

**INTERNATIONAL JOURNAL OF
INNOVATIVE RESEARCH AND KNOWLEDGE**

ISSN-2213-1356

www.ijirk.com

**Management of Working Capital and Financial Performance:
The Case of Vietnam**

Huy Cuong Nguyen

Berlin School of Economics and Laws, Germany

Assoc. Prof. Dr. Van Hung Bui

National Economics University, Vietnam

Assoc. Prof. Dr. Van Tung Vu

Military Academy of Logistics, Vietnam

Huy Hoang Doan

Da-Yeh University, Taiwan

Assoc. Prof. Dr. Manh Dung Tran

National Economics University, Vietnam

Correspondence: Manh Dung Tran

Abstract

This research is conducted for investigating working capital management and financial performance of listed firms on Vietnam Stock Exchange. Data were collected from audited financial statements of 147 listed firms for the period from 2006 to 2014. By calculating financial ratios reflecting management working capital and financial performance, the results show that days sales of inventory (DSI) increase, cash conversion cycle (CCC) raises and firms need more time to have cash flow from business operation. Financial performance of listed firms has been getting lower and lower through time series.

Keywords: Working capital management, Financial Performance, Vietnam

1. Introduction

The topic of working capital and its management in an entity is much interested by stakeholders. In general, working capital is understood as the difference between current assets and current liabilities. However, when looking deeper this concept, working capital is the glossary to measure both liquidity and firms' efficiency. When it comes to the decision making of investment by using financial ratios, working capital plays an important role in the progress of making decision. In addition, a better working capital management could help recovering the financial performance of firms.

By investigating working capital management of a firm, we can know about the ability to meet short-term obligations, the efficiency of credit policies, which are all important in the daily operation of the firm. For instance, to start a business most firms purchase assets including tangible and intangible assets, and the problems together the acquisition is the works after getting the assets. In addition, in order to meet the the objective of profit, an appropriate amount of inputs and outputs is required to keep the work in progress. That is why, cash plays an undeniable role of keeping the business running smoothly. Moreover, the credit policy is also an important part because it determines the amount of receivables a firm needs to collect from clients. In case of having strict credit policy, a firm can collect their receivables faster and avoid having bad debts. However if the credit policy is too strict then a high possibility that volume of sales reduces. In addition, how soon a firm pays back their payables is also a crucial issue in managing working capital, if the firm delays to pay an appropriate amount of time, then the firm can have more resources to make more sales and increase earnings. However if the delay is unacceptable, then it would threaten the stability of the supply since the suppliers do not appreciate when their customers are taking advantage of their capitals for such a long amount of time. Therefore, management of working capital could have impact on firms' profitability through their impact on fulfilling short-term obligations and efficiency of firms.

In order to know exactly what working capital management and financial performance are, we collect data from 147 listed firms on Vietnam Stock Exchange for the period from 2006 to 2014 by comparing the financial ratios relating to working capital management and financial performance. Altman Z Score was applied to observe about the health of the sample in general.

Also, in the research, a quick overall look at Vietnamese economy, to show how struggling it was in Vietnam during the study period. Specifically, the Inflation and the Lending Interest rate were the main focused subjects to have an idea on how the macroeconomic factors could have the effect on firms' performance.

2. Literature Review

Working capital management was found to be positive such as as the study conducted by Asaduzzaman & Chowdhury (2014) in Bangladesh and found that there is a significant relation between working capital management and profitability. Asaduzzaman & Chowdhury used four surrogates to represent working capital management including inventory of number of days, numbers of day's accounts receivables, cash conversion period, and numbers of days accounts payable. Among the four measures, only numbers of days accounts payable showed a negative impact on profitability, the rest all indicated a positive correlation with firms' profitability. Similarly, Osundina (2014) had conducted another empirical study from quoted food and beverages manufacturing firms in Nigeria, and found out that working capital management is a positive relationship with financial performance. Another empirical research from Nigeria, Imeokparia (2015) found a positive relation between working capital management and firms' financial performance. In addition, Akoto et al. (2013) examined the impact level by employing data from Ghanaian firms and the results suggested that working capital management positively associated firms' performance. Moreover, Yegon et al. (2014) found the relationship between working capital management and firms' financial performance.

Adopting the same four proxies of working capital management as prior studies, Javid and Zita (2014) found a negative relation between working capital management and financial performance. Similarly, Yegon et al. (2014) found that in the context of Nigeria working capital management negatively impacted on firms' financial performance.

In addition, Salawu & Alao (2014) found a mixed relation within working capital management and profitability when it comes to each measure of the working capital employed. A mixed result were also revealed in the research of Mawutor (2014) between the four proxies of working capital management and financial performance.

3. Research Methodology

3.1. Data Collection

The data used in this study was taken from the database of Ho Chi Minh City Stock Exchange (HOSE), containing the information about 147 listed firms. The firms belong to 17 sectors (Rubber, High-Tech, Oil, Energy, Tourism, Pharmacy, Education, Mining, Plastic, Manufacturing, Steel, Food, Commerce, Seafood, Transportation, Construction Material, Construction), and no firms from the financial sector are included in the data, since they are different from all the others and have high leverage by nature. In addition, all the firms in the data were required to have audited financial statements from the years 2006 to 2014. The interested items were balance sheet and income statement, which provided the information about Fixed Assets, Total Assets, Short Term Debts, Long Term Debts, Total Debts, Owner's Equity, Net Income, Paid Interests, Net Revenues and Total share outstanding, the stock prices were also collected for the post period of the global financial crisis. The study uses Return on Asset (ROA) and Return on Shareholders' Equity (ROE) to measure financial performance of firms.

Over the period of 9 years from 2006 to 2014, the firms in the sample have been growing with a relatively high Average Growth rate.

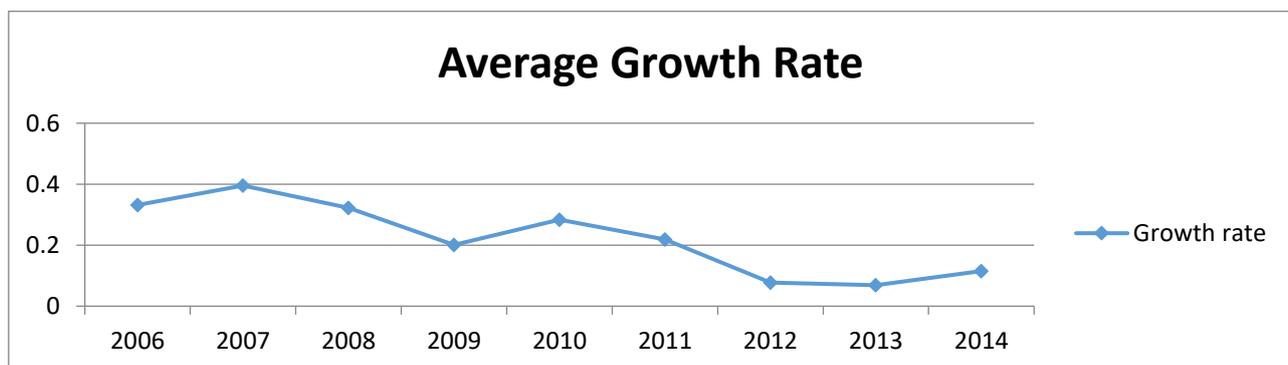


Figure 1: Average Growth Rates of the Sample from 2006 to 2014

The Average Growth rates of the firms in the data sample were indicated by chart II. According to the information showed in Figure 1, the years of 2006 and 2007 had experienced massive expansions for all the firms in the data sample, the Average Growth rates were always at the rate above 30%. However, the years after had been the period of dealing with the outcomes of the global financial crisis. Therefore, the rates had fallen rapidly and hit the rate of 20% in 2009, it came back to almost 30% in 2010 when Vietnam partly overcome the consequences of the global financial crisis. Regrettably, the next 3 years was the period of reducing Growth rate in 2011, 2012, and 2013. The Average Growth rates were suddenly dropped to 21.9% in 2011, and even deeper at 7.8 % in 2012. In 2013, the lowest Average Growth rate had been recorded in the entire period of the study,

it reaches the bottom of 6.9%. In 2014, the Average Growth rate was slightly increased to 11.5%. Overall, through the period of the study, the Average Growth rate for the sample is 22.39%, it is a fairly high growth rate. The reason for the reduction of the growth rate could be up and down before and after the crisis and the firms in the sample have reached to the bigger scale, hence it is hard for them to maintain such a high growth rate as it used to be.

The firms in the sample had been maintaining a relatively high proportion of Equity in their businesses. On average, the sample has an Equity percentage of 52.4% for the entire period. However, the Long Term Liabilities of the sample for the whole period take a really smaller part at 10.2%. These percentages could show that, on average the firms in the sample have conservative balance sheet approach.

Table 1: Average Percentages of Equity and Long-Term Liabilities

Years	2006	2007	2008	2009	2010	2011	2012	2013	2014
Equity	47.33%	55.79%	54.84%	53.03%	53.10%	50.17%	50.20%	49.36%	50.45%
Long term liability	9.58%	8.80%	10.86%	11.04%	11.00%	10.84%	10.05%	9.68%	9.93%

Table 1 indicates the average proportions of Equity and Long-Term Liabilities in the Total Liabilities and Equity of the sample from 2006 to 2014. The figures show that over the period of 9 years, the proportions were not fluctuated significantly. The average percentages of Equity and Long Term Debt ratios were staying around the level of 50% and 10%. Hence, in general the firms in the sample would have their own mix between Debt and Equity and they were not likely to change the mix frequently during the study period.

However, the mix is not completely the same in every industry, some industries in the sample have a more conservative mix. On the other hand, there are a few industries have a very risky mix, considering they are not doing business in the financial sectors.

On the assets side of the sample's balance sheet, Short Term assets take the majority in the structure of total assets at the percentage of 58.4% in average through the period of 9 years. However, the Short Term assets are mainly comprised by inventories (34.2%) and account receivables (24.7%). This would raise a noticeable concern about the operation.

Table 2: Average Short-Term Assets in Total Assets; Average Inventories and Account Receivables in Short Term Assets, 2006 to 2014

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014
STA	61.0%	59.7%	55.8%	56.3%	57.5%	58.8%	57.9%	59.0%	59.6%
INV	32.8%	30.2%	34.9%	31.7%	34.9%	36.8%	36.7%	35.2%	34.8%
AR	27.6%	23.1%	23.5%	23.8%	25.5%	24.4%	25.3%	24.2%	25.0%

Specifically, Table 2 shows the figures of Short Term assets to total assets, inventories to Short Term assets, and account receivables to Short Term assets. All the average percentages for each individual year are pretty close to the average percentages for the whole period. Hence, the way firms operate their system likely to remain the same.

Generally, on average the sample has a relatively high growth rate at 22.39% combining with conservative balance sheet approach with most of the industries choose to have a high proportion of Equity instead of doing leverage. However, the figures show that the majority part of the total assets is Short Term assets, but the fact that inventories and account receivables have significant proportions would raises a question for operational concern or how the firms manage their supply chain.

3.2. Research Approach

For evaluating working capital management, we use Cash Conversion Cycle (CCC), Days Sales of Inventory (DSI), Days of Sales Outstanding (DSO), and Days of Payable Outstanding (DPO).

$$CCC = DSO + DSI - DPO$$

$$DSI = \frac{\text{Inventory}}{\text{Cost of Sales}} \times 365$$

$$DSO = \frac{\text{Account Receivable}}{\text{Total Credit Sales}} \times 365$$

$$DPO = \frac{\text{Account Payable}}{\text{Cost os Sales}} \times 365$$

For evaluating financial performance of listed firm sample, we use Return on Sales (ROS), Return on Assets (ROA), Return on Equity (ROE).

$$ROS = \frac{\text{Operating Profit}}{\text{Net Sales}}$$

$$ROA = \frac{\text{Net Income} + \text{Paid Interests}}{\text{Total Assets}}$$

$$ROE = \frac{\text{Net Income}}{\text{Total Shareholders' Equity}}$$

4. Overview of Vietnam Economy in the Research Period

The data in the study was taken within the period from 2006 to 2014, which can be divided into 3 distinguish timelines. The period before the global financial crisis (2007-2008) hit Vietnam, the period when the economy suffered from the consequences of the crisis, and lastly the post-crisis period. Even though the crisis took place from 2007 to 2008, however it did not come to Vietnam until the year of 2008. So, the first period was the time within the years from 2006 to 2007, the second one was the time from 2008 to 2011, and the last one was from 2012 to 2014.

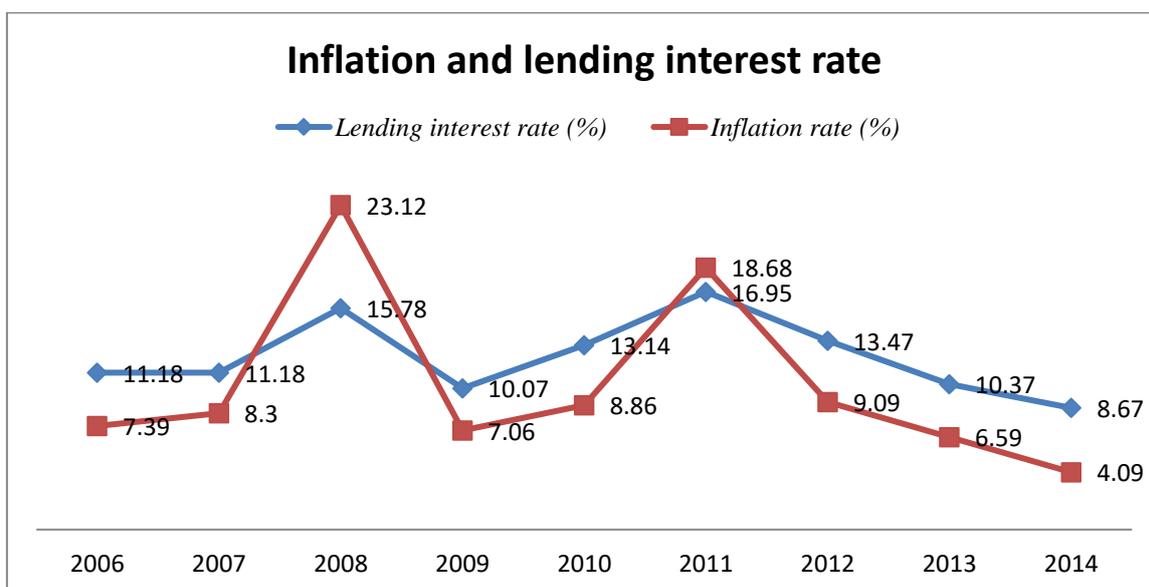


Figure 2: Inflation Rates and Lending Interest Rates of Vietnam, 2006 to 2014

Figure 2 indicates the the Inflation rates and the average Lending Interest rates of commercial banks in Vietnam during the period of the study. For the period before the crisis hit Vietnam, both the Lending Interest rate and Inflation rates were not likely to be fluctuated, the Lending Interest rates stayed at 11.18% and a slight increase in Inflation rate from 7.39% to 8.3%. However the fluctuation appeared when the storm named global financial crisis came to Vietnam, as soon as it stepped foot in Vietnam, the Inflation rate peaked at 23.12% and the average Lending Interest rate followed up at 15.78% in 2008. Though, in the year after, the Inflation rate and the Lending Interest rate were decreased to 7.06% and 10.07% respectively. However, it kept growing up in the next two following years at 8.86% and 18.86% for the Inflation rate, 13.14% and 16.95% for the Lending Interest rate. After that, both the Inflation and Lending Interest rates were rapidly falling down until it reached 4.09% and 8.67% respectively in 2014.

Before the crisis hit Vietnam, the average GDP growth was incredible with the average of 8.1% (2002-2007), it is just a little bit lower than China with 8.8% GDP growth in average, and Vietnam was ranked at 58th biggest economy in the world. On November 2006, Vietnam was accepted to be the 150th member of the World Trade Organization (WTO). However, it is not only receiving the news that Vietnam had been expecting for years, 2006 is also the year Vietnam had experienced massive achievements such as the highest level of increase in export (a growth of 22% in export) or the largest Foreign Direct Investment (FDI) Vietnam had ever achieved until the date. Moreover, the glory period of Vietnamese stock market had started, within a year from only 32 trading firms with the total value of 460 million US dollar, it raised to 92 trading firms with the total value of 8.2 billion US dollar. Everything was a dream for Vietnam at that time, the FDI implementation grew from 2.3 billion US dollar in 2006 to 6.6 billion US dollar in 2007, VN Index jumped from 300 in 2006 to its' peak at 1170 in 2007 (the increase was almost 300% and it was the peak that the market has not seen again). At the time, investors ignored any advises from any experts, they considered the stock market as the money printer. There was no need for checking the health or the future of the trading firms anymore. People just needed to check whether the stock they intended to purchase were trading or not, if they were then they were worth to buy, "anyone who does not put money into the stock market at is totally a fool" was the famous quote among the investors during that time. Therefore, investors were herding without any hesitation creating a huge bubble, which would burst later on. Everyone in Vietnam called this scenario as the golden opportunity for Vietnam. The government was also fancy about the scenario, they established the policies, which was hopefully encouraged the credit growth to increase by 48% to 50% in 2007 compared to 2006 in respective categories. Moreover, they set the goal for GDP growth from 8.5% to 9%. It was not wrong to say that Vietnam looked like a little dragon at that time. However, the majority part of the growth in Vietnamese economy is not the cause on improvement in productivity or innovation, which should be the main reason behind the growth for a healthy economy. Regrettably, the growth was caused mainly by over-consuming physical assets and endowments.

As the results, when the crisis came to Vietnam in 2008 Inflation rate rapidly reached the rate of 23.12%, and as soon as the situation changed, the National Assembly had adjusted the goal of GDP growth to 7%, however GDP only grew by 6.23% at the end of the year. Vietnam had experienced the two major shocks, the first one was the increase in prices of fertilizer, petrol, and steel, which was raised by 94.2%, 53.5% and 45.8% respectively. Unluckily, Vietnam is the country, which export raw material and import completed product therefore the prices in Vietnam increased rapidly. The second one was caused by the one alike to the financial crisis in the US, the stock market felt into chaos the VN index was dropping down crazily, and the real estate market is not exceptional with the fall in prices of 40% in average. As the country with the high incremental capital output ratio (ICOR), during the crisis it fluctuated between the level of 7 and 8. Comparing to only 3 to 4 of Indonesia, Malaysia and Thailand, Vietnam has a rather poor performance in gaining growth.

After that, the government had established the three groups of policies in order to cope with the situation. The first group was the policies to boost up the production, the second was the policies for demand stimulus, and lastly the third group for fiscal and monetary. The policies were efficient, and they helped achieving amazing results. In the next following year, the Inflation rate went down 7.06% and 8.86% in 2009 and 2010 respectively. However, in 2011 Vietnam was placed in a difficult situation again. At that time, Vietnam had the Debt equal 100% GDP if included all the Debt of the state owned firms guaranteed by the government. Moreover, Inflation came back stronger with the rate of 18.68%. The investment share in GDP was only 33%, lower than the planned rate of 40%. Associating with the remaining high interest rate Vietnamese firms had to face many difficulties. As the result GDP only achieved the growth rate of 5.89%, lower than the 6% target. The years after were the efforts of the government to recover the economy to the way it was before the crisis, and with appropriate policies from the center bank the economy had stabilizing year by year. The policies had shown the effectiveness, the Inflation rate in 2012 was reduced to 9.09%, the same went for the Lending Interest rate at 13.47% in average. However, the GDP growth was still not reached the target of 6%, at the end of 2012 GDP growth was only 5.25%. In 2013, recognizing the difficulties that the economy and the Vietnamese firms were facing, the government had extended the length of time small and medium size firms had to pay their income taxes, since the majority parts of businesses in Vietnam come from the small and medium size firms. The positive results were shown at the end of 2013, the average Lending Interest rate had fallen to 10.37%, at some prioritized sectors the Lending Interest rate was in the range between 7% and 9%. At the end of 2013, GDP grew at the rate of 5.42%, the GDP growth rate was set to be 5.5%, however judging the entire scenario, the picture of Vietnamese economy had been improving. In 2014, the Inflation rate had fallen down to 4.09% and the Lending Interest rate jumped down to 8.67%, it became more bearable for Vietnamese firms. In general, at the end of 2014 the outcomes of the crisis had been overcome and the situation was mostly stabilized.

5. Results and Discussion

According to the aforementioned figures, the main obstacle of the firms in the sample would be in the Short Term assets. The ability to sell inventory and receivable could be the weak point of the firms in the sample. Hence, it would be better if there is a closer look at the potential problem.

The day sales of inventory and days of sales outstanding ratios would be appropriate to measure the capital efficiency. However, Cash Conversion Cycle is the ratio that shows the overall look about this angle. Because it expresses the amount of time needed to convert input resources into cash flows.

Table 3: The Cash Conversion Cycle Ratios of the Sample from 2006 to 2014

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014
CCC	108	132	100	109	115	139	151	163	148

Table 3 indicates the Cash Conversion Cycle ratios of the sample for the entire study period. Generally, the average Cash Conversion Cycle ratio increase from 108 days in 2006 to 148 days in 2014. These figures indicate that in 2006, on average the firms in the sample needed only 108 days to make their input resources into cash flows, however it took 148 days on average for the firms to make cash flows from their input resources in 2014. In 2013, it is even worse with 163 days, and 151 days in 2012.

So, what is the main cause for this situation? The inventories or the customers or the suppliers?

Table 4: The Days Sales of Inventory Ratios of the Sample from 2006 to 2014

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014
DSI	98	124	87	97	98	122	129	143	129

From the numbers indicated by *Table 4*, the Days Sales of Inventory ratio raised from 98 days in 2006 to 129 days in 2014. It is a month increased in the time needed for inventories to become sales. The peak was in 2013 when on average, firms in the sample needed 143 days to make sales from inventories.

Table 5: The Day of Sales Outstanding Ratios of the Sample from 2006 to 2014

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014
DSO	63	47	50	53	57	63	65	66	68

According to *Table 5*, the Day of Sales Outstanding ratio was slightly increased from 63 days in 2006 to 68 days in 2014, even it fluctuated significantly during the study period. The figures indicate that on average, the firms in the sample need 63 days to collect their receivables in 2006 and it increased to 68 days in 2014.

Table 6: Days of Payable Outstanding ratios of the Sample from 2006 to 2014

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014
DPO	52	39	36	42	41	46	43	46	49

The Days of Payable Outstanding ratios of the sample from 2006 to 2014 are indicated in *Table 6*. After the huge decrease from 52 days in 2006 to 39 days 2007, it were fluctuated but generally it had the increase trend. Therefore, it went up to 49 days in 2014 but it is still lower than 52 days in 2006. The results indicate that on average in 2006 the firms paid their payables within 52 days, and in 2014 it was 49 days.

Overall, the reason behind the increase of Cash Conversion Cycle is mainly the raise of days sales of inventories. The days of sales outstanding and days of payable outstanding have their own impact on the raise of Cash Conversion Cycle, however their influences are not significant. The increase is a warning point that should be noticed since the length of time the firms need on average to make resources input become sales has jumped to 129 days from 98 days. But, we have to keep in mind that every industry has its own mode of business, so the actual average days sales of inventories are different among industries. For instance, the DSI could be extremely low for tourism industry, but relatively high for construction industry due to their unique characteristics.

The question of profitability is the concern for both managers and investors. For managers, it is how to maximize the owners' wealth, in other word it could be understand as maximizing profit for the firm. As for investors, they want to have high return on their investments. So how profitable is the firms in the data sample?

Table 7: Average Profit Ratios of the Sample from 2006 to 2014

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014
ROS	9.55%	12.44%	8.84%	13.57%	11.73%	9.03%	8.56%	8.09%	7.29%
ROA	11.12%	12.94%	10.50%	12.52%	12.19%	11.24%	9.41%	8.52%	8.00%
ROE	22.72%	22.62%	16.57%	22.28%	18.70%	15.39%	12.62%	12.07%	11.92%

Table 7 shows the ability to earn profit from Sales, Total Assets and Equity through ROS, ROA, and ROE of the sample on average for each year during the period of the study. Overall, there is a reducing trend in the ability of earning profit in all the three measures. In 2006, on average the firms made 9.55%, 11.12%, and 22.72% net income from their net sales, total assets, and Equity respectively. However, it generally decreased through the period of the study, and in 2014 the firms only made on average 7.29%, 8.00%, and 11.92% net income from their net sales, total assets, and Equity respectively. This down trend could be explained by the same reason for the reduction in Average Growth rate. However, on the perspective of investors, the situation looks pretty bad since their return had been becoming lower and lower.

Overall Health of Listed Firms

Firms are created by human, however they have the similar life cycle as every living creature, a firm will disappears one day soon or later, one way or another way. Hence, it is essential to have a tool to diagnose the status of the firm in the near future. Altman Z Score is the amazing solution to predict the likelihood of bankruptcy for the next two year of a firm. Since Vietnam is an emerging market, therefore the Altman Z Score for emerging market should be used, instead of the original formula.

Table 8: Average Altman Z Score of the Sample from 2006 to 2014

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014
Z Score	5.33	6.08	5.54	4.65	4.71	4.40	4.13	4.03	4.35

Table 8 shows the average Altman Z Score of the firms in the sample from 2006 to 2014. Overall the sample has achieved great scores through all the 9 years study period, the results has always been in the safe zone. However, the score has been reducing since 2007 and it is 4.35 in 2014 compared to 5.33 in 2006. The reason for the reduction in score is the decrease in the profitability of the firms in the sample. Even though the average ratio between Equity and Liabilities of the firms in the sample has been remaining high, the sample has become less profitable than they used to be. Moreover, the fact that on average their efficiencies have also been reduced as it is aforementioned should be noticed. Therefore, despite being in the safe zone, the firms in the sample could have some potential problems need to be found and solved before their health fall into the dangerous zone.

6. Conclusion

The overall look about Vietnamese economy shows the difficulty about the unstable of the economy in general and the extremely high fluctuation of lending interest rate in specific. In addition, the quick analysis about listed firms has pointed out a potential problem that the firms in the sample might have about working capital. With the huge increase in DSI, leads to the raise of CCC, the firms in the sample need more time to have cash flow from their business operation. This could also potentially impact the firms' performance. The analysis also indicates that overall the health of the sample in general is at the good condition, however the Z Score had been decreasing generally. Therefore, the working capital should be reviewed in order to find out whether it could be one of the reasons caused the decrease in firms' performance and the increase in the likelihood of having bankruptcy of the firms.

References

- Abor, J. (2005), The effect of capital structure on profitability: an empirical analysis of listed firms in Ghana, *Journal of Risk Finance*, 6, 438-447.
- Albaity, M. S., and Chuan, A. H. S. (2013), Internationalization and Capital Structure: Evidence from Malaysian Manufacturing Firms, *Asian Journal of Finance & Accounting*, 5(2), 329-342.
- Appiadjei, E. A. (2014), Capital Structure and Firm Performance: Evidence from Ghana Stock Exchange, *Research Journal of Finance and Accounting*, 5(16), 37-43.

- Arbabian, A. and Safari, M., (2009), The effects of capital structure and profitability in the listed firms in Tehran Stock Exchange, *Journal of Management Perspective*, 33, 159-175.
- Bradley, M., Jarell, G. A. and Kim, E. H. (1984), On the existence of an Optimal Capital Structure: The Theory and Evidence, *Journal of finance*, 39, 857-880.
- Chakraborty, I. (2010), Capital structure in an emerging stock market: The case of India, *Research in International Business and Finance*, 24, 295-314.
- Chen, J. J. (2004), Determinants of Capital Structure of Chinese Listed Companies, *Journal of Business Research*, 57, 1341-1351.
- Deesomsak, R., Paudyal, K. and Pescetto, G. (2004), The determinants of capital structure: Evidence from the Asia Pacific region, *Journal of Multinational Financial Management*, 14, 387-405.
- Ebaid, I. E. (2009), The impact of capital structure choice on firm performance: empirical evidence from Egypt, *The Journal of Risk Finance*, 10, 477-487.
- Ebimobowei, A., Okay, O. E., Binaebi, B. (2013), Capital Structure and the Operating Performance of Quoted Firms in the Nigerian Stock Exchange, *Research Journal of Finance and Accounting*, 4(5), 6-22.
- Jahan, N. (2014), Determinants of Capital Structure Of Listed Textile Enterprises of Bangladesh, *Research Journal of Finance and Accounting*, 5(20), 11-19.
- Harris, M. and Raviv, A. (1991), The Theory of Capital Structure, *Journal of Finance*, 46, 297–355.
- Holz, C. A. (2002), The Impact of The Liability-Asset Ratio on Profitability in China's Industrial State-Owned Enterprises, *China Economic Review*, 13, 1-26.
- Khanam, F., Nasreen, S., and Pirzada, S. S. (2014), Impact of Capital Structure on Firm's Financial Performance: Evidence from Food Sector of Pakistan, *Research Journal of Finance and Accounting*, 5(11), 93-105.
- Kraus, A. and Litzenberger. R. H. (1973), A State-Preference Model of Optimal Financial Leverage, *Journal of Finance*, 28, 923-931.
- Mahfuzah, S. and Raj, Y. (2013), Capital Structure and Firm Performance: Evidence from Malaysian Listed Companies, *Procedia - Social and Behavioral Sciences*, 65, 156-166.
- Margaritis, D and Psillaki, M. (2010), Capital Structure, Equity Ownership and Firm Performance, *Journal of Banking and Finance*, 34, 621-632.
- Modigliani, F. and Miller, M. H. (1958), The Cost of Capital, Corporate Finance and the Theory of Investment, *American Economic Review*, 48, 261-297.

- Modigliani, F., and Miller, M. H. (1963), Corporate Income Taxes and the Cost of Capital: A Correction, *American Economic Review*, 53, 433-443.
- Pontoh, W. and Ilat, V. (2013), Determinant Capital Structure and Profitability Impact, *Research Journal of Finance and Accounting*, 4(15), 43-49.
- Rajan, R. G., & Zingales, L. (1995), What do we know about capital structure? Some evidence from international data, *Journal of finance*, 50, 1421-1460.
- Saeedi, A. and Mahmoodi I, (2011), Capital Structure and Firm Performance: Evidence from Iranian Companies, *International Research Journal of Finance and Economics*, 70, 21-28.
- Simerly, R. L. and Li, M. (2000), Environmental dynamism, capital structure and performance: a theoretical integration and an empirical test, *Strategic Management Journal*, 21, 31-50.
- Soumadi, M. M., Hayajneh, O. S. (2015), Capital Structure and Corporate Performance: Empirical Study on the Public Jordanian Shareholding Firms Listed in Amman Stock Market, *Research Journal of Finance and Accounting*, 6(4), 1-9.
- Touseef, A. (2014), Impact of Capital Structure on Profitability: An Empirical Analysis of Cement Sector of Pakistan, *Research Journal of Finance and Accounting*, 5(17), 49-54.
- Umar, M., Tanveer, Z., Aslam, S., Sajid, M. (2012), Impact of Capita Structure on Firms' Financial Performance: Evidence from Pakistan, *Research Journal of Finance and Accounting*, 3(9), 1-12.
- Zeitun, R and Tian, G (2007), Capital structure and corporate performance: evidence from Jordan, *Australasian Accounting Business and Finance Journal*, 1, 40-53.