THE EFFECT OF WORKING CAPITAL MANAGEMENT ON PROFITABILITY OF STATE-OWNED ENTERPRISE IN PROCESSING INDUSTRY SECTOR

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Abstract: This study aims to examine the effect of various variables related to working capital management on profitability of state-owned enterprise in processing industry sector. The variables used in this research are profitability, cash turnover, receivable turnover, inventory turnover, liquidity, and asset structure. The population is entire state-owned enterprise of Indonesia in processing industry sector. The sampling technique used is purposive sampling technique. Based on the determined criteria, there are 13 companies as the sample. The data used are secondary data and research analysis tool is multiple linear regression. The results of this study indicate that inventory turnover and asset structure have significantly positive effect on corporate profitability. Nevertheless, Cash Turnover, Receivable Turnover, and Liquidity have no significant effect on the profitability on State-owned enterprise of Indonesia in processing industry sector. For further research, it is advisable to add financial and non financial variables which are considered moderate or moderate the effect of working capital management on profitability.

Keywords: Working Capital Management, Profitability, Cash Turnover, Receivable Turnover, Inventory Turnover, Liquidity, Asset Structure.

Profitability is an important measure of performance for most companies. In general, profitability becomes an indicator of the success of corporate managers in realizing the company’s goals. One of the most important factors that companies should consider in increasing profitability is working capital management (Alshubiri, 2011). There are various theories that link between working capital management and profitability. Teruel and Solano (2005) in Nwakaego (2007), explain that risk and return theory suggests that higher risk investments will create higher returns. Therefore, companies that have high liquidity in their working capital will have a low risk to fulfill their obligations and will get a low profitability at the same time. Based on this theory, it can also be interpreted that in order to obtain a high level of profit, the company must maintain its working capital in the most efficient position possible, even though it will gain an increased risk. Working capital management is instrumental in determining the cost to be incurred by the company related to tax expense and loan interest.
Various research on the influence of each variable of working capital management above has been done. However, from previous studies, there were inconsistent research results or identified gap in the study. Related to the relationship between cash turnover with profitability, Dong and Su (2010), studies stated that cash flow has a significant positive effect on profitability. This is in contrast to the results of research related to cash turnover and profitability, Rehn (2012), Serrasqueiro (2014), and Surya et al. (2017) showing that cash turnover has no significant effect on profitability. Research conducted by Dong and Su (2010), stated that receivable turnover significantly positive to profitability. However, research by Bulin, et al. (2016), and Wanguu and Kipkirui (2015), stated that receivable turnover has no significant effect on profitability. The relationship between inventory turnover and profitability has been tested through various researchers, including Wanguu and Kipkirui (2015), indicating that inventory turnover significantly positively impacts profitability. In contrast, research by Lazaridis and Tryfonidis (2006), stated that inventory turnover negatively affects significantly to profitability. The research results Makori and Jagongo (2013), Ademola (2014) and Bulin et al (2016), which shows inventory turnover has no significant effect on profitability. This research is developed from previous studies that have been done by Dong and Su (2010), so the selection of the variables tested is based on the variables used in previous studies. The variables in question are cash turnover, receivable turnover, and inventory turnover. As for companies in the manufacturing sector, accounts receivable accounts and persiania is the main account with a relatively large value compared to other accounts on the working capital structure. As research development, this study uses additional variables in interpreting working capital management by referring to Manullang and Sinaga (2005) and Yuliati (2013), statements that are liquidity and asset structure. Associated with the object of research, State-Owned Enterprises (SOEs) is a business entity that has its own characteristics related goals set. This is because SOEs have tasks with a wider scope than private companies in general. Besides acting as an agent of national economic development, SOEs are also tasked to pursue profit. With these characteristics, SOEs is a research object that has its own attractiveness, especially if connected with profitability and working capital management.

This study was conducted with the consideration that profitability is a very important measure for SOEs and working capital management is one of science to improve profitability. In addition, with the determination of a specific research object, the gap between previous studies, and addition on variables used in this study it is hoped this research will provide benefits for the management of SOEs, the Government of the Republic of Indonesia, other stakeholders, and further researchers. Thus, based on the description above, it can be concluded that this study aims to examine the influence of various variables related to working capital management on profitability in SOEs Indonesia industrial sector processing.

LITERATURE REVIEW
Profitability

Brigham and Daves (2010), stated that profitability is a net result of a number of policies and decisions. Furthermore, Munawir (2007), stated that profitability is a measure that describes the ability of companies to earn profits within a certain period. In line with this definition, Sartono (2011), defines profitability as a company’s ability to earn a profit in relation to total asset sales and own capital. Based on the definition can be concluded that profitability is the ability of a company to earn profits in a certain period, through various activities conducted by the company by utilizing various resources. Being an indicator of the company’s ability to generate profit, profitability is an important measurement tool used to analyze performance management. The level of profitability will describe the company’s profit position. Investors in the capital market are very concerned about the company’s ability to generate and increase profits, this is an attraction for investors in buying and selling shares. Therefore the profitability of a company is very important to be analyzed in an effort to increase its value. Laser (2015), classifies profitability ratios consisting of
Return on Sales (ROS), Return on Equity (ROE), Return on Assets (ROA). Each of these ratios has its own characteristics. In this study, profitability is proxied by using ROE, it refers to Laser (2015), ROE is the most fundamental profitability ratio. ROE measures the percentage of net profit to equity, i.e., funds invested by voters into firms. That is, ROE measures the company’s ability in generating a return on capital invested by the company owner.

**Working Capital Management**

Keown, et al. (2010), stated that working capital is the total investment of the company on current assets or assets that are expected to be converted into cash within a year or less. Furthermore, Harahap (2008), provides the definition of the net working capital is Current Assets minus current liabilities. Working capital is a measure that must be available to finance the day-to-day operations of the company. Other working capital notions put forward by Brigham and Houston (2009), Working capital is the company’s investment in short-term assets such as cash, securities, accounts receivable, and inventory. Working capital management has an understanding that the administration and management of current assets companies and funding needed to support the company’s operations (Horne and Wachowicz, 2012). Decisions made on one of the components of working capital will affect other components. Lack of working capital may result in hampering the company’s operational activities. While the excess capital can make the existing funds idle and lower profitability. To maximize the performance of a business, working capital must be integrated with management science.

**RESEARCH FRAMEWORK**

Based on the study of theories on profitability and working capital management, the conceptual framework of research is illustrated as follows:

![Diagram](image_url)

This research hypothesis are stated as follows:

- **H<sub>1</sub>**: Cash turnover has significant effect on profitability
- **H<sub>2</sub>**: Account receivable turnover has significant effect on profitability
- **H<sub>3</sub>**: Inventory turnover has significant effect on profitability
- **H<sub>4</sub>**: Liquidity has significant effect on profitability
- **H<sub>5</sub>**: Asset structure has significant effect on profitability
RESEARCH METHOD

Referring to the characteristics of data used, this type of research is quantitative research using data in the form of numbers to test the hypothesis and perform analysis of statistical results of the study. While based on its purpose, this research is correlational research. To calculate the amount of correlation can be used statistical methods. Population in this study includes all Indonesian state-owned enterprises in the processing industry. Sourced from data published by the Ministry of SOEs, companies included in the population research totaled 28 companies. In determining the sample research, used purposive sampling method. This sampling method is conducted with the aim to obtain a representative sample. Referring to this understanding and aligning with the purpose of this study, the criteria in the sampling are State-Owned Enterprise in the manufacturing sector which publishes audited financial statements for the period 2011-2016. Through the methods and requirements set, obtained 13 companies as samples in this study. The data were obtained by documenting directly from the published financial statements of the companies that became the research samples. The method of data analysis used in this study is multiple linear regression with the help of the Statistical Package for Social Science (SPSS) program. However, before performing multiple linear regression analysis, a classical assumption test is performed to identify whether there is any deviation from classical assumptions which is a fundamental aspect in determining the reliability of a multiple linear regression model.

RESULTS

Identification on deviations from classical assumptions is a fundamental aspect in determining the reliability of multiple linear regression models. The classical assumption test in this research involves a test of normality, multicollinearity, heteroscedasticity, and autocorrelation. Based on the classical assumption test output performed with the help of software identified that the data has a normal distribution, no symptoms of multicollinearity, no autocorrelation and no symptoms of heteroscedasticity. Next, here is a table of coefficient values and significance of the results of calculations of multiple linear regression models:

| Model                  | B    | Std. Error | Sig. |
|------------------------|------|------------|------|
| (Constant)             | -0.081 | 0.035 | 0.024 |
| Cash Turnover          | 0.000 | 0.002 | 0.931 |
| Account Receivable Turnover | -0.002 | 0.001 | 0.127 |
| Inventory Turnover     | 0.016 | 0.003 | 0.000 |
| Liquidity              | 0.007 | 0.005 | 0.161 |
| Asset Structure        | 0.137 | 0.058 | 0.022 |

Based on the table, a model equation of regression can be formed as follows:

\[ Y = -0.081 + 0.0001 \text{(Cash Turnover)} - 0.002 \text{(Receivable Turnover)} + 0.016 \text{(Inventory Turnover)} + 0.007 \text{(liquidity)} + 0.137 \text{(Asset Structure)} + \text{Residual} \]

Level of significance related to the effect of cash turnover variables on profitability is 0.93. This figure is greater than the defined limit of significance is 0.05 ($\alpha = 5\%$). Thus $H_0$ is received ($0.93 > 0.05$), which means the cash turnover does not significantly affect profitability. $H_1$ is rejected. Cash turnover does not significantly affect profitability. Level of significance related to the effect of the receivable turnover variable to profitability is 0.12. This figure is greater than the defined limit of significance is 0.05 ($\alpha = 5\%$). Thus, $H_0$ is received ($0.12 > 0.05$), which means the turnover of receivables does not significantly affect the profitability.

Level of significance related to the influence of inventory turnover variables on profitability is 0.00. This number is smaller than the defined limit of significance is 0.05 ($\alpha = 5\%$). Thus $H_0$ is rejected ($0.00 > 0.05$), which means that inventory turnover significantly affects the profitability. Level of significance related to the influence of liquidity variables on profitability is 0.16. With the limit of the significance level of 5%, then obtained 0.16 > 0.05. The results of this study indicate that $H_0$ is accepted which means liquidity does not significantly affect profitability. Level of significance related to the influence of asset structure
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variable on profitability is 0.02. This number is smaller than the defined limit of significance is 0.05 ($\alpha = 5\%$). Thus H0 is rejected (0.02 <0.05), which means the asset structure has a significant effect on profitability.

**DISCUSSION**

Cash turnover does not significantly affect the profitability of SOEs in the manufacturing sector. Through observation of data, identified average cash portion of current assets for all sample research, always awake more than over 30%. Cash placement at a conservative value boundary is closely related to the precautionary motive. With a precautionary motive, even if the company has a large amount of cash, it does not take precedence to increase profitability, but rather to minimize the risk of cash shortages in the event of urgent financial needs. This can contribute to the minimal effect of cash turnover on profitability. Referring to previous research, the results of this study are in line with the results of research conducted by Wanguu and Kipkiriu (2015). Nevertheless, the results of this study are not in line with Makori and Jagongo (2013), Ademola (2014) and Bulin, et al. (2016), studies which show that inventory turnover has no significant effect on profitability.

Inventory turnover has a significant positive effect on profitability. The lower inventory turnover reflects the longer the inventory accumulates in the warehouse and may cause financial and non-financial burdens that reduce profitability, such as storage costs, loss of inventory damage, additional warehouse expansion investments, and missed opportunities to maximize production capacity. Through increasing the speed of inventory turnover, eating the burden can be minimized and ultimately contribute to increased profitability. Related to previous research, the results of this study are supported by the results of research conducted by Wanguu and Kipkiriu (2015). Nevertheless, the results of this study are not in line with Shivakumar and Thimmaiah (2015), studies which show that inventory turnover has no significant effect on profitability.

Accounts receivable turnover does not significantly affect the profitability of SOEs in the manufacturing sector. Through the observation of the financial report data of the research sample, identified a trend that is unidirectional between the value of receivables and current liabilities throughout the study sample period. This condition indicates that not only focus on efforts that further improve profitability, receivable repayment fund also needs to be allocated to repay the debt that matures. Thus, it can contribute to minimizing the effect of receivable turnover on profitability. The results of this study are supported by research conducted by Wanguu and Kipkiriu (2015). However, the results of this study are not in line with Dong and Su (2010), studies which suggest that receivable turnover has a significant positive effect on profitability.

Liquidity measured by current ratio proved to have no effect which is significant to the profitability of SOEs in the manufacturing sector. Through low liquidity, it is indicated that the company has maximized the potential sources of funding from loans to improve profitability. However, if the use of these funds does not provide a significantly greater return than the borrowing costs, this will lead to a lack of liquidity impact on profitability. In addition, when associated with Trade off Theory which explains that there is a balance between financial gains and losses on the use of debt, the balance factor can also contribute to the lack of liquidity effect on profitability. Related to the previous research, the results of this study are supported by the results of research conducted by Wanguu and Kipkiriu (2015), Makori and Jagongo (2013), and Lazaridis and Tryfonidis (2006). However, the results of this study are not in line with Shivakumar and Thimmaiah (2015), studies conclude that liquidity significantly affects profitability.

The asset structure measured by CATA ratios has a significant positive effect on profitability. In certain circumstances, current assets contribute more to an increase in profitability than fixed assets. The addition of fixed assets will result in additional direct or indirect costs such as depreciation, maintenance, loss or damage, additional investment
costs and other related costs. When assessed these costs are greater than the costs incurred by the fixed assets amount, such as fixed asset lease and other relevant costs, high CATA value can increase profitability. In addition, a large portion of current assets also allows the company to be more flexible in changing business strategies to increase profitability. This research is supported by the results of research conducted by Lazaridis and Tryfonidis (2006) and Yuliati (2013), the results of this study are not in line with research Saleh, et al. (2015), stated that the asset structure has no significant effect on profitability.

CONCLUSIONS AND SUGGESTIONS

Conclusions
Based on the results of this study, it can be concluded that liquidity, cash turnover, and receivable turnover have no significant effect on the profitability of SOEs in the manufacturing sector. On the contrary, inventory turnover and asset structure have a significant positive effect on the profitability of SOEs in the manufacturing sector.

Suggestions
For the management of SOEs, it is important to constantly improve the efforts that support the acceleration of inventory turnover in order to increase profitability. In addition, a comprehensive review should be conducted regarding the use of working capital sourced from loans where the rate of return is greater than the interest expense. Next, intensive evaluation of the asset structure, especially the CATA value is very important to do. Optimal CATA value can be identified and applied to increase profitability.

The Government efforts in encouraging, assisting and evaluating SOEs in practicing appropriate and effective working capital management are vital to improving profitability. Through its authority, the government of Indonesia can support SOEs by providing guidance regarding the determination of effective, relevant and applicable asset structure ratios and encouraging the acceleration of inventory turnover by facilitating, stimulating and evaluating efficient and effective production and marketing processes.

Finally, the next researcher can add financial and nonfinancial variables that are believed can mediate or moderate the influence of working capital management on profitability. In addition, it is suggested to add research data by applying research data to more SOEs than in this study to get a more comprehensive result.

REFERENCES

Ademola, Osndina J. 2014. Working Capital Management And Profitability of Selected Quoted Food And Beverages Manufacturing Firms in Nigeria. European Journal of Accounting Auditing And Finance Research. Vol.2, No.3.

Alshubiri, Faris N. 2011. The Effect of Working Capital Practices on Risk Management: Evidence From Jordan. Global Journal of Business Research. Volume 5.

Keown, Arthur J., David F., Scott, Jr, John D. Martin, J., and William Petty. 2010. Dasar-Dasar Manajemen Keuangan. Edisi Satu.Jakarta: Penerbit Salemba Empat.

Brigham, Eugene F., and Houston, Joel. 2009. Fundamentals of Financial Management. Tenth Edition. Cengage Learning Asia Pte Ltd.

Brigham, E. and Daves, P. 2010. Intermediate Financial Management. Tenth Edition. Cengage Learning. South – Western.

Bulin, Sherry, Abdul Basit and Sahibzada M. Hamza. 2016. Impact of Working Capital Management on Firm’s Profitability. International Journal of Accounting & Business Management. Vol. 4 (No.2).

Dong, Huynh P. and Jyh T., Su. 2010. The Relationship Between Working Capital Management And Profitability: A Vietnam Case. International Research Journal of Finance And Economics. Issue 49.

Harahap, Sofyan Safri. 2008. Analisis Kritis Atas Laporan Keuangan. Jakarta: Raja Grafindo Persada.

Horne, Vanand Wachowicz, Jr. 2012. Financial Management. Terjemahan Quratul ‘ain Mubarakah. Edisi Ketigabelas, Jakarta: Salemba Empat.

Lazaridis and Tryfonidis. 2006. The Relationship Between Working Capital Management And Profitability of Listed Companies in The Athens Stock Exchange. Journal of Financial Management And Analysis, 19(1), 26-35.

Makori, Daniel M. and Ambrose Jagongo. 2013. Work-
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Manullang, Marihot and Dearlina Sinaga. 2005. *Pengantar Manajemen Keuangan*. Yogyakarta: ANDI.

Munawir, S. 2007. *Analisa Laporan Keuangan*. Edisi Keempat. Cetakan Keempatbelas. Yogyakarta: Liberty.

Nwakaego, Duru A. 2007. *Impact of Working Capital Management on Corporate Profitability of Nigerian Manufacturing Firms: 2000-2011*. Thesis. Department of Accountancy. Faculty of Business Administration.

Rehn, Erik 2012. *Effects of Working Capital Management on Company Profitability*. Helsinki: Hanken School of Economic.

Saleh, Hatta, Sunu Priyawan and Tri Ratnawati. 2015. *The Influence of Assets Structure, Capital Structure, And Market Risk on The Growth, Profitability And Corporate Values (Study inManufacturing Companies Listed in Indonesia Stock Exchange)*. International Journal of Business And Management Invention. Volume 4 Issue 12.

Sartono, A. 2011. *Manajemen Keuangan: Teori dan Aplikasi*. Edisi Keempat. Cetakan Kelima. Yogyakarta: BPFE Universitas Gadjah Mada.

Serrasqueiro, Joao. N. 2014. *Working Capital Management impact on Profitability*. International Master of Science in Business Administration. Lisbon.

Surya, Sarjito, Ruly Ruliana, and Dedi Rossidi Soetama. 2017. *Pengaruh Perputaran Kas dan Perputaran Persediaan Terhadap Profitabilitas*. Akuntabilitas: Jurnal Ilmu Akuntansi Volume 10 (2).

Shivakumarand Babiha Thimmaiah. 2015. *Working Capital Management - It’s Impact on Liquidity And Profitability - A Study of Coal India Ltd*. International Journal of Research Granthaalayah. Vol 4.

Terueland Solano. 2005. *Effects of Working Capital Management on Small And Medium-Size Profitability*. Journal Management Economic & Accounting.

Wanguu, Kioko C. and Sitienie E Kipkirui. 3015. *The Effect of Working Capital Management on Profitability of Cement Manufacturing Companies in Kenya*. Iosr Journal of Economics And Finance (Iosr-Jef). Volume 6, Issue 6. Ver. III.

Yuliati, Niwayan. 2013. *Pengaruh Kebijakan Modal Kerja Terhadap Profitabilitas Pada Perusahaan Hotel dan Restoran Di BursaEfek Indonesia*. Fakultas Ekonomi dan BisnisUniversitas Udayana (Unud), Bali, Indonesia.