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IMPACT OF WORKING CAPITAL (LIQUIDITY NEXUS RATIO) ON PROFITABILITY EVIDENCE FROM MANUFACTURING SECTOR OF PAKISTAN (COMPARATIVE ANALYSIS)

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ABSTRACT

The purpose of this study is to empirically investigate the impact of WCM on Profitability for a sample of 30, Cement and Sugar industries that are listed on the Pakistan Stock Exchange (PSX). This research will expand the horizon of knowledge and comparative analysis of the manufacturing sector (Cement and Sugar). Data is secondary in nature while the time of the study is 2014-2018. STATA software is used to measure the effect. In this research, NPM is taken as dependent variables and WCM independent which is measured by liquidity ratio while Size of Firm is taken as a control variable. The key finding of analysis shows that CR has a positive and significant effect on profitability in both sectors. However, CCC has a negative and significant but positive and insignificant effect on profitability in both sectors. ITR has a positive and insignificant effect on Profitability, Size has a positive and significant effect on profitability in both sectors. The final discussion comprehends that increase in CCC leads to decrease in Profitability, while the decrease in CCC leads to increase in Profitability. The quicker the firm converts its assets into liquidity the better the firm will assume profitability. It concluded that profitability can be enhanced if the industry manager manages its working capital more efficiently. At last test equality of matched pairs was applied to measure the trend effect which shows that both industries have the different operation, techniques and infrastructure, which has a significant difference between firm variables and ITR has an insignificant effect. Which show that both industries have the same mean of Inventories Turnover.

***Keywords**: Net Profit Margin, Current Ratio, Inventories Turnover Ratio, Cash Conversion Cycle, Size of Firm.*

INTRODUCTION

WCM is an extremely vital element for any corporate financing since it in a straight line influence the liquidity and performance of the firm. Usually, it states with CA and CL which is very imperative for a company especially in a case, when they are trying to survive continuously in the market, because of its sound effects of company financial performance and associated risk.

Either in day to day operation or lifetime financing. Certainly, WCM straightforwardly clenches the liquidity and financial performance of a company (Rahman & Nasr, 2007).

Moreover, WCM is the vital rudiments that play a key role in the liquidity and financial performance of the firms. WCM takes a huge segment of possessions and appreciated instant of an administrator, occasionally it has long been taken as a critical constituent in the comparative financing decision or making procedure of any firm (Gomes, 2013).

Consistently increase in firm daily operation especially (in term of cost operation) leads a prior interest in-progress state of affairs; management of WC has happened to an extra imperative for company endurance.

However, employing summary sheet data, liquidity and solvency ratios, liquidity can be calculated at any summit of instance, and Static method extensively used these points of the scale. However, for calculation of CCC, we usually take data from the income statement and summary sheet for managing the enduring changes in liquidity with the point in time (Manuel L. Jose, 1996).

The most prior element and ingredients of WCM are as follow, which is consistently used in accounting and financial books for such measurement. CA comprise, Cash, Account receivable (AR), stock in trade and other CA while CL are short term loans, Accounts payable, and other CL

The most consistent part of finance in today world, which signifies the easily accessible, and its conversion of liquid assets into a readable form and its ultimate effect on the financial performance of firms in WCM. In today competitive world financial performance and easily adequate conversion of assets into readable form are vital elements which demonstrate the ability of firms to pay its current debts, and its assign the capability of the company to pay their short-term obligation. The most

prior responsibility of an administrator is to keep an optimum level of CA to its total assets turnover and too short-term payment obligation. Sometimes holding too many inventories and not even capable of short-term debts may affect the financial performance negatively.

A bunch of problems the company administrator faces in day to day operation even in term of liquidity and financial performance. The company representative is entitled to several activities to maintain an optimum level of profitability and liquidity, because if the manager did not adequate use of liquidity the company may face the problem of solvency and bankruptcy. Moreover, if the representative does not even think about the sound financial performance of firm, he will not survive his company in the market. Accord from the above discussion there must be a tradeoff between these two comparable elements which we called WCM and sound financial performance. Producing larger inventory when demanded to decrease the stock out risk. A consign element in which the customer has access to the product before making a purchasing decision of something is credit facility.(Maltiz & Ravid, 1993, Deloof & Jegers, 1996).

A consistent time lag depends on the length of investment even short or long, ultimate the longer time lag better effect the length of investment in comprising of short time lag in WC (Deloof, 2003).

As discussed, longer length of CCC conversion might increase the financial performance of the company since it envelops to the ordering of peak sales. Corporate/financial performance also decreases with CCC effects. And effective tradeoff of granting credit to customer requires constant maintenance of look after for various components of WC: CR, stock in trade and payment of short-term obligation.

Purpose of the Study

According to the above discussion the latent term of financial management arises the intention of causality and ultimately portrays a sense of the existence of relationship or impact linking WCM and firm financial management. With the consequent presence, the rationale of this revision is to investigate the important aspect of financial management Known as WCM. This area is almost touched in the research arena and but a variety of contribution has made to research. This study is focused on WCM and its impact on financial profitability from a selected sample of Pakistani firms and analyzing the relationship between WCM and

Profitability and sound effects of different components of WC on probability in Sugar and cement sector of Pakistan. Since Pakistan has a developing economy.A convoluted revision has been done on poles apart sectors in developing sectors on the association among WCM and company performance. Variety of studies has been found on this particular topic i.e. impact of WCM on the performance of a firm utilizing its current ratio, CCC, also some work in textile and cement sector of PSE (KSE-listed) has conducted, but the comparative analysis is still lacking between these research arenas. Furthermore, this study will extend the horizon of comparative analysis of the most prominent sector of Pakistan which has a great contribution in Pakistan economy.

Research Gap

This context tries to contribute to the literature on the associated connecting of WCM and profitability in at least two ways. Alpha, it focuses on comparative analysis of Pakistani Sugar and Cement companies where least literature has been found. Priory, this study will validate some of the findings of previous studies which is statistically tested, and the association between WCM and the firm performance of the sample and selected firms(nationally and internationally). Thus, this revision will add some substances to the existing research knowledge which is developed by the previous researcher.

Research Question

An exceeding affirmed principle; succeeding exact research questions are framed:

- What are the factors/determinants of working capital management that affect firm profitability?
- How efficiently a firm converts its operational ratio's (working capital) into ready form?

Research Objective

- To examine the impact of WC on the profitability of selected sectors (comparative analysis).
- To investigate the relationship between WCM and profitability of cement and sugar sector.
- To examine the cause of liquidity ratio (WCM) on the profitability of selected Sugar and cement companies on through NPM.

Plan of the Study

This context explains the onion layer of this study which is organized as follows. Segment two presents a review of related literature, section three followed by research methods and variables of the study. Segment four portray and discuss the statistics and interpretation analysis. And the last section will conclude the paper in term of finding (existing phenomena) and future direction.

Review of Existing Literature

Many researchers have studied working capital from different views and in a different environment. Accord from the previous study the following section urges with the association between WCM and firm financial performance and its existence effects which is articulated by the previous researcher.

The manner of WCM has a substantial sway on the financial performance of the firms. Conqueringly it premeditated that most companies have a WC which is accomplished by a large sum of invested cash (Deloof, M., 2003).

However, Eljelly (2004) Conduct a study on manufacturing and agriculture sector, his study was carried out by 29 joint-stock companies that are listed and operated in Saudi Arabia; he accomplished significant level, but the unconstructive relationship between profitability and CCC in a company which has larger CCC. Ultimately, he also remarked that those firms which have a shorter length of CCC bear an insignificant and negative relationship with firm profitability. Furthermore, he culminates that there exists a constructive and significant association between size and the company who have larger and shorter cash conversion cycle.

Although Raheman and Nasr, (2007). Conduct a study on 94 firms that are listed at KSE, he takes a sample from 1999-2004. His finding suggests that net NOP, bear an unconstructive but momentous association with ACP, Average Payment Period (APP) and Inventory Turnover in days (IT), Debt ratio, and Size are positively related with firm profitability.

Although Nazir, (2007) argued with semantic and remarked that a company representative must maximize shareholder wealth and use WC efficiently and effectively.

Although Kulkanya Napompech (2012), Carried the revision on the effects of WCM on firm financial performance and evidenced his result from Thailand stock exchange by taking the sample from 2007-2009, he concluded that GOP are unconstructively related with RCP, and ICP, he further suggested that, company financial position can be increase by reducing the trend of RCP, CCC and ICP.

Moreover, Taghizadah et al. (2012), Conduct a study on Iranian business context. After statistical analysis, he originates that Firm Growth (FG) and Size has a constructive impact on firm financial performance. Moreover, leverage and concretive insistent investment policies state unconstructive impact on firm value and performance indicator.

Although Al-Mwalla, (2012). Conduct a study on this meticulous trend; he founds that Economic Growth (EG), Size and sales growth has helpful relation with firm financial performance (measure on Tobin's Q). He further concluded that company core embedded value and firm financial performance has a positive impact on Concretive Investment policy (CIP). While the unconstructive association was encountered between Aggressive Financing Policy (AFP) and firm financial performance and value.

Consequently, Shah and Khan (2012), inspect the effect of WCM and firm financial performance, they remarked their result from the 46 selected sample of Pakistani listed firms from 2003-2009. They concluded thatnumber of day's account receivable, number of day's inventory, number of day's account payable and CCC depressingly affected the dependent variable which is taken ROA.

However, Iqbal et al. (2014), demeanour a study on WCM and firm financial performance, they concluded that ACP, ITID, ACP, and CCC has an unconstructive association with the net profit margin. And they argued their evidence from selected firms of Pakistan stock exchange.

Moreover, Iqbal and Zhuquan (2015), investigate the phenomena linking WCM and financial performance of a firm. By providing facts from Pakistani scheduled firm. He concluded that ACP, ITID, ACP and CCC has a negative relation with the financial performance of firms; however, Size and sale to growth (Control variable) fraction has a constructive relative connection with firm financial performance.

Consequently, Nida Shah (2016), investigates the study on the topic of WCM and firm financial performance indicators by providing the facts from 2004-2013, 65 non-financial firms that are scheduled at Pakistan stock exchange (KSE). Furthermore, she argued that, exist a significant unconstructive association between CCC and its components with firm financial performance. Moreover, business cycles affect the association between WCM and firm financial performance.

Moreover Usman et al. (2017), demeanour a revision on WCM on firm financial indicators by providing evidence from the sugar sector of Pakistan. They concluded financial performance (ROA, ROE) of the sugar companies is significantly influenced by WCM.

Concurringly Shah and Khan (2018), conduct a study on financial performance indicators and WCM ratio Nexus. They evidenced their result from personal and consumer care product companies that are listed at Pakistan stock exchange. Their statistical section quarrel that ROA, is unconstructively correlated with, ACP and positively correlated with ITID, Average APP, CR and SG. All the relationships are significant except ITID and SG ones.

Research Hypothesis

Based on the literature gap the following hypothesis have been designed.

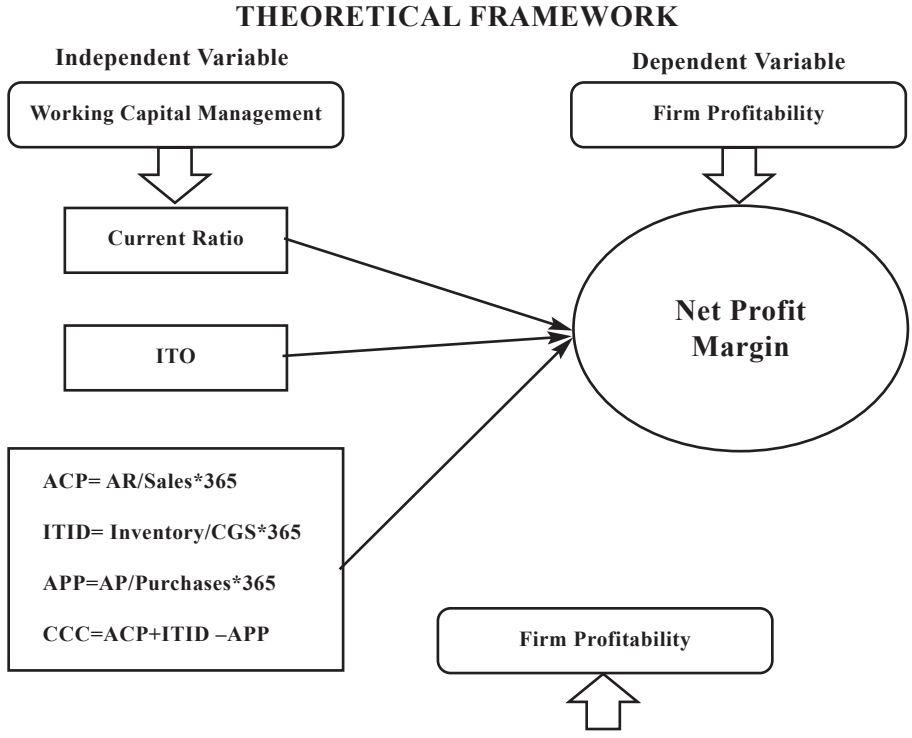
H_1. The current ratio has expected constructive and significant effect on firm profitability

H_2. Inventories turnover ratio has an effect on firm Profitability.

H_3. Cash Conversion Cycle has an effect on firm Profitability.

H_4. Firm Size has constructively effect on firm Profitability.

The figure 1.2 shows the theoretical framework of the study.



(Fig 1.2)

Control Variabl

RESEARCH METHODOLOGY

Nature of Research

The estimated and second-hand data for variable measurement were collected from investor information reports which are published by each company and available on Pakistan stock exchange (KSE), data is secondary in nature, while the time of the period is taken from 2014-2018. Data and companies were selected on data availability, whomever companies with missing data were excluded from the selected time frame. The nature of this study is based on quantitative analysis, while variables are computed on previous literature approaches. The final sample of this study involves 30 sectors for comparative analysis of sugar and cement (15 from Cement and 15 from Sugar sector). However, these results are only restricted to limited sample.

Sampling Technique

According to Pakistan stock exchange reports, there are 29 sugar and allied companies which are listed at PSX, which is considered as targeted population, based on that 15 companies randomly selected for quantitative analysis. Moreover, there are 21 in the number of cement companies sector which are listed at PSX, based from targeted population 15 firm were randomly selected. Data sample is 2014-2018 because it is the latest annual analysis data.

Variables

Net Profit Margin is used as an exploratory variable while CR, CCC, ITR, used as explanatory variables. Moreover, Size of Firm is taken as a control variable.

Variable of the study

Variable	Abbreviation	Measurements
Dependent Variable		
Net Profit Margin	**NPM**	Net Income/Net Sales
Independent Variable		
Current Ratio	**CR**	Current assets/Current Liability
Inventory Turnover Ratio	**ITR**	CGS/Average Inventory
Cash Conversion Cycle	**CCC**	ACP+ITID –APP
Control Variable		
Size of Firm	**Size**	Log of total assets Scott and Martin (1975)

Estimation model

Regression is used to predict the values of the quantitative outcome of the exploratory variable using several other predictive variables. Multiple regressions analysis shows the communal upshot of independent variables on the dependent variable.

$NPM_{it}=\alpha_o+\beta1CR_{it}+\beta2ITR_{it}+\beta3CCC_{it}+\beta4Size_{it}+€i_{it}$

Where:

α_o = Intercept
β1to β4=Co-efficients of independent and control variables.
NPM_{it}= Net Profit Margin of the i_{th} firm for the t_{th} moment in time.
CR_{it}= Current Ratio of the i_{th} firmforthe t_{th} moment in time.
ITR_{it}= Inventory turnover of the i_{th} firm for the t_{th} moment in time.
CCC_{it}= Cash Conversion Cycle of the firm i_{th} for the t_{th} moment in time.
$Size_{it}$=Size of Firm i_{th} for the t_{th} moment in time.
$€I_{it}$= Error term of the firm i_{th} for the t_{th} period.

Result and Discussion

Results of Sugar Industry

Statistics Summary

Variable	Obs	Mean	Std.Dev.	Min	Max
Net Profit	75	-.049	.273	-1.95	.173
CR	75	1.188	1.249	.053	7.934
Inventories	75	16.584	20.577	3.87	54.967
CCC	75	22.207	28.879	10.08	130.256
Size	75	6.508	.444	5.353	7.714

The above model shows the descriptive statistics of the study which consists on mean, standard deviation, the maximum and minimum value of the Sugar sector, the mean value of NPM is -.049 which shows the negative trend in Profit. While the maximum value is .173 and the minimum value is -1.95, however, the standard deviation is.273 which shows the fluctuation of data, meanwhile, the mean value of CR is 1.188 which shows the average payment of current liability which is cover by current assets, on the other hand, the maximum value is 7.934 which shows maximum period while the minimum value is 0.53

On the other hand, the mean value of ITO is 10.58, it shows average inventory turnover, the maximum value is 54.96 while the minimum value

is 3.87. Meanwhile, CCC has an average value of 22.207 which shows the conversion cycle of inventories, account receivable, account payable into readable cash form, while its maximum and the minimum value is 130.256 and 10.08. While the average mean value of Size is 6.508 which show the actual Size growth of sugar industry, moreover it has an utmost worth of 7.714 and smallest amount worth is 5.353.

Correlations Table

Variables	(1)	(2)	(3)	(4)	(5)
(1) Net profit	1.000				
(2) CR	0.256	1.000			
(3) Inventories	0.008	-0.022	1.000		
(4) CCC	-0.430	-0.198	-0.111	1.000	
(5) Size	0.414	-0.130	-0.012	-0.375	1.000

The correlation analysis shows that the Current ratio has a positive effect on Net Profit Margin. While inventories turnover ratio bears a positive static relationship with Net Profit Margin, on the other hand, CCC has a negative relationship with NPM which means that increase in CCC will lead to increase in Net Profit Margin. Meanwhile, Size has a positive effect on Net Profit Margin which means that increase in Firm size will lead to a catalytic change in Net Profit Margin.

Linear regression

Net Profit	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
CR	0.055	0.023	2.44	0.017	0.010	0.101	**
Inventories	0.000	0.001	-0.10	0.924	-0.003	0.003	
CCC	-0.002	0.001	-2.23	0.029	-0.004	0.000	**
Size	0.218	0.067	3.23	0.002	0.083	0.353	***
Constant	-1.480	0.459	-3.23	0.002	-2.395	-0.565	***
Mean dependent var		-0.049	SD dependent var			0.273	
R-squared		0.318	Number of obs			75.000	
F-test		8.166	Prob > F			0.000	
Akaike crit. (AIC)		-1.449	Bayesian crit. (BIC)			10.138	
Durbin-Watson stat	1.81732						

The above model shows the associations that exist and flanked between dependent and independent variables. The current ratio has a coefficient of 0.055 and individual t-value is significant which means that CR has positive and significant impact on Net Profit Margin. Inventories turnover ratio has a coefficient of 0.000 and individual t-value is insignificant which shows that ITO has week positive and insignificant impact on Net Profit Margin. Meanwhile, the coefficient of CCC is -0.002 which shows

week negative impact on Net Profit Margin and individual t-value is statistically significant. Which portray a message that rise in CCC will bring catalytic changes in firm Profitability. However Size has a positive coefficient, but individual t-value shows that there exists a significant impact between Size and NPM.

Moreover, R-squared of this study is 31.8% which means that NPM is that much explained by listed independent variables in the Sugar sector.

F- Test has a value of $8.16>4_{tab}$, and have Prob>F is 0.000 which means that the overall model is statistically significant.

Variance inflation factor

	VIF	1/VIF
CCC	1.278	.782
Size	1.232	.812
CR	1.1	.909
Inventories	1.019	.981
Mean VIF	1.157	.

To check the correlation between independent variables the VIF test was applied. VIF and tolerance value shows that all explanatory variables are not interrelated with each other.

Results of the Cement Industry

Statistics Summary

Variable	Obs	Mean	Std.Dev.	Min	Max
Net profit	75	.156	.122	-.292	.304
CR	75	1.79	1.241	.195	5.421
Inventories	75	18.406	12.63	3.689	86.234
CCC	75	43.877	18.388	5.244	98.946
Size	75	6.998	.453	6.029	7.941

The above model shows the descriptive statistics of the study which consists on mean, standard deviation, the maximum and minimum value of the cement industry, the mean value of NPM is .156 which shows the average earning in term of net profit in radical form. While the utmost worth is .304 and the smallest amount worth is -.292, however, the standard deviation is .122 which shows the fluctuation of the data, meanwhile, the mean value of CR is 1.79 which shows the average payment of current liability which is cover by current assets, on the other hand, the maximum value is 5.421 which shows maximum period while the minimum value is .195.

On the other hand, the mean value of ITO is 18.40, it shows average inventory turnover, the utmost worth is 86.233 while the smallest amount worth is 3.689. Meanwhile, CCC has an average value of 43.877 which shows the conversion cycle of inventories, account receivable, account payable into readable cash form, while its maximum and the minimum value is 98.946 and 5.244. While the average mean value of size is 6.998 which shows the actual industry growth, moreover it has an utmost worth of 7.941 and smallest amount worth is 6.029

Correlations Table

Variables	(1)	(2)	(3)	(4)	(5)
(1) Net profit	1.000				
(2) CR	0.372	1.000			
(3) Inventories	0.112	-0.137	1.000		
(4) CCC	0.028	0.207	-0.537	1.000	
(5) Size	0.627	0.223	0.097	-0.031	1.000

The correlation analysis shows that the Current ratio has a positive effect on Net Profit Margin. While inventories turnover ratio bears a positive static relationship with Net Profit Margin, on the other hand, CCC has a static positive relationship with Net Profit Margin which funds that raise in CCC will lead to a decline in assets turnover. Meanwhile, Size has a positive effect on Net Profit Margin which means that increase in industry growth will lead to a catalytic change in Net profit.

Linear regression

Net Profit	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
CR	0.025	0.009	2.72	0.008	0.007	0.043	***
Inventories	0.001	0.001	1.19	0.237	-0.001	0.003	
CCC	0.000	0.001	0.57	0.570	-0.001	0.002	
Size	0.151	0.024	6.17	0.000	0.102	0.200	***
Constant	-0.986	0.172	-5.72	0.000	-1.329	-0.642	***
Mean dependent var		0.156	SD dependent var			0.122	
R-squared		0.461	Number of obs			75.000	
F-test		14.949	Prob > F			0.000	
Akaike crit. (AIC)		-139.951	Bayesian crit. (BIC)			-128.364	
Durbin-Watson stat	1.879699						

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

The above model shows the association that exists and flanked between exploratory and explanatory variables. The current ratio has a value of 0.025 and individual tabulated value is 2.72 which is significant which means that CR has a positive and significant impact on Net Profit Margin. Inventories turnover ratio has a value of 0.001 and individual tabulated value is insignificant which shows that ITO has a positive and insignificant impact on NPM. Meanwhile, the coefficient of CCC is 0.00 which shows week positive impact on Net Profit Margin and individual t-value is statistically insignificant. Which portray a message that rise in CCC will bring a catalytic decline in firm profitability. HoweverSize has a positive coefficient, but individual t-value shows that there exists a significant relationship between Size and NPM.

Moreover, R-squared of this study is 46.1% which means that NPM is that much explained by listed independent variables in the cement sector. F- Test has a value of $14.94>4_{tab}$, and have Prob>F is 0.000 which means that the overall model is statistically significant.

Variance inflation factor

	VIF	1/VIF
CCC	1.441	.694
Inventories	1.422	.703
CR	1.109	.902
Size	1.071	.934
Mean VIF	1.261	.

To check the correlation between independent variables the VIF test was applied. VIF and tolerance value shows that all explanatory variables are not interrelated with each other.

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance
Variables: fitted values of Net Profit
chi2 (1) = 0.42
Prob > chi2 = 0.5161

For similarity of checking the error moment behaviour, Breusch-Pagan test was applied; the test has a value of 0.5161 which is greater> 0.05. Therefore we accept the null hypothesis which is (HO: constant variance).

Hypotheses Acceptance

The entire hypotheses from H1-H4 have some connection with previous studies final statistical outcomes. Therefore I accepted the hypotheses.

Two-tailed Mean comparison of Cement and Sugar Industry

To check the trend analysis of both sector, observation 1 explain the statistics summary of cement sector while observation 2 shows the summary of the sugar sector.

For trend analysis I developed two hypotheses which are:

H_0: DIFFERENCE = 0

H_1: DIFFERENCE ≠ 1

Table 1-1.4

Two-sample t-test with equal variances

	obs1	obs2	Mean1	Mean2	dif	St_Err	t_value	p_value
Net profit	75	75	-.049	.156	-.205	.035	-5.95	0.01

Two-sample t-test with equal variances

	obs1	obs2	Mean1	Mean2	dif	St_Err	t_value	p_value
CR	75	75	1.188	1.79	-.603	.203	-2.95	.004

Two-sample t-test with equal variances

	obs1	obs2	Mean1	Mean2	dif	St_Err	t_value	p_value
Inventories	75	75	16.784	18.407	-1.623	5.723	-.3	.777

Two-sample t-test with equal variances

	obs1	obs2	Mean1	Mean2	dif	St_Err	t_value	p_value
CCC	75	75	32.606	49.544	-16.937	8.221	-2.05	0411

Two-sample t-test with equal variances

	obs1	obs2	Mean1	Mean2	dif	St_Err	t_value	p_value
Size	75	75	6.508	6.998	-.49	.073	-6.7	0.01

Table 1-1.4

Which show the Net Profit Margin, CR, ITR, CCC, and Size in both sectors. The summary statistics consist of mean, difference, and t-value. Accord from the preceding hypothesis there is a difference in all statistical summaries, which assume that both sectors have different operational strategies regarding, manufacturing, accounting, financing and WCM and

its effect on selected financial performance. Common t-value and P-value of all variables expresses the statistically significant relationship. But ITR has insignificant t- value. Which show that both industries have the same mean of Inventories Turnover.

Variable	Hypothesis H0.	Hypothesis H1	Acceptance/Rejection
Net Profit Margin	Difference = 0	Difference ≠1	H1. Accepted
Current Asset	Difference = 0	Difference ≠1	H1. Accepted
ITR	Difference = 0	Difference ≠1	H0. Accepted
CCC	Difference = 0	Difference ≠1	H1. Accepted
Size	Difference = 0	Difference ≠1	H1. Accepted

CONCLUSION

The prime intense of this revision is to check the impact of WCM on company financial performance by providing a comparative analysis of variables from the two most prominent sectors of Pakistan. This study takes data from the published report and companies annual financial analysis reports for the measurement of variables from 2014-2018. Accord from the different statistics and tools which is applied for such measurement and comparison the final result reveals that CR ratio has a positive and momentous effect on NPM in both sectors which means that the better the firm converts its working capital to liquidity the companies will assume better profit. Moreover, inventories turnover ratio has a positive and insignificant relation in the sugar sector, while in the cement sector it has a positive but insignificant impact on NPM. CCC has a negative but significant effect on NPM in the sugar sector, while it has a positive but insignificant effect on Net Profit Margin in cement sector, which means that increase in CCC leads to decrease in firm profitability while a decline in CCC leads to increase in firm profitability ratio. However, if we look at Size it has an optimistic and important relation with Net Profit Margin in both sectors. Which mean that increase firm size is the determinant which has a linear effect on Profitability.On the concluding remarks of this final study, the finding comprehends that profitability of sugar and cement industry can be enhanced if both sector's representative manages their daily operation activity and ratio efficiently and effectively. The outcome has associated connection which investigated by some previous researcher.

Such as Shah and Khan (2018), Nida Shah (2016), Iqbal and Zhuquan

(2015), Iqbal et al. (2014), Shah and Khan (2012), Kulkanya Napompech (2012), Eljelly (2004)

FUTURE DIRECTION

This study is only investigated the comparisons analysis of Sugar and Cement sector while this other study can also be done on other manufacturing sector increasing the sample size, further research can also be done by taking another variable for measuring firm profitability by Gross Profit Margin, Return on Assets, or measure the working capital by Quick ratio, Sales to Working Capital, Cash Ratio and taking Sales Growth as a control variable.

REFERENCES

Deloof, M. A. (1996). Trade credit, product quality, and Intra Group Trade: Some European Evidence. *Financial Management* 25(3), 33-43.

Deloof, M. (2003). Does Working Capital Management Affect the Profitability of Belgian Firm? *Journal of Business Finance and Accounting*30 (3&4), 0306-686X.

Eljelly, A. (2004). Liquidity-Profitability Tradeoff: An empirical Investigation in an Emerging Market. *International Journal of Commerce & Management*14(2), 48-61.

Eljelly, M. (2004). Liquidity – Profitability Tradeoff: An empirical investigation in an emerging market. *International Journal of Commerce &Management*14(2).

Gill, A., (2010).The Relationship between Working Capital Management and Profitability: Evidence from the United States. *Business and Economics Journal*, Vol 01, 01-09.

Iqbal, N., et, al. (2014). The Relationship between Working Capital Management and Profitability: Evidence from Pakistan. *International Letters of Social and Humanistic Sciences* 7, 31-43.

Iqbal, A., & Zhuquan, W. (2015). Working Capital Management and Profitability Evidence from Firms Listed on the Karachi Stock Exchange.*International Journal of Business and Management*; Vol. 10, No. 2, 231-236.

Muhammad, M., et al. (2007) Working Capital Management and Profitability an Analysis of Firms of Textile Industry of Pakistan. *Journal of Managerial Sciences*,Volume VI Number 2,156-165.

Nazir, M. S., & Afza, T. (2009). Working Capital Requirements and the Determining Factors in Pakistan. *The Icfai Journal of Applied Finance*, 15, 28–38.

Pouraghajan, A., &Emamgholipourarchi, A. (2012). Impact of Working Capital Management on Profitability and Market Evaluation: Evidence from Tehran Stock Exchange,*International Journal of Business and Social Science*, 10, Vol.3.311-317.

Raheman A, Nasr M, 2007. Working capital management and profitability – case of Pakistani firms. *International Review of Business Research Papers*, 3: 279-300.

Shah,F,A., & Khan, W. (2012).Impact of Working Capital Management on Profitability: A Case of Pakistan Textile Industry.*City University Research Journal*, 01. Vol.03.

Shah, M., &khan, F. (2018). Profitability and Working Capital Management Nexus: Evidence from Food & Personal Care Products Sector Firms Listed on Pakistan Stock Exchange. *Journal of Business and Tourism* .01.Vol 04, 55-67.

Shah, N., (2017).Impact of Working Capital Management on Firms Portability in Different Business Cycles: Evidence from Pakistan,*Journal of Finance & Economics Research,* Vol. 1(1): 58-70.

Saghir A., et.al.(2011) Working Capital Management And Profitability: Evidence From Pakistan Firms. *Interdisciplinary Journal Of Contemporary Research In Business*, 08,Vol 3.1092-1105.

Usama, M., et al. (2017)Working Capital Management and Performance: Evidence from Sugar Sector.*The Pakistan Journal of Social Issues.* Vol VIII, 160-167.

Van Horne, J. C. (2000). Fundamentals of Financial Management (11 ed.). Prentice Hall Inc.