Advances in civil engineering and sustainable Architecture

ACESA, Vol. 2, No. 1, March 2019, 1–9 publication.petra.ac.id/index.php/ACESA

Financial Performance of Construction, Property, and Trading Companies Based on Working Capital, Liquidity Ratio, and Profitability Ratio

Gracia Gabriella Hindradjaja[1], Januar Budiman[2]

[1]Petra Christian University, Surabaya 60236 Indonesia
[2] Petra Christian University, Surabaya 60236 Indonesia
[a]graciagabriellah@gmail.com, [b]januar@petra.ac.id,

Abstract: An investor needs to do an analysis to choose the best investment. This decision should be carried out with the right calculation and analysis of the company's performance. This research evaluates financial performance of several companies based on their working capital, liquidity, and profitability. Profitability ratio indicates company’s ability to make a profit. Liquidity ratio indicates company’s ability to pay debt in due date condition. Working investment shows that working capital needed by the company. Profitability and liquidity of the company is determined by financial ratio. This research is focused on investigating financial performances of three types of companies, namely construction, developer, and trade industry. The results of the liquidity and profitability ratios show that developer companies has the best liquidity ratio compared to construction and trading companies. The results of calculation of working capital show that construction companies need the minimal working capital than the other companies.

Keyword: liquidity ratio, profitability ratio, financial ratio, working investment, financial performance

1. Introduction

For an investor, it is important to make right decision before investing in a company because an investor always hope to make highest profit and lowest risk in invest. Therefore, every investor needs a properly analyze about the financial performance of the company. Unfortunately, not every investor can make properly analysis because the lack of knowledge to measure the financial performance of the company. This research will use a benchmark to measure the financial performance with financial ratio and working investment.

Halim et all [1] evaluated the performance of construction company. The result shows that poor management of construction companies and not having sufficient capital to run their business can influence the productivity of construction companies. On the other hand, Hamdany [2] evaluated the financial performance of property companies. The result shows that the property demand in Indonesia market tends to decline. This situation of market has forced the property company not to develop the land. Previous research generally refers to one type of industry. In this research, the three company that mostly found in daily life were compared together to study the characteristic of each industry. With the various problems listed above, this research will compare and evaluate the performance of construction, property, and trading company using financial ratio and working investment. The benchmark used to evaluate the performance of companies are working investment and financial ratio.

1.1. Working Investment

Working investment is used to measure the working capital needed by the company for running the business. The value of working investment is determined by several factors: the size of the company, the nature of the company's business, and the credit policy. The formula to calculate working investment is obtained from Eq. 1.

$$\text{Working investment} = \text{Account Receivables} + \text{Inventory} - (\text{Account Payable} + \text{Accrual Expenses}) \tag{1}$$

1.2. Financial Ratio

Financial ratio is a ratio that analyze financial statements to get the expected information. Financial ratio can be divided into liquidity ratio and profitability ratio. According to James and Thomas [3], liquidity ratio can be used to determine the short-term and long-term liquidity of a company or the company's ability to meet its short-term and long-term obligations. Whereas profitability ratio is used to measure income generated by the company.

1.3. Liqudity Ratio

According to Jusuf [4], liquidity ratio is a ratio used to determine the liquidity of a company. Liquidity ratio is able to describe the company's ability to pay its debts. There are three type of liquidity ratio such as:

1. Current Ratio

Current ratio is current asset relative to short term debt. Current ratio shows the ability of current asset to pay short term debt. The formula of current ratio is shown at Eq. 2.

$$\text{Current Ratio} = \text{Current Asset} / \text{Short Term Debt} \tag{2}$$

2. Quick Ratio

Quick ratio is a ratio to measure the ability of a company to meet its current liabilities. Quick ratio calculation is done by subtracting current assets with inventory and compared with current liabilities. The subtraction is due to inventory is an element of current assets that have low liquidity and often experience price fluctuations and cause losses in the event of liquidity. Sawir [5] said that quick ratio is generally considered good, the greater the ratio, the better the condition of the company. The formula of quick ratio is shown at Eq. 3.

$$\text{Quick Ratio} = (\text{Current Asset} - \text{Inventory}) / \text{Short Term Debt} \tag{3}$$

3. Cash Ratio

Cash ratio shows the cash in the company can meet its short-term obligations. Some components in current assets cannot be easily disbursed to meet the current liabilities. The greater the value of the cash ratio, the easier it is for the company to pay its short-term obligations. The formula of cash ratio is shown at Eq. 4.

$$\text{Cash Ratio} = \text{Cash} / \text{Short term Debt} \quad (4)$$

1.4. Profitability Ratio

Profitability ratio is a ratio to measure business ability to generate earnings relative to expenses. This ratio shows the effectiveness of the management to generate profits over a certain period. There are three type of profitability ratio such as:

1. Gross Profit Margin

Gross Profit Margin is a ratio that shows the percentage of profits earned after sales, where sales are the income earned by the company from its main business products. Formulation of Gross profit margin is shown in Eq. 5.

$$\text{Gross Profit Margin Ratio} = \text{Gross profit/ sales} \quad (5)$$

2. Net Profit Margin

Net Profit Margin is a ratio used to measure net profit margin after interest and tax on net sales for a certain period. Formulation of Net Profit Margin is shown in Eq. 6.

$$\text{Net Profit Margin Ratio} = \text{Net Profit/ Sales} \quad (6)$$

3. Return On Equity (ROE)

According to Sawir [5] ROE is the ability of own capital to make profits for shareholders. ROE shows the ability of owner's capital to be invested by the owner or investor to generate net income. Formulation of ROE is shown in Eq. 7.

$$\text{Return On Equity} = \text{Net Profit/ Equity} \quad (7)$$

4. Return On Asset (ROA)

ROA is a form of profitability ratio to measure the company's ability to generate profits using the total assets. Formulation of ROE is shown in Eq. 8.

$$\text{Return On Asset} = \text{Net Profit/ Total Asset} \quad (8)$$

2. Research Methods

This research is a type of descriptive research with a quantitative approach. The location of this data collection was carried out by taking secondary data based on the Indonesia Stock Exchange from 2012 to 2016 (BEI). This data grouping technique used a purposive sample technique. The company's construction companies were selected based on the largest number of assets in 2012. While the sample of developer and trading companies used in this research were the three largest revenue from sales in 2012 and then sorted by the largest number of assets in 2012. The grouping of data consisted on:

a. Industries that move in the Developer, Real Estate and Building Construction sectors. With the company's sub-sector is Building Construction. Companies engaged in the industry are: Adhi Karya (Persero) Tbk., Wijaya Karya Tbk., And PP (Persero) Tbk.

b. Industries that move in the Developer, Real Estate and Building Construction sectors. With the sub-sector of the company are Developer and Real Estate. With the biggest main income the company comes from the residential sector. Companies engaged in the industry are: Agung Podomoro Land Tbk., Ciputra Development Tbk., Summarecon Agung Tbk.
c. The industry that moves in the Trading sector is PT. Hero Supermarket Tbk. PT. Sumber Alfaria Trijaya Tbk. PT. Matahari Department Store Tbk.

After grouping data, data analysis was carried out in this study where the data analysis stage consisted of:
a. Collect financial statement data in the form of balance sheet, income statement, and report on changes in equity for three companies from three types of industries based on criteria
b. Analyzing the calculation of the working capital of the company by using the method of working investment
c. Analyze the profitability and liquidity of the company by using a financial ratio calculation consisting of liquidity ratio and profitability ratio.

3. Result and Discussions

The construction, developer, and trading companies is analyzed separately to shows the working capital characteristic of the companies on each industry. After analyze the working capital of the companies, the companies of each industry is summarized into one company. The summarized companies of each industry is analyzed to shows the characteristic of the industry in liquidity and profitability.

3.1. Working Capital

To analyze working capital of the company, working investment method is used. Working capital of construction industry, developer industry, and trading industry is shown in Figure 1, Figure 2, and Figure 3.

Figure 1 shows that working investment in the construction companies is often negative. The negative working investment shows that the company's liquidity was not good because account receivables and inventories were not able to meet account payable and accrued expenses. In construction companies', account payables consist of debts to suppliers, credit partners, subcontractors, and foremen.

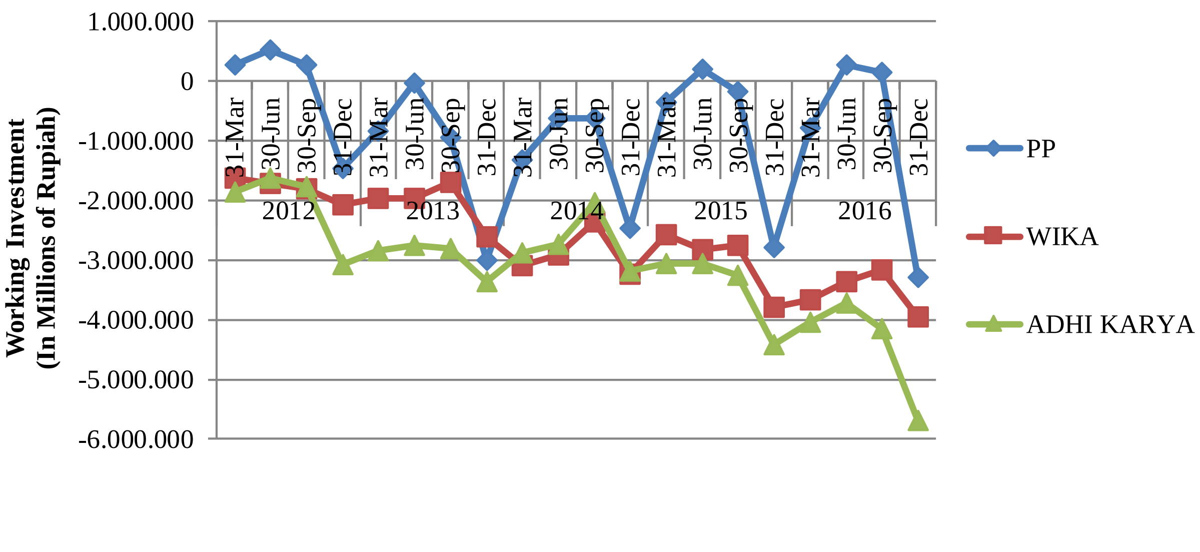

Figure 1. Working Investment of Construction Companies

Figure 2 shows working investment of developer companies along 2012 and 2016 had large positive value. it shows that the developer companies needs large capital to running business. The high working investment of developer companies was due to the large amount of inventory in the developer company. The inventories in developer companies consist of land, land in development, and buildings.

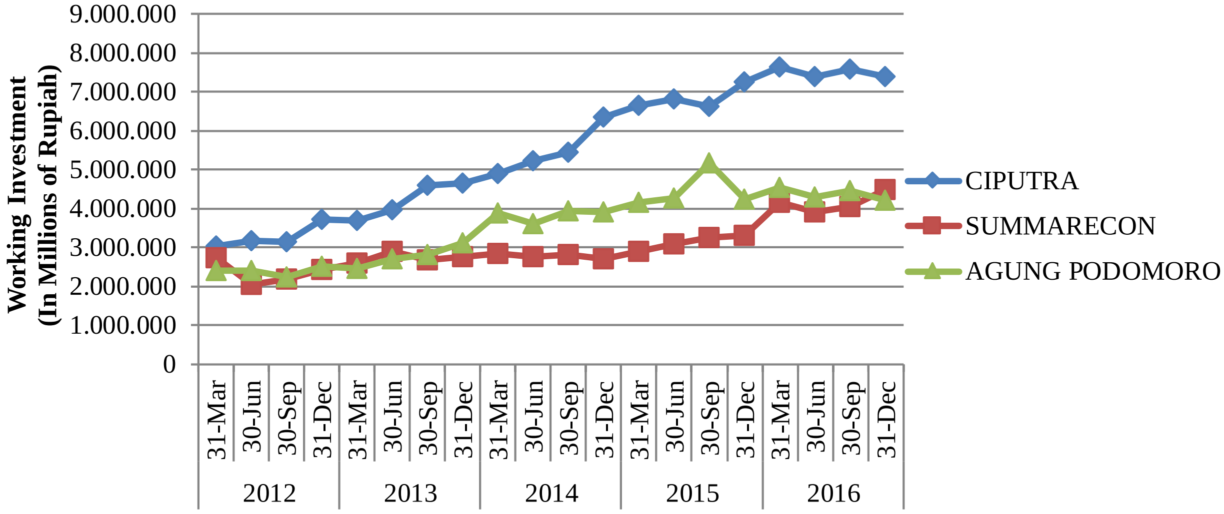

Figure 2. Working Investment of Developer Companies

Figure 3 shows working investment of trading companies along 2012 and 2016. It shows that Hero and Alfamart working investment tend to increase from 2012 to 2016. On the other hand, Matahari working investment tend to be negative. It shows that hero and Alfamart need more capital each year. But Matahari didn't need capital to run the business. This phenomenon is due to Matahari company is a consignment company.

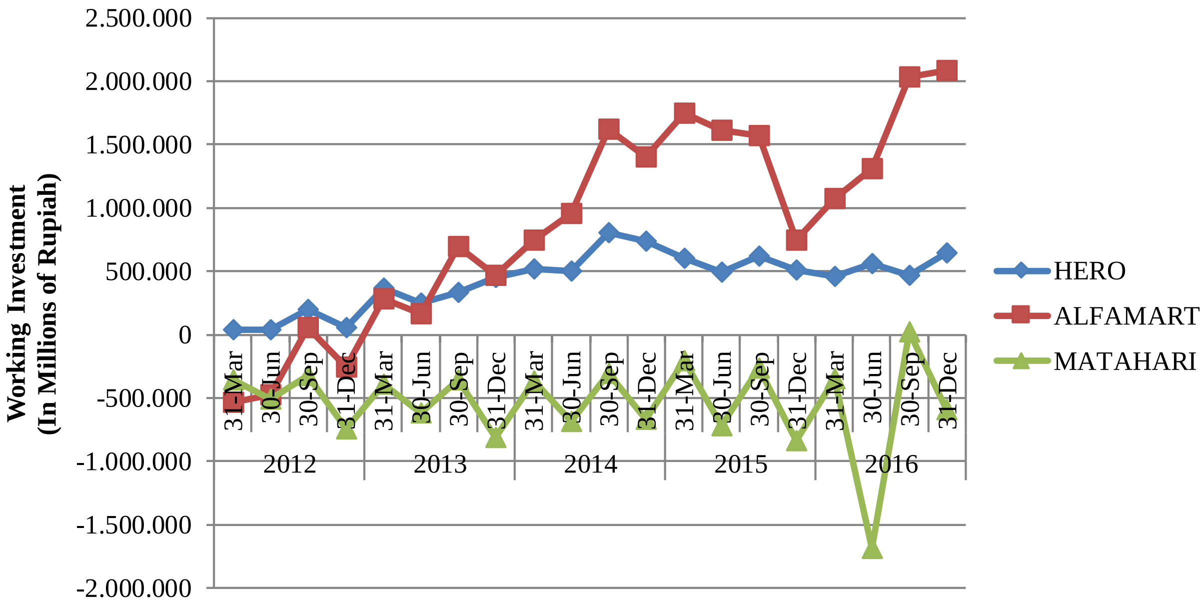

Figure 3. Working Investment Of Trading Companies

3.2. Liqudity Ratio

Liquidity ratio is divided into current ratio, quick ratio, and cash ratio which is shown at Figure 4, Figure 5, and Figure 6.

Figure 4 shows that the developer industries has the highest current ratio compared to construction and trading companies. It shows that the developer companies had the best liquidity in covering its short-term debt in the event of bankruptcy with assumption that the inventory is liquid. Actually developer companies inventory is non-liquid asset because the developer inventory consist of land, and building.

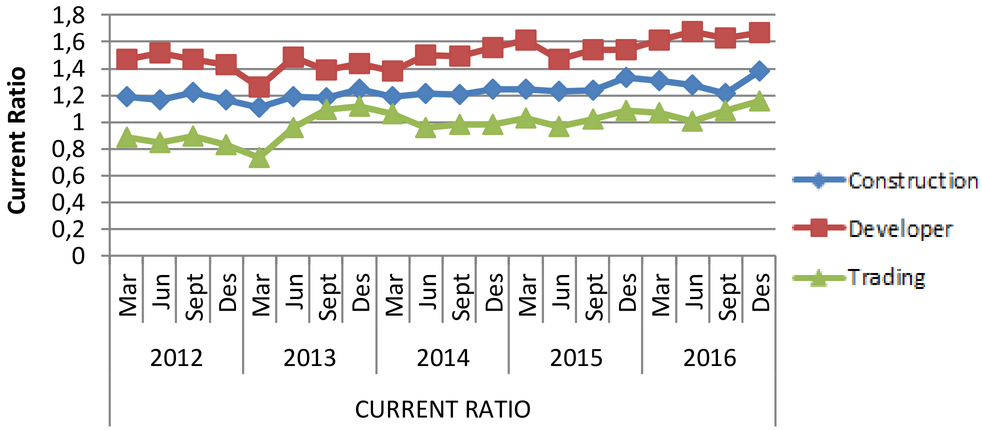

Figure 4. Current Ratio Of Construction, Developer, And Trading Companies

Figure 5 shows that the construction industries has the highest quick ratio compared to developer and trading companies. The different result between quick ratio and current ratio is due to construction companies inventory is small. It means that construction companies had highest liquidity among the three industries.

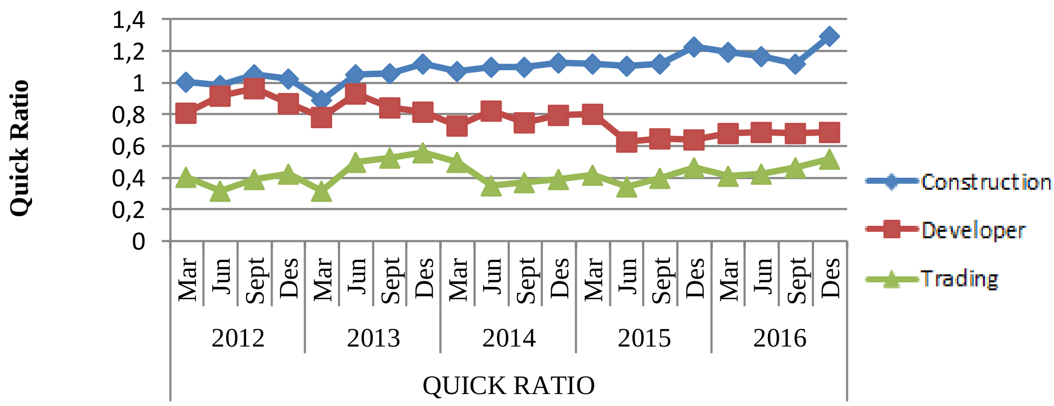

Figure 5. Quick Ratio of Construction, Developer, and Trading Companies

Figure 6 shows that the developer industries has the highest cash ratio compared to construction and trading companies. It means that developer companies had highest cash to pay the short term debt in case of bankruptcy.

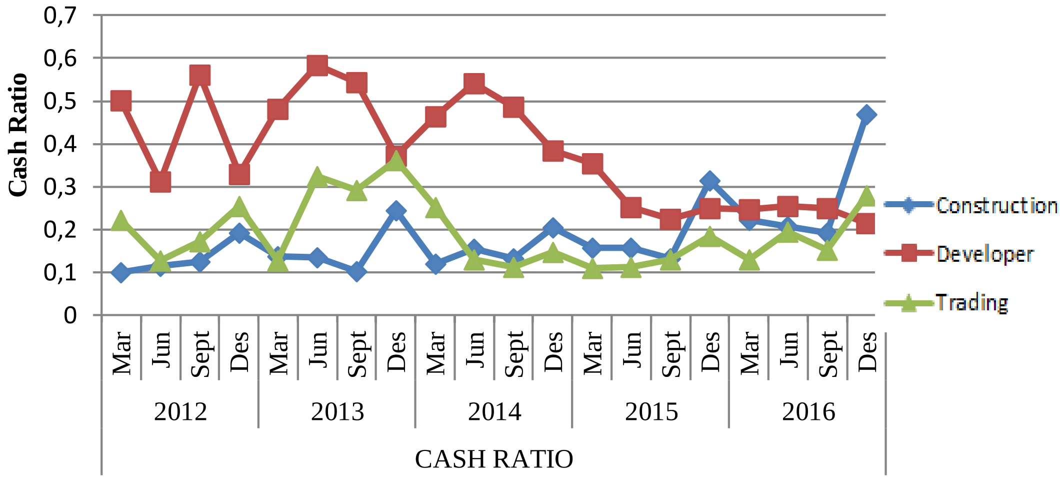

Figure 6. Cash Ratio of Construction, Developer, and Trading Companies

3.3. Profitability Ratio

Profitability ratio is divided into gross profit margin, net profit margin, ROE, and ROA which is shown at Figure 7, Figure 8, Figure 9, and Figure 10.

Figure 7 shows that the construction companies had the smallest gross profit margin compared to trading and developer companies. The gross profit margin ratio describes the profits obtained by the companies without taking operating expenses into.

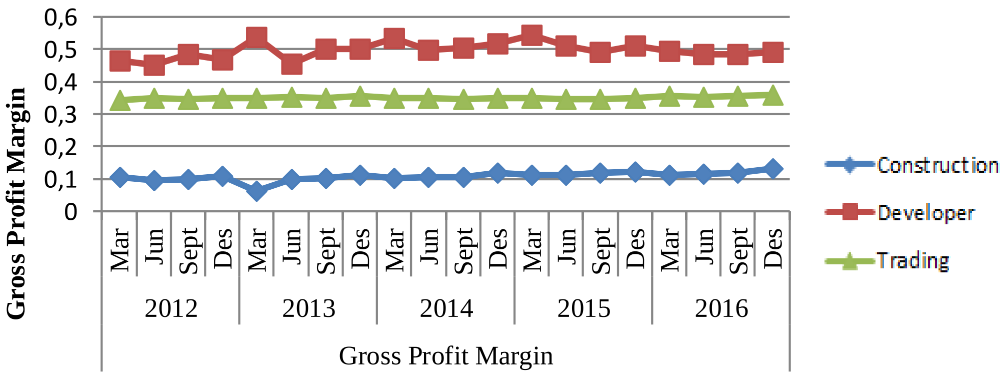

Figure 7. Gross Profit Margin of Construction, Developer, and Trade Company

Figure 8 shows that the construction companies net gross profit margin almost same with trading companies. It shows that trading companies had high operational expenses compare to construction companies. Besides that the construction companies had income from the taxes.

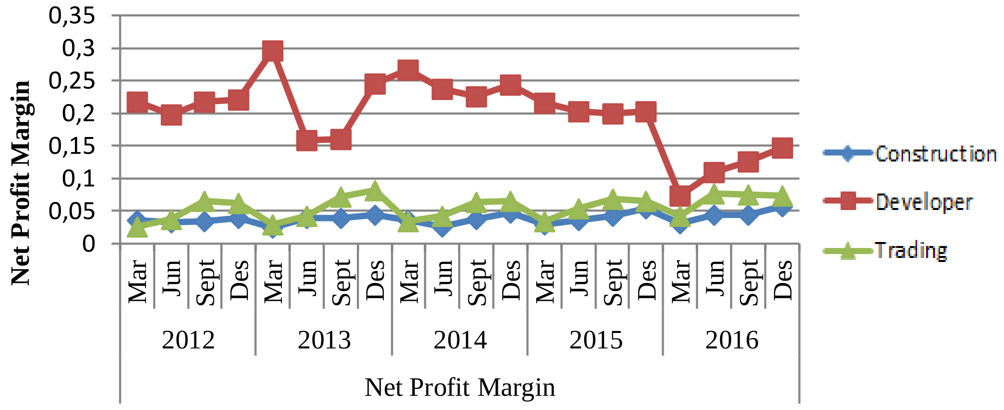

Figure 8. Net Profit Margin of Construction, Developer, and Trade Company

Figure 9 shows that the ROE value of construction companies in 2012 to 2014 was the largest compared to the Developer and Trading companies. But in 2015 to 2016, the developer companies has the highest ROE. Construction industry has the highest ROE due to this industry was funded by liability. The construction industry was mostly funded by short term debt because not having sufficient capital can conclude decreasing on productivity [1].

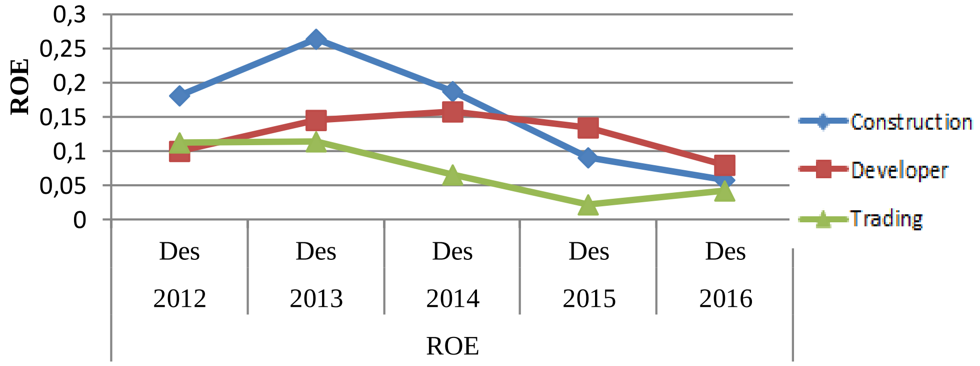

Figure 9. ROE of Construction, Developer, and Trading Company

Figure 10 shows that ROA value of trading companies almost same with developer companies in 2012 and 2013. But in 2014 trading companies experienced a decrease value of ROA due to a decrease of net income. The value of ROA was depend on the size of the company. Hence the bigger ROA value conclude the effectivity of asset in increasing profit.

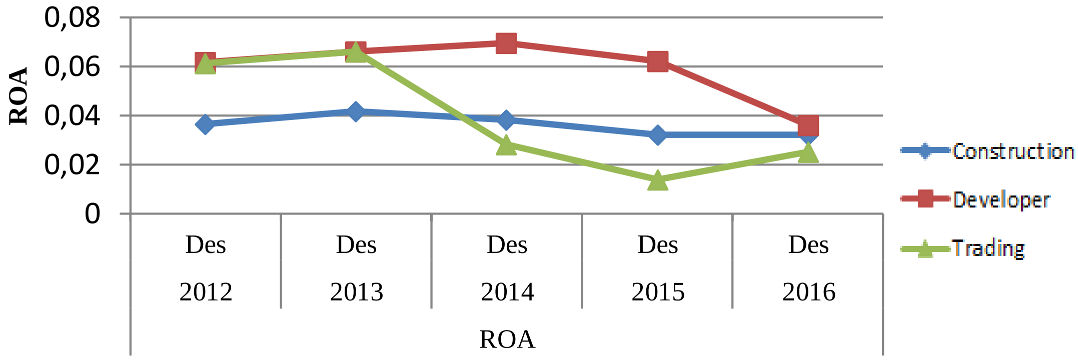

Figure 10. ROA of Construction, Developer, and Trading Company

4. Conclusions

Through this research it can be concluded that each company has different characteristics and ways of working. However, this study puts focus deeper on characteristics of the industry and made judgments about the performance of each industry.

1. Construction companies requires minimal working capital in the business because the construction companies funded by debt.
2. Assessment of liquidity by looking at the liquidity ratio shows that developer companies has the highest liquidity
3. The most profitable companies is the developer companies. Trading companies has high gross profit margin but has high operational and tax expenses.

Reference

1. Babalola Y.A. dan Abiola F.R.. Financial Ratio Analysis of Firms: A Tool for Decision Making. *International Journal of Management Sciences*. 1 (4), 2013, 132-137.
2. Halim, M., S., A., Jaafar, M., Osman, O., Haniff, M., S. Financial Ratio Analysis: An Assessment Of Malaysian Contracting Firms. *Journal of Construction in Developing Countries*, Supp. 1, 2012, 71–78.
3. James, M.,W. and Thomas, S. Company Failure in Construction Industry: A Critical Review And A Future Research Agenda. *FIG Congress*, 2010, *pp 11-16*.
4. Jusuf J. *Analisis Kredit untuk Credit (Account) Officer*. PT. Gramedia Pustaka Utama, Jakarta, 2015.
5. Sawir, A., *Analisis Kinerja Keuangan dan Perencanaan Keuangan Perusahaan*. Gramedia Pustaka Utama, Jakarta, 2005.