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The trend in WC Management and its Impact on Firms Performance: A Case of PSX-100 Index

Abstract

The intention is to investigate the trends in WC management and the association of managing working capital with the firm's performance. Return of total Assets is the proxy to measure the firm's performance and its association with the variables representing the WCM is studied for a sample of 54 firms for the period 2004-2010. The variables like invdays and ardays show a considerable effect on the firm's earning capability. The study proved a direct and considerable affiliation between the firm liquid position with its performance. Profitability and the firm's size have a prominent positive association. The association between the debts ratio and the firm's performance is inverse but this association is insignificant. Similarly, the results show insignificant relation between the profitability and the cash gap and account payables in days. The results show that there is an imperious role of better managing firm working capital with the firm's performance.

Key Words: Working Capital Management, Account Payable, Cash-Conversion-Cycle, Account Receivable, Inventory, Regression Analysis

Introduction

WC Management plays a central part in the field of corporate finance. It is the deduction of current liabilities from the current assets. Effective WC management leads to efficient performance and thus has high profitability. The firm may not capable to fulfil its debts in short term on time and this will create problems for the company and if not tackled with due consideration finally lead to insolvency and bankruptcy of the firm. For manufacturing company's current asset covers almost 50 per cent of the total assets employed, while for other firms like distribution companies its contribution is even more than that of manufacturing companies. working capital should be managed so as to produce maximum profitability on one side with the liquidity of the firm should not be affected on the other side ([Van Horne & Wachowicz, 2000](#)). Different components of working capital were approached by different researchers. [Marquardt and Marcus \(2017\)](#) elucidated the consequence of inventory

management on the firm earnings and found the optimal level of inventory. [Marquardt and Marcus \(2017\)](#) identified that management of working capital has a prominent effect on the company's success and the company can maximize their return by keeping an optimum limit of working capital. [Miranda \(2013\)](#) suggested in his study the efforts of finance managers in the firms are to carry out a tradeoff between the current liabilities and assets at an optimal level, so the determination of the optimal volume of investment and identifying the most effective and important asset for investment is very crucial for successful achievement of its objective.

Nowadays, WC management is the most relevant thing in the industry domain that distinguishes one firm from another. Cash, one of the very vital components of current assets, is stated as the main key of industry, but the

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profitability of enlisted pharmaceutical firms in Dhaka Stock Exchange (DSE).

The main aim of WC management is to govern of CFR of a company in a manner that equilibrium is shaped by the return on total asset of the company and risk linked with that return on total asset. [Eljelly \(2004\)](#); [Lazaridis and Tryfonidis \(2006\)](#) showed research on WC as a need of every business; it is a significant part of investors to run the operations of the business. The significance of handling the working capital of a business capably cannot be opposed.

The return on total assets along with a suitable state of liquidity is essential to be retained for the existence of an enterprise. The arena of WC management is needed great care by investigators due to its regular relevance and importance to the achievement of a business. To support this statement declares that an enterprise is as resilient as its imaginative capital base, as runny as its WC capacity, and as energetic and feasible as its executive choices, working capital is the midpoint of the presence of any enterprise. [Samiloglu and Demirgunes \(2008\)](#) and [Vishnani and Shah \(2007\)](#) did some research on Indian National Fertilizer Limited examining from 1990-91 to 1999-2000. It was clearly found that profitability and WCM have a negative influence on the positive relationship. It was also determined proof that the rate of rising in a firm's profitability is less than a fall in working capital. [Azam and Haider \(2011\)](#) carried out research on the effect of WC management and the company's performance along with liquidity in the state of India.

In general WC management is linked with the proper arrangement of current assets and current liabilities. Generally, working capital can be changed into cash within one year ([Lazaridis & Tryfonidis, 2006](#)). Ideal WC management directly pays to the formation of company worth. Here liquidity cost gets severe threats to profitability ([Lazaridis & Tryfonidis, 2006](#)). On the other side, a company's survival is very difficult without enough liquidity because the company can face the issues of bankruptcy. It is therefore needed equilibrium among the return

on total assets and liquidity. [Padachi \(2006\)](#) highlighted that WC management should be designed and executed in such a way which expected to establish direct value to the company. A different relationship has been recognized in the literature between profitability and WC management. Few pieces of research are available on the association between WC management and return on total assets in the pharmaceutical sector. For this, the focus of this study has been fixed on determining the association between WC management and return on total assets which would help the financial management to prioritize their efforts in managing working capital well.

Problem Statement

WC management plays a very key part in the firm performance ([Raheman et al., 2010](#)). In developed economies, the management focus on the operative management of the business account receivables, inventories and account payables in order to reap the association benefits.

The earlier research conducted had a bland conclusion, Indicating positive as well as negative relationships. [Shin and Soenen \(1998\)](#); [Afeef \(2011\)](#) found that there is an inverse association between inventory (ies) turnover, A/R turnover and cash-conversion -cycle with profitability. [Lazaridis and Tryfonidis \(2006\)](#) find a positive association between A/P turnover and the profitability of the firm. In a developing economy like Pakistan, the nature of business has totally different and thus a need arises to judge the relationship among these variables.

Research Questions

Following are the research questions of the current study.

1. Does A/R in days affect the profitability of Pakistani relevant firms?
2. Does A/P in days affect the profitability of Pakistani relevant firms?
3. Does inventory turnover in days affect the profitability of relevant Pakistani relevant firms?

4. Does liquidity affect the profitability of relevant Pakistani relevant firms?
5. Does debt own firm affect the profitability of Pakistani relevant firms?
6. Does firm size affect the profitability of Pakistani relevant firms?

Objective of the study

- i. To explore the relationship of accounts receivable in days on profitability.
- ii. To explore the relationship of account payable in days on profitability.
- iii. To explore the relationship of Inv-turnover in days on the Profitability.
- iv. To identify the impact of liquidity on the profitability of the firm.
- v. To evaluate the performance of the debt own firms.
- vi. To evaluate the relationship between Size and profitability of relevant firms together.

Literature Overview

The topic of WC has been explored by several researchers with various views and in various circumstances. ([Addae & Nyarko-Baasi, 2013](#)) in his study elucidated the association between the company return on total assets and liquidity. Using the current ratio to calculate the association, it is evident that the relation is inverse and significant. This study was conducted on joint-stock companies listed in Saudi Arabia. The study explicated the connection between liquidity and return on total assets. A company with a long cash gap and high current ratio have a more apparent relationship. The study also shows that the cash gap has a more robust influence on the relationship than the liquidity i.e. current ratio. The profitability of the firm as well as the industry is proportional to the firm's size.

The study is also incorrigible the findings of ([Otieno, 2015](#)) about the destructive approach of firms to working capital and their economical and operational risk. Mujahith and Munas (2016) conducted a study on Malaysian firms and concluded strong indirect relationships between

the return on total asset and cash lag (CCC) of the sampled firms. The authors described that the best level of working capital is achieved with the trade-off of liquidity and profitability in different sectors. The best level of profitability is achieved with the expense of liquidity and vice versa. [Mujahith and Munas \(2016\)](#) carried out a study on SMEs in Spain. The study explains that as the SMEs are concerned, the importance of short term capital increases in a sense because these have more heavily dependent on short term financing and the most of their assets is of short duration. The study show a substantial negative association of SME's performance and WC mangement, but A/P days effects on return on total assets was not conformed as this relation loss its impact when the possible endogeneity problems have been organized.

The question to be investigated in the study is whether the new concepts of managing working capital i.e. comprehensive liquidity index have improved association among the outcomes of the company as matched to the old-fashioned indicators like current and quick ratio. Using stepwise regression, the outcomes of the study do not show a major difference between the two approaches. The ratio of total current liability and funds flow is mostly responsible for the inconsistency in return on investment and had showed a considerable association with return on investment. The traditional liquidity ratios like current ratio and acid test ratios show insignificant association with the dependent variable, whereas the only new concept of working capital i.e. the complete liquidity index, shows statistically considerable relation with Return on Investment.

The cash gap is a valuable way of evaluating the firm's cash flow since it measures the time period between the accounts received by the pertinent firm and accounts payable to the suppliers and the conversion of these materials into refined or finished products. It is a more influential and more complete measure of liquidity as compared to the conventional liquidity indicators like the current ratio and the acid test ratio which spotlight static balance sheet

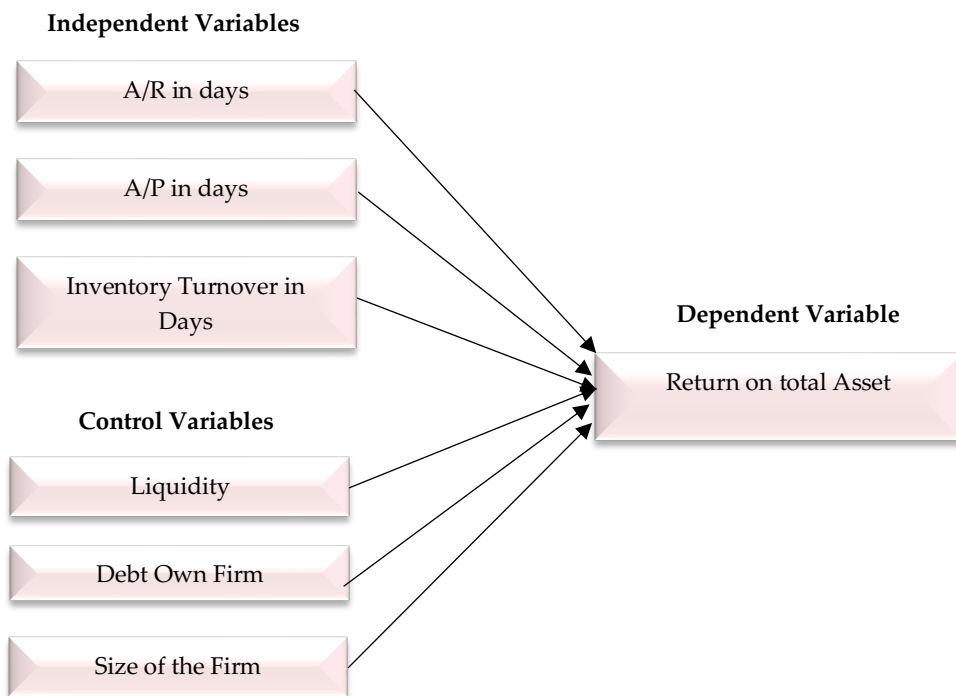
values. The cash gap on the other hand includes the time aspect of liquidity which measures the overall cash management ability of firms ([Moss & Stine, 1993](#)).

There are many definition of the WC management. WC management that the management of cash, receivables, inventories and payment period ([Naser, 2013](#)). [Ganesan \(2007\)](#) defines WC management as it is the STL (short term loan) required for a company. The requirement of working capital depends on the kind of trade and industries. However, the

constituents of working capital usually include cash, borrowers, collection period, inventories, M.S (marketable securities) and R.M (redeemable futures) ([Appuhami, 2008](#)). [Charitou et al. \(2010\)](#) examined the outcomes of this research must be of great importance to management and key investors, particularly after the current worldwide financial disaster and the present failures of massive firms internationally. [Hussain et al. \(2017\)](#) examined the effect of corporate social responsibility on a company's profitability. The research contained eight years period (2006-2013).

Conceptual Framework

Following is the theoretical framework of the study in the light of prior literature:



Testable Hypothesis

The aim of this study is to find out the affiliation of managing WC effectively and its influence on the performance of the relevant firm.

- H₁:** A/R in days is not related to the profitability of the firm.
- H₂:** A/P in days is not related to the profitability of the firm.

- H₃:** inventory in days is not associated with the firm profitability.
- H₄:** Liquidity is not related to the firm profitability.
- H₅:** Debt owned by the firm and profitability are not interrelated.
- H₆:** Firm size and firm profitability are not interrelated.

Research Methodology

DataSet and Sample

As the study depends on the financial statements of the companies and data can be obtained from these statements. The data required for the study is acquired from the repository of KSE, the financial daily website as well as from the websites of the included firm in the sample. The sample duration is seven years ranging from 2011 to 2017. The main reason for this inclusion is the accessibility and availability of the required data. The sample size includes firms in the KSE-100 index. The KSE-100 index on 30th June is taken as the reference date for the inclusion of firms in the study. The financial firms are excluded from the pertinent sample on account of their different nature of the operation. The exclusion of all the financial firms from the sample results the sample size includes 54 non-financial companies of the KSE-100 index on the reference date.

Relevant Variables

Explanatory (Ind) variables

- i. A/R in Days (*ardays*) is employed as an independent variable and is used to represent the collection strategy of a firm and obtained by calculating the ratio of accounts receivables and firms sales by multiplying the outcome by 365.
- ii. Inventory Turnover in Days (*ivndays*) is used as an alternative for the strategy of converting raw material into sales and is the ratio of stocks multiplied by 365 and divided by the cost of sales.
- iii. Average Payable in Days (*apdays*) is the ratio of accounts payable multiplied by 365 and divide the result by the cost of sale. The ratio represents the strategy of payment a firm can employ to its suppliers.
- iv. Cash Conversion Cycle (*ccc*) computed as "*ardays + ivndays - apdays*" i.e. the addition of days sales outstanding with Inventory conversion time and deducing days payment outstanding and is used to

represent the management of short term capital comprehensively.

- v. Returns on Total Assets (*rota*), is the proportion of Profit Before to Interest and Taxes (PBIT) and net sales. This variable is issued as explained proxy and used to represent the firm performance.

Control Variables

- i. Assets Turnover (*turna*), obtained as a percentage of sales to tassets employed by the firm and is the indicator of how efficient the firm is in generating the sales in relation to employed assets of the firm.
- ii. The Gearing Ratio (*gear*) is included in the study as a substitute for the firm's leverage and is obtained by total debt/total asset.
- iii. The current ratio (*cr*) is used to represent how liquid the firm is and computed by short term assets /short term liabilities.
- iv. Quick assets ratio (*qar*) is used as a substitute for the liquidity of the company and is the proportion of short term assets minus stocks with the short term obligations. It is the ratio of more liquid assets to the CL.
- v. Current Assets to Total assets (*cata*) is the proportion of short term assets to total employed assets and is used to show the trend of the firm regarding short or long term planning.
- vi. Current Liability to total Assets (*clta*) is the relation of short term obligations to total employed assets and shows the planning of the financing activity of the firm.
- vii. Stocks to Current Assets (*skca*), is the ratio of stocks or inventory with the firm's short term assets. The ratio is used to indicate the antagonism or conservativeness of the inventor management decision.
- viii. Trade Debts to Current Assets (*tdca*), used to represent the policy of account receivables of the company and is the

fraction of trade debts with the current assets.

ix. Size (*lnsales*), calculated as the log of the sales of the company used as a proxy for the firm's size

Results & Discussion

Descriptive Statistics Analysis

Table 1. Descriptive Statistics of different Sectors

Variables	Oil and gas	Chemical	Cement	Power	Auto	Communication	Sugar	Textile	Others
	70	56	70	42	28	16	14	35	44
<i>rota</i>	0.1860 (0.1801)	0.1568 (0.0864)	0.0760 (0.0996)	0.0685 (0.0976)	0.1957 (0.1923)	0.1393 (0.2427)	0.1206 (0.0429)	0.1388 (0.1102)	0.1249 (0.0968)
<i>turna</i>	1.6739 (1.4891)	0.9216 (0.4737)	0.4130 (0.2460)	0.6991 (0.2963)	1.8613 (0.6497)	0.4823 (0.3709)	1.1060 (0.3630)	1.0936 (0.6076)	1.0122 (0.5530)
<i>gear</i>	0.4708 (0.2611)	0.4421 (0.1801)	0.4036 (0.1474)	0.6641 (0.2353)	0.4777 (0.3923)	0.3761 (0.2575)	0.5806 (0.3331)	0.4593 (0.1646)	0.3251 (0.2397)
<i>cr</i>	1.9985 (1.5505)	1.2318 (0.5472)	1.0577 (0.6699)	0.9979 (0.5004)	2.2495 (1.8738)	1.3800 (0.4916)	1.4487 (0.8046)	1.5226 (0.9917)	2.3427 (2.8369)
<i>qar</i>	1.8457 (1.5716)	0.9173 (0.5165)	0.9279 (0.6535)	0.8709 (0.6425)	1.4072 (1.2770)	1.3067 (0.4465)	0.9765 (0.7850)	0.8531 (0.4274)	1.6857 (1.9281)
<i>cata</i>	0.5739 (0.2023)	0.3694 (0.1732)	0.1971 (0.1089)	0.3221 (0.1711)	0.6958 (0.2841)	0.3654 (0.2244)	0.5394 (0.0928)	0.4555 (0.1716)	0.4373 (0.2113)
<i>clta</i>	0.4250 (0.2610)	0.3318 (0.1667)	0.2106 (0.0923)	0.3574 (0.1722)	0.4442 (0.3371)	0.2487 (0.0937)	0.4509 (0.2134)	0.3437 (0.1067)	0.2746 (0.1663)
<i>skca</i>	0.1183 (0.1755)	0.2812 (0.2259)	0.1358 (0.1408)	0.1869 (0.1748)	0.3695 (0.1901)	0.0460 (0.0409)	0.3665 (0.1947)	0.3860 (0.1932)	0.2631 (0.2188)
<i>tdca</i>	0.3831 (0.1811)	0.1105 (0.1010)	0.0543 (0.0762)	0.5146 (0.5000)	0.1183 (0.0792)	0.2705 (0.1077)	0.1061 (0.0681)	0.1457 (0.1074)	0.1686 (0.1900)
<i>invdays</i>	-48.9482 (129.7895)	-61.1255 (77.7784)	-43.7144 (95.1470)	-32.4493 (36.6785)	-67.4941 (36.6053)	-19.6805 (17.8374)	-82.1186 (51.9211)	-93.6401 (65.3919)	-108.3617 (158.7345)
<i>ardays</i>	84.5572 (78.9779)	21.6746 (14.5736)	14.1957 (15.6406)	98.0505 (76.4346)	39.6673 (48.7697)	140.0820 (124.2868)	22.2465 (14.4180)	44.0435 (53.8372)	67.9143 (97.3368)
<i>apdays</i>	-454.0435 (966.6983)	-116.3859 (94.5162)	-130.3716 (321.2563)	-81.3620 (71.8619)	-62.3310 (90.5342)	-218.3329 (123.0881)	-63.2646 (23.3162)	-38.0547 (29.6413)	-45.6084 (49.1451)
<i>ccc</i>	489.6525 (976.8852)	76.9349 (53.3761)	100.8529 (292.0703)	146.9633 (150.4757)	34.5042 (106.3434)	338.7344 (221.0909)	3.3925 (59.0466)	-11.5418 (35.5598)	5.1610 (104.5341)
<i>lnsales</i>	17.6590 (1.2488)	16.2246 (1.3193)	15.0564 (1.1244)	16.3728 (1.2943)	15.4020 (1.3492)	16.3510 (1.6927)	14.7271 (0.5730)	15.4749 (0.7764)	15.3885 (1.0916)

Descriptive analysis for different sectors of the economy is shown in Table 1. Different sectors are compared with mean and standard deviation for different ratios to gauge the performance and management of working capital. The means and standard deviations of different sectors show that *rota* of the auto sector has an average value of 19.57% with a variation

of 19.23%. This shows that the earning margin is high in the auto sector as compared to the other sectors of the economy.

Similarly, the *lnsales* for different sectors show that oil & gas is the sector with high sale volume with an average and standard variation of 17.66 and 1.25 respectively, while the lowest

sale volume is the sugar sector having an average value of 14.72 with the variation of 0.573.

Examining the cash conversion cycle for different sectors show the highest value for the Oil & Gas sector with the average and variation value of 490 and 977 days respectively, whereas the lowest value is for the Textile sector with the value of -12 and 36 days respectively.

Sector-wise results of *apdays* show that the Textile is the sector with a minimum value of 38 days as a mean value and 30 days as a standard deviation, whereas Oil & Gas has the values for the average and variation of 454 and 967 respectively.

Similarly, the results of these parameters for the variable of *invdays* for different sectors show that the average value of 108 days with 159 days as standard deviation are the estimates for the other sector which comprises steel, paper and pharmaceutical sectors. The sector on the other extreme is the communication sector with a mean value of 20 days with a standard deviation value of 18 days. This shows that communication companies convert their inventories (Services) into sales in just 20 days.

In the sector-wise analysis of *ardays* for different sectors, the said variable has the highest value for the communication sector with a mean value of 140 days with a value of 124 days as a standard deviation and the lowest value is for cement industry with the mean and standard deviation value of 14 and 16 days respectively. This shows that firms in the cement industry wait for less to receive payment for their sales in contrast to the other sectors of the economy.

The *gear* ratio is used to inspect the liaison between the debt and the performance of the company for different sectors. The results show that power is the sector with the highest mean value for this ratio, with the value for its mean and standard deviation of 66.41% and 23.53% respectively, whereas the other sector has the lowest value for the gearing ratio with the average amount of 32.51% with a value of 23.97% for standard deviation. This shows that the power sector has maximum financing to fulfil its operation and almost covers 50% of its total assets.

Examining the liquidity of different sectors, the results show that the power sector has a minimum value of 0.9979, while the sector others have a maximum value of 2.3427 for the current ratio. The result shows that others are the more liquid sector of the economy and have greater resources to fulfil their current obligation as compared to the power sector with minimum liquidity. Similarly the lower and upper value for the quick-acid- ratio is 0.8531 and 1.8457 for the textile and oil and gas sector respectively.

Quantitative Study

To discern the relationship between the firm profitability and WCM, Correlation analysis and regression analysis has been employed. The Pearson correlation matrix is applied to determine the affiliation between the variables under concern. The SPSS software is employed to find the degree of association among the different variables indicating the management of a firm's working capital.

Pearson Correlation Matrix Investigation

Table 2. Correlation Matrix

	<i>rota</i>	<i>turna</i>	<i>gear</i>	<i>cr</i>	<i>qar</i>	<i>cata</i>	<i>clta</i>	<i>skca</i>	<i>tdca</i>	<i>invdays</i>	<i>ardays</i>	<i>apdays</i>	<i>ccc</i>	<i>insales</i>
<i>rota</i>	1													
<i>turna</i>	0.29	1												
<i>gear</i>	-0.22	0.230	1											
<i>cr</i>	0.41	0.020	-0.39	1										
<i>qar</i>	0.44	-0.03	-0.41	0.92	1									
<i>cata</i>	0.47	0.659	0.25	0.32	0.28	1								

<i>clta</i>	-0.12	0.49	0.72	-0.32	-0.36	0.59	1								
<i>skca</i>	-0.01	0.22	0.25	0.01	-0.25	0.19	0.28	1							
<i>tdca</i>	0.01	0.12	0.25	0.03	0.05	0.18	0.23	-0.05	1						
<i>invdays</i>	0.03	0.12	-0.04	-0.27	-0.08	-0.15	-0.12	-0.45	0.05	1					
<i>ardays</i>	-0.03	-0.15	0.07	0.22	0.20	0.14	0.13	-0.15	0.47	-0.18	1				
<i>apdays</i>	0.06	0.12	-0.08	0.06	0.03	-0.05	-0.12	0.11	-0.14	0.28	-0.41	1			
<i>ccc</i>	-0.05	-0.12	0.08	-0.08	-0.02	0.04	0.11	-0.21	0.22	-0.10	0.51	-0.97	1		
<i>insales</i>	0.13	0.36	0.16	-0.01	0.05	0.29	0.28	-0.08	0.32	0.21	0.12	0.03	0.02	1	

Pearson-Correlation Matrix is employed to measure the degree of association among the variables indicating how efficient the firm manages its working capital and its performance of the firm. The extent of alliance among the variables representing the WCM and performance of the firm is shown in table 4.3. It is anticipated that there should be an indirect relationship between the variable representing the management of WC and the performance of the firm. Similarly, the expected association between the days' sale outstanding period and the conversion period like inventory turnover days should be negative and should be a positive relationship for the account payable days. The association between ACP and performance of the firm as indicated by *rota* is -0.0354, showing that if the duration of inflow of the receivables increases this leads to lower the revenue of the firm. Similarly, the association between the performance and inventory turnover in days of the firm comprises a value of 0.0343, indicating that if the inventory turnover in days is increased, it will lead to an increased earning of the firm, which is opposite to the expected result, because the lower the value of days to converts the inventory into sales, the higher will be the revenue of the firm. The association between the accounts payables in days and profitability is 0.0628, which points out that if the firm delays its due payment to suppliers, the profitability of the firm increases. The CCC which represents the firm ability to manage working capital has also had a coefficient of -0.0586. It shows that the firm may enhance its performance in terms of profitability by decreasing the value of this variable to the minimum possible.

It is concluded that the enterprise may enhance its profitability as well as efficiency by efficiently managing these time periods.

The connection between the profitability and size of the firm, the Pearson's coefficient of correlation is 0.1363 between *ROTA* and the size of the firm (*insales*), which implies that the impact of firm size on the firm performance is positive and significant. If the size of the firm increases the earnings of the firm also increase.

The study results indicate a positive and significant relationship between the current ratio and the firm's performance and have a coefficient of 0.4168, so the Pakistani firms show a positive association between firm liquidity and their profitability.

This analysis displays a negative association between the inventory conversion period (*invdays*) and the cash gap. The correlation coefficient for this relationship is -0.1018, which illustrates that if the company required a longer time to switch its raw material into sales, the same will escort to a broadening in the value of the cash gap. Similarly, the association of Days sales outstanding with cash gap is direct with a coefficient of 0.5157, implying that lengthening the average collection period will result in broadening the cash gap of the company.

The analysis of the relationship between *apdays* and *ccc* demonstrates an indirect affiliation having a value of -0.9726 as a coefficient. This amount shows that by increasing the time to pay its obligation with respect to selling its inventory and receiving the bills from customers, in this way the firm can reduce its cash gap and thus will increase its performance.

All the above analysis shows that in the Pakistani context, management of WC has a sturdy and significant effect on the performance and efficiency of the firm

Regression Investigation

To discover the effect of managing working capital in the best possible manner on the firm

performance, regression analysis is employed. As the data has a combination of cross-section and longitudinal data, so we used panel data regression models for the estimation.

Pooled Least Square Estimation

Table 3. Pooled Least Square Estimation

Explanatory variables	Pooled OLS (HAC)				Weighted Least Square			
	1	2	3	4	1	2	3	4
<i>lnsales</i>	0.00451 (0.0217)	0.00698 (0.0019)	0.0049 (0.0165)	0.00488 (0.0164)	0.0099 (0.0000)	0.0112 (0.0000)	0.0109 (0.0000)	0.0107 (0.0000)
<i>gear</i>	-0.0843 (0.306)	-0.0589 (0.1455)	-0.0411 (0.4774)	-0.04088 (0.4802)	-0.0982 (0.0565)	-0.1073 (0.0384)	-0.1019 (0.0504)	-0.0994 (0.056)
<i>cr</i>	0.0341 (0.0161)	0.0356 (0.0180)	0.0292 (0.053)	0.0294 (0.0509)	0.0143 (0.0013)	0.0091 (0.0183)	0.0052 (0.0931)	0.0058 (0.0633)
<i>clta</i>	-0.0879 (0.1162)	-0.121 (0.1023)	-0.1198 (0.1562)	-0.1193 (0.1620)	-0.1642 (0.0271)	-0.1997 (0.0069)	-0.2543 (0.0005)	-0.2556 (0.0004)
<i>turna</i>	0.0432 (0.0007)	0.0044 (0.0000)	0.0558 (0.0000)	0.0558 (0.0000)	0.0727 (0.0000)	0.0756 (0.0000)	0.0864 (0.0000)	0.0870 (0.0000)
<i>invdays</i>	0.00011 (0.0271)				0.0002 (0.0043)			
<i>ardays</i>		-0.00026 (0.0593)				-0.0002 (0.0892)		
<i>apdays</i>			-9.95E-06 (0.1154)				-2.11E-05 (0.2907)	
<i>ccc</i>				-1.05E-05 (0.140)				-2.7E-05 (0.146)
R ²	0.5978	0.5625	0.6000	0.60018	0.282311	0.271435	0.26774	0.269822

To discover the casual elements of *rota* are examined for all the observations by Pooled least square method. As the data is a panel so hetroskedasticity and autocorrelation corrected model is used. The models to be used to estimate the dependence of independent variables on the dependent variable is shown in the methodology section. In model $1Y_{it} = \beta_0 + \beta_1 \lnsales_{it} + \beta_2 gear_{it} + \beta_3 cr_{it} + \beta_4 clta_{it} + \beta_5 turna_{it} + \beta_6 invdays_{it} + \varepsilon_t$ 3.3

The dependent variable is regressed on the explanatory variable of Inventory turnover in days and log of sales, gearing, *cr*, short term liability to total employed assets and assets turnover are used as controlling proxies. Table 4.4 explains the end result of model 1 in which the value of *invdays* is positive showing direct relation and significance at a 5% level of significance. The manager can make the firm

more valuable for their shareholders by lowering the sales outstanding period and inventory turnover in days (Deloof, 2003). This shows an unexpected result, that increasing the inventory conversion process by one unit leads to an increase of 0.0001133 units in the performance of the firm. Similarly, the effect of *lnsales* on the firm's profitability is significant and direct as evident from the slope value of 0.0045 for the said variable and p value of 0.0217 respectively. The other variable like *cr* and *turna* has a considerable positive impact. Similarly *clta* and *gear* has a negative coefficient but the relationship of these variables with ROTA is insignificant. The value of $R^2 = 0.5978$ illustrates the goodness of fit and shows that the explanatory variables of the model are responsible for 59.78 percent of the variation in the dependent variable.

The equation of our second model is.

$$Y_{it} = \beta_0 + \beta_1 \ln sales_{it} + \beta_2 gear_{it} + \beta_3 cr_{it} + \beta_4 clta_{it} + \beta_5 turna_{it} + \beta_6 ardays_{it} + \varepsilon_t \dots \dots 3.$$

In this regression, the dependent variable is regressed on the same controlling variables but with explanatory proxy *ardays*. The outcomes shown in the table illustrate that the coefficient of *ardays* is -0.00026 with a p is 0.0593. This shows that the relationship of the average collection period with the profitability is negative and significant at a 10% level of significance. It demonstrates that if the firm relaxed its collection policy and increased the variable by one unit will lead to a decrease in the firm's earnings by 0.00027 units. Other variables like *lnsales*, *cr*, *turna* have a direct and significant impact on the revenue of the firm. Similarly, the sign of the values of the coefficients and the corresponding value of p=0.1023 and 0.1455 for *clta* and *gear* ratio shows an inverse effect on the firm performance but this impact is insignificant as explained by the p values. The value of $R^2=0.5625$ implies that these explanatory variables of the model are responsible for 56.25 % changes in the dependent variable.

Model 3 represents the association of *rota* with the account payables in days.

$$Y_{it} = \beta_0 + \beta_1 \ln sales_{it} + \beta_2 gear_{it} + \beta_3 cr_{it} + \beta_4 clta_{it} + \beta_5 turna_{it} + \beta_6 apdays_{it} + \varepsilon_t \dots \dots 3.5$$

The result of the regression of *rota* as a dependent variable takes accounts payables in days as the explanatory variable, while the controlling variables remain the same. The high p-value of 0.1154 shows insignificant direct affiliation between *apdays* and the earnings of the firm. The controlling variables show the same results as indicated in the other two models. The value of $R^2 = 0.6000$ shows the goodness of fit and illustrates that about 60 percent of the changes in *rata* are brought by these explanatory variables.

In the last model, *ccc* is used as an explanatory variable to represent cash lag with others as controlling variables. The model for this regression is shown as under.

$$Y_{it} = \beta_0 + \beta_1 \ln sales_{it} + \beta_2 gear_{it} + \beta_3 cr_{it} + \beta_4 clta_{it} + \beta_5 turna_{it} + \beta_6 ccc_{it} + \varepsilon_t \dots \dots 3.6$$

Taking *ccc* as an explanatory variable, the corresponding parameter and p values of $-1.05e^{-05}$ and 0.140 illustrate an inverse but insignificant association between *ccc* and the firm's profitability. Other controlling variables behave the same as in the previous three models. The R^2 value of 0.6001 represents that about 60% of variations in *rota* are brought by these included explanatory variables.

In pooled least square method the effect of individual independent variables is examined in the four equations. *invdays* and accounts receivables collection period have a significant effect on the dependent variable i.e. earning ability of the firm, whereas the account payables in days and cash conversion cycle did not show a significant connection with *rota* i.e. the dependent variable. The association of debt ratio with the firm performance shows an inverse association but the association is insignificant. Similarly, the size has a significant direct association with the firm's earning ability.

Weighted least Square Model

As we know that the numbers of cross-sections are more than the time series in the data, the problem of heteroskedasticity arises i.e. a changing deviation after a short time period. To overcome this problem the Weighted Least Square model is employed. In this method, the squared residual is used as a weight and weighted proxies are achieved by the ratio of that proxy with the square residual. The scaling of this technique is a normal way that did not affect the validity of the parameters results. The results of weighted residuals make it more comparable in contrast with the ordinary pooled models the effects of the weighted least square method are shown in the second portion of table 4.6. The analyses of each model using the weighted least square method are one by one explained below. In the first equation of the weighted least square method *ROTA* the dependent variable is regressed on the explanatory variable of *invdays*

and the same auxiliary proxies as used in the pooled least square method. The results of model 1 underweighted least square, the coefficient of *invdays* is (+ve) and has 1% level of significance are shown in Table 4.6. It shows that if the inventory turnover is increased by one unit will lead to an increase of 0.0002 units increase in the performance of the firm. There is a direct and significant association between *lnsales* and the earning ability of the firm. Similarly, *cr* and *turna* have a significant positive effect on the firm's performance, while *clta* and *gear* ratios have 0.027 and 0.056 as their p respectively and show a 5 and 10 percent significant inverse association with the firm profitability. The value of $R^2 = 0.2823$ shows that a 28.23% change in the dependent variable is explained by these variables.

In the second model, the dependent variable is regressed on the same controlling variables but with the explanatory variable *ardays*. The end results shown in the table illustrate that the *ardays* value is -0.0002. This demonstrates that the relationship of *ardays* with the profitability is negative but significant at a 10% significance level as evident by a p-value of 0.089. It shows that if the firm loses its tight collection policy and *ardays* is increased by one unit, the earnings of the firm affects drastically and decreased by 0.0002 units. Other variables like the size of the firm, Current Ratio, assets turnover have a direct significant effect on the earning ability of the firm. Similarly, *clta* have a 1% significant and inverse association. A debt ratio and firm performance are inversely related with a 5% level of significance. The $R^2 = 0.2714$ value demonstrates that in this model the explanatory variables explained about 27% variations in the dependent variable.

Similarly in the third equation *rota* is taken as a dependent variable and regressed on accounts payables in days as the explanatory variable, while the controlling variables remain the same. The high $p = 0.2907$ value shows an insignificant association between *ardays* and *rota* of the firm. The result indicates an inverse relation as evident by the negative sign of the

parameter. The controlling variables behave the same as previous results and have a relationship with the firm's performance. The value of R^2 is 0.2677 shows that these independent variables explained 26.77% of the changes in the dependent variable.

In the last model, *ccc* is employed as a main explanatory variable with others as controlling variables. Taking *ccc* as the main explaining variable, the result confirms that the association between *rota* and *ccc* is inverse and is insignificant as indicated by the high $p = 0.146$ value of *ccc*. The same previous behaviour is noted for other variables. The R^2 value of 0.2698 represents the goodness of fit and illustrates that 27% of changes in explained variable *rota* are due to these dependent variables. The results of the weighted least square method represent generally the same elucidation that the performance of the firm is affected by the tendency of the firm in managing its working capital. The result shows that the liquidity and earnings of the firm move in the same direction. Similarly, if the firm relies heavily on debt financing, the firm loses its tempo and thus its performance decreases. The results show that firm size and firm profitability move in the same direction.

Discussion

The association between the average collection period and performance of the firm as indicated by *rota* is -0.0354, which shows that if the duration of inflow of the receivables increases this leads to lower revenue for the firm. Similarly, the association between the performance and inventory turnover in days of the firm comprises a value of 0.0343, indicating that if the inventory turnover in days is increased, it will lead to an increased earning of the firm, which is opposite to the expected result, because the lower the value of days to convert the inventory into sales, the higher will be the revenue of the firm. The association between the accounts payables in days and profitability is 0.0628, which points out that if the firm delays its due payment to suppliers, the profitability of the firm increases.

The cash conversion cycle which represents the firm ability to manage working capital has also had a coefficient of -0.0586. It shows that the firm may enhance its performance in terms of profitability by decreasing the value of this variable to the minimum possible. It is concluded that the enterprise may enhance its profitability as well as efficiency by efficiently managing these time periods.

The connection between the profitability and size of the firm, the coefficient value is 0.1363 between *ROTA* and the size of the firm (*lnsales*), which implies that the impact of firm size on the firm performance is positive and significant. If the size of the firm increases the earnings of the firm also increase.

The study results indicate a positive (+ve) and significant relationship between the current ratio and the firm performance and have a coefficient of 0.4168, so the Pakistani firms show a positive association between the firm's liquidity and their profitability.

This analysis reveals a negative association between the inventory conversion period (*invdays*) and the cash gap. The correlation coefficient for this relationship is -0.1018, which illustrates that if the company required a longer time to switch its raw material into sales, the same will escort to a broadening in the value of the cash gap. Similarly, the association of Days sales outstanding with cash gap is direct with a coefficient of 0.5157, implying that lengthening the average collection period will result in broadening the cash gap of the company.

The analysis of the relationship between *apdays* and *ccc* demonstrates an indirect affiliation having a value of -0.9726 as a coefficient. This amount shows that by increasing the time to pay its obligation with respect to selling its inventory and receiving the bills from customers, in this way the firm can reduce its cash gap and thus will increase its performance.

All the above analysis displays that in the Pakistani context, management of WC has a sturdy and significant effect on the performance and efficiency of the firm

Conclusion

As evident from the trend of different ratios relating to the efficiency of the firm in managing its WC, in the study period the firms invested heavily in working capital. I expected that if the investments are managed in a well-organized way, the performance of the firm will enhance. The study found individually that variable representing the time required to convert the stock into sales i.e. *invdays* has a positive, while the Accounts Receivables in days *ardays* have an inverse connection with *rota*. Both these association is significant. The individual relationship of *apdays* with *rota* is positive but insignificant. Similarly, *ccc* and *rota* have the inverse *rota* but insignificant association. These study results illustrate that in order to increase/create value for their shareholders; the firm may employ such policies to reduce *invdays*, *ardays* or to lengthen its period of payment i.e. *apdays* to the optimum level. In this way, they may be able to decrease *ccc* to the possible minimum level to enhance its value. The result regarding the rapport between liquidity and firm performance shows a significant direct association. This shows that by increasing its liquidity, the firm may be able to enhance its performance. With more liquid assets the firm will be able to fulfil its short term obligation in due time and thus the credibility of the firm increases. The results of the size hypothesis state that if the firm grows more and more in size, the firm's performance is also enhanced and thus earning capacity of the firm also increases. The result demonstrates a significant direct bond between the firm's size and its performance.

Similarly, the debt owed by the firm and the firm's performance has an inverse but insignificant association. This shows that debt financing does not affect the earnings of the company.

Recommendations

As 30th June 2016 is taken as the reference date, so sample size contains the firms on the said date. This study recommends that new researchers in line may conduct a study on analyzing the KSE-

100 and may contain all firms in the Karachi Stock market during the intact period of the study. Researchers may also increase the size of the sample for getting more renovative findings.

Correspondingly the study may also be extended to cover other constituents of WC management including cash and all relevant marketable securities of firms.

References

- Abuzayed, B. (2012). WC management and firms' performance in emerging markets: the case of Jordan. *International Journal of managerial finance*, 8(2), 155-179.
- Addae, A. A., & Nyarko-Baasi, M. (2013). WC management and profitability: an empirical Investigation in an Emerging Market. *Research Journal of Finance and Accounting*, 4(15), 143-152.
- Afeef, M. (2011). Analyzing the Impact of WC management on the Profitability of SME's in Pakistan. *International Journal of Business and Social Science*, 2(22), 173-183.
- Akinlo, O., & Olufisayo, O. (2011). 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.
- Ali, I., Rehman, K. U., Ali, S. I., Yousaf, J., & Zia, M. (2010). Corporate social responsibility influences, employee commitment and organizational performance. *African journal of Business Management*, 4(13), 2796-2801.
- Alzoubi, S., Saleem, E., & Selamat, M. H. (2012). Proposing Conceptual Framework for Reducing Earning Management Using Ownership Structure Mechanism: Jordanian Companies Perspective. *Journal of Finance, Accounting & Management*, 3(2), 58-78.
- Appuhami, B. A. R. (2008). The Impact of Firm's Capital Expenditure on WC management: An Empirical Study across Industries in thailand. *International Management Review*, 4(1), 8-21.
- Azam, M., & Haider, S. I. (2011). Impact of WC management on firms' performance: evidence from non-financial institutions of KSE-30 index. *Interdisciplinary journal of contemporary research in business*, 3(5), 481-492.
- Bagchi, B., & Khamrui, B. (2012). Relationship between WC management and profitability: A study of selected FMCG companies in India. *Business and economics journal*.
- Baños-Caballero, S., García-Teruel, P. J., & Martínez-Solano, P. (2010). WC mangement in SMEs. *Accounting & Finance*, 50(3), 511-527.
- Behrendt, S., Wittchen, H.-U., Höfler, M., Lieb, R., & Beesdo, K. (2009). Transitions from first substance use to substance use disorders in adolescence: is early onset associated with a rapid escalation? *Drug and alcohol dependence*, 99(1-3), 68-78.
- Besley, S., & Meyer, R. L. (1987). "An Empirical Investigation of Factors Affecting the Cash Conversion Cycle". Business and Economics Society International.
- Bhattacharya, C. B., & Sen, S. (2004). Doing better at doing good: When, why, and how consumers respond to corporate social initiatives. *California management review*, 47(1), 9-24.
- Bhattacharya, U., Daouk, H., & Welker, M. (2003). The world price of earnings opacity. *The Accounting Review*, 78(3), 641-678.
- Bieniasz, A., & Gołaś, Z. (2011). The influence of WC management on the food industry enterprises profitability. *Contemporary Economics*, 5(4), 68-81.
- Biggam, C. P., Hough, C. A., Kay, C. J., & Simmons, D. R. (2011). *New directions in colour studies*: John Benjamins Publishing.
- Bilal, A., Naveed, M., & Taliv, N. (2011). Impact of working capital on profitability of cement sector of Pakistan. *Contemporary Research in Business*, 3, 661-666.
- Bricker, J. B., Peterson Jr, A. V., Sarason, I. G., Andersen, M. R., & Rajan, K. B. (2007). Changes in the influence of parents' and close friends' smoking on adolescent smoking transitions. *Addictive behaviors*, 32(4), 740-757.

- Charitou, M. S., Elfani, M., & Lois, P. (2010). The effect of WC management on firm's profitability: Empirical evidence from an emerging market. *Journal of Business & Economics Research*, 8(12), 63-68.
- Deloof, M., & Jegers, M. (1996). "Trade Credit, Product Quality and Intra Group Trade: Some European Evidence". *Financial Management*, 25(3), 33-43.
- Deloof. (2003). "Does WC management Affect Profitability of Belgium Firms". *Jontingurnal of Business Finance & Accounting*, 585.
- Eda, O., & Mehmet, S. (2009). Relationship between efficiency level of WC management and return on total assets in ISE. *International journal of Business and Management*, 4(10).
- Eljelly, A. M. (2004). Liquidity-profitability tradeoff: An empirical investigation in an emerging market. *International journal of commerce and management*, 14(2), 48-61.
- Filbeck, G., & Krueger, M. T. (2005). "An Analysis of WC management Results across Industries". *Mid-American Journal of Business*, 11-18.
- Ganesan, V. (2007). An analysis of WC management efficiency in telecommunication equipment industry. *Rivier academic journal*, 3(2), 1-10.
- Gilbert, M. R., Dignam, J. J., Armstrong, T. S., Wefel, J. S., Blumenthal, D. T., Vogelbaum, M. A., . . . Won, M. (2014). A randomized trial of bevacizumab for newly diagnosed glioblastoma. *New England Journal of Medicine*, 370(8), 699-708.
- Gill, A., Biger, N., & Mathur, N. (2010). The relationship between WC management and profitability: Evidence from the United States. *Business and economics journal*, 10(1), 1-9.
- Gumbochuma, G., Hamandishe, V., Nyahangare, E., Imbayarwo-Chikosi, V., & Ncube, S. (2013). Ethnoveterinary practices for poultry and cattle in Zimbabwe: a case study of Takavarasha village. *SJAS*, 2(12), 355-359.
- Haresh, B. (2012). WC management and profitability: Evidence from India—An empirical study. *Ganpat University-Faculty of Management Studies Journal of Management and Research*, 5, 1-16.
- Hawawini, G., Viallet, C., & Vora, A. (1986). Industry influence on corporate working capital decisions.
- Howorth, C., & Westhead, P. (2003). The focus of WC management in UK small firms. *Management Accounting Research*, 14(2), 94-111.
- Hussain, A., Hunjra, A. I., Faisal, F., & Baig, I. A. (2017). A Study on Working Capital Practices across Manufacturing Sector of Pakistan. *Journal of Managerial Sciences*, 11(03).
- Hussain-Khaliq, S. (2004). Eliminating child labour from the Sialkot soccer ball industry: Two industry-led approaches. *Journal of Corporate Citizenship*(13), 101-107.
- Inun Jariya, A. (2013). Management efficiency and profitability.
- Jayarathne, T. (2014). Impact of WC management on profitability: Evidence from listed companies in Sri Lanka. Paper presented at the Proceedings of the 3rd International Conference on Management and Economics.
- Juan García-Teruel, P., & Martínez-Solano, P. (2007). Effects of WC mangement on SME profitability. *International Journal of managerial finance*, 3(2), 164-177.
- Kaddumi, T. A., & Ramadan, I. Z. (2012). Profitability and WC management: the Jordanian case. *International Journal of Economics and Finance*, 4(4), 217-226.
- Karaduman, H. A., Akbas, H. E., Ozsozgun, A., & Durer, S. (2010). Effects of WC management on profitability: the case for selected companies in the Istanbul stock

- exchange (2005-2008). *International Journal of Economics and Finance Studies*, 2(2), 47-54.
- Kim, S. J., & Lee, Y. H. (2012). Recent and Further Researches for Supply Chain Finance. *대한산업공학회 춘계공동학술대회 논문집*, 2469-2478.
- Lazaridis, I., & Tryfonidis, D. (2005). "The relationship between WC management and profitability of listed companies in the Athens Stock Exchange". *Journal of Financial and Analysis*, 1-12.
- Lazaridis, I., & Tryfonidis, D. (2006). Relationship between WC management and profitability of listed companies in the Athens stock exchange. *Journal of financial management and analysis*, 19(1).
- Long, M. S., Malitz, I. B., & Ravid, S. A. (1993). Trade Credit, Quality Guarantees, and Product Marketability. *Financial Management*, 22(4), 117-127. <https://doi.org/10.2307/3665582>.
- Marquardt, J. R., & Marcus, J. M. (2017). Molecular Tools for Understanding Landscape Genetics and the Population Genetic Effects of Habitat Restoration on Butterflies. *The Journal of the Lepidopterists' Society*, 72(4), 253-265.
- Mbawuni, J. (2015). Examining Students' Feelings and Perceptions of Accounting Profession in a Developing Country: The Role of Gender and Student Category. *International Education Studies*, 8(6), 9-23.
- Miranda, P. G. d. (2013). *Guerra e Identidade: um estudo da marcialidade no Heimskringla*. Universidade Federal do Rio Grande do Norte.
- Mohamad, N. E. A. B., & Saad, N. B. M. (2010). WC management: The effect of market valuation and profitability in Malaysia. *International journal of Business and Management*, 5(11), 140.
- Moss, J. D., & Stine, B. (1993). Cash Conversion Cycle and Firm Size: A Study of Retail Firms. *Managerial Finance*, 19(8), 25-34. <https://doi.org/10.1108/eb013739>.
- Mujahith, M., & Munas, F. (2016). Study on WC management and profitability on food, beverage and tobacco companies in Sri Lanka.
- Naser, H. A. (2013). Assessment and management of heavy metal pollution in the marine environment of the Arabian Gulf: a review. *Marine pollution bulletin*, 72(1), 6-13.
- Otieno, O. L. (2015). The Relationship between capital structure, performance and replacement of CEO in firms listed on the Nairobi Securities Exchange.
- Padachi, K. (2006). Trends in WC management and its impact on firms' performance: an analysis of Mauritian small manufacturing firms. *International Review of business research papers*, 2(2), 45-58.
- Raheman, A., Afza, T., Qayyum, A., & Bodla, M. A. (2010). WC management and corporate performance of manufacturing sector in Pakistan. *International Research Journal of Finance and Economics*, 47(1), 156-169.
- Ramachandran, A., & Janakiraman, M. (2009). The Relationship Between WC management Efficiency and EBIT. *Managing Global Transmissions*, 7(1), 61-74.
- Samiloglu, F., & Demirgunes, K. (2008). The effect of WC management on firm profitability: Evidence from Turkey. *The International journal of applied Economics and Finance*, 2(1), 44-50.
- Sandeep bhattacharya, u. p. (2002). improvement in oxidative status with yogic breathing in young healthy males sandeep bhattacharya', us pandey and ns verma. *indian j physiol pharmacol*, 46(3), 349-354.
- Shin, H. H., & Soenen, L. (1998). "Efficiency of Working Capital and Corporate Profitability". *Financial Practice and Education*, 8(2), 37-45.

- Singhania, N., Puri, D., Madhu, S., & Sharma, S. (2008). Assessment of oxidative stress and endothelial dysfunction in Asian Indians with type 2 diabetes mellitus with and without macroangiopathy. *QJM: An International Journal of Medicine*, 101(6), 449-455.
- Smith, N. C. (2003). Corporate social responsibility: whether or how? *California management review*, 45(4), 52-76.
- Takon, S., & Atseye, F. (2015). Effect of WC management on firm profitability in selected Nigerian quoted companies. *International Journal of Economics, Commerce and Management*, 3(10), 414-438.
- Tinggi, M., Jakpar, S., Chin, T. B., & Shaikh, J. M. (2011). Customers? Confidence and trust towards privacy policy: a conceptual research of hotel revenue management. *International Journal of Revenue Management*, 5(4), 350-368.
- Tufail, S., & Khan, J. (2013). Impact of WC management on profitability of textile sector of Pakistan. Paper presented at the Proceedings of 3rd international conference on business management.
- Van Horne, J., C., & Wachowicz, J., M. (2000). *Fundamentals of financial management and PH finance center*: Prentice Hall, Lincoln, NE.
- Vishnani, S., & Shah, B. K. (2007). Impact of WC management policies on corporate performance—An empirical study. *Global business review*, 8(2), 267-281.
- Vural, G., Sökmen, A. G., & Çetenak, E. H. (2012). Affects of WC management on firm's performance: evidence from Turkey. *International Journal of Economics and Financial Issues*, 2(4), 488-495.
- Waweru, C., & Ngugi, K. (2014). Influence of financial management practices on the performance of micro and small enterprises in Kenya. *European Journal of Business Management*, 1(11), 141-161.
- Wilner, B. S. (2000). The exploitation of relationships in financial distress: The case of trade credit. *The Journal of Finance*, 55(1), 153-178.