

EFFECTS OF AGGRESSIVE WORKING CAPITAL ON THE PERFORMANCE OF LISTED COMPANIES IN TEHRAN STOCK EXCHANGE

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Abstract

Increase in financial flexibility and create value can be achieved through effective management and working capital efficiency when companies sharply reduce their dependence on external cash and use the existing liquidity for investment and corporate activities more often. Manufacturers can escape from a high rate of working capital by aggressive collecting accounts receivable and delaying payables to suppliers and lowering goods inventory levels. This paper is dealing with the impacts of aggressive working capital approach on the performance of listed companies in Tehran Stock Exchange. To investigate this approach, we tested eight hypotheses. As for this purpose, a total of 106 companies, during the period of 2007 to 2011, were analyzed through a combination of data analysis using Panel Data and Multiple Linear Regression. The results indicate that the aggressive strategy in assets and current liabilities increase return on assets and risk return on assets. The aggressive strategy in assets and current liabilities also increase return on equity and risk return on equity. Findings show the importance of aggressive strategy on firm performance and suggest that these findings can have an impact on decisions of managers and investors.

Key words: Aggressive approach, working capital, returns on assets, returns on equity

Introduction

The economic world is changing rapidly. The rapid technological changes consistent with the increase in global competition make the managers more responsible in their activities. One of the main activities is the management decision-making. This decision-making issue can be seen in quite every aspect of financial affairs and working capital is no exception to this rule. Working capital management is the optimal combination of working capital items; it means current assets and current liabilities should be in such a way that maximize shareholders wealth.

Managers of profit organizations, in different situations, according to external and internal factors of profit organization and also considering the risk and return should select an appropriate strategy for managing working capital in their units. If current assets and current liabilities management strategy are selected in such an appropriate way in a certain opportunity, then it would provide the best strategy to achieve working capital. Working capital is considered as an important item of assets and enterprises which plays a significant role in financial decisions. Quantitative and qualitative

development of business activities is followed by quantitative and qualitative development of financial management realm, and subsequently has sophisticated financial management. Consistent activities of enterprises to a great extent depends on short-term resource management, because operational activities in a normal course, usually annually, is concerned with indentifying working capital and its optimal management, so in this way, the expected results are achieved and the consistent possible activities in long-term is provided (Nikoomaram, Rahnamay Rudposhti, Heybati, 2004).

An optimal level of cash holding in order to pay the debt maturities, and seizing the sudden opportunities for investment, which indicates the resilience of the business unit, and access to raw material for production, so that the company could be able to meet costumers demand, indicates the importance of working capital. Any decision which is made in this section by business unit managers would have severe effects on operational efficiency of business units which ultimately leads to shareholders wealth.

Theoretical Foundations

Babaton & Khadijah (2012), in their study they investigated the impact of aggressive working capital on manufacturing companies in Nigeria. This study was based on the data gathered from 10 manufacturing companies in Nigerian Stock Exchange during 2006 to 2010. They tried to check whether there is any correlation between companies' performance (return on assets, return on equity) and working capital aggressive variables (current assets, total assets and current liabilities, total assets). These correlations were assessed using multiple linear regression statistical analysis tools. Manufacturing companies were selected using sampling. The results show that there is a positive correlation coefficient between return on assets, aggressive current assets and aggressive current liabilities, which both have a negative correlation coefficient with return on equity. Thus, when aggressive current assets are used, return on assets will increase and there will be less risk. But higher risk with lower return occurs when aggressive current liabilities are used. They also concluded that aggressive assets and liabilities decrease the return on equity. Therefore, they have a negative correlation in which risks for aggressive current assets would increase and for aggressive current liabilities would decrease.

San & Arok (2009) investigated the relationship between performance levels of working capital and return on total assets of 49 listed companies in Istanbul in 60 financial periods of 3 months between the periods 1993 to 2007. For data analysis they used data panel and data evaluation methods. The results indicate that return on total assets has a significant negative relationship with current ratio and a positive significant relationship with the level of net working capital, and this shows that if a company reduces working capital, return on total assets would increase. These results also confirm that there is a positive relationship between liquidity risk and profitability in higher levels of current liabilities, and confirm the over risk. Also, there is a negative relationship between return on total assets, daily working capital and cash conversion cycle. When the levels of working capital change in a company according to the amount of daily sales, the cash conversion cycle would be shorter and return on total assets would increase. In other part, the relationship between efficiency of working capital management strategy and return on total assets industrials is analyzed. The sample is examined as follows: electronic goods, 6; cement, 16; nutritive, 6; textiles, 7; and

chemical, 14. The results of industrials are very similar to the results of companies. There are great similarities between industrials and companies regarding to the relationship between the levels of working capital management and return on total assets. Other results show that there is a negative significant relationship between cashing conversion cycle, the level of net working capital, current ratio, debt collection period, inventory conversion period and return on total assets of all the companies in this study.

Zaryawati, Anwar and Abdul Rahim (2009) investigated the impact of working capital management on the performance of listed companies in 6 industries Karachi Stock Exchange between the periods of 1996 to 2006. Panel data was employed and cash conversion cycle was applied as efficiency criterion of working capital management. The results of least squares regression model show that there is a negative significant relationship between cash conversion cycle and profitability of companies. The results also indicate that reducing cash conversion cycle increases profitability. In order to create value for shareholders, managers should focus on shortening the cash conversion cycle to reach the desired level.

Anand & Prakash gupta (2002), investigated the performance of working capital management during 1991 to 2001. In this study, 427 companies were selected as sample. To evaluate the performance of working capital management in companies, cash conversion cycle, operation cycle workflow and movement of capital criteria were applied. The results indicate that the selected criteria, besides being useful for the assessment of working capital management, help the companies with risk and return analysis.

Afza and Nazir (2008) studied a research titled as "Which Strategy is better in Working Capital Management; Aggressive or Conservative?" to investigate 208 listed companies in Karachi Stock Exchange between the periods of 1998 to 2005. The results show that there is a negative relationship between the amounts of profitability and the aggressive investment in current assets and financing policy. If a company applies aggressive policy, rates of return would be negative. With investigating the impact of aggressive policies of current assets on market profitability criteria, which did not investigate before, the results of this study confirm previous results. The Tobin's Q results as the criterion for accounting and production profitability were often the repetition of previous results. In additions, the Carpenter and Johnson (1989) results confirm that they also concluded that there is a significant relationship between companies' aggressive/conservative working capital policies, performance and financial risks.

Lazaridis and Tryfonidis (2006), Teruel and Solano (2007), Ren Chao Wang (2006) investigated the impact of working capital management on profitability and then return on equity. They employed cash conversion cycle to evaluate working capital management and different ratio of profitability such as operating profit, gross operating profit, ratio of return on assets and return on equity, ratio of margin profit and return on investment. The results show that there is a negative significant relationship between cash conversion cycle and making profit, and working capital management has a large impact on company profitability and within this, managers can create value for shareholders, and by shortening the cash conversion cycle profitability would increase.

Talebi (1998), in his doctoral dissertation, studied the evaluation of the current situation of working capital management in Iranian companies. In this study, the

methods and measures that Iranian companies are applied for working capital management are studied and analyzed. Environmental factors that affect companies' liquidity have been well recognized, and finally the effectiveness of working capital management on companies' liquidity has been investigated. Statistical methods were employed for sampling procedures among 50 to 60 companies which were selected randomly. The sample was selected among 14 different industrial Exchange, in which this number is determined corresponding to the number of industrial companies in Exchange and their chances and choices. In this method, besides from questionnaires, SPSS and Cronbach's test questionnaire are used. Final conclusion suggests basic necessity of working capital management companies. Ahmad Khoramnejad (2007) analyzed the working capital management of Pharmaceutical Industry of listed companies in Tehran Stock Exchange base on breaking down the financial and operating policies of companies. In this study, the impact of various factors of environmental and internal of companies has been studied on two components, 1) working capital including net cash; and 2) required working capital. This research, providing the model presented "Separation of Financial Policies of Operating Companies", seeks for the fact that one can not determine whether a company's policy is aggressive or conservative. But also, the company's vision towards operational issues can vary. Financing policies may be aggressive, but not for operating policies. According to the results of this research, we can see the dissociation rate policy. Financing policies of medical companies are generally aggressive and their operating policies are conservative. Base on the results of this research, the remaining net cash, that shows companies' financing policies, is at the lowest extent, and also the required working capital, that shows companies' operating policies, is at such a high extent.

Abzari, Samadi and Teymoori (2005) studied the effective factors on risk and return on investments in financial products. In their point of view, company's management can impress the amount of liquidity by employing various strategies concerning working capital. These strategies are determined by their risk and return ratio. Working capital strategies are divided into two main categories, 1) conservative, and 2) aggressive.

Conservative strategy is that the company tries to maintain liquidity by cash holding and marketable securities. The risk for this strategy is low. Because of relatively high liquidity authority allows the company to adequately prepare the inventory and sell on credit. Hence, the risk of losing costumers is very low. On the other hand, the relatively high liquidity allows them to pay the debt maturities on time and not face the risk of bankruptcy. On the other side, a conservative manager tries to minimize the amount of short-term loans in the company's capital structure that the risk of bankruptcy (failure to timely repay loans or renewals thereof) would be greatly reduced.

The manager who uses aggressive strategy always tries to minimize the cash and marketable securities. If the manager acts aggressively, then he would intend to minimize funds invested in inventory. In this situation, the company should accept the risk of timely payment debt maturities. Such a company may not be able to fulfill costumers' orders, and in this respect, it may suffer some disadvantages (since the lack of sales). On the other side, an aggressive manager tries to maximize the level of short-term loans and to provide its current assets from among these loans. In this case, the risk and the probability that the company could not be able to repay them on time

(bankruptcy risk) would increase. Moreover, when the market is faced with a shortage of money and credit, taking short-term loans is not easily possible and their fees will go up.

Salari S. (2010) in a study entitled as "Evaluation of efficiency relationship of working capital management with return on assets" investigated the following hypothesis:

Hypothesis 1) there is a direct relationship between working capital and return on total assets;

Hypothesis 2) there is a direct relationship between working capital and its profitability.

Hypothesis 3) there is a direct relationship between firm size and profitability.

Hypothesis 4) there is a direct relationship between firm's liquidity and its profitability.

Hypothesis 5) the amount of debt has an inverse relationship with its profitability.

There was a significant relationship between working capital management efficiency and return on total assets of listed companies in 3 industries of automotive, parts manufacturing, chemical and medical on Tehran's Stock Exchange, and also this relationship was significant for automotive, parts manufacturing and chemical industries, while it was meaningless for pharmaceutical industry. There was a significant relationship between working capital management and profitability of listed companies in 3 industries of automotive, parts manufacturing, chemical and medical on Tehran's Stock Exchange and also this relationship was significant for pharmaceutical and chemical industries, while it was meaningless for automotive and parts manufacturing industries.

There was no significant relationship between firm's size and profitability in 3 industries of automotive, parts manufacturing, chemical on Tehran's Stock Exchange, while it was meaningful for each and every industries.

There was no significant relationship between liabilities and profitability of listed companies in 3 industries of automotive, parts manufacturing, chemical and medical on Tehran's Stock Exchange, and also with the same results in chemical and pharmaceutical industries, while it was meaningful for automotive and parts manufacturing industries.

There was a significant relationship between the amounts of liquidity and profitability of listed companies in 3 industries of automotive, parts manufacturing, chemical and medical on Tehran's Stock Exchange and also with the same results in chemical industry. But it was meaningless in automotive and pharmaceutical industries.

Research Hypothesis

After raising question and preliminary studies about possible answers to raised questions, the following hypothesis are formulated:

1. There is a negative effect between return on assets and the ratio of current assets to total assets.
2. There is a positive significant effect between return on assets and the ratio of current liabilities to total assets.
3. There is a negative significant effect between return on equity and the ratio of current assets to total assets.
4. There is positive significant effect between return on equity and the ratio of current liabilities to total assets.
5. There is a negative significant effect between return on assets risk and the ratio of current assets to total assets.

6. There is positive significant effect between return on assets risk and the ratio of current liabilities to total assets.
7. There is a negative significant effect between return on equity risk and the ratio of current assets to total assets.
8. There is positive significant effect between return on equity risk and the ratio of the current liabilities to total assets.

Research Methods

The object of this research is developmental and it's in the area of descriptive-regression kind of research and the required data will be collected from actual data at Tehran Stock Exchange.

The Population

In order to do this research, the listed companies in Tehran Stock exchange are considered as the population and the statistical sample is selected from these companies. The sample is included companies with the following situations:

1. March 19th is the end of financial year;
2. They should be listed on the Stock Exchange before 2008 and their stock prices should be determined by the end of each year between 2008 and 2012;
3. Have a fixed financial year during the period of investigation;
4. Their financial information should be accessible.

The total number of listed companies in Stock Exchange is 468

Companies that their end of financial year is March 19th, 140

Companies that their stock prices are determined between 2008 to 2012, 135

The listed companies before 2008, 135

Have a fixed financial year during the period of investigation, 135

Companies with accessible information, 106

By applying all the above constraints, the sample size is over 106 companies.

Research Model

Return on Regression Model:

$$ROA_{xt} = a + b_1(CA/TA_{xt}) + b_2(CL/TA_{xt}) + e \dots$$

$$ROE_{xt} = a + b_1(CA/TA_{xt}) + b_2(CL/TA_{xt}) + e$$

Risk Regression Model:

$$(3)SDROA_x = a + b_1(CA/TA_{xt}) + b_2(CL/TA_{xt}) + e$$

$$(4)SDROE_x = a + b_1(CA/TA_{xt}) + b_2(CL/TA_{xt}) + e$$

ROA_{xt} = return on assets for x company for the period of t

ROE_{xt} = return on equity for x company for the period of t

CA/TA_{xt} = ratio of current assets to total assets for x company for the period of t

CL/TA_{xt} = ratio of current liabilities to total assets for x company for the period of t

SDROA_x = ROA standard deviation which shows the risk for the x company

SDROE_x = ROE standard deviation which shows the risk for the x company

a = intercept

e = model error

The hypotheses number one and two are applied for model 1. The hypotheses number three and four are applied for model 2. The hypotheses number five and six are applied for model 3. The hypotheses number seven and eight are applied for model 4.

Testing Model 1 for the first and second hypothesis

First Statistical Hypothesis

H0: There is no significant negative effect between return on assets and the ratio of current assets to total assets.

H1: There is a significant negative effect between return on assets and the ratio of current assets to total assets.

Second Statistical Hypothesis

H0: There is no significant positive effect between return on assets and the ratio of current liabilities to total assets.

H1: There is a significant positive effect between return on assets and the ratio of current liabilities to total assets.

After selecting the appropriate model for these data we data process them. The following table shows the value of these data. As we know, in this model ROA is dependant variable and CA/TA and CL/TA are considered as independent variables.

Multivariate linear regression between variables table

Confidence level	Statistics t	SD	coefficient	variable
0.0000	11.14414	0.012577	0.140162	Fixed No.
0.0000	5.758808	0.034519	-0.198790	CA/TA_?
0.0000	-7.406634	0.037428	0.277218	CL/TA_?
0.122458	Mean dependent var		0.484390	R-squared
0.152556	S.D. dependent var		0.379900	Adjusted R-squared
-1.246921	Akaike info criterion		0.120133	S.E. of regression
-0.490378	Schwarz criterion		7.620010	Sum squared resid
-0.953186	Hannan-Quinn criter.		504.5209	Log likelihood
2.052888	Durbin-Watson stat		4.635786	F-statistic
			0.000000	Prob(F-statistic)

As you can see in the above table the coefficient determination for *R-squared* is 0.4843 which is acceptable for integrated models. Also Durbin-Watson stat is 2.05 which show the absence of autocorrelation in error parts or disruption in the model. The Akaike stat is -1.24.

As you can see in the above table, CA/TA and CL/TA variables with the regression coefficients of 0.27 and -0.19 respectively, have direct effect on ROA variable. Therefore, the first and second hypotheses are validated.

First hypothesis: there is no significant negative effect between return on assets and the ratio of current assets to total assets.

Second hypothesis: there is a positive significant effect between return on assets and the ratio of current liabilities to total assets.

$$Y = 0.140 - 0.19CA/TA + 0.27CL/TA$$

Testing Model 2 for the third and fourth hypothesis**Third Statistical Hypothesis**

H0: there is no negative significant effect between return on equity and the ratio of current assets to total assets.

H1: there is a negative significant effect between return on equity and the ratio of current assets to total assets.

Fourth Statistical Hypothesis

H0: there is no positive significant effect between return on equity and the ratio of current liabilities to total assets.

H1: there is a positive significant effect between return on equity and the ratio of current liabilities to total assets.

Multivariate Linear Regression between Variables Table

Confidence level	Statistics t	SD	coefficient	variable
0.0000	8.617190	0.052926	0.456071	Fixed number
0.0271	0.416608	0.122988	-0.451238	CL/TA
0.0243	-1.329075	0.132058	0.175515	CA/TA
Weighted Statistics				
0.295983	Mean dependent var		0.009679	R-squared
0.595292	S.D. dependent var		0.006550	Adjusted R-squared
222.8486	Sum squared resid		0.593339	S.E. of regression
1.954746	Durbin-Watson stat		3.093470	F-statistic
			0.046031	Prob(F-statistic)
Unweighted Statistics				
0.349632	Mean dependent var		0.34562	R-squared
1.832269	Durbin-Watson stat		237.7447	Sum squared resid

As you can see in the above table the coefficient determination for *R-squared* is 0.3456 which is a good value. Also the Durbin-Watson Stat is 1.83 which shows the absence of autocorrelation in error parts or disruption in the model.

As you can see in the above table, CA/TA and CL/TA variables with the regression coefficients of 0.45 and -0.17 respectively, have effect on ROE variable. Therefore, the third and fourth hypotheses are validated.

Third Hypothesis: there is a negative significant effect between return on equity and the ratio of current assets to total assets.

Fourth Hypothesis: there is a positive significant effect between return on equity and the ratio of current liabilities to total assets.

$$Y = .045 - .045CA/TA + 0.17CL/TA$$

Testing Model 3 for the fifth and sixth hypothesis**Fifth Statistical Hypothesis**

H0: there is no negative significant effect between return on assets risk and the ratio of current assets to total assets.

H1: there is a negative significant effect between return on assets risk and the ratio of current assets to total assets.

Sixth Statistical Hypothesis

H0: there is no positive significant effect between return on assets risk and the ratio of current liabilities to total assets.

H1: there is a positive significant effect between return on assets risk and the ratio of current liabilities to total assets.

Multivariate Linear Regression between Variables Table

Confidence level	Statistics t	SD	coefficient	variable
0.0011	3.346646	0.022317	0.074686	fixed No.
0.0228	-1.372757	0.056086	-0.476993	CA/TA
0.0157	1.430020	0.052696	0.375357	CL/TA
0.080761	Mean dependent var		0.421494	R-squared
0.087405	S.D. dependent var		0.002855	Adjusted R-squared
-2.011998	Akaike info criterion		0.087280	S.E. of regression
-1.937494	Schwarz criterion		0.799875	Sum squared resid
-1.981789	Hannan-Quinn criter.		111.6479	Log likelihood
1.983244	Durbin-Watson stat		1.153197	F-statistic
			0.319591	Prob(F-statistic)

After fitting the model we would evaluate the adequacy of the model. Initially, in order to determine whether the autocorrelation is the prob or not, we use residue statements, as the F-statistic in the following table is 0.032 and according to confidence level which is 0.06, we can, therefore, conclude that the assumption of autocorrelation is rejected.

0.9683	Prob. F(2,103)	0.032238	F-statistic
0.9668	Prob. Chi-Square(2)	0.067564	Obs*R-squared

In order to see if there is a variance anisotropy problem we apply ARCH LM testing. The results indicate that, according to the amount of confidence level which is 0.052, the assumption of homogeneity of variance is acceptable.

Heteroskedasticity Test: ARCH

0.8216	Prob. F(1,105)	0.051112	F-statistic
0.8195	Prob. Chi-Square(1)	0.052060	Obs*R-squared

The following table shows the White test for investigating the variance anisotropy, and the F-statistic and the confidence level are less than 0.05 which shows the variance anisotropy. According to the following table it can be seen that the assumption of variance anisotropy is rejected.

Heteroskedasticity Test: White

0.5330	Prob. F(5,102)	0.827456	F-statistic
0.5196	Prob. Chi-Square(5)	4.209891	Obs*R-squared
0.0002	Prob. Chi-Square(5)	24.12925	Scaled explained SS

According to the aforementioned description, the fifth and sixth hypotheses are validated.

Fifth Hypothesis: there is a negative significant effect between return on assets risk and the ratio of current assets to total assets.

Sixth Hypothesis: there is a positive significant effect between return on assets risk and the ratio of current liabilities to total assets.

$$Y=0.07-0.47CA/TA+0.37CL/TA$$

Testing Model 4 for the seventh and eighth hypothesis

Seventh Statistical Hypothesis

H0: there is no negative significant effect between return on equity risk and the ratio of current assets to total assets.

H1: there is a negative significant effect between return on equity risk and the ratio of current assets to total assets.

Eighth Statistical Hypothesis

H0: there is no positive significant effect between return on equity risk and the ratio of current liabilities to total assets.

H1: there is a positive significant effect between return on equity risk and the ratio of current liabilities to total assets.

Multivariate Linear Regression between Variables Table

Confidence level	Statistics t	SD	coefficient	variable
0.0096	2.637734	0.118031	0.311335	Fixed No.
0.0255	-2.266292	0.278706	-0.631630	CA/TA
0.0058	2.817767	0.296635	0.835848	CL/TA
0.345705	Mean dependent var		0.071533	R-squared
0.474573	S.D. dependent var		0.053848	Adjusted R-squared
1.319231	Akaike info criterion		0.461619	S.E. of regression
1.393734	Schwarz criterion		22.37467	Sum squared resid
1.349439	Hannan-Quinn criter.		-68.23846	Log likelihood
2.117146	Durbin-Watson stat		4.044843	F-statistic
			0.020311	Prob(F-statistic)

After fitting the model we would evaluate the adequacy of the model. Initially, in order to determine whether the autocorrelation is the prob or not, we use residue statements, as the F-statistic in the following table is 0.265 and according to confidence level which is 0.76, we can, therefore, conclude that the assumption of autocorrelation is rejected.

Breusch-Godfrey Serial Correlation LM Test:

0.7674	Prob. F(2,103)	0.265385	F-statistic
0.7582	Prob. Chi-Square(2)	0.553683	Obs*R-squared

In order to see if there is a variance anisotropy problem we apply ARCH LM testing. The results indicate that, according to the amount of confidence level which is 0.158, the assumption of homogeneity of variance is acceptable.

Heteroskedasticity Test: ARCH

0.6936	Prob. F(1,105)	0.156047	F-statistic
0.6903	Prob. Chi-Square(1)	0.158783	Obs*R-squared

The following table shows the White test for investigating the variance anisotropy, and the F-statistic and the confidence level are less than 0.05 which shows the variance anisotropy. According to the following table it can be seen that the assumption of variance anisotropy is rejected.

Heteroskedasticity Test: White

0.5330	Prob. F(5,102)	0.827456	F-statistic
0.5196	Prob. Chi-Square(5)	4.209891	Obs*R-squared
0.0002	Prob. Chi-Square(5)	24.12925	Scaled explained SS

According to the aforementioned description, the seventh and eighth hypotheses are validated.

Seventh hypothesis: there is a negative significant effect between return on equity risk and the ratio of current assets to total assets.

Eighth hypothesis: there is a positive significant effect between return on equity risk and the ratio of current liabilities to total assets.

$$Y=0.311-0.63CA/TA+0.83CL/TA$$

Conclusion

The results of this study show the direct impact of working capital aggressive strategies of current assets and liabilities on return on assets and equity, and also show the direct impact of working capital aggressive strategies of current assets and liabilities on return on assets and equity risks. Working capital aggressive strategies of current assets and liabilities increase return on assets and equity and also increase return on assets and equity risks. The results of this study have the same results as Babatond and Khadijah (2012) study. Babatond and Khadijah also came to the same conclusion that when companies apply aggressive current assets and liabilities, return on assets and equity will increase. Also they figured out that aggressive assets and liabilities would increase companies' risks. Also the outcome of this study is consistent with the outcome of Aviar (2009) which investigates the relationship between working capital components and performance, and also this study is in line with AFza and Nazir studies in which they found a positive relationship between companies' return on assets risk and the rate of working capital aggressiveness and investment policies.

Suggestions for Future Research

Researchers who are interested to research in this area are recommended to consider the followings:

1. Effect of other methods of working capital (conservative and moderate) on the performance of the listed companies
2. Comparison of various methods of working capital on the performance of the listed companies
3. Effects of aggressive working capital on firm performance in Powerball
4. Considering that our sample includes 100 companies which are listed in the Exchange, it can be generalized for all the companies on Stock.
5. Studying the impact of aggressive working capital on firm performance of listed companies base on industries

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