

How Working Capital Management affects Profitability in Edible Oil Industry? – Case of Listed Companies on BSE.

Rajesh Desai

Chimanbhai Patel Institute of Management & Research, Ahmedabad

rajeshdesai@cpi.edu.in

Abstract

Managing working capital is considered as one of most critical and recurring decisions to be taken by finance manager as compare to other like financing or investment which are non-recurring. A company can improve its shareholders' wealth by allocating optimal resources towards its working capital needs. The study is aimed to analyze how management of working capital determines profitability of firm. To serve the purpose, balanced panel data of 12 edible oil companies listed on BSE has been taken. The timeframe is 7 years starting from 2009-10 to 2015-16. Profitability is measured by Return on Asset (ROA). Debtors Collection Period (CP), Turnover Period of Inventory (ITP), Creditors Payment Period (PP) and cash cycle (CCC) are taken as representative of working capital policy of the company. Besides, Growth (G), Firm Size (Sz), Leverage (Lev) and Ratio of current assets and current liabilities (CR) are considered as control variables. To analyze the data statistical tools like Pearson correlation and multiple regression has been used. The study reveals that CP and ROA are negatively related whereas ITP, PP and CCC portrays positive relationship with ROA. But these relationships are not statistically significant as many other variables affects profitability of firms. Ratio of current assets and current liabilities and growth are having significant positive relation with profitability whereas leverage shows significant negative relation with profits.

KEY WORDS:

Working Capital Management, Profitability, Debtors Collection Period (CP), Turnover Period of Inventory (ITP), Creditors Payment Period (PP) and Cash Cycle (CCC), OLS Regression



Introduction

Corporate Finance is a stream of catering the financial needs of an organization. Finance is the backbone of any organization irrespective of its nature and core activities. Corporate finance theory mainly covers three perspectives of financial management i.e. Investment Decision, Financing Decision and Working Capital Decision. The first two deals with long term objectives and the later one deals with the routine activities of

the business. Third one is managing the funds required for meeting short term obligations of the firm and fulfilling the operational requirements for smooth functioning. Having liquidity does not depend on liquidation value of assets a firm, but on the operating cash generated by the assets (Soenen, 1993). The importance of managing current assets and liabilities has already been noticed by many industries and scholars have done ample of research in the relevant area. Managing working capital inaccurately may lead to insolvency of profitable firms as well (Samiloglu and Demirgunes, 2008).

Managing working capital involves maintaining sufficient amount current assets and current liability. It is necessary to decide about a tradeoff between liquidity and profitability. Higher current assets will not yield any earning on investments. At the same time, less current assets may incur shortfalls and problems to operate smoothly (Horne and Wachowicz, 2000). Higher profits by sacrificing liquidity might cause damages to the firm. As both are equally important, satisfying one at the stake of other is not viable. Earnings or profits are necessary for survival whereas liquidity is required to maintain the credibility (Raheman and Nasr, 2007).

Effectiveness of working capital management is measured by the total time lag between collection of sales and payment made to suppliers. Variables like Turnover Period of Inventory (ITP), Debtors Collection Period (CP) and Creditors Payment Period (PP) are used to represent working capital policy of the company. Cash Cycle (CCC) is the composite measure including the effects of all three components stated earlier. Wang (2002) analyzed that the firm may lose its sales by following stringent credit policy and lower stock levels. Similarly, firms providing less credit period may lose customers buying on credit. It is found that cost of losing such customers is about 20 %, depending on the discount percentage and discount period granted (Ng et al., 1999; Wilner, 2000).

Investment required in current assets is dependent upon multiple factors and will vary on basis of nature of industry, scale of operation, and many others. Current assets required for a manufacturing company is about half of their total assets whereas for a trading company it is more than half of their total assets. (Raheman and Nasr, 2007). Maintaining higher level of stocks, debtors or cash can provide liquidity but at the same time have negative effect on profits. The cost of irregular productions and business loss can be reduced by sufficient inventory. It also reduces supply costs and protect against price fluctuations (Garcia-Teruel and Martinez-Solano, 2007). Taking more time to pay creditors allows the company to check the quality of products and it is an easy and cost-effective source of funds. On the contrary, the firm may forgo the cash discount offers by stretching the payment period. (Raheman and Nasr, 2007).

A lot of research work has been undertaken to find out the relation between profits and management of working capital. Scholars like Rahman and Nasr (2007), Martinez-Solano & Garcia-Teruel and (2007) have concluded: ITP and CP are negatively related with profitability. Researchers like Sharma and Kumar (2011), Chalam and Babu (2014), have found that ITP and CP are positively related with profitability. Mathuva (2010) has identified highly significant positive relation for PP and profitability which differs from the studies of Padachi (2006), Sharma and Kumar (2011), Chalam and Babu (2014) who stated an inverse relation between PP and profitability. As there is no concrete outcome regarding the effect of managing working capital and profits, need to reinvestigate it arises.

There are six broad sections in the study. Second part deals with an overview of edible oil industry. Third section contains review of the existing literature on working capital relationship with profitability. Fourth section deals with research methodology, sampling plan, variables used and data analysis techniques. Section five comprises of data analysis and interpretation and last section contains overall conclusion of the study.

Overview of Edible Oil Industry

Indian households spend a substantial part of their income on edible income. It is the basic ingredient in

making any kind of food and is an important raw material for the restaurant and hotel industry. As India is an agriculture-oriented country, role of this sector is highly significant in the economic growth. In the global context, India stood first with biggest importer from Indonesia and Malaysia and is at the third rank in terms of consumption. After USA, China and Brazil, India secures fourth rank in terms of producing nine types of different oil seeds.

India's contribution is accounting for 10-12% in consumption; 6-8% in producing oil seeds; 4-6% in producing edible oil, and 12-14% of world imports for Nov to Oct '15. As population growth is higher than that of in production of oil, majority of the demand supply gap is filled through imports. This sector has faced problems because of unfavorable monsoon, high import duties and cost of production in India. India imports more than 65% of total edible oil and remaining is supplied by local manufacturers.

Review of Literature

Scholars have worked to study how management of working capital is related to profitability. But the results are mixed and no general conclusion is obtained. Different researchers have used different samples, methodology and research tools for conducting their research. Panel data regression, OLS regression, linear regression and ratio analysis are some of the techniques used by researchers. This section deals with review of existing study to find out research gap.

Wang (2002) has studied the firms of Japan and Taiwan in terms of operating profitability and liquidity as well as value of the firms. He found negative relationship between cash cycle and profitability both countries. It confines with the outcome of Jose et al., (1996) and Shin and Soenen (1998) that operating profitability can be improved by lowering the CCC. It also reveals that managing liquidity adds to the corporate values of the firms of both the countries.

Deloof (2003) has collected the data of 1009 firms (other than finance) from 1992-96 (5 years). Variables like Creditors Payment Period and Turnover Period of Inventory respectively are taken to represent credit and inventory policy. He used Cash Cycle (CCC) as a combined variable for policy of working capital. He found an inverse relation between profitability and variables of working capital.

Padachi (2006) has investigated 58 SMEs of Mauritius and used data from 1998 – 2003 (6 years). Applying pooled OLS and Fixed Effects regression model, the relationship between profitability and working capital management has been measured. He found that profitability is adversely affected by high inventories and longer collection period.

Nasr and Raheman (2007) have carried out their research work on 94 firms of Pakistan for 6 years from 1999–2004. Pooled least square regression, Pearson's correlation is used to know how profits are affected by management of working capital. Significant inverse relation is found between liquidity and profitability. They also concluded that cash cycle should be reduced to improve profits.

Nazir and Afza (2007) have studied the relation between policy of working capital and profits along with risk factor of the firm. A sample of 208 public sector companies listed on exchange of Karachi (KSE) for 7 years. Variables like investment policy and financing policy are used as independent and earnings on total assets and earnings on equity are taken as dependent. Cross sectional regression model has been run to arrive at a relationship. The results show that earnings are having negative relation with working capital. It is observed that profit improves by decreasing aggressiveness.

Gill, Biger and Mathur (2010) have studied 88 sample firms listed on NYSE for 3 years (2005 – 07). Their study reveals positive relation Cash Cycle and profits, but no significant effect has been found of working capital management on profits.

Mathuva (2010) has analyzed 30 listed firms from Nairobi Stock Exchange (NSE) for 15 years. He has

used regression model with fixed effects. He found a strong inverse relation between profitability and Debtors Collection Period. He also concluded that ITP and PP are significantly positively related with profitability.

Ramchandran and Janakiraman (2011) have analyzed the effect of working capital management on operating profits (EBIT) for Indian paper industry by taking data of 9 years (1997-98 – 2005-06). Indices of performance, utilization and efficiency are calculated using PP, ARP, ITP and CCC. Besides control factors like leverage, size and fixed financial asset ratio are also considered. Research reveals that PP has a strong inverse relation with profitability. The other variables are insignificantly related with profitability. CCC are positively related with profitability but ARP and ITP are negatively related with EBIT which is consistent with the findings of Padachi (2006).

Sharma and Kumar (2011) have studied 263 Indian firms (other than financial) for 9 years (2000-08) and found that profitability is positively correlated with working capital management. They used OLS multiple regression on the sample data collected from BSE – 500. They have also concluded that ITP and PP are inversely related with profits, whereas CP and CCC show a direct relationship with profits. The results are like the outcome of Gill, et al. (2010).

Ghosh and Joshi (2012) have studied the policy of working capital of CIPLA from 2004-05 to 2008-09. They used financial ratios and correlation technique to find out how liquidity affects profits. They derived that there exists significant negative relation among variables stated earlier.

Makori and Jagongo (2013) have conducted a study on 5 listed firms of Kenya belonging to manufacturing sector. They have taken balanced panel data for the period of 10 years (2003-12). Correlation and Regression (least square) models were used to study the relation between profits and working capital. They concluded an inverse relation between profits and collection period and Cash Cycle, but a direct relation between profits and ITP and payment period.

Babu and Chalam (2014) have focused on Indian Leather industry to carry out their research work. They have used data of 14 years from 1997-98 and applied regression model and correlation on it. They have concluded weak direct relation between profits and ITP and strong positive relation with Debtors Collection Period. They have found that PP and CCC were significant negatively related with profitability which supports the outcome of Raheman and Nasr (2007).

Based on the above discussion it is clear that there is no empirical evidence found as to how profits are affected by management of working capital. Researchers like Wang (2002), Nasr & Raheman (2007), and Deloof (2003) have shown inverse relation between CCC and profits whereas others like Gill, Bigger and Mathur (2010), Ramchandran and Janakiraman (2011) and Kumar & Sharma (2011) have deduced a direct relation between these two variables. Besides, there is no specific research carried out in Edible oil industry. So the paper attempts to draw the relation among the variables defined above in the selected sector.

Methodology of Research

It mainly includes the sampling plan, data collection, explanation of variables used and statistical tools used.

Sampling Plan

The study is based on all the edible oil companies listed on BSE. Multi-stage sampling technique is used to arrive at the sample firms. To have consistency among results, companies which are listed for less than seven years, highly diversified, discontinued with their business (during the reference period) and with incomplete data are eliminated. Following table will summarize the selection of sample.

Table – 1 Sample Selection

Particulars	Number of Companies
Listed on BSE	36
Less: Highly Diversified	(4)
Incomplete Data	(12)
Discontinued with Business	(1)
Listed for less than 7 years	(7)
Selected Companies	12

Data Collection

The research totally is based on secondary data collected from audited financial reports of various companies. Apart from that online portal of BSE, Care India, are used for the purpose of industry analysis.

List of Variables

The section will provide a brief of variables taken for study. As profitability (dependent variable) of firms is affected by variety of factors including working capital management, effect of those factors is required to be controlled. Table – 2 will give description, nature and symbols of the variables considered for the purpose of study.

Table – 2 Description of Variables

Nature of Variable	Name	Symbol	Formula
Dependent Variable	Earning on Asset	EOA	$\frac{\text{EBIT}}{\text{Total Asset}} \times 100$
Explanatory Variables	Debtors Collection Period	CP	$\frac{\text{Debtors}}{\text{Sales}} \times 365$
	Turnover Period of Inventory	ITP	$\frac{\text{Inventory}}{\text{COGS}} \times 365$
	Creditors Payment Period	PP	$\frac{\text{Creditors}}{\text{Purchase}} \times 365$
	Cash Cycle	CCC	CP + ITP – PP
Control Variables	Size	Sz	Log (Total Assets)
	Sales Growth	G	$\frac{S_1 - S_0}{S_0} \times 100$
	Leverage	Lev	$\frac{\text{Total Debt}}{\text{Total Asset}}$
	Current Ratio	CR	$\frac{\text{Current Asset}}{\text{Current Liabilities}}$

Hypothesis

H₀: Management of working capital do not affect profits. H₁: Management of working capital do affect profits.

H₁: Management of working capital do affect profits.

Analytical Tools

Multiple regression model is used to determine the impact of working capital on profitability. EOA is used as independent variable and working capital variables (CP, PP, ITP, and CCC) are used as explanatory variables. As profit is affected by several other variables which are considered as control variables.

Following models are framed using the variables. Similar model is used by scholars like Nazr and Raheman (2007), Sharma and Kumar (2011), Afza and Nazir (2007).

Model 1: $EOA = \alpha + \beta_1 CP_{it} + \beta_2 G_{it} + \beta_3 Sz_{it} + \beta_4 Lev_{it} + \beta_5 CR_{it} + \epsilon_{it}$

Model 2: $EOA = \alpha + \beta_1 ITP_{it} + \beta_2 G_{it} + \beta_3 Sz_{it} + \beta_4 Lev_{it} + \beta_5 CR_{it} + \epsilon_{it}$

Model 3: $EOA = \alpha + \beta_1 PP_{it} + \beta_2 G_{it} + \beta_3 Sz_{it} + \beta_4 Lev_{it} + \beta_5 CR_{it} + \epsilon_{it}$

Model 4: $EOA = \alpha + \beta_1 CCC_{it} + \beta_2 G_{it} + \beta_3 Sz_{it} + \beta_4 Lev_{it} + \beta_5 CR_{it} + \epsilon_{it}$

α = constant

β = regression co-efficient of various exploratory and control variables

ϵ = residual term.

i = number of the firm (1 to 12)

t = the year ranging from 2009-10 to 2015-16.

Data Analysis and Interpretation

Data has been analyzed with help of multiple regression, correlation and descriptive statistics.

Result of Descriptive

Table – 3 Result of Descriptive

	Min	Max	Average	Std. Deviation
Earning on Assets	-.67	.25	.0526	.09918
ITP	1.79	195.36	47.0457	35.75527
CP	3.18	145.49	34.8373	30.76564
PP	.05	124.92	37.8735	32.94837
CCC	-36.40	149.34	44.0100	44.03754
Gr	-.84	.96	.0911	.35451
Size	8.11	11.16	9.4604	.81304
Lev	.00	.53	.1149	.15288
CR	.04	9.99	1.5501	1.45370

(Extracted from SPSS)

The above results describe the overall working capital policy of edible oil industry. The average return on asset is 5.26% and its standard deviation is 9.92%. The average Turnover Period of Inventory is 47.05 days with a deviation of 35.76 days. The mean time taken to collect the money from debtors is 34.84 days and deviation is 30.77 days. Creditors are being paid within 37.87 days on an average along with a deviation of 32.94 days. The average Cash Cycle of the industry is 44.01 and its standard deviation is 44.04 days.

Correlation Analysis

Table 4 shows the regression matrix of the dependent and exploratory variables. ITP and EOA show a

positive correlation (0.077) indicating that profits can be increased by increasing the turnover period of inventory. The outcome is contradictory to the theories of corporate finance stating the negative relationship between ITP and EOA. Profits of firm is inversely related with debtor period and payment period of company. The company can improve EOA by shortening the collection time from debtors which is consistent with the existing theories. Cash Cycle is directly related with EOA stating that longer the Cash Cycle more will be the profits. Growth which is an important factor of firms' profitability has a significant positive impact on EOA whereas size and debt-equity are inversely related with profits. Ratio of current assets and liabilities, used as a conventional measure, has direct relation with EOA.

Table – 4 Correlation Matrix

	EOA	ITP	CP	PP	CCC	Gr	Size	Lev	CR
EOA	1								
ITP	.077	1							
CP	-.156	.115	1						
PP	-.072	.387**	.351**	1					
CCC	.008	.603**	.529**	-.188	1				
Gr	.373**	.071	-.149	.062	-.093	1			
Size	-.050	.293**	.273*	.687**	-.085	.096	1		
Lev	-.167	.041	-.037	-.101	.083	-.136	-.087	1	
CR	.213	-.020	-.176	-.226*	.029	-.110	-.092	.585**	1

** . Significance 0.01 level (2-tailed).
 * . Significance 0.05 level (2-tailed).

Extracted from SPSS

Regression Result

Table – 5 Regression Model - 1

Parameters	Coefficient	t-Value	Significance	Adj. R ²	F-Value	Significance	D-W Statistics	VIF
Constant	0.109243	0.973746	0.333193	0.272112	7.205694	0.000014	1.812545	1.163415
CP	-0.000029	-	0.929749					
		0.088446						
G	0.105470	3.894834	0.000206					
Sz	-0.009098	-	0.451467					
		0.756770						
Lev	-0.262544	-	0.000829					
		3.477964						
CR	0.032907	4.090907	0.000104					

Extracted from SPSS

Table 5 depicts the brief of regression model 1 showing the impact of CP on profitability. It shows inverse relation between CP and EOA which confines the theories. Firms can improve their profits by decreasing the credit time granted and fastening cash receipts. Scholars like Nasr and Raheman (2007) and Martinez-Solano and Garcia-Teruel (2007) Deloof (2003) had same results. The table also shows that size and leverage are negatively related with EOA indicating that leverage affects the profit adversely.

Table – 6 Regression Outcome of Model - 2

Parameters	Coefficient	t – Value	Significance	Adj. R ²	F-Value	Significance	D-W Statistics	VIF
Constant	0.133996	1.200489	0.233583	0.283576	7.570640	0.000008	1.756229	1.104341
ITP	0.000304	1.120774	0.265823					
G	0.104356	3.955397	0.000167					
Sz	-0.013306	-1.113481	0.268922					
Lev	-0.270203	-3.607185	0.000544					
CR	0.033389	4.261979	0.000056					

Extracted from SPSS

Table 6 contains the regression output of EOA and ITP stating that profitability and Turnover Period of Inventory are positively related. This outcome contradicts the theoretical frame work which says that reducing inventory holding period profits will go high. By holding inventory for longer period of time, the firm can avoid interruptions and thereby reduce wastage. Higher inventory also enables the company to meet the seasonal demand and thereby increasing its profitability.

Table – 7 Regression Outcome of Model - 3

Parameters	Coefficient	t – Value	Significance	Adj. R ²	F-Value	Significance	D-W Statistics	VIF
Constant	0.144728	1.033087	0.304756	0.273473	7.248433	0.000013	1.780885	2.013188
PP	0.000157	0.392448	0.695797					
G	0.106156	4.000406	0.000143					
Sz	0.013696	-0.862388	0.391118					
Lev	-0.265783	-3.521515	0.000720					
CR	0.033798	4.165768	0.000079					

Extracted from SPSS

Relationship between PP and EOA is summarized in above table. It shows a positive relationship between the aforesaid factors. It shows that profits can be increased by delaying payments and investing the surplus cash in short term securities. The outcome differs from the study of Sharma and Kumar (2011) and Deloof (2003) who found that PP and EOA are negatively related and hence deduce that less profitable firms delay the payment. Makori and Jagongo (2013) have found the similar outcome and concluded that there is a strong and direct impact of PP on EOA and thereby stated that profitable firms withhold their payments to suppliers and use the surplus cash for routine activities.

Table – 8 Regression Outcome of Model – 4

Parameters	Coefficient	t– Value	Significance	Adj. R ²	F-Value	Significance	D-W Statistics	VIF
Constant	0.100495	0.899895	0.370946	0.275410	7.309514	0.000012	1.787122	1.019975
CCC	0.000128	0.602450	0.548622					
G	0.107180	4.033106	0.000127					
Sz	-0.008892	-0.771442	0.442776					
Lev	-0.266335	-3.539122	0.000680					
CR	0.033190	4.213881	0.000067					

Extracted from SPSS

Table 8 provides the summarized result of regression model of EOA and CCC. It shows that profits and Cash Cycle are directly related. The outcome of the study differs from the theoretical framework of finance theory which states that CCC and profitability are negatively related. Padachi (2006) and Sharma and Kumar (2011) have proved the similar result and found positive relation between EOA and CCC. The study is contradicted with earlier findings of Tryfonidis & Lazaridis (2006), Nasr & Raheman (2007) and Deloof (2003).

In order to test multicollinearity and autocorrelation among the exploratory variables, Durbin-Watson and VIF is used. Both of the stats have their highest value as 1.812545 (D-W) and 2.0132 (VIF) which is under control.

Hypothesis Testing

The regression output of all four models show that the relation between working capital variables and profitability is not statistically significant. The p values of regression coefficients of CP, ITP, PP and CCC (0.93, 0.27, 0.70, 0.55) are more than 0.05 and hence null hypothesis is accepted the and deduce that working capital management does not have significant impact over profitability of listed Edible Oil companies in India.

Conclusion

In theory of corporate finance managing operational capital is one of the topics for heavy discussion which show its importance. Managing operational funds is one of the major areas of decision making for managers. Excessive investment in current assets leads to underutilization of resources but less investment results in threat of insolvency. There must be a balance between these two opposing forces i.e., liquidity and profits. The present report is aimed to study that how management of operational capital affects the profitability in edible oil industry. A balanced panel data of 12 companies listed on BSE for the period of 7 years (2010 – 2017) has been analyzed to arrive at a conclusion. Multiple regression analysis has been applied to establish the relation between the said variables. Outcome of the study shows that Debtors Collection Period is negatively related with profits and Turnover Period of Inventory, Creditors Payment Period and Cash Cycle are directly related with profits. Besides, it is also found that these relationships are not statistically significant which indicates that profitability is affected by many other factors other than working capital variables. As against the theoretical framework, CCC shows positive relationship with EOA indicating that profitability is improved by lengthening the cash conversion period. The outcome of the study is beneficial for the managers to decide about the optimum investment in working capital. The study also enables scholars to extend this work by taking different industries and varying the time frame.

Reference

- Afza, T., & Nazir, M. (2007). Is it better to be aggressive or conservative in managing working capital? *Journal of Quality and Technology Management*, 3(2), 11-21.
- C.K., N., J.K., S., & Smith, R. (1999). Evidence on determinants of credit terms used in interfirm trade. *Journal of Finance*, 54(3), 1109-1129.
- Deloof, M. (2003). Does Working Capital Management Affect Profitability of Belgian Firms? *Journal of Business Finance & Accounting*, 30(3 & 4), 573-587.
- Garcia-Teruel, J., & Martinez-Solano, P. (2007). Effects of working capital management on SME profitability. *International Journal of Managerial Finance*, 3(2), 164-177.
- Gill, A., Biger, N., & Mathur, N. (2010). The Relationship Between Working Capital Management and Profitability: Evidence from The United States. *Business and Economics Journal*, 2010(BEJ-10), 1-9.
- Horne Van, J., & Wachowicz Jr., J. (2000). *Fundamentals of Financial Management* (11th ed.). Prentice Hall: Pearson.
- Joshi, L. K., & Ghosh, S. (2012). Working Capital Management of CIPLA Limited: An Empirical Study. *International Journal of Marketing, Financial Services & Management Research*, 1(8), 170-186.
- Lazaridis, I., & Tryfonidis, D. (2006). Relationship between working capital management and profitability of listed companies in the Athens Stock Exchange. *Journal of Financial Management and Analysis*, 19(1), 26-35.
- Makori, D. M., & Jagongo, A. (2013). Working Capital Management and Firm Profitability: Empirical Evidence from Manufacturing and Construction Firms Listed on Nairobi Securities. *International Journal of Accounting and Taxation*, 1(1), 1-14.
- Makridakis, S., & Wheelwright, S. C. (1978). *Interactive forecasting univariate and multivariate methods*. California: Holden-Day Inc.
- Mathuva, M. D. (2010). The Influence of Working Capital Management Components on Corporate Profitability: A Survey on Kenyan Listed Firms. *Research Journal of Business Management*, 4(1), 1-11.
- Padachi, K. (2006). Trends in working capital 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., & Nasr, M. (2007). Working Capital Management and Profitability - Case of Pakistani Firms. *International Review of Business Research Papers*, 3(1), 279-300.
- Ramchandran, A., & Jankiraman, M. (2011). The Relationship between Working Capital Management Efficiency and EBIT. *Managing Global Transition*, 7(1), 61-74.
- Samiloglu, F., & Demirgunes, K. (2008). The effect of working capital management on firm profitability: Evidence from Turkey. *The International Journal of Applied Economics and Finance*, 2(1), 44-50.
- Sharma, A., & Kumar, S. (2011). Effect of Working Capital Management on Firm Profitability: Empirical Evidence from India. *Global Business Review*, 12(1), 159-173.

Soenen, L. (1993). Cash Conversion Cycle and Profitability. *Journal of Cash Management*, 13(4), 53-58.

Suresh Babu, N., &Chalam, G. (2014). Study on the Working Capital Management Efficiency in Indian Leather Industry - *An Empirical Analysis*. *International Journal of Research in Management and Technology*, 4(5), 196-201.

Winer, B. (2000). The exploitation of relationships in financial distress: The case of trade credit. *Journal of Finance*, 55(1), 153-178.

Y.J., W. (2002). Liquidity management, operating performance, and corporate value: Evidence from Japan and Taiwan. *Journal of Multinational Finance Management*, 12(2), 159-69.