

## Advances in Economics & Financial Studies

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# Effect of Working Capital Effectiveness and Growth Opportunity on Profitability



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Received: 2023, 04, 15 Accepted: 2024, 05, 31  
Available online: 2024, 05, 31

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KEYWORDS	ABSTRACT
<p><b>Keywords:</b> Cash Turnover; Accounts Receivable Turnover; Inventory Turnover; Growth Opportunities; Return on Assets</p> <p><b>Conflict of Interest Statement:</b> The author(s) declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.</p> <p><b>Copyright © 2023 AEFS. All rights reserved.</b></p>	<p>This study aimed to analyze the effect of cash turnover, accounts receivable turnover, inventory turnover and Growth Opportunity on Manufacturing Companies' Profitability on the Indonesia Stock Exchange. The type of data used in this study is quantitative data in the form of numbers in the form of financial reports on manufacturing companies listed on the Indonesia Stock Exchange in the period 2017 -2020. Data sources in research are secondary data, namely in written form or company documents. The data in this study will be tested with several stages of testing, namely descriptive statistical tests, classic assumption tests (normality test, heteroscedasticity test, multicollinearity test, autocorrelation test), and testing all hypotheses through the partial test (t test) and coefficient test determination. Based on hypothesis testing this study, it shows that the variable cash turnover, accounts receivable turnover, and inventory turnover positively and significantly affect profitability proxied by return on assets (ROA). In contrast, the growth opportunity variable has no significant effect on profitability proxied by return on assets (ROA).</p>

## Introduction

Every company in its operations is always directed at achieving the goals that have been set. One of the objectives of establishing a company is to earn profits. The company's ability to earn profits concerning sales, total assets and own capital is called profitability (Prakoso et al., 2014) . The higher the expected profit or profit, the company will be able to survive, grow and develop and be tough to face competition.

On the Indonesia Stock Exchange, 137 companies from the manufacturing sector operate in various industries, such as the chemical industry, consumer goods and others. Competition in all industrial fields is getting tighter so the number of manufacturing companies is increasing yearly. Manufacturing companies carry out production processes from purchasing raw materials, processing raw materials, to the form of finished goods to obtain the maximum possible profit. The process of converting raw materials into finished goods is known as the production process. In production process activities, various problems are often found, such as difficulties in ensuring the availability of raw materials and estimating merchandise according to customer requests. If the process is not managed properly, it will be fatal in the smooth running of the business and will certainly affect the company's profitability (Hoiriya & Lestariningsih , 2015) .

The effectiveness of working capital is a measure of how a company's working capital can be used as well as possible to achieve company goals, namely high profitability (Yanthi & Sudiarta, 2017) .

Companies need a source of funding to finance the company's daily operational activities for the smooth running of the production process, which is called working capital (Lestari et al., 2017) . Given the importance of working capital in a company, financial managers must be able to plan well for the right amount of working capital and according to the company's needs because if there is an excess or shortage of funds, this will affect the level of company profitability (Setiyowati et al., 2019) . If the company has excess working capital, it will cause a lot of unemployed funds, thereby reducing profitability. Meanwhile, if there is a shortage of working capital, it will hinder the company's operational activities.

In industrial companies, problems in managing working capital often trigger mismanagement, for example, slow inventory turnover. Even though many factors cause it, inventory turnover that is too slow or of small value can indicate that product management and other related parts are less than optimal. From the phenomena that the author has seen in several companies, working capital conditions rotate sober. Even so, it is still possible for the company to make a profit, especially if it has a good market position, regardless of other supporting factors. However, the expected profit (profit) will not achieve maximum or optimal results as expected, even though it has been predicted through various projections and calculations. This causes working capital which is relatively large in number, to be unproductive in increasing the company's profitability. Another example is on accounts receivable. If it turns out that many of these receivables are uncollectible, then the working capital turnover will be disrupted (Bintara, 2018) .

For companies, the issue of working capital is an important matter that requires great attention and careful action in its management. This is because working capital finances most of the company's operations. The existence of excessive working capital indicates the existence of unproductive funds, and this will cause losses for the company because the opportunity to gain profits has been wasted. Conversely, the existence of insufficiency or mismanagement in working capital is the main cause of the failure of a company. The three components of working capital are cash, receivables, and inventories. The three components of working capital can be managed in different ways to maximize profitability or to increase company growth (Damayanti & Budiyo, 2015) .

Cash is a component of working capital with the highest level of liquidity (Dewi, 2014) . Companies use cash to purchase inventory, pay debts, pay employee wages and salaries, buy office supplies, etc. Excessive amounts of cash accompanied by low cash turnover can lead to several unemployed funds, resulting in less efficient use of cash and causing decreased profitability (Putra & Badjra, 2015) . However, an adequate amount of cash, accompanied by a high cash turnover period, can influence the minimum risk of the company's inability to pay its obligations, meaning that cash is used more efficiently and increases the possibility for the company to obtain high profitability.

Apart from cash, another important component of working capital is receivables, which arise due to credit sales. Trade receivables are company bills to customers, buyers, or other parties who buy company products (Sarwat et al., 2017) . Receivables are also an element of working capital which is always in a state of rotation. Receivables turnover shows the bound period of working capital in receivables. The faster accounts receivable rotate, the faster the company is getting faster and more efficient in turning over its assets and it also means that the company's opportunity to earn profits is getting bigger. A high turnover rate means that refunds embedded in receivables are returned quickly. Thus the risk of non-payment of receivables is small. The return of cash due to the settlement of receivables is very profitable for the company because cash will always be available and can be used again.

Apart from accounts receivable, other components of working capital are inventories. Companies have inventories to maintain smooth operations (Mbawuni et al., 2016) . Inventories are materials or goods the company will resell without or after processing. Inventory is a component of working capital that is always in a state of rotation. The higher the inventory turnover rate, the higher the turnover rate of funds embedded in the inventory. This means that the amount of inventory in a small company affects the increase in profits. Conversely, if the inventory is too high in the company, it will cause many losses because the funds are embedded in large inventories. This means that the level of inventory turnover is very small and very influential on the decline in profits.

Theoretically, there is a close relationship between the effectiveness of working capital and company profitability. The effective use of working capital means that the amount of available working capital can meet the needs of the company's activities, but the amount is not excessive or other words there is no idle working capital. With this effective working capital allows the company to be able to operate economically to obtain high profitability. This is supported by research (Satriya & Lestari, 2017; Sinuraya, 2018) showing that the effectiveness of working capital significantly affects company profitability. The results of other studies are contradictory, as was done by (Wau, 2017) that the effectiveness of working capital has no positive and insignificant effect on profitability.

Growth Opportunity is a company growth opportunity in the future (Bintara, 2018) . Growth is expressed as total asset growth, where past asset growth will reflect future profitability and growth. Growth can be in the form of an increase or decrease in the total assets experienced by a company in a certain period. Asset growth is calculated as the percentage change in assets at a certain time against the previous year (Novitasari & Pangestuti, 2015) .

Companies with high growth opportunities have a large investment value, especially in fixed assets with more than one year of economic life. The investment is made through constructing new factories, purchasing new machines, and purchasing new technology, especially information technology and market expansion. The impact of this large investment is that companies with high growth opportunities will obtain high profitability (Sarwat et al., 2017) . This is supported by research conducted (Kopong & Nurzanah, 2016), showing that growth opportunity significantly affects profitability. The results of other studies are contradictory, as was done by (Suwardika & Mustanda, 2017) that growth opportunity has no significant effect on profitability.

The types of companies that will be the subject of this study are manufacturing companies listed on the Indonesia Stock Exchange in 2013-2016. Manufacturing companies are companies that carry out the production process, starting from purchasing raw materials, and processing raw materials to the form of finished goods, in order to earn profits. as much as possible.

## Literature Review

### Pecking Order Theory

The pecking order theory was put forward by Myers and Maljuf in 1984. This theory briefly explains funding decisions that state that companies tend to use internal funding sources (retained earnings) first, namely from retained earnings and depreciation, rather than external funds (debt) , shares) from financing activities. Debt, a source of external funding, is only used by the company if it does not have sufficient and sufficient internal funds. If more external funds are needed, companies will be more inclined to use debt than equity (Chen & Chen, 2011) . There are several assumptions used in POT theory (Sheikh et al., 2012) , including: 1) Companies tend to prefer internal funding sources first (retained earnings and depreciation) so the use of external funds (debt, stocks) is the last alternative. 2) If the company uses external funding sources, the selection is carried out in stages, starting from the safest to the riskiest, starting from debt securities such as issuance of bonds and convertible bonds, and if there are still not enough then new shares are issued (preferred stock and common stock).

### Trade Off Theory

Mars put forward the trade off theory in 1982. Mars in (Abel, 2018) states that the optimal debt ratio is determined based on the balance between benefits and costs arising from the use of debt. On the other hand, according to this theory, a company will not achieve optimal value if all funding is financed by debt or does not use debt at all in financing company activities, so that company managers must be careful and precise in managing the composition of company capital (Campbell & Kelly, 1994; Novitasari & Pangestuti, 2015) . In addition, this theory also states that there is a relationship between the use of debt, taxes, and bankruptcy costs due to capital structure decisions set by the company (Ai et al., 2020) . Although this trade off theory has not optimally determined the optimal capital structure of a company, it can be concluded from this theory that companies that have high profit levels should use less debt to avoid unwanted risks.

### Definition of Effectiveness

According to Wau (2017) , effectiveness is a measure that states how well or how far the target (quantity, quality, time) has been achieved. Meanwhile, according to Umar (2019) , effectiveness is a measurement of achieving goals, namely predetermined goals. It is clear that if the goals or objectives have been achieved following the previously planned, it is effective, on the other hand, if the goals or objectives are not completed according to the specified time, the work will not be effective. Sinuraya (2018) , defines effectiveness as a condition or situation where choosing the goals to be achieved and the facilities or equipment used, accompanied by the capabilities possessed, are appropriate so that the desired goals can be achieved with satisfactory results.

### Definition of Working Capital

Tsagem (2015) states that working capital is a long-term source of financing that specifically finances the company's daily activities, whereas according to Lukita (2019) working capital is the excess value of the company's assets over all of its debts. According to Parlianti (2019) , working capital is often interpreted as the difference between current assets and liabilities. According to Kasmir, working capital is the capital used to finance the company's daily operations, especially short-term ones.

### Definition of Growth Opportunities

Growth opportunity is a growth ratio that reflects a company's ability to maintain its economic position amidst economic growth and its business sector (Nafia & Islam, 2013) . According to Wahyuni (2017) growth opportunity is an opportunity for company growth in the future. Growth is expressed as total asset growth, where past asset growth will reflect future profitability and future growth. The level of growth opportunity will show how far the company will use debt as a source of financing. Concerning leverage, companies with high growth rates should use equity as a source of financing so that agency costs do not occur between shareholders and company management, whereas companies with low growth rates should use debt as a source of financing because the use of debt will require the company to pay interest regularly (Novitasari & Pangestuti, 2015) .

### Definition of Profitability

Prakoso (2014) states, "Profitability is the relationship between revenues and costs generated by using the firm's assets- both current and fixed in productive activities". This means the relationship between income and costs is generated by the smooth and steady use of company assets in productive activities. The profitability ratio is a ratio that describes a company's ability to earn profits through all existing capabilities and sources such as sales activities, cash, capital, number of employees, number of branches, etc. (Wahyuni & Ardini, 2017) . Wijayanto (2018) profitability ratio is a fundamental aspect of the company because in addition to providing a great attraction for investors who will invest their funds in the company, it also acts as a measuring tool for the effectiveness and efficiency of the use of all resources in the company's operational processes.

### Types of Profitability Ratios

According to Prakoso (2014), several profitability ratios include: 1) Gross Profit Margin, which measures the percentage of net income earned from each sale. 2) Operating Profit Margin, this ratio measures what percentage of sales before tax interest. 3) Net Profit Margin, this ratio measures the percentage of sales after interest and taxes. 4) Earning Per Share, this ratio measures the profitability or profit level from each share unit. 5) Return On Assets (ROA), this ratio measures the rate of return on own capital or investment of ordinary shareholders. 6) Return On Equity (ROE), this ratio measures the overall effectiveness of management performance in managing company assets.

### Definition of Return on Assets

Return On Assets according to Heikal (2014) , ROA measures overall effectiveness in generating profits through available assets, the power to generate profits from invested capital. Sunindyo (2012) , Return on assets is a ratio that measures a company's ability to generate profits by using the total

assets (wealth) owned by the company after adjusting for the costs that mark these assets. Prakoso (2014) states that return on assets "Measures the overall effectiveness of management in generating profits with its available assets, also called the return on investment." That means measuring the effectiveness of management in generating profits with available assets, ROA is also called return on investment.

Cash turnover is defined as the ability of cash to circulate during a certain period to generate income. Cash turnover can be determined by comparing net sales with total cash and cash equivalents. With the maximum cash turnover, the need for cash in the company's operations becomes less. The rest of this cash can be invested by the company in various forms of profit-generating activities to maximize company profitability (Fitri et al., 2016). This is in line with the Pecking order theory which suggests that companies use internal funding sources because they still have adequate internal funding sources. This is supported by the research results (Utami & Dewi, 2015; Yanthi & Sudiarta, 2017), showing that cash turnover affects profitability. Based on this explanation, the hypothesis is developed as follows:

H1: Cash Turnover has a positive and significant effect on Profitability.

Receivables arise because companies sell on credit to increase their business volume. Fitri (2016) states that receivables turnover shows the bound period of working capital in receivables where the faster the rotation period indicates, the faster the company profits from the sale of these credits so that the company's profitability also increases. With a high accounts receivable turnover, the capital invested in accounts receivable will be less. This capital can then be used in activities that can generate profits to maximize company profitability. This is in line with the pecking order theory which tends to use internal funding sources because companies still have adequate internal funding sources. This is supported by research results (Hoiriya & Lestariningsih, 2015; Prakoso et al., 2014; Utami & Dewi, 2015) showing that receivables turnover affects profitability. Based on this explanation, the hypothesis is developed as follows:

H2: Accounts Receivable Turnover has a positive and significant effect on Profitability.

Inventory or inventory is the main element of working capital, an asset that is always rotating and changing (Fitri et al., 2016). The inventory turnover period can show whether an excess investment in various inventory components results in an imbalance. The higher the inventory turnover, the costs incurred for maintenance save costs. The smaller the costs borne by the company, the greater the profitability obtained (Dinku, 2018). This is in line with the pecking order theory which tends to use internal funding, because it still has adequate internal funding sources. This is supported by research (Lestari et al., 2017; Yanthi & Sudiarta, 2017), showing that inventory turnover affects profitability. Based on this explanation, the hypothesis is developed as follows:

H3: Inventory Turnover has a positive and significant effect on Profitability.

Growth opportunity reflects the company's ability to maintain its economic position amid economic growth and its business sector (Bintara, 2018). Higher growth opportunities are preferred to take advantage of investments that have good prospects. The greater the expected sales, the greater the company's profitability. An increase in sales followed by an increase in operating results will further add to the trust of outsiders in the company. With increasing trust from outsiders (creditors), the proportion of debt is greater than the own capital. This is based on creditors' belief that the funds invested in the company are guaranteed by the size of the company's assets. Good growth signals the development of the company by increasing profitability. This is in line with the trade off theory, which states that the company will not achieve optimal value if all financing is financed by debt or using no debt at all. The results of research conducted by (Damayanti & Budiyo, 2015; Kopong & Nurzanah, 2016; Setiyowati et al., 2019) show that growth opportunity influences profitability. Based on this explanation, the hypothesis is developed as follows:



H4: Growth Opportunity has a positive and significant effect on Profitability.

## Research Design and Methodology

This research is a type of quantitative research. The population in this study are manufacturing companies listed on the Indonesia Stock Exchange in 2017-2020, totaling 137 companies. The sampling technique in this study used a purposive sampling method, namely selecting samples based on certain criteria. The sample criteria in this study are: 1) Manufacturing companies listed on the Indonesia Stock Exchange in 2017-2020. 2) Manufacturing companies listed on the Indonesia Stock Exchange that present audited financial statements as of December 31 for 2017-2020 and have the data needed in this research. 3) Manufacturing companies that earn profits and are listed on the Indonesia Stock Exchange from 2017-2020. Based on these criteria, the number of samples used in the study is obtained from as many as 16 companies, which are presented in table 1

**Table 1.** State-Owned Enterprises as Samples

No	Company name	Code
1	PT. Argo Pantes, Tbk	ARGO
2	PT. Indo Kordsa, Tbk	BRAM
3	PT. Goodyear Indonesia, Tbk	GDYR
4	PT. congrats perfect, Tbk	SMSM
5	PT. Holcim Indonesia, Tbk	SMCB
6	PT. Single Elephant, Tbk	GJTL
7	PT. Indomobil Success International, Tbk	IMAS
8	PT. Indo-Rama Synthetics, Tbk	INDR
9	PT. Indospring, Tbk	INDS
10	PT. Indocement Tungal Prakarsa, Tbk	INTP
11	PT. Multistrada Arah Sarana, Tbk	TIME
12	PT. Apac Citra Centertex, Tbk	MYTX
13	PT. Nipress, Tbk	NIPS
14	PT. Polychem Indonesia, Tbk	ADMG
15	PT. Astra International, Tbk	ASII
16	PT. Astra Otoparts, Tbk	AUTO

*Source: source should be written in italic text with font size 8*

The type of data used in this study is quantitative data, namely data in the form of numbers in the form of financial reports on manufacturing companies listed on the Indonesia Stock Exchange. The data used in this study is secondary data, namely data in written form or company documents. The data is sourced from the Indonesia Stock Exchange official website ( [www.idx.co.id](http://www.idx.co.id) ). Data collection was carried out using the documentation method. The data that has been collected will be analyzed through several stages of testing. The first stage is the classical assumption test (normality test, multicollinearity test, heteroscedasticity test). The second stage is to test all the hypotheses proposed in this study and will be proven through partial tests, simultaneous tests and tests of the coefficient of determination.

**Table 2.** Operational Variables

Variables	Instrument	Indicators	Major Reference
Working Capital Effectiveness	Cash turnover	Net sales	(Hariwangsa & Wirawati, 2017; Sinuraya, 2018)
		Total cash and cash equivalents	
	Receivable turnover	Net sales	
		Total receivables	
	Inventory turnover	Cost of goods sold	
		Inventory totals	

Growth Opportunities	Assets Growth	Total assets (t) - total assets (t-1)		(Damayanti & Budiyanto, 2015; Setiyowati et al., 2019)
		$\times 100\%$		
Profitability	Return on assets (ROA)	Total assets (t-1)		(Sinuraya, 2018; Wau, 2017)
		Net profit after tax		
		$\times 100\%$		
		Total assets		

## Findings and Discussion

### Findings

In this study, Cash Turnover as the independent variable (X1) influences the dependent variable (Y), namely Profitability proxied by return on assets (ROA). Cash Turnover can be calculated by comparing net sales to total cash and cash equivalents. Table 3 below illustrates the results of calculating cash turnover from 2017-2020 for manufacturing companies listed on the Indonesia Stock Exchange.

**Table 3.** Manufacturing Company Cash Turnover 2017-2020

No.	Company Code	Cash Turnover (in times)			
		2017	2018	2019	2020
1.	ARGO	13.98	13.35	14,46	12.72
2.	BRAM	18.34	14,23	16,62	19.34
3.	GDYR	17,12	10,7	16,86	10.04
4.	SMSM	12.34	16.95	5.98	11.01
5.	SMCB	16,14	3.75	6,19	8.04
6.	GJTL	14.67	13.88	4,4	3.56
7.	IMAS	14,33	11.37	6.98	6,61
8.	INDR	6,9	2.56	4,18	5.87
9.	INDS	12,27	11.81	12,14	13,23
10.	INTP	3,11	3.35	4.46	2.76
11.	TIME	4.81	8.08	6,62	9,34
12.	MYTX	7,14	10,17	11.43	10.54
13.	NIPS	10.69	11.25	12.98	11.81
14.	ADMG	6,14	3.85	6,29	8,61
15.	ASII	14.89	12.48	14,4	13.56
16.	AUTO	12.83	11.97	16,18	16,61

Source: Processed financial reports

Based on the observation of table 3, it can be seen that the lowest cash turnover value in manufacturing companies listed on the Indonesia Stock Exchange for the 2017 period is PT. Indocement Tunggal Prakarsa, Tbk with INTP company code of 3.11. In the 2018 and 2019 periods, PT. Indo-Rama Synthetics, Tbk with company codes INDR of 2.56 and 4.18. And in the 2020 period, PT. Indocement Tunggal Prakarsa, Tbk with the company code INTP of 2.76.

Meanwhile, PT Indo Kordsa Tbk, is the highest cash turnover value for a manufacturing company listed on the Indonesia Stock Exchange for 2017 with the company code BRAM of 18.34. In the 2018 period, PT. Selamat Sempurna, Tbk with the company code SMSM of 16.95. In the 2019 period, PT. Goodyear Indonesia, Tbk with company code GDYR of 16.86. And in the 2020 period, PT. Indo Kordsa, Tbk with company code BRAM of 19.34. This shows that the higher the company's cash turnover, the more it can influence the minimum risk of its inability to pay its obligations, meaning that the use of cash is more efficient and increases the possibility of the company obtaining high profitability. Cash turnover is the most dominant variable compared to other variables in this study because cash is one component of working capital with the highest level of liquidity.

**Table 4.** Turnover of Receivables from Manufacturing Companies in 2017-2020

No.	Company Code	Receivable Turnover (in times)			
		2017	2018	2019	2020
1.	ARGO	6,8	3.45	2.46	2.25
2.	BRAM	2,41	2.01	3.48	6,84
3.	GDYR	6,33	2.97	1.44	5,67

4.	SMSM	4.35	4.69	4.73	4.01
5.	SMCB	10,13	10,17	8.39	9,24
6.	GJTL	6,64	18.93	16,76	20.87
7.	IMAS	20.54	22.55	25,32	18,11
8.	INDR	6,23	4,22	8,41	6.55
9.	INDS	6.98	6,78	5.91	5.85
10.	INTP	11,8	8.45	6,46	4.58
11.	TIME	8,43	6,19	8,24	8.86
12.	MYTX	12.64	11.87	13.09	12.51
13.	NIPS	2.45	2.89	2.93	2,21
14.	ADMG	8,19	10.35	8.55	9.67
15.	ASII	8.45	6.59	6.89	7,83
16.	AUTO	10,42	10.87	11,19	10.45

Source: Processed financial reports

Based on the observation in table 4, it can be seen that the lowest receivable turnover value for manufacturing companies listed on the Indonesia Stock Exchange for the 2017 and 2018 periods was PT. Indo Kordsa, Tbk with company codes BRAM of 2.41 and 2.01. In the 2019 period, PT. Goodyear Indonesia, Tbk with company code GDYR of 1.44. And in the 2020 period, PT. Nipress, Tbk with the NIPS company code of 2.21.

Meanwhile, the highest receivable turnover value for manufacturing companies listed on the Indonesia Stock Exchange for the 2017-2019 period is PT Indomobil Sukses Internasional, Tbk with company code IMAS. In the 2017 period it was 20.54. In the 2018 period it was 22.55. In the 2019 period it was 25.32. And in the 2020 period, PT. Gajah Tunggal, Tbk with the company code GJTL, which is 20.87. This shows that the higher the level of accounts receivable turnover, the greater the possibility for the company to obtain high profitability.

**Table 5.** Manufacturing Company Inventory Turnover for 2017-2020

No.	Company Code	Inventory Turnover (in times)			
		2017	2018	2019	2020
1.	ARGO	2.74	2,6	3.02	3.55
2.	BRAM	3.07	3,3	8.76	6,5
3.	GDYR	7,78	4,7	5,31	5,5
4.	SMSM	5,44	6,24	5.91	5,71
5.	SMCB	4.57	4,17	1.49	1.47
6.	GJTL	1.49	3.07	3,17	3.45
7.	IMAS	6,5	8,62	7,48	4.88
8.	INDR	4,28	4.53	4.95	4.89
9.	INDS	4,26	2,17	2.79	2.37
10.	INTP	4.54	4.69	3.82	3.95
11.	TIME	6,17	4.73	6,26	6.59
12.	MYTX	5.98	4.79	5,39	5.84
13.	NIPS	5,46	6,74	5,81	5,31
14.	ADMG	4.87	4,27	2.46	4.76
15.	ASII	4.64	6.07	8,27	6,45
16.	AUTO	8.51	8,82	6,68	4.38

Source: Financial reports processed

Based on the observation of table 5, it can be seen that the lowest inventory turnover value in manufacturing companies listed on the Indonesia Stock Exchange for the 2017 period is PT. Gajah Tunggal, Tbk with the company code GJTL of 1.49. In the 2018 period, PT. Indospring, Tbk with the company code INDS of 2.17. In the 2019 and 2020 periods, PT. Holcim Indonesia, Tbk with company codes SMCB of 1.49 and 1.47. Meanwhile, the highest inventory turnover value for manufacturing companies listed on the Indonesia Stock Exchange in 2017 and 2018 was PT Astra Otoparts Tbk, with the company code AUTO, namely 8.51 and 8.82. In the 2019 period, PT. Indo Kordsa, Tbk with company code BRAM of 8.76. And in the 2020 period, PT. Multistrada Arah Sarana, Tbk with the company code MASA of 6.59. This shows that the higher the inventory turnover, the costs incurred for maintenance and maintenance are small to save costs. The smaller the costs borne by the company, the greater the profitability obtained.



**Table 6.** Growth Opportunity for Manufacturing Companies in 2017-2020

No.	Company Code	Growth Opportunities			
		2017	2018	2019	2020
1.	ARGO	6,63	6,34	5,47	4,9
2.	BRAM	4.48	3.82	9,1	9.84
3.	GDYR	10.34	10.78	11.64	14,6
4.	SMSM	5,12	4,27	4.59	5.09
5.	SMCB	9.05	9,61	35,46	25,24
6.	GJTL	42,54	48,53	51,76	73,49
7.	IMAS	10,23	8.93	9,3	4.65
8.	INDR	6,61	6,42	6.55	6,34
9.	INDS	6,77	6,23	6,73	7,34
10.	INTP	6,68	6,38	5,37	4,15
11.	TIME	4,28	4,32	4,21	4.45
12.	MYTX	10.84	13.88	11.74	14,62
13.	NIPS	2,12	4.57	2.51	4.49
14.	ADMG	6,15	7,61	8.87	9,24
15.	ASII	6,54	8.53	6,76	7,49
16.	AUTO	8,83	8,63	6,13	6.35

Source: Financial reports processed

Based on the observation of table 6, it can be seen that the lowest growth opportunity value for manufacturing companies listed on the Indonesia Stock Exchange for the 2017 period is PT. Nipress, Tbk with the company code NIPS of 2.12. In the 2018 period, PT. Indo Kordsa, Tbk with company code BRAM of 3.82. In the 2019 period, PT. Nipress, Tbk with the company code NIPS of 2.51. In the 2020 period, PT. Indocement Tungal Prakarsa, Tbk with the company code INTP of 4.15.

Meanwhile, the highest Growth Opportunity value for manufacturing companies listed on the Indonesia Stock Exchange for the 2017-2020 period is PT Gajah Tungal, Tbk with company code GJTL. In the 2017 period it was 42.54. In the 2018 period it was 48.53. In the 2019 period it was 51.76 and in the 2020 period it was 73.49. This shows that companies with high growth opportunities have a large investment value, especially in fixed assets with an economic life of more than one year. The impact of this large investment will obtain high profitability.

**Table 7.** Manufacturing Company Profitability 2017-2020

No.	Company Code	Profitability			
		2017	2018	2019	2020
1.	ARGO	21	13	6	6,56
2.	BRAM	6,91	5,13	13,8	11,4
3.	GDYR	11	8,5	5	6,3
4.	SMSM	9	10	4	17,74
5.	SMCB	15.05	12.83	9,8	8,63
6.	GJTL	9,27	37,8	39,47	35,87
7.	IMAS	57,3	56,4	53,4	31.78
8.	INDR	6.89	2.58	8.78	3.68
9.	INDS	14,9	12.41	13.96	14,62
10.	INTP	15,4	13,21	16,11	16.56
11.	TIME	6,51	4,33	3.82	8,4
12.	MYTX	11,13	10.5	8,23	9,3
13.	NIPS	12,12	10,1	12,4	12.78
14.	ADMG	13.05	12.73	16.85	18.43
15.	ASII	35,29	34.89	36,87	35,34
16.	AUTO	52,34	51,42	53,44	52,26

Source: Financial reports processed

Based on the observation in table 7, it can be seen that the lowest return on assets (ROA) value for manufacturing companies listed on the Indonesia Stock Exchange for the 2017 period is PT. Multistrada Arah Sarana, Tbk with the company code MASA of 6.51. In 2018 it was PT. Indo-Rama Synthetics, Tbk with a company code of INDR of 2.58. In 2019 it was PT. Multistrada Arah Sarana, Tbk

with the company code MASA of 3.82. Moreover, in 2020 is PT. Indo-Rama Synthetics, Tbk with a company code of INDR of 3.68.

Meanwhile, the highest return on assets (ROA) value for manufacturing companies listed on the Indonesia Stock Exchange for the 2017-2020 period is PT Astra Otoparts, Tbk with company code AUTO. In the 2017 period it was 52.34. In the 2018 period it was 51.42. In the 2019 period it was 53.44. And in the 2020 period it was 52.26. This shows that companies that have high profitability can attract creditors to provide credit and issuers to issue securities to these companies.

The next stage is the classical assumption test intended to determine whether using a simple linear regression model in analyzing meets the classical assumptions. There are three classic assumption tests to test the linear regression model: the normality test, the multicollinearity test, and the heteroscedasticity test. The normality test aims to test whether there are confounding variables (errors) or residuals that have a normal distribution in the regression model to detect the normality of the data, this study will carry out the One-Sample Kolmogorov-Smirnov Test (KS) statistic.

**Table 8.** Kolmogorov - Smirnov (KS) test

		Unstandardized Residuals	
N			64
Normal Parameters <sup>a,b</sup>	Means	.0000000	
	std. Deviation		11.13550027
Most Extreme Differences	absolute	.084	
	Positive		.084
	Negative		-.071
Test Statistics		.672	
asympt. Sig. (2-tailed)		.757	

a. Test distribution is Normal.

b. Calculated from data.

Source: processed secondary data

Based on the results of the normality test in table 8, it can be seen that the data is normally distributed. This can be seen from Asymp. Sig (2-tailed) is 0.757 > a significance value of 0.05 (5%), so it can be concluded that the data is normally distributed. Furthermore, the multicollinearity test aims to test whether there is a correlation between the independent variables. Detection of the presence or absence of multicollinearity is by analyzing the tolerance value and the Variance Inflation Factor (VIF) >1.0 and the tolerance value <1.0. The results of the multicollinearity test can be seen in table 9 below.

**Table 9.** Multicollinearity Test Results

		Collinearity Statistics	
Model		tolerance	VIF
1	(Constant)		
	P. Receivables	.868	1.154
	P. Kas	.721	1.364
	Q. Inventory	.744	1.346
	Growth Opportunities	.626	1.602

Dependent Variable: ROA

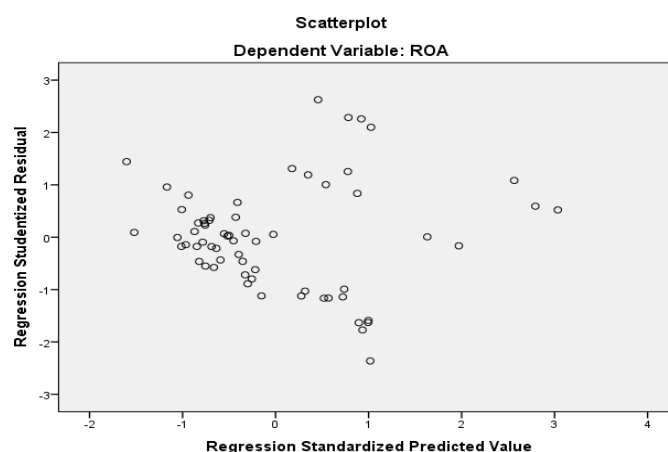
Source: SPSS Output 21

Based on the results of the multicollinearity test in table 9, it can be seen that the cash turnover test on return on assets (ROA) does not contain multicollinearity. This can be seen from the VIF value of cash turnover (X1) of 1.154, which means not more than 10. This can also be seen from the tolerance value of cash turnover of 0.868, which means not less than 0.1. Testing receivables turnover on return on assets (ROA) does not show multicollinearity. This can be seen from the VIF value of accounts receivable turnover (X2) of 1.364, which means no more than 10. This can also be seen from the tolerance value of accounts receivable turnover of 0.721, which means not less than 0.1.

There is no multicollinearity in testing inventory turnover on return on assets (ROA). This can be seen from the VIF value of inventory turnover (X3) of 1.346, which means not more than 10. This can

also be seen from the inventory turnover tolerance value of 0.744, which means not less than 0.1. Testing the growth opportunity on return on assets (ROA) does not show multicollinearity. This can be seen from the VIF value of growth opportunity (X4) of 1.602, which means not more than 10. This can also be seen from the growth opportunity tolerance value of 0.626 which means not less than 0.1.

Furthermore, the heteroscedasticity test aims to test whether there is an inequality of variance in the regression model from one residual observation to another. If the residual variance from one observation to other remains, then it is called homoscedasticity; if it is different, it is called heteroscedasticity. The test results are shown in Figure 1 below:



**Figure 1.** Heteroscedasticity Test Results

Source: SPSS Output 21

The results of the heteroscedasticity test in Figure 1 shows that there is no heteroscedasticity because the points spread above and below the number 0 on the Y axis and do not form a clear pattern.

The next stage is multiple linear regression analysis, which determines the linear relationship between the independent and dependent variables. Table 9 presents the results of multiple linear regression tests/partial tests.

Table 10: Multiple Linear Regression Test/Partial Test (Coefficients<sup>a</sup>)

Model	Unstandardized Coefficients		Standardized Coefficients	Q	Sig.	Collinearity Statistics	
	B	std. Error	Beta			tolerance	VIF
1 (Constant)	-9,808	5,974		-1,642	,002		
P. Kas	1,638	,359	,538	4,563	,000	,868	1.154
P. Receivable	1,073	,355	,299	3,023	,003	,721	1.364
P. Supplies	2,431	,939	,273	2,589	,012	,744	1,346
Growth Opp	,138	,155	,096	,890	,370	,626	1,602

a. Dependent Variable: ROA

Source: SPSS-21 Outputs

The relationship between the independent variable and the dependent variable can be formulated into the following equation:

$$Y = -9.808 + 1.638 X_1 + 1.073 X_2 + 2.431 X_3 + 0.138 X_4$$

From the regression equation, it can be concluded that the interpretation in this study is as follows:

The regression coefficient value of the effect of cash turnover on profitability proxied by return on assets (ROA) shows a value of 1.638 with a significance value of 0.000 less than 0.05. Hence, the

cash turnover variable significantly influences profitability proxied by return on assets (ROA). In conclusion, the first hypothesis, namely cash turnover, significantly affects profitability proxied by return on assets (ROA) in manufacturing companies listed on the Indonesia Stock Exchange in the 2017-2020 period. The sign of the regression coefficient is positive, so an increase in cash turnover will increase the value of return on assets (ROA). An increase in cash turnover by 1 percent will increase the company's return on assets (ROA) by 1.6-38 percent.

The regression coefficient value of the influence of accounts receivable turnover on profitability proxied by return on assets (ROA) shows a value of 1.073 with a significance value of 0.003 less than 0.05 so that the receivables turnover variable has a significant influence on profitability proxied by return on assets (ROAs). In conclusion, the second hypothesis, namely receivables turnover, has a significant effect on profitability proxied by return on assets (ROA) in Manufacturing Companies Listed on the Indonesia Stock Exchange in the 2017-2020 period, it is accepted. The sign of the regression coefficient is positive, so an increase in accounts receivable turnover will increase the value of return on assets (ROA). An increase in accounts receivable turnover by 1 percent will increase the company's return on assets (ROA) by 1.073 percent.

The regression coefficient value of the effect of inventory turnover on profitability which is proxied by return on assets (ROA) shows a value of 2.4 31 with a significance value of 0.012 which is less than 0.05 so the inventory turnover variable has a significant effect on profitability which is proxied by return on assets (ROAs). In conclusion, the third hypothesis, namely inventory turnover, has a significant effect on profitability proxied by return on assets (ROA) in Manufacturing Companies Listed on the Indonesia Stock Exchange for the 2017-2020 period is accepted. The sign of the regression coefficient is positive so an increase in inventory turnover will increase the company's return on assets (ROA). An increase in turnover by 1 percent will increase the company's return on assets (ROA) by 2.4-31 percent.

The regression coefficient value of the effect of growth opportunity on profitability which is proxied by return on assets (ROA) shows a value of 0.1 38 with a significance value of 0.370 greater than 0.05 so the growth opportunity variable does not have a significant effect on profitability which is proxied by return on assets (ROA). In conclusion, the fourth hypothesis, namely growth opportunity, has no significant effect on profitability proxied by return on assets (ROA) in Manufacturing Companies Listed on the Indonesia Stock Exchange for the 2017-2020 period is rejected. The sign of the regression coefficient is positive, so an increase in growth opportunity will increase the company's return on assets (ROA) but has a nominal value. An increase in growth opportunity by 1 percent will increase the company's return on assets (ROA) by 0.1-38 percent .

The simultaneous test is used to test whether there is an influence of the independent variables on the dependent variable by using the F test. This test uses  $\alpha$  of 5%. With the provisions, if the significance of Fcount is  $<0.05$ , the proposed hypothesis can be accepted. The test results are as follows:

**Table 11.** Simultaneous Test Results (ANOVA<sup>a</sup>)

	Model	Sum of Squares	df	MeanSquare	F	Sig.
1	Regression	7433,822	4	1858,456	14,022	,000 <sup>b</sup>
	residual	7819,532	59	132,534		
	Total	15253,354	63			

*Dependent Variable: ROA*

*Predictors: (Constant), Growth opportunity, accounts receivable turnover, inventory turnover, cash turnover*

*Source: SPSS-21 output (processed)*

Table 11 shows that a significance level of less than 0.05 is accepted, so it can be said that cash turnover, accounts receivable turnover, inventory turnover and growth opportunities simultaneously (together) influence profitability, with a probability of 0.000. Because the probability is much smaller than the significant value of 0.05, the regression model can be used to predict profitability.

Then test the coefficient of determination (adjusted R<sup>2</sup>). K This test was conducted to determine how much influence the independent variables used in the study, namely cash turnover, accounts

receivable turnover, inventory turnover and growth opportunities. The following are the results of the Coefficient of Determination R<sup>2</sup> test.

**Table 12.** Results of the Coefficient of Determination (R<sup>2</sup>)

Model	R	R Square	Justice R Square	std. Error of the Estimates	Durbin-Watson
1	,698 <sup>a</sup>	,488	,453	11.50679	,658

*Predictors:* (Constant), Growth opportunity, Accounts Receivable Turnover, Inventory Turnover, Cash Turnover

*Dependent Variable:* ROA

*Source:* SPSS Output 21

From the calculation results, the coefficient of determination is 0.453. This shows that the contribution of cash turnover, accounts receivable turnover, inventory turnover and growth opportunity to profitability proxied by return on assets (ROA) is 45.3%, while other variables influence the remaining 54.7% in the study.

## Discussion

### Effect of cash turnover on profitability

The first hypothesis in this study is that cash turnover has a positive and significant effect on profitability proxied by return on assets (ROA). This means that the higher the cash turnover, the more productive the company's cash, so the profitability proxied by the return on assets (ROA) obtained by the company is increasing. This follows the Pecking order theory, which suggests that companies use internal funding sources because they still have adequate internal funding sources such as retained earnings. This is in line with the results of research (Utami & Dewi, 2015; Yanthi & Sudiartha, 2017), showing that cash turnover affects profitability. This is supported by the argument that cash is a component of working capital with the highest level of liquidity. The higher the cash turnover, the higher the company's profitability (Fitri et al., 2016). When offset by an increase in profits, an increase in assets will impact high return on assets (ROA).

### Effect of accounts receivable turnover on profitability

The second hypothesis in this study is that receivables turnover has a positive and significant effect on profitability proxied by return on assets (ROA). This means that the higher the turnover of accounts receivable, the faster and more efficient the company is in turning over its assets, and it also means that the company's opportunity to earn profits is increasing. This is in line with the pecking order theory which tends to use internal funding sources because companies still have adequate internal funding sources such as retained earnings. A high turnover rate means that refunds embedded in receivables are returned quickly. Thus, the risk of non-payment of receivables is small. The return of cash due to the settlement of receivables is very profitable for the company because cash will always be available and can be used again. This is supported by the research results (Hoiriya & Lestariningsih, 2015; Prakoso et al., 2014) showing that accounts receivable turnover affects profitability. This is supported by the argument that receivables arise because companies sell on credit to increase their business volume. Fitri (2016) states that receivables turnover shows the bound period of working capital in receivables where the faster the rotation period indicates the faster the company profits from the sale of these credits so that the company's profitability also increases.

### Effect of inventory turnover on profitability

The third hypothesis in this study is that inventory turnover has a positive and significant effect on profitability proxied by return on assets (ROA). This means that the higher the inventory turnover rate, the higher the turnover rate of funds embedded in the inventory. This means that the amount of inventory in a small company affects the increase in profits. This is in line with the pecking order theory which tends to use internal funding sources because companies still have adequate internal funding sources such as retained earnings. This is in line with the results of research (Dewi, 2014; Utami & Dewi, 2015) showing that inventory turnover affects profitability. This is supported by the argument that the higher the inventory turnover, the costs incurred for maintenance save costs. The smaller the costs borne by the company, the greater the profitability obtained (Fitri et al., 2016).

### Effect of growth opportunity on profitability

The fourth hypothesis in this study is that growth opportunity has a positive effect but does not have a significant value on profitability proxied by return on assets (ROA). This means that the higher the growth opportunity carried out by the company does not have significant the effect on the rate of return on assets for the company's operating activities or the return on assets (ROA) obtained by the company. This is in line with the trade off theory which states that a company will not achieve optimal value if all funding is financed by debt or does not use debt at all in financing company activities. The results of this study do not support research conducted by (Damayanti & Budiyo, 2015; Kopong & Nurzanah, 2016) proving that growth opportunity affects profitability. However, this study supports the results of research (Bintara, 2018; Putra & Badjra, 2015) , namely growth opportunity does not affect profitability. Growth opportunity, calculated using the change in total assets of the company, experienced a decrease in total assets from the previous period, indicating that there is no good company growth resulting in decreased profitability.

### Conclusion

Based on the results of the analysis and testing of the data in this study, the following conclusions can be drawn: 1. Cash turnover has a positive and significant effect on profitability proxied by return on assets (ROA) in manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the period 2013-2016. This means that the higher the cash turnover, the more productive the company's cash, so the profitability proxied by the return on assets (ROA) obtained by the company is increasing. 2. Accounts receivable turnover has a positive and significant effect on profitability proxied by return on assets (ROA) in manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the 2013-2016 period. The higher the rotating receivables, the faster the company is getting faster and more efficient in rotating its assets, meaning that the company's opportunity to earn profits or profitability is getting bigger. 3. Inventory turnover has a positive and significant effect on profitability proxied by return on assets (ROA) in manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the 2013-2016 period. This is because the higher the inventory turnover, the costs incurred for maintenance save costs. The smaller the costs borne by the company, the greater the profitability obtained. 4. Growth opportunity has a positive and insignificant effect on profitability proxied by return on assets (ROA) in manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the 2013-2016 period. Growth opportunity, calculated using the change in total assets of the company, experienced a decrease in total assets from the previous period, indicating that there is no good company growth resulting in decreased profitability.

Based on the results of the discussion that has been put forward, the suggestions that the researcher can give include: 1. For future researchers, the researcher suggests using a longer sampling period, and adding one new variable that is not used in this study. This is important to do so that the research results obtained in the future will be more perfect than this research. 2. For companies, researchers suggest that they always maintain the company's financial performance which includes cash turnover, accounts receivable turnover, inventory turnover, and growth opportunities, because the stability of this performance will achieve the effective use of working capital which greatly affects the company's ability to generate profits. 3. For future researchers, the researcher suggests further researchers expand the scope of their research, namely with a different company, so that different conclusions can be obtained to add insight and knowledge.

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