IJASRM
International Journal of Advanced Scientific Research and Management, Vol. 1 Issue 5, May 2016.
www.ijasrm.com
ISSN 2455-6378

Impact of Working Capital Management on Firm Financial Performance: An Empirical Evidence from Non-Financial Sector of Pakistan

Mula Nazar Khan[1], Sufyan Rasheed[2] , Hafiz Ishtiaq Ahmed[3] and Muhammad Rizwan[4]

[1,2,3,4] Hailey College of Commerce, University of the Punjab,
Lahore, Pakistan

Abstract

The main objective of this research paper is to investigate the impact of working capital management on firm financial performance. The panel data for the period of five years from 2011-2015 have been taken form 38 listed firms of non-financial sector of Pakistan. Pooled OLS technique which is commonly used for panel data to measure the dynamics of change over the time period have been used for data analysis. Three financial performance measures of the firms namely gross profit margin, return on assets and return on equity used in the current study have been taken from prior literature. Explanatory variables taken are average age of inventory, average collection period and average payment period along with three control variables that is firm size, leverage and age of the firm. Three models with three dependent and same explanatory and control variables have been developed and analyzed. Empirical findings of all the models were found to be in consistent with the prior investigations. In a nutshell, the results of the study have revealed that working capital management has significant impact on financial performance of the firms.

Keywords: *Working capital, Gross profit margin,Rreturn on asset, Return on equity*

1. Introduction

Working capital management is a core topic of corporate finance. Corporate finance basically consider long term financial decisions of the company in order to maximize the wealth of the shareholders. Maximization of the wealth is the prime objective of the firm. Many researchers have conducted studies on the topics such dividend policy of the firm, capital structure, leverage and many more. Most of the topics consider the long term financial performance of the firm and ignore the most important short term performance which comprises major portion of the balance sheet of the firm. The current study is on working capital management which specifically focusses on the financial performance of the firms considering short term resources with maturity of less than a year. The study has been conducted on the non-financial sector because the current assets of the non-financial firm constitute about 70% of its total assets and current liabilities are more than 50 % of the total liabilities. Considering these facts, this topic become very important specifically for non-financial sector of Pakistan. It acts as a tradeoff between firm's financial performance and risk. The decisions of increasing profitability will increase the risk and vice versa.

Gitman (1974) advocated that cash conversion cycle was much important component in the working capital management of the firm. Cash conversion cycle is the period within which credit sales occurs and account receivables are collected from the debtors. Average collection period have been used as explanatory variable in as a proxy of working capital management. The major portion of the large companies is represented by current assets and there is a large portion of current liabilities in its balance sheet.

Sometime short term liabilities play vital role when long term financing is difficult in the capital markets (Petersen & Rajan, 1997)

The net value of the firm is equal to the difference of the total assets and total liabilities. The net value is equal to the shareholders equity. The assets, liabilities and equity of the firm are calculated at their historical cost. The financial statements are prepared by the companies according to Generally Accepted Accounting Principle (GAAP) and rules of security and Exchange Commission (SECP) are also considered.

The objective of this research paper is to investigate the impact of working capital management on firm financial performance. The panel data for the period of five years from 2011-2015 have been taken form 38 listed firms of non-financial sector of Pakistan. Very little research have been done on this topic in Pakistan specifically in the non-financial sector. Nazir and Afza (2009) conducted such type of study by taking 204 non-financial companies listed in Karachi Stock Exchange for the period of 1998-2005. The results of the study revealed that working capital management policies play important role in the determination of the financial performance of the firm. Recommendation for the managers were made to adopt conservative polices for better financial performance. The current study is up to date and fills the gap of time and pooled OLS technique for data analysis have been used for measuring the dynamics of change.

2. Literature Review

Corporate finance is generally involved in making financial decisions relating to assets and liabilities. Both short and long term financing and investment decisions are considered. Working capital is the amount of current assets in excess of current liabilities. Working capital management mainly focus on the short term decisions pertaining working capital of the firm. The manager of the firm have to decide how much working capital is optimal for the financial health of the firm. A small amount of working capital may increase profitability but on the other hand can cause problems in meeting short liabilities. A very large amount of working capital may decrease the profit margin of the firm. So managers have to decide an optimal state of working capital.

The researchers considering the importance of working capital management have conducted lot of studies and recommended it as a financial survival of the firm. Major portion of the cash conversion cycle enhance and boost up the sales which leads to higher profit margin and better performance of the firm. Inventory is the main component of the cash conversion cycle which also requires due attention to keep at a balanced level (Kieschnick, Laplante, & Moussawi, 2013).

According to Blinder and Maccini (1991), major business failures incur due to mismanagement of the working capital. Sales can be enhanced giving relax terms and conditions of trade credit to the customers (Juan García-Teruel & Martinez-Solano, 2007). Trade credit policies should be lenient so that the customers may have confidence in the quality of the products and services and to retain the customer for longer times (Mathuva, 2009). The retained and loyal customers will buy your products and services when demand is low (Mehmet & Eda, 2009). Firms may also get early payment discounts by properly managing its payment system (Deloof, 2003; Sharma & Kumar, 2011). Gitman (1974), Deloof (2003) and Sharma and Kumar (2011) have conducted investigation on the management of working capital and used cash conversion cycle as measurement tool. Many of the researchers used gross profit margin, return on assets and return on liabilities as the proxies to measure financial performance of the firm. The researchers measured working capital management using average age of inventory, average collection period and average payment period. It is advisable to take some variables as control variables. Most commonly taken control variables are firm size, leverage and age of the firm.

2.1. Inventory

Inventory is the part of current assets which is available in the form of raw material, work in process or finished goods. Inventory may be used in the production process and it can also be sold to the customers. The average number of days a company hold its stock is determined by the availability of inventory. The inventory management also becomes very challenging in the multinational business as compared to local firms. Inventory should be managed by adopting suitable and compatible technique in order to reduce storing cost and without losing customers.

Average age of inventory is taken as important measure for inventory. It tell us the average number of days a stock is held by the companies. This time period of inventory storage should not be very large meaning that you have invested more capital in the inventory which may also cause storing costs. If there is large

size of inventory then there should be very relax credit policy in order to enhance sales. The customers also become aware of the quality of the product or service before paying for it. (Davenport, De Long, & Beers, 1998; Deloof, 2003). Granting customers generous credit terms may prove cheaper source of financing to them making them loyal to the company (Lazaridis & Tryfonidis, 2006). Efficient management of inventory can earn larger financial benefits to the businesses such as increasing cash flow, decreasing spending, decreasing storage cost and many more.

2.2. Account Receivable

Money due is characterized as the clients who are not yet installment for merchandise or administration, with the organizations has performed. The fundamental point of account holder administration is to lessen the time laps between fulfillment of offers and accepting of installment (Akoto, Awunyo-Vitor, & Angmor, 2013). On the off chance that you pose some question to budgetary chiefs whether they like to offer their merchandise as money or using a loan, you would anticipate that them will reaction by saying something, for example, this if deals execution are not influenced, by giving more inclination to money deals since installment is snappy and certain and due to fetched allowing credit and adjust record of sale would be done. The perfect circumstance is that for the most part firms would like to offer for money as it were Normal accumulation period figure of the normal size of time it takes client to pay off their credit buys. As indicated by Juan García-Teruel and Martinez-Solano (2007), no of days record receivable is measures as (record receivable/sales)*365. This variable demonstrates the normal no of days that the firm takes to get installment from its client, the bigger the quality, the bigger its interest in record receivable. Firms would, as a rule, preferably offer for money than on record, however focused weights compel most organizations to offer credit. Receivable administration begins with the choice of regardless of whether to allow credit (Deloof, 2003).

2.3. Return on Assets

Creditor liability is characterizing as the supplier whose installment for merchandise or administrations have been prepared yet who have not yet been paid. The announcement about the expense and hazard of current credit versus long haul obligation depend, to a vast degree, on the type of fleeting advance that initially is use transient acknowledge measures as any advance for installment inside of one year. Acknowledge enhances for the most part as an organizations operation expanded. As indicated by Davenport et al. (1998) the no of days record payable mirrors the normal time it conveys firms to pay their supplier. This was measured as record (payable/purchase)*365. The bigger the worth the higher firms take to keep up their installment duty to their supplier. Deferring installments to suppliers permits a firm to achieve the nature of the items spending plan and can be less expensive and adaptable wellsprings of financing for the organizations. Deferring installment of invoices can be extremely costly if the firm is offered a markdown for early installment. In a 2001 study by the foundation for credit administration of the Vlerick Leuven Ghent School for administration of exchange credit approaches of Belgian organizations, it was demonstrated that the middle Belgian organizations offered a 2/10n30 rebate for rapidly installments. Fisman and Love (2001) exhibit that exchange loan bosses lessen powerless bank insurance and blemished data superior to anything formal loan specialists and find that firms in nations with low created money related markets use casual credit gave by their supplier to back development. Creditor liability or exchange credit is the most elevated single sort of short term obligation, showing around 40 percent of the present liabilities of the normal non - monetary firms. Exchange credit is an unconstrained wellspring of financing as in it expands structure customary business exchange (A. Gill, Biger, & Mathur, 2010).

2.4. Return on equity

The measure of net pay is returned as a rate of shareholder value. Return on value ascertains an organizations benefit by examining that the amount of benefit an organization accomplish with the cash of shareholder have contributed. On the premise of this the arrival on value is the most essential proportion. Return on value research that the amount of increase an organization earned in contrast with the aggregate sum of shareholder value that appear on the accounting report (Baños-Caballero, García-Teruel, & Martínez-Solano, 2014). Shareholder value is establishment of bookkeeping that demonstrates the benefits which is created by the held gaining of the business and the paid up capital of the proprietors. Each organizations it is possible that it is benefit situated or not is worried with its primary goals. A standout amongst the most usable apparatuses of money related proportion is gainfulness proportion which is utilized to decide either the

organization is on main concern. Gainfulness ascertains the imperative to firm managers and proprietors alike. On the off chance that a little business has outside the financial specialists who have put their own cash into the firm, the main proprietor needs to demonstrate the productivity to those value speculators. Return on value figures as the proportion of net benefit after expenses to stockholder value. The normal come back to the total securities exchange is extremely imperative segment in the choice of both single financial specialist and corporate speculator, as accentuated by Deloof (2003). Net pay is utilized to full monetary year after charges and favored stock profit however past basic stock profit. Shareholder value does exclude in favored stock since it is utilized as a yearly. Return on value diverse crosswise over various commercial enterprises. So that why it is show to look at that arrival on value against firms past values or profit for of comparative firms. A few commercial ventures have expansive profit for value and some have low profit for value it is rely on upon the way of firms it is possible that it is substantial industry or little. It is show that the organizations with a substantial profit for value ratio are better speculation that the lower proportion. By and large, the organizations which are less capital serious and with a little profit for value have low rivalry. However, the organizations which are huge profit for value and having exceptionally extreme competition with each other in light of the fact that their arrival on value huge so that why(Ding, Guariglia, & Knight, 2013).

2.5. Gross profit

The working overall revenue apportion demonstrates that the amount of addition procure an organization in the wake of paying for variable expense of creation for instance compensation, crude material, and so forth it is show as a rate of deals and demonstrate the proficiency of an organizations by controlling the expenses and cost which is connected with the organizations operation (Ding et al., 2013). Besides, it is the benefit accomplished structure the operation and we are exclude one of a kind or one time exchange. This term is utilized to clarify that benefit edge proportions incorporate working benefit, working salary or profit for deals. Gross benefit that ascertain the gain and we utilized this variable as needy variable. This variable is measure as the business short cost of merchandise sold, and separated by aggregate resources. Net benefit measure that the amount of sum earned by the organizations. A low overall revenue show that bigger danger decline in deals will lessen benefit and toward the end in a net misfortune. Net overall revenue give the data to the organizations evaluating arrangements that cost structure and creation proficiency. Diverse item blends systems use on the grounds that the net overall revenue to various among various organizations. Net overall revenue is showing that how proficient an organizations is and how it well control its expenses. The bigger the edge is the more viable the organizations are in changing over salary into genuine gaining (Baños-Caballero et al., 2014). Net revenue is generally used to firms think about cost after some time. To look at the net revenue between firms in the same business may have low significance. That not impact by the organizations that it is not proficient than other organization. The working net revenue gives the opportunity that the entrepreneur a ton of vital data about the organization gainfulness, so especially as to control cost. It show that the amount of money is thrown off after a large portion of the cost are accomplish. A huge overall revenue implies that the organizations has great cost control as well as that deals are enhancing quicker than expenses, which is the ideal circumstance for the organizations. Working pay will be a considerable measure of decrease than the gross benefit since offering, managerial, and different costs are incorporated alongside the expense of products (A. S. Gill & Biger, 2013).

2.6. Size of the firm

Size was figured as the logarithm of benefits. A. S. Gill and Biger (2013) showed that the working capital necessity has extraordinarily influences on size of firms. This is might be because of expense of stores which is put resources into fleeting resources diminish with the span of firms, as low level organizations have extensive data asymmetries (Akoto et al., 2013), high level data power as notified by Davenport et al. (1998) and that are not embraced by analysis. On the off chance that we see the tradeoff hypothesis, they have a high rate of insolvency, since firms have a tendency to be more expanded and less odds of disappointment. Which is influence on exchange credit in truth, in light of the fact that to Fisman and Love (2001) and Deloof (2003), organizations have great capital market which enhance exchange credit. In genuine normal firm size emphatically influenced the exchange credit progressing. Akinlo and Olufisayo (2011) showed that smaller firms have bigger monetary issues, which likewise can enhance their exchange credit got, on the grounds that they utilize that sort of credit when different structures are not accessible Fisman and Love

(2001) or had as of now been depleted (Deloof, 2003). Specifically the expense of assets put resources into current resource is low in lower firms so that why they have might bring down record receivable and inventories. Also, these sorts of firms use higher credit from their supplier. It is assessed that, as in past examination, size will affect the association's execution. This component is ascertained by the variable size characterized as the common logarithm of advantages.

2.7. Leverage

Influence is critical variable which I utilized as a part of this exploration for the reason to watch that the amount of obligation use and the amount of firm outer fund firm utilize. There is numerous ways that organizations accomplish influence by utilizing getting store, purchasing the settled resource and the most usage of subordinates (Akinlo & Olufisayo, 2011). In any estimation of proportion that is use in the measure of budgetary influence of any organization can accomplish the monetary commitment of the organizations. There are a few distinctive proportions, yet the main consideration sees at incorporate obligation, value, resources and interest costs. There is numerous inquiries about have been done on this field yet there is gap in Pakistan so I need to check the effect of influence of firms benefits for organizations that are use advance high may confront huge issues, for example, liquidation. In any case, the low levered firm not confronts that sort of issue and keeps up their presence. Then again the asset that are put resources into working capital administration with more influence on the grounds that as per hypotheses, they have a bigger danger premium. The early investigates demonstrate that the organizations working capital administration increment the influence (Kieschnick et al., 2013). So that is the reason it is anything but difficult to check the relationship among the influence and working capital administration. Influence was ascertained utilizing the proportion of obligation to all out resources.

2.8. Age of the firm

This variable is imperative for age of the firm which is incorporated and connect with the firm financing and credit. Age of the organizations use the as a key when the client are known and about the goodwill and nature of the organizations (Deloof, 2003) in that variable we likewise concentrate on the credit value to supplier of debt. As well with respect to the measure of the relationship in the middle of supplier and client of the organizations Ahmed Sheikh and Wang (2013) and their financial soundness is essential for the obligation and value. Deloof (2003) examined about the age of the firm that demonstrate a positive effect on the working capital necessities, and this may appeared by the way that emphasis on the more established firms that can concentrate on outside financing which are in the great condition, so that is the reason the assets that are put resources into that part is low in these organizations (Fisman & Love, 2001).

3. Research Methodology

In this section there are three parts discussed. In the first part description of the companies and data type have been explained. In the second part all the variables have been explained. In the last part, there is discussion on research model used in the study.

3.1. Data collection

In this study the impact of working capital on firm financial performance have been investigated, The data have been collected from Pakistan Stock Exchange for the period of five years from 2011-2015. The sector for which balanced panel data have been collected is non-financial sector of Pakistan. Annual reports of the selected 38 firms was downloaded and retrieved data there from. All the listed companies prepare their financial statements annually according to International Financial Reporting Standards (IFRS) and companies ordinance 1984. The non-financial sector constitute a lot in the economy of Pakistan and the sample selected is assumed to represent the whole population.
Description of the selected sample firms

Table:1 Sector-wise distribution of sample firms for 2011-2015

Sector	Number of firms	Percentage (%)
Cement	8	21.05
Chemical	10	26.32
Mineral	5	13.15
Sugar	6	15.78
Electrical	5	13.15
Petroleum	4	10.55
Total	38	100

IJASRM International Journal of Advanced Scientific Research and Management, Vol. 1 Issue 5, May 2016.
www.ijasrm.com
ISSN 2455-6378

3.2. Explanation of Variables

The details of the dependent, explanatory and control variables in accordance to the prior studies have been given below in the tables by category.

Table:2 ***Dependent Variables***

Variable name	Abbreviated	Definition
1.Gross profit margin	GPit	Ratio of gross profit to net sales.
2.Return on asset	ROAit	Ratio of net profit after taxes to total assets.
3.Return on equity	ROEit	Ratio of net profit after taxes to stockholders equity.

To measure the financial performance of the firm different researcher have used different measurements. Table 2 shows dependent variables and their proxies used by prior researchers. Three models based on three dependent variables have been developed using their proxies as measurement tool.

Table:3 ***Explanatory variables***

Variable name	Abbreviated	Definition
1.Average age of inventory	AAIit	Ratio of number of working days(360) to inventory turnover
2.Average Collection Period	ACPit	Ratio of trade debt to average sales per day.
3.Average payment period	APPit	Ratio of trade payable to average cost of goods sold per day.

Table 3 gives the brief description of the explanatory variables used in this study. These variables relating to working capital have been recommended by many researchers to measure the financial performance of the firm.

Table:4 Control variables

Variable Name	Abbreviation	Definition
1.Firm Size	SIZEit	Natural logarithm of total assets
2.Leverage	LEVit	Ratio of total debt to total assets
3. Age of firm	AGE	Log of age

Table 4 contains the list of control variables to be used in this study.

3.3 Model

The Pooled OLS model have been used for the panel data to measure the dynamics of change in financial performance of the firms over time. STATA software have been used for analysis as it provide advance econometric techniques and comparatively easy to use. The basic regression model used in this study is given as:

$Yit = B0+BXit+U$

$i= 1,\ldots, 38 ; t=1,\ldots\ldots., 5$

where i stands for the ith cross-sectional unit and t for the tth time period.

Y is the dependent variable and X is the explanatory variable. B0 is regression constant, B is regression coefficient and U denotes error terms

4. Data Analysis

In this section there are two parts, in the first part the results of correlation analysis have been discussed and part two contains three models of regression analysis with different dependent variables.

4.1. Correlation Analysis

Before we go for estimation of regression coefficient it is advisable to check the correlation among the variables of interest. There should be some correlation but it should not be so high that leads to multicolinearity problem.

Table:5 Correlation matrix

Variables	GPit	ROAit	ROEit	AAIit	ACPit	APPit	SIZEit	LEVit	AGEit
GPit	1								
ROAit	.54**	1							
ROEit	.31**	.23*	1						
AAIit	-.37*	-.19***	-.35*	1					
ACPit	.17***	.25**	.30**	-0.09	1				
APPit	.39***	.08*	.28**	-.13*	.53***	1			
SIZEit	.31***	.17*	.09*	-.47**	.04*	.55***	1		
LEVit	-.44**	-.56**	.18*	-.28*	.16***	.21*	.37***	1	
AGEit	-.05*	-.11*	0.09	.14*	-.01*	-.15***	-.26*	.07*	1

***. Correlation is significant at the 0.01 level (2-tailed).

IJASRM International Journal of Advanced Scientific Research and Management, Vol. 1 Issue 5, May 2016.
www.ijasrm.com
ISSN 2455-6378

**. Correlation is significant at the 0.05 level (2-tailed).

*. Correlation is significant at the 0.10 level (2-tailed).

Table 5 shows the results of Pearson correlation coefficients and their respective significance denoted by stars. Most of the variables are having reasonable correlation between them. There seems no multicollinearity problem among variables. There is moderate positive and moderate negative correlation between the variables. These results allow us to go for further regression analysis.

4.2. Regression Analysis

Table 6,7 and 8 reveals the results of three regression models.

Modal:1

Table:6 Gross Profit (GPit) as dependent variable

Variables	Coefficient	Std. Error	t-statistic	P-value
Constant	0.7	0.3771	-1.45	0.0321
AAIit	0.0137	0.0078	1.0974	0.18413
ACPit	0.0019	0.0062	3.287	0.00361
APPit	0.0022	0.0097	1.5913	0.15302
SIZEit	0.0249	0.0015	4.9921	0.0001
LEVit	-0.746	0.0564	-8.8975	0
AGE	-0.0029	0.0651	-0.2791	0.3097
R-Square	0.4729	Number Of observations		190
Adj. R-Square	0.4601	F-Statistic		11.279
Std Error of Reg.	0.2795	P-Value		0

Table 6 illustrates that Average collection period (ACPit) has positive and highly significant impact on gross profit. The impact Average age of inventory (AAIit) and Average payment period (APPit) on firm gross profit is insignificant. From the control variables, Size of the firm is positive significant and Leverage is negative significant and Age of the firm have no impact on the gross profit of the firm. R-square states that about 47% of the variation in the dependent variable gross profit is explained by the selected explanatory variables. F-test is showing that model 1 is good fit at .01 level of significance.

Modal:2

Table:7 Return on Asset (ROAit) as dependent variable

Variables	Coefficient	Std. Error	t-statistic	P-value
Constant	-0.0207	0.0132	-1.901	0.239
AAIit	5.2187	0.0201	0.2214	0.1407
ACPit	0.0278	0.0729	3.287	0
APPit	0.0022	0.0057	1.5913	0.1502
SIZEit	0.0105	0.0039	6.2351	0.0131
LEVit	-0.947	0.0529	-18.425	0
AGE	-0.0069	0.061	-1.2009	0.7713
R-Square	0.5526	Number Of observations		190
Adj. R-Square	0.5319	F-Statistic		32.198
Std Error of Reg.	0.0985	P-Value		0

Table 7 is depicting the results of model 2. In this model only Average collection period (ACPit) significantly affect the Return on assets (ROIit). Other explanatory variables are insignificant. R-square explains 55% of the variations in the dependent variable by the independent variables. Size of the firm is significant at 5% level of significant. Leverage is negative and highly significant whereas age has no impact on return on asset (ROIit) of the firms. The model 2 is good fit as can be seen from P-value of F-test.

Model:3

Table:8 Return on Equity (ROEit) as dependent variable

Variables	Coefficient	Std. Error	t-statistic	P-value
Constant	0.9731	0.8143	1.7015	0.542
AAIit	-0.0072	0.0213	0.3214	0.1973
ACPit	0	0.0009	1.221	0.3249
APPit	0.0021	0.0277	2.5123	0.0453
SIZEit	-0.0643	0.0954	-1.059	0.2371
LEVit	0.8431	0.1109	1.4095	0.217
AGE	0.4067	0.964	0.5233	0.6103
R-Square	0.1529	Number Of observations		190
Adj. R-Square	0.1302	F-Statistic		2.187
Std Error of Reg.	0.8256	P-Value		0.2794

Table 8 is showing that only Average payment period (APPit) has positive and significant impact on return on equity of the firm. Other explanatory variables are insignificant. All control variables have insignificant impact on firm financial performance as measured by Return on equity (ROEit). Model three only explain 15% of the total variation of the dependent variable. As suggested by the p-value of F-test model 3 is not good fit.

5. Discussion and Conclusion

The results of this study revealed that average age of inventory has positive impact on return on asset and gross profit of the firms. These findings are in conformity to the finding of (Nazir & Afza, 2009). On the other hand, average age of inventory is negatively linked with return on assets indicating that if inventory is kept for longer times there will be less capital available. The results are consistent with Enqvist, Graham, and Nikkinen (2014)

Average collection period was found to have positive and significant impact on gross profit and return on assets. This relationship relate to the findings of Akinlo and Olufisayo (2011)

There is positive impact of the average payment period on gross profit and return on equity of the firm. The more the company delay the payment to the creditors, it may use that capital for working capital leading to better firm financial performance (A. Gill et al., 2010).

From the control variables, firm size have found to be positively related with gross profit and return on assets. This relationship is significant. On the other hand, firm size have negative and insignificant impact on return on equity of the firms. These finding are in consistent with (Akoto et al., 2013).

The results of empirical study revealed that leverage has negative but significant impact on firm gross profit and its return on assets. Alternatively, leverage has positive and significant impact on return on equity of the firm. Negative relation confirms the assumptions of pecking order theory that firm with high profit borrow less money. Other researchers who found negative impact of leverage on firm profitability are Deloof (2003) and Ahmed Sheikh and Wang (2013).

There is negative but insignificant impact of age on gross profit and return on assets of the firm. In case of equity, age of the firm has positive impact on return on equity of the firm. Positive relation indicate that older firm can perform better and can get more financing easily as compared to new firms A. Gill et al. (2010).

The research findings are in conformity to the prior investigations, so in the Non-Financial sector of Pakistan all the selected variables namely average age of inventory, average collection period and average payment period have material impact on firm performance. The working capital of non-financial firms have significant impact on firm financial performance.

References

[1] Ahmed Sheikh N and Wang, Z, The impact of capital structure on performance: An empirical study of non-financial listed firms in Pakistan. International Journal of commerce and Management, 23(4), 354-368, (2013).

[2] Akinlo O. O and Olufisayo O, The effect of working capital on profitability of firms in Nigeria: Evidence from general method of moments (GMM). Asian Journal of Business and Management Sciences, 1(2), 130-135, (2011).

[3] Akoto R K, Awunyo-Vitor D and Angmor P L, Working capital management and profitability: Evidence from Ghanaian listed manufacturing firms. Journal of Economics and International Finance, 5(9), 373, (2013).

[4] Baños-Caballero S, García-Teruel P J and Martínez-Solano P, Working capital management, corporate performance, and financial constraints. Journal of Business Research, 67(3), 332-338, (2014).

[5] Blinder A S and Maccini L J, Taking stock: a critical assessment of recent research on inventories. The Journal of Economic Perspectives, 5(1), 73-96, (1991).

[6] Davenport T H, De Long D W and Beers M C, Successful knowledge management projects. MIT Sloan Management Review, 39(2), 43, (1998).

[7] Deloof M, Does working capital management affect profitability of Belgian firms? Journal of business finance & accounting, 30(3-4), 573-588, (2003).

[8] Ding S, Guariglia A and Knight J, Investment and financing constraints in China: does working capital management make a

difference? Journal of Banking & Finance, 37(5), 1490-1507, (2013).
[9] Enqvist J, Graham M and Nikkinen J, The impact of working capital management on firm profitability in different business cycles: Evidence from Finland. Research in International Business and Finance, 32, 36-49, (2014).
[10] Fisman R and Love I, Trade credit, financial intermediary development, and industry growth: World Bank Publications, (2001).
[11] Gill A, Biger N and Mathur N, The relationship between working capital management and profitability: Evidence from the United States. Business and Economics Journal, 10(1), 1-9, (2010).
[12] Gill A S and Biger N, The impact of corporate governance on working capital management efficiency of American manufacturing firms. Managerial Finance, 39(2), 116-132, (2013).
[13] Gitman L J, Estimating corporate liquidity requirements: a simplified approach. Financial Review, 9(1), 79-88, (1974).
[14] Juan García-Teruel P and Martinez-Solano P, Effects of working capital management on SME profitability. International Journal of managerial finance, 3(2), 164-177, . (2007).
[15] Kieschnick R, Laplante M and Moussawi R, Working capital management and shareholders' wealth. Review of Finance, 17(5), 1827-1852, (2013).
[16] Lazaridis I and Tryfonidis D, Relationship between working capital management and profitability of listed companies in the Athens stock exchange. Journal of financial management and analysis, 19(1), (2006).
[17] Mathuva D, The influence of working capital management components on corporate profitability: a survey on Kenyan listed firms. Research Journal of Business Management, 3(1), 1-11, (2009).
[18] Mehmet D and Eda O, Relationship between efficiency level of working capital management and return on total assets in ise (istanbul stock exchange). International Journal of Business and Management, 4(10), 109, (2009).
[19] Nazir M S and Afza T, Working capital requirements and the determining factors in Pakistan. IUP Journal of Applied Finance, 15(4), 28, (2009).
[20] Petersen M A and Rajan R G, Trade credit: theories and evidence. Review of Financial Studies, 10(3), 661-691, (1997).
[21] Sharma A and Kumar S, Effect of working capital management on firm profitability empirical evidence from India. Global Business Review, 12(1), 159-173, (2011).