intervening variable is return on assets. All these variables will be analyzed by descriptive statistical analysis.

The price to book value has a minimum value of -0.108, a maximum value of 12,158, a mean of 0.000, a mean value of -0.102 and a standard deviation of 1,000. The variable debt to equity ratio has a minimum value of -1.058, a maximum value of 5.595, a mean of 0.000, a mean value of -0.299 and a standard deviation of 1,000.

Firm size variable has a minimum value of -2.168, a maximum value of 1.227, a mean of 0.000, a mean value of 0.562 and a standard deviation of 1,000. The leverage variable can be a minimum value of -1,820, a maximum value of 2,542, a mean of 0.000, a mean value of -0.075 and a standard deviation of 1,000. The return on assets variable can have a minimum value of -1.009, a maximum value of 5,402, a mean of 0.000, a mean value of -0.284 and a standard deviation of 1,000. This shows that each variable is grouped.

The results of this study indicate that: (1)Debt to equity ratio has no effect on price to book value. (2)Firm size has no effect on price to book value. (3)Leverage has no effect on price to book value. (4)Debt to equity ratio has an effect on return on assets. (5)Firm size has an effect on return on assets. (6)Leverage has an effect on return on assets. (7)Debt to equity ratio has no effect on price to book value through return on assets. (8)Firm size has no effect on price to book value through return on assets. (9)Leverage has no effect on price to book value through return on assets.

4.2 Hypothesis Test Results

The data processing carried out by the researcher resulted in the answer to the hypothesis test by looking at the t-statistic and p-value. The independent variable is declared to have a significant effect on the dependent variable if the t-statistic > 1.967 and p-value < 0.05. The following are the results of data processing in this study using SmartPLS version 3.0:

Table 1. t-Statistic and p-Value

Effect	t-Statistics	p- Values	Coefficients
Debt to Equity Ratio -> Price to Book Value	1.854	0.064	-0.086
Firm Size -> Price to Book Value	0.105	0.917	0.007
Leverage -> Price to Book Value	0.825	0.410	0.045
Debt to Equity Ratio -> Return on Assets	2.184	0.029	0.342
Firm Size -> Return on Assets	9.118	0.000	-0.399
Leverage -> Return on Assets	2.915	0.004	-0.422
Return on Assets -> Price to Book Value	0.230	0.818	0.008

Source: Data Processed by Author, 2021

Table 2. Testing Effect of Intervention

Effect	t- Statistics	p- Value	Results
Debt to Equity Ratio -> Return on Assets -> Price to Book Value	0.201	0.841	Not Through
Firm Size -> Return on Assets -> Price to Book Value	0.231	0.817	Not Through
Leverage -> Return on Assets -> Price to Book Value	0.206	0.837	Not Through

Source: Data Processed by Author, 2021

The results of this study indicate that: (1)Debt to equity ratio has no effect on price to book value. (2)Firm size has no effect on price to book value. (3)Leverage has no effect on price to book value. (4)Debt to equity ratio has an effect on return on assets. (5)Firm size has an effect on return on assets. (6)Leverage has an effect on return on assets. (7)Debt to equity ratio has no effect on price to book value through return on assets. (8)Firm size has no effect on price to book value through return on assets. (9)Leverage has no effect on price to book value through return on assets.

V. Conclusion

The results of this study indicate that:

- 1. Debt to equity ratio has no effect on price to book value.
- 2. Firm size has no effect on price to book value.
- 3. Leverage has no effect on price to book value.
- 4. Debt to equity ratio has an effect on return on assets.
- 5. Firm size has an effect on return on assets.
- 6. Leverage has an effect on return on assets.

- 7. Debt to equity ratio has no effect on price to book value through return on assets.
- 8. Firm size has no effect on price to book value through return on assets.
- 9. Leverage has no effect on price to book value through return on assets.

Based on the findings of the research, in this case the author can suggest the following, for:

1. Researcher

- a. The company in carrying out its operational activities there are variables that have an effect but the value is low, researchers should add variables that have an effect but have a high value. These variables are debt to equity ratio, firm size, leverage, price to book value, and return on assets.
- b. Researchers should add other company sectors that explain things that affect company value, namely other sectors in companies listed on the Indonesia Stock Exchange (IDX), such as (a) the agricultural sector; (b) mining; (c) basic and chemical industry; (d) various industries; (e) consumer goods industry; (f) property, real estate and building construction; (g) infrastructure, utilities and transportation; (h) finance; (i) trade, services and investment. This is an input to the researcher for the next research.

2. Manufacturing Company

- a. The variables in the study that have a significant effect should be reproduced so that a clear difference can be seen between the variables that have a significant and insignificant effect. Significant in research means the level of confidence in a hypothesis that will determine whether the hypothesis is accepted or rejected.
- b. The value of the company involves many ratios or matters relating to financial statements as a form of accountability to the company's leadership. Financial ratio is a financial analysis tool used by companies in assessing the performance of their companies based on the comparison of existing financial data in financial statement posts, such as balance sheets, cash flow statements, and income statements. This should always be supported by a performance system, adequate facilities and infrastructure so that the company can quickly progress and develop so that the company's output can be used as one of the business strategies for company expansion.

3. Investors

- a. Investors should choose stocks from companies with low leverage to avoid high risks.
- b. Investors must follow the development of information to find out what effects occur in the capital market so that Investors can prepare steps to deal with such events.

4. World of Science

Research that produces more variables can be traced by multiplying the literature or bibliography.

References

- Arif, Syamsul. (2019). Influence of Leadership, Organizational Culture, Work Motivation, and Job Satisfaction of Performance Principles of Senior High School in Medan City. *Budapest International Research and Critics Institute (BIRCI-Journal)*, 239-254
- Astuty, W. (2019). *Akuntansi Manajemen*. Cetakan Pertama. Bandung: Citapustaka Media Perintis.
- Aulia, Meiliana Stevani. (2013). Pengaruh Financial Leverage terhadap EPS dan ROE pada Perusahaan Sub Sektor Telekomunikasi yang Terdaftar di Bursa Efek Indonesia. *eJournal Ilmu Administrasi Bisnis*, 1(4):374-383.

- Bambang, Hariadi. 2002. *Akuntansi Manajemen Suatu Sudut Pandang*. Edisi Pertama. Yogyakarta: BPFE.
- Brigham & Houston. (2010). *Dasar-dasar Manajemen Keuangan*. Buku I. Edisi II. Jakarta: Salemba Empat.
- Juliandi, A., Irfan & Manurung, S. (2014). *Metode Penelitian Bisinis*. Medan: UMSU Press.
- Manoppo, H., & Arie, F. V. (2016). Pengaruh Struktur Modal, Ukuran Perusahaan dan Profitabilitas Terhadap Nilai Perusahaan Otomotif yang Terdaftar di Bursa Efek Indonesia Periode 2011-2014. *Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi*, 4(2).
- Mulyadi. (2001). Sistem Akuntansi Edisi Tiga. Jakarta: Salemba Empat.
- Nurlela, Rika & Islahuddin. (2008). Pengaruh Corporate Social Responsibility terhadap Nilai Perusahaan dengan Prosentase kepemilikan Menejerial sebagai Variabel Moderating. Simposium Nasional Akuntansi XI Pontianak.
- Pandiangan, Saut. (2015). *Analisis Lama Mencari Kerja Bagi Tenaga Kerja Terdidik di Kota Medan*. Skripsi. Medan: Fakultas Ekonomi dan Bisnis, Program Studi Ekonomi Pembangunan, Universitas Sumatera Utara. https://media.dok.pub/documents/d1db5a7f-dae9-4aff-95bb-b72061cebca0.pdf.
- Pandiangan, Saut Maruli Tua. (2018). *Analisis Faktor-faktor yang Mempengaruhi Penawaran Tenaga Kerja Lanjut Usia di Kota Medan*. Tesis. Medan: Fakultas Ekonomi dan Bisnis, Program Studi Ilmu Ekonomi, Universitas Sumatera Utara. http://repositori.usu.ac.id/bitstream/handle/123456789/10033/167018013.pdf?sequen ce=1&isAllowed=y.
- Pandiangan, Saut Maruli Tua, Rujiman, Rahmanta, Tanjung, Indra I., Darus, Muhammad Dhio, & Ismawan, Agus. (2018). An Analysis on the Factors which Influence Offering the Elderly as Workers in Medan. IOSR *Journal of Humanities and Social Science (IOSR-JHSS)*, 23(10), 76-79. DOI:10.9790/0837-2310087679. http://www.iosrjournals.org/iosr-jhss/papers/Vol.%2023%20Issue10/Version-8/K2310087679.pdf.
- Rahayu, Maryati & Sari, Bida. 2018. Faktor-faktor yang Mempengaruhi Nilai Perusahaan. *Jurnal Ikraith-Humaniora*, 2(2):69-76.
- Riyanto, Riyanto. (2013). Dasar-dasar Pembelanjaan Perusahaan. Edisi Keempat. Yogyakarta: BPFE-Yogyakarta.
- Sari, Putu Indah Purnama & Abundanti, Nyoman. (2014). Pengaruh Pertumbuhan Perusahaan dan Leverage Terhadap Profitabilitas dan Nilai Perusahaan. *E-Journal Universitas Udayana*, *3*(5).
- Sihombing, T. P., et al. (2020). The Effect of Accounting Information and Organizational Culture on Decision Making. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)* Volume 3, No 1, Page: 522-530
- Sjahrial, Dermawan dan Djahotman Purba. (2013). Analisis Laporan Keuangan. Jakarta: Mitra Wacana Media.
- Sugiyono. (2014). *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.
- Tobing, Murniati, Afifuddin, Sya'ad, Rahmanta, Huber, Sandra Rouli, Pandiangan, Saut Maruli Tua, & Muda, Iskandar. (2018). An Analysis on the Factors Which Influence the Earnings of Micro and Small Business: Case at Blacksmith Metal Industry. Academic *Journal of Economic Studies*, 5(1), 17-23. https://www.ceeol.com/search/article-detail?id=754945.