



## The Effect of Working Capital Turnover, Company Size, and Company Age on Profitability: Study on State-Owned Banks in Indonesia

Sudarmadji

Sekolah Tinggi Manajemen Labora, Indonesia

<http://dx.doi.org/10.18415/ijmmu.v10i7.4817>

---

### **Abstract**

This research aims to learn more about how working capital turnover (WCT), total assets as a metric of firm size, and firm age affect profitability as measured by ROE. The primary data source in this quantitative study comes from yearly accounts of state-owned banks obtained on the [www.idx.co.id](http://www.idx.co.id) website. Multiple linear regression analysis and descriptive statistical analyses which have been used in the past under a classical assumption test, are also methods of data analysis. The results of work capital turnover and company age were not significant in relation to the ROE, based on data analysis and partial test results. In particular, the size of firms is a variable which has significant impact on return on equity. In part, the profitability of state-owned banks was not significantly influenced by independent variables in this study. Therefore, it is necessary to add appropriate independent variables that may have an impact on the profitability and which can be used in different data analysis techniques.

**Keywords:** *Working Capital Turnover; Company Size; Company Age; ROE*

### **1. Introduction**

Indonesia's economic condition amid the current pandemic certainly dramatically affects the profitability of private companies and SOEs. A business must improve its performance to maintain business continuity and achieve company goals. The purpose of a company is to maximize value or maximize shareholder wealth. A company's growth and performance is an indicators of whether or not the company's goals are achieved (Putra & Badjra, 2015). The company's performance can be measured through profitability.

In profit-focused businesses, profitability is an essential component. The ability of a business to generate profits by using its working capital allows it to pay off debts and distribute profits to investors in the form of dividends (Aaron & Jeandry, 2018). Managers must manage WCT factors, company size, and company age that may affect company revenue to maximize profits. Working capital is referred to as the "heart" of a company, and it is undeniable that working capital is one of the most critical components of a corporation. Business profitability is significantly influenced by management governance over working capital (Jauhari, 2016). However, Pratiwi & Ardini's (2019) research found that WCT did not influence profitability. With working capital that does not impact profitability, the company's profitability will not

increase due to the turnover of working capital that is used inefficiently, causing sales to be lower (Meidiyustiani, 2016). One of the criteria determining a company's potential to generate profits is its size (Febria & Halmawati, 2014) because businesses with more total assets can increase profits quickly.

Meanwhile, according to Nurdiana (2018), profitability is significantly independent of the company's size. According to Ayani et al. (2016), companies that have been operating for a long time may not necessarily be able to generate more profits than those that have just opened. Meanwhile, according to Sefiani & Sitohang (2015), the company's age affects profitability, so the longer the company is established, it can determine the level of profitability. It is because management's experience in managing company operations can make long-running businesses have more consistent profitability than newly established businesses, making them better equipped to handle various risks in the future.

Based on the results of previous studies, variables that affect profitability, such as WCT, company size and company age, obtained inconsistent results. So there is still a theoretical gap, so it becomes a reference for the author to conduct further research. It is to provide better research on the impact of WCT, size and age of companies on profitability.

The object of research is a state-owned bank listed on the IDX in 2017-2021. Based on Article 29 Paragraph (2) of the Banking Law, the bank's obligation in carrying out its business activities is to maintain its health following the rules governing capital, asset quality, profitability, and other elements related to bank services, and each of its operations is based on the precautionary principle. Therefore, in carrying out its activities, banks must be guided by sound banking principles to maintain stable profitability and avoid losses for the bank and the public. With a span of 5 years of observation, it is hoped that this study can provide information from more accurate research results.

## **2. Method**

The research was conducted on state-owned banks listed on the IDX in 2017-2021 and is quantitative research with annual financial statements from state-owned banks downloaded from [www.idx.co.id](http://www.idx.co.id) as a secondary data source. The WCT variable is divided by total sales (current assets - current debt). The company's size is proxied by the total assets of state-owned banks at the end of the period. The age of the company is the year of observation minus the year of establishment of the company. While profitability as a dependent variable is measured using Return On Equity (ROE).

Research data analysis methods include multiple linear regression analysis and descriptive statistical tests, and SPSS 26 applications are used to process data. Classical assumption tests are carried out before multiple linear regression analysis to ensure that there are no problems of normality, multicollinearity, heteroscedasticity, or autocorrelation in the regression model. A simultaneous F-regression test and a partial T-test were used to test the variables in this study.

## **3. Result and Discussion**

### **3.1 Descriptive Test**

A descriptive statistical test was performed to obtain a summary of the data. The most minor, significant, mean, and standard deviation sums can be used to get a picture of the data (Pratiwi & Ardini, 2019). From Table 1, the mean result of working capital turnover is positive 0.1550, marked by a maximum value of 0.533, a minimum value of 0.005, and a standard deviation of 0.159. The variable size of the company obtained a minimum value of 37869176 and a maximum value of 1725611127 with a mean of 861869982.95 and a standard deviation of 583312484.111. The company's age variable obtained

a minimum value of 20 and a maximum value of 125, with a mean of 78.51 and a standard deviation of 41.337. As for profitability measured by ROE, the result is a minimum value of 0.010 and a maximum value of 0.170 with a mean of 0.09900 and a standard deviation of 0.0485.

Table 1. Descriptive Result

	<i>N</i>	<b>Range</b>	<b>Mean</b>	<b>Std. Dev.</b>
WCT	20	0.005-0.533	0.155	0.159
Company Size	20	37869176-1725611127	861869982.95	583312484.111
Company Age	20	20-125	78.51	41.337
Profitability (ROE)	20	0.01-0.17	0.099	0.0485

### 3.2 Normality Test

This test intends to determine whether the distribution model variables are standard. The data is called normally distributed if  $\text{Asymp.Sig (2-tailed)} > 0.05$  (Ghozali, 2006). Based on the Kolmogorov-Smirnov Test from data processing,  $\text{Asymp.Sig (2-tailed)}$  results were obtained worth 0.127, which means that the variables of this study are standard with a normality test result value of  $> 0.05$ . In addition, based on the results of the probability plot normality test, it is also obtained that the plotting data that represents the actual data follows a diagonal line, meaning that the regression model has a normal distribution.

### 3.3 Multicollinearity Test

Testing is intended to ascertain whether there is a relationship between independent variables in the regression. If there is no relationship between independent variables, then regression is good. Looking at the VIF test and tolerance value is one way to find signs of multicollinearity. If  $\text{VIF} < 10$ , there is no multicollinearity (Ghozali, 2011). Based on the results of the multicollinearity test using IBM SPSS Statistics 26, the VIF value of working capital turnover was 1,096, the company size was 1,100, and the company age was 1,005. The VIF value of the three variables is below 10, then seen from the results of the tolerance value  $< 0.10$ . Thus, the research regression model did not experience multicollinearity.

### 3.4 Autocorrelation Test

Autocorrelation testing between variables showed Durbin Watson (*d*) results worth 1.762. This value lies in  $du (1.676) < d (1.762) < 4-du (2.324)$ . With these results, it means that there are no symptoms of autocorrelation.

### 3.5 Hypothesis Test

The partial T-test examines the effect of WCT, company size, and company age on the dependent variable, profitability (ROE), assuming a significant level of 0.05. In the partial T-test, there are two criteria, namely the first significance value  $< 0.05$ , which means that the independent variable affects the dependent variable (Ghozali, 2011). Then the second is that the independent variable does not affect the dependent variable if the significance value  $> 0.05$ . In addition, the value of the calculated table can also be used as a basis for decision-making. If the calculated *t* value  $> t$  table, it means that the independent variable affects the dependent variable (Sujarweni, 2014).

Table 2. *t test* result

Model	<i>B</i>	<i>Std. Error</i>	<i>t statistics</i>	<i>Sig.</i>
Constant	0.052	0.031	1.604	0.128
WCT	0.032	0.067	0.485	0.633
Company Size	4.63E-11	0.000	2.518	0.022
Company Age	3.89E-5	0.000	0.156	0.877

a. Dependent variable: Profitability (ROE)

The test results in Table 2 of the partial t-test showed that the variable working capital turnover does not significantly influence profitability (ROE). It is because the WCT significance results are  $0.633 > 0.05$ . Then with a calculated value of  $0.485 < t\text{-table } 2.120$  also means that WCT does not affect ROE. This result means that state-owned banks still need to be more effective in managing working capital utilization. With effective utilization of working capital, the company will obtain high profits to increase company profitability (Pratiwi & Ardini, 2019). This research follows (Arif et al., 2015; Meidiyustiani, 2016; Pratiwi & Ardini, 2019), which state that WCT significantly does not affect profitability. The company's variable size affects the ROE level with a significance of  $0.022 < 0.05$ . The company's size affects the ROE with calculated values of  $2,518 > 2,120$ . Profitability is positively significantly affected by the company's size; therefore, the more assets it has, the more profitability it can achieve. The company's age variable did not significantly influence ROE, with a significance value of  $0.877 > 0.05$  and a calculated value of  $0.156 < 2.120$ . That is, the length of time the company has been established cannot predict or explain the increase in profitability. Long-running businesses are only sometimes more profitable in terms of profitability than newly-running businesses. These results are in line with (Ayani et al., 2016; Novyanny & Turangan, 2019; Zuchrinata & Yunita, 2019) but not in line with research (Harahap et al., 2017; Sefiani & Sitohang, 2015) which explains that the age of the company has a significant effect on the profitability of a company.

F-test aims to determine whether the independent variable influences the dependent variable in the study. If the significance  $< 0.05$  means that the independent variable affects the dependent variable simultaneously (Ghozali, 2011).

Table 3. *F test*

Model	SS	df	MS	F	Sig.
Regression	0.013	3	0.004	2.141	0.135 <sup>b</sup>
Error	0.032	16	0.002		
Total	0.45	19			

a. Dependent Variable: Profitability (ROE)

b. Predictors: (Constant), Company Size, WCT, Company Age

From Table 3, the significance value is  $0.135 > 0.05$ , which means that profitability (ROE) is not simultaneously influenced by WCT variables, company size and company age. According to (Sujarweni, 2014), if the calculation  $> f$  table means that the independent variable affects the dependent variable. The calculation of the *f* table can be formulated as  $(k; n-k) = (3; 20 - 3) = (3; 17)$ , where *k* is the number of independent variables. So obtained *f* table worth 3.20. With a calculated value of  $2.141 < f$  table 3.20 means that the independent variable of this study does not have a significant effect on the dependent variable.

## Conclusion

From the results of the discussion of testing and analysis of research data, it was concluded that WCT did not significantly affect ROE. It means that state-owned banks still need to utilise working capital for operational activities effectively. The company size in this study has a significant positional influence on ROE. It means that the higher the assets owned by the company, the greater the profitability obtained. While the age of the company partially does not affect profitability. It means that the length of time a state-owned bank has been established cannot indicate the level of profitability. Then, the level of profitability of state-owned banks is not partially influenced by WCT variables, company size and company age. With the existing conclusions, there are suggestions for further research, namely the need to add relevant independent variables that may affect profitability. Then also, the research period can be increased to provide a broader picture related to the data taken. Further researchers can also use other ratios in measuring independent and dependent variables. In addition, future research can also be used other data analysis techniques.

## References

- Arif, S., Hidayat, R. R., & Zahroh, Z. A. (2015). Pengaruh Perputaran Modal Kerja, Leverage Dan Pertumbuhan Penjualan Terhadap Profitabilitas (Studi pada Perusahaan Makanan dan Minuman yang Terdaftar di Bursa Efek Indonesia pada Tahun 2011- 2013). [download.garuda.kemdikbud.go.id](http://download.garuda.kemdikbud.go.id).
- AYANI, S., RAHARJO, K., & ARIFATI, R. (2016). Pengaruh Current Ratio, Debt To Equity Ratio, Inventory Turnover, Ukuran Perusahaan Terhadap Profitabilitas Perusahaan Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia Tahun 2010-2014. *Journal Of Accounting*, 2(2), 1–15. <http://jurnal.unpand.ac.id/index.php/AKS/article/view/610/593>.
- Febria, R. L., & Halmawati. (2014). Pengaruh leverage dan ukuran perusahaan terhadap profitabilitas (Studi empiris pada perusahaan property dan real estate yang terdaftar di BEI). *Jurnal Akuntansi*, 1(3), 5–15.
- Ghozali, I. (2006). Aplikasi analisis multivariate dengan program SPSS. Badan Penerbit Universitas Diponegoro. <https://books.google.co.id/books?id=JdqJAQAACAAJ>.
- Ghozali, Imam. (2011). Aplikasi Analisis Multivariate dengan Program IBM SPSS 19 (5th ed.). Universitas Diponegoro.
- Harahap, N., Harmain, H., Siregar, S., & Maharani, N. (2017). Pengaruh Islamic Social Reporting (Isr), Umur Perusahaan Dan Kepemilikan Saham Publik Terhadap Profitabilitas (Roa) Pada Perusahaan Yang Terdaftar Di Jakarta Islamic Index (Jii) Tahun 2010-2014. *Jurnal Akuntansi Dan Keuangan Syariah*. <http://jurnal.uinsu.ac.id/index.php/JAKS/article/view/817>.
- Harun, S. & Jeandry, G. (2018). Pengaruh Profitabilitas, Free Cash Flow, Leverage, Likuiditas Dan Size Terhadap Dividen Payout Ratio (Dpr) Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia. *Jurnal Riset Akuntansi*, 5(2), 122– 137.
- Jauhari, A. (2016). Pengaruh Perputaran Modal Kerja Terhadap Profitabilitas Perusahaan. *Jurnal Manajemen Dan Kewirausahaan*, 1(1), 22–30.
- Meidiyustiani, R. (2016). Pengaruh Modal Kerja, Ukuran Perusahaan, Pertumbuhan Penjualan dan Likuiditas Terhadap Profitabilitas Pada Perusahaan Manufaktur Sektor Industri Barang. <https://journal.budiluhur.ac.id/index.php/akeu/article/view/405>.

- Novyanny, M. C., & Turangan, J. A. (2019). Pengaruh Likuiditas, Ukuran Perusahaan, Umur Perusahaan Dan Pertumbuhan Perusahaan Terhadap Profitabilitas Pada Perusahaan Jasa Sektor Perdagangan, Jasa & Investasi Yang Terdaftar Pada Bursa Efek Indonesia. *Jurnal Manajerial Dan Kewirausahaan*. <http://journal.untar.ac.id/index.php/JMDK/article/view/2790>.
- Nurdiana, D. (2018). Pengaruh Ukuran Perusahaan Dan Likuiditas Terhadap Profitabilitas. *Menara Ilmu*. <http://jurnal.umsb.ac.id/index.php/menarailmu/article/viewFile/831/742>.
- Pratiwi, A. E., & Ardini, L. (2019). Pengaruh Perputaran Modal Kerja, Ukuran Perusahaan, Leverage Dan Perputaran Piutang Terhadap Profitabilitas. *Jurnal Ilmu Dan Riset Akuntansi*. <http://jurnalmahasiswa.stiesia.ac.id/index.php/jira/article/view/2321>.
- Putra, A. A. W. Y., & Badjra, I. B. (2015). Pengaruh Leverage, Pertumbuhan Penjualan. 4(7), 2052–2067.
- Sefiani, C. Y. K., & Sitohang, S. (2015). Pengaruh current ratio, total asset turn over, dan umur perusahaan terhadap profitabilitas. *Jurnal Ilmu Dan Riset Manajemen*. <http://jurnalmahasiswa.stiesia.ac.id/index.php/jirm/article/view/3166>.
- Sujarweni, V. W. (2014). *SPSS untuk penelitian* (Florent (ed.)). Pustaka baru Press.
- Zuchrinata, F. A., & Yunita, I. (2019). Pengaruh Inflasi, Suku Bunga Bank Indonesia, Debt To Equity Ratio (Der), Ukuran Perusahaan Dan Umur Perusahaan Terhadap Profitabilitas Perusahaan Sub Sektor Pertambangan Batu Bara Yang Terdaftar Di Bei Tahun 2013-2017. *JIM UPB (Jurnal Ilmiah Manajemen)*. <http://ejournal.upbatam.ac.id/index.php/jim/article/view/1232>.

## Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).