We are IntechOpen, the world's leading publisher of Open Access books Built by scientists, for scientists

6,900
Open access books available

185,000
International authors and editors

200M
Downloads

Our authors are among the

154
Countries delivered to

TOP 1%
most cited scientists

12.2%
Contributors from top 500 universities



WEB OF SCIENCE™

Selection of our books indexed in the Book Citation Index in Web of Science™ Core Collection (BKCI)

Interested in publishing with us?
Contact book.department@intechopen.com

Numbers displayed above are based on latest data collected.
For more information visit www.intechopen.com



Chapter

Impact of Working Capital Management on Profitability: A Case Study of Trading Companies

Rafathunnisa Syeda

Abstract

The success of any business depends on its profitability, liquidity, and solvency. Liquidity plays an important role in the successful running of a business. Many prior studies have been conducted to measure the relationship between working capital and profitability. The results showed that the high investment in inventories and receivables is associated with lower financial performance. They found a negative relationship between Return on Assets and Inventory turnover and Cash conversion cycle the present study is designed to know the direct impact of working capital on profitability by choosing the days of collection, days of payment, days inventory converts to sales and finally the cash conversion cycle. This study examines the association between the profitability and working capital using the data of 15 US trading companies for the period of 2015 to 2019. The key points in this study are firstly there exists a negative relationship between the profitability and the average collection period, the lower the average collection period higher will be the profitability, indicating that a decrease in the number of days a firm receives payment from sales affects the profitability of the firm positively. Secondly there is a highly significant positive relationship between average payment period and profitability. This implies that the longer a firm makes the payment to its creditors, the more profitable it is. Thirdly the cash conversion cycle decreases it will lead to an increase in profitability of the firm, and managers can create a positive value for the shareholders which indicates that it has been maintained. The regression analysis showed the value for the R-squared in the model is 0.584, i.e., 58.4% of the variation in the dependent variable Net Profitability is explained by the independent variables.

Keywords: net profitability, trading companies, working capital management, average collection period, average payment period, inventory turnover days, cash conversion cycle

1. Introduction

An attempt has been made in this empirical study to know the impact of working capital management on profitability, both the factors are important concerns of management. If working capital is not managed perfectly it will reduce the liquidity of the company and ultimately effects profitability.

The working capital should be maintained at a desired level depending upon the size of the firm, excessive working capital leads to the unnecessary accumulation of inventories causing losses and wastages. The large debtors indicate the defective credit policy which might lead to bad debts. On the other hand, with the inadequate working capital, the firm will not be in a position to pay short-term liabilities. The firm may not be able to pay its day-to-day expenses which creates inefficiencies and reduces profits.

The success of any business depends on its profitability, liquidity, and solvency. Liquidity plays an important role in the successful running of a business. The crucial functions of financial managers to ensure the liquidity of a firm, that it must be in a position to meet its short-term obligation without which it cannot survive. The working capital which consists of current assets and current liabilities which measure the liquidity has been chosen as the main independent variable to study its relationship with the profitability. The collection period, payment period, inventory days and cash conversion cycle has been used as a measure of working capital.

Many prior studies have been conducted to measure the relationship between working capital and profitability as examined by Azhar [1]. The impact of liquidity and management efficiency on the profitability of select power sectors using different ratios as independent variables, where debtor turnover ratio, collection efficiency, and interest coverage showed a significant impact. Rathiranee and Sangeetha [2] examine the impact of working capital on financial performance in select trading firms where the regression analysis results showed that the high investment in inventories and receivables is associated with lower financial performance i.e., Return on Assets (ROA). They found a negative relationship between Return on Assets and Inventory turnover and Cash conversion cycle for the trading firms listed in Colombo Stock Exchange. Mansoori and Muhammad [3] have studied the same picture with the evidence from Singapore found that Management performance would be improved by managing working capital efficiently. Their results demonstrate that firm's profitability is increased by decreasing in receivable conversion period and inventory conversion period. Saradhadevi found in her study that there exists a highly significant negative relationship between the profitability and cash conversion cycle and a highly significant positive relationship between the time it takes the firm to pay its (Average payment period) which implies the longer a firm takes to pay its creditors the more profitable it is.

Keeping in view the above scenario the present study is designed to know the direct impact of working capital on profitability by choosing the days of collection, days of payment, days inventory converts to sales and finally the cash conversion cycle.

Many studies have been conducted for manufacturing companies, cement and textile companies, oil and gas companies only a few have been focused on trading companies. Hence the present study has its focus on working capital management and its impact on profitability in relation to trading sector.

2. Review of literature

1. Working capital management and profitability [4]: This study aims to find out the impact of working capital management on profitability. Return on assets, Current ratio, debt to equity ratio, operating profit to debt ratio, and inventory turnover ratios of the firms are the variables that are used in this study carried out for electrical equipment firms listed on Karachi stock exchange for a period of six years i.e. 2007–2012. Regression analysis was applied to the data. Normality and linearity test was also applied. Results showed significant positive

results. T-test is applied to see for individual variable significance, it tells that each variable is significant. It is concluded that working capital management has positive significant impact on profitability of the firms.

2. The relationship between working capital management and profitability [5]: A sample of 67 companies is used for a period of ten years (2007–2016). Quantitative method using multiple linear regression and pooled data set is used for analysis. The study investigates the relationship between working capital management and profitability in non-financial companies listed in the Saudi Stock Exchange. The results indicate a positive relationship between working capital management and profitability. The results indicate a weak linear relationship between WCM and profitability, indicating that no single constant practice or strategy would suit every company, managers should identify the optimal level of working capital that suits their company's situation. The results showed a statistically positive relationship between WCM, measured by CR, RCP, APP, INP, and profitability; however, there was a weak linear relationship.

3. Working capital management and firms' profitability: Dynamic panel data analysis of manufactured firms [6]: This paper examines the impact of working capital management on firm's profitability performance of manufacturing firms by using not only static models such as ordinary least square (OLS), fixed and random effects but also dynamic models difference generalized method of moments (GMM) and system generalized method of moments (SGMM) over the period from 2007 to 2018. The results show that inventory conversion period (ICP) and payable deferral period (PDP) have a positive relationship with return on asset while the cash conversion cycle (CCC) has a negative effect on return on assets.

4. Working capital management and profitability: Empirical evidence [7]: Empirical findings suggest that granting longer extensions to customers does not affect profitability. The results of the other variables showed a negative relationship with the profitability of the companies, suggesting that the investment in inventories and the obtaining of extensions from suppliers determine additional costs that negatively impact profitability. This paper examines the working capital management policies in 105 manufacturing companies in the Czech Republic for five years, from 2014 to 2018.

5. The relationship between working capital management and profitability: A case study of cement industry in Pakistan [8]: Ikram ul Haqq, Muhammad Sohail, Khalid Zaman and Zaheer Alam examines the effect of working capital on profitability for the period of six years from 2004 to 2009 by using the data of fourteen companies in the cement industry. The ratios relating to capital management have been selected and computed for the study. The main objective of the study was to find whether financial ratios affect the performance of the firm in the special context of cement industry in Pakistan. They found that the ROI is negatively correlated with the current assets to sales ratios and cash turnover ratio while ROI is positively correlated with the current ratio, liquid ratio current assets to total assets ratio, debtors turnover ratio, inventory turnover ratio, and credit turnover ratio.

6. Relationship between inventory management and profitability: An empirical analysis of Indian cement companies [9]: Dr. Ashok Kumar Panigrahi has discussed the importance of inventory management practices of Indian Cement Companies and their impact on working capital efficiency over a period of ten

years from 2001 to 2010. The study uses Regression analysis. The findings indicate that there exists a significant negative linear relationship between inventory conversion period and profitability. It was also found that when profitability increases with the decrease in the financial debt ratio. Further, it showed a positive relationship between profitability and firm size, as the profitability increases with an increase in firm size. Lastly, the relationship between the current ratio and profitability was negative.

7. Effects of working capital management on profitability: The case for selected companies in Istanbul stock exchange (2005–2008) [10]: The study was carried out by Hasan Ajan Karaduman, Halil Emre Akbas, Arzu Ozsozgun, and Salih Durer with the aim to provide some empirical evidence on the effects of working capital management on profitability for a sample of 140 selected companies listed in the Istanbul Stock Exchange (ISE) for the period of 2005–2008. The return on assets of the sample companies increases with a decrease in the number of days accounts receivable, accounts payable, and a number of days of inventory. Also, the reduction in the cash conversion cycle results in higher returns on assets. Furthermore, the results of control variables like the size have a positive effect on profitability while the debt ratio negatively affects the profitability.

8. Working capital management in indian oil and gas industry—A case study of Reliance Industries Ltd. [11]: Sankar Thappa has used liquidity ratios to assess the significance of working capital for a period of ten years 2004–2013.The analysis of liquidity ratios, liquidity position, item-wise analysis of components of gross working capital and liquidity ranking have been done. The results showed that the coefficient of correlation between the profitability ratio compared to the current ratio, working capital turnover ratio, and inventory turnover ratio indicates the low degree of positive correlation whereas the coefficient of correlation between profitability ratio compared to the quick ratio (liquid ratio) and absolute liquid ratio indicates that there is a low degree of negative correlation. The overall working capital position is not very much satisfactory.

9. Relationship between working capital management and firm profitability manufacturing sector of Pakistan [12]: Muhammad Safdar Sial and Aqsa Chaudry measure the relationship between working capital management and firm profitability in the manufacturing sector with a sample of 100 firms covering a period of ten years from 1999 to 2008. The coefficient of size was positive which means that the bigger the size have more profitability as compared to firms of smaller size. The debt ratio has been used for leverage which showed a significant negative relationship with Return on Asset which means increase in leverage adversely affect on return on assets. The results show that there is a strong negative relationship between variables of working capital management and profitability of the firm which means as the cash conversion cycle increases it will lead to a decrease in profitability of the firm.

10. Effect of working capital management on profitability by Asif Iqbala and Zhuquan Wang [13]: They found a diverging effect of working capital management on the profitability of manufacturing firms of Pakistan. They suggest that "paying full attention to the cash conversion cycle" has enormous effect on working capital. Minimizing the inventory level frees the capital for other use.

11. Relationship between working capital management and profitability by Puteri Shahirah Binti Ghazal [14]: This paper is an evidence from the UAE market

focusing on real estates and construction companies from the Abu Dhabi market. The finding of this study presented that there is a negative relationship between cash conversion cycle and profitability; longer the CCC, the profitability decreases. Another finding showed that the amount of payable days is negatively related to profitability.

12. The effect of working capital management on profitability [15]: A sample of three (3) manufacturing companies listed on the Dar es Salaam Stock Exchange (DSE) is used for a period of ten years (2002–2012). They found negative relationship between liquidity and profitability showing that as liquidity decreases, the profitability increases, average collection period and profitability indicating that a decrease in the number of days a firm receives payment from sales affects the profitability of the firm positively.

13. To analyze relationship between working capital management and profitability [16]: This paper basically analysis the relationship between working capital and profitability of the Indian IT Company (TCS). This Study shows negative relationship of inventory turnover ratio with ROA excluding and including Revaluation which shows that with the inventory turnover the firm should increase its return on assets. And also study shows negative relationship of debtor turnover ratio with Return on Capital Employed.

3. Research question

The main objective of any business is to earn profit and manage the funds efficiently and effectively which has direct impact on profits. So, working capital is the major constituent to measure liquidity. This study examines the association between the profitability and working capital using the data of 15 US trading companies for the period of 2015 to 2019.

4. Hypotheses development

Working capital is an important issue during financial decision making. The crucial part in managing working capital is required to maintain its liquidity in day-to-day operation for the smooth running of business and meeting its obligations in time. Thus, working capital is selected as one of the independent variables to know that how it effects profitability.

H1: There is a significant relationship between Working Capital Management and profitability.

H2: Working capital management has strong impact on profitability.

Keeping in view the above studies the following objectives have been outlined for the present study.

5. Objectives of the study

1. To study the relationship between profitability and working capital management.

2. To examine the impact of average collection period, average payment period, inventory turnover days and cash conversion cycle on profitability.

Variables	Type	Measured	Abbreviations used
Net income	Dependent variable	Net Income/Net sales*100	NI
Average collection period	Independent variable	Account receivable/net sales*365	ACP
Average payment period	Independent variable	Account payable/Cost of goods sold*365	APP
Inventory turnover days	Independent variable	Inventory/Cost of goods sold* 365	ITD
Cash conversion cycle	Independent variable	ACP+ITD-APP	CCC

Table 1.
Showing the key research variables.

6. Methods

The choice of the variables for the present study is influenced by the previous studies on working capital management. They include dependent, independent and some control variables. The profitability in terms of Return on assets, Gross profit ratio, Operating profit and Net income are taken as dependent variable in previous studies.

The dependent variable is the one which is affected during the experiment, for the present study profitability is taken as dependent variable i.e., in terms of Net Income. The independent variable is the one which effects the dependent variable. Average collection period, cash conversion cycle, average payment period, inventory turnover ratio, current ratio, liquid ratio, etc. were taken as independent variables in previous studies. For this study the independent variables are the average collection period, average payment period, inventory turnover days and cash conversion cycle. The study aims at to find out the association between the variables through different statistical analysis (**Table 1**).

The following equation is used to estimate the impact of working capital on profitability.

$$NI\left(it\right) = \hat{a}0 + \hat{a}1\left(ACP\,it\right) + \hat{a}2\left(APP\,it\right) + \hat{a}3\left(ITD\,it\right) + \hat{a}4\left(CCC\,it\right)$$

NI (it) = profitability of the firms at time 5 years, i = 15 firms.
β0 = the intercept of an equation.
β = coefficients of independent variables.
T = time 5 years 2015–2019.
Average collection period ACP.
Average payment period APP.
Inventory turnover days ITD.
Cash conversion cycle CCC.

In the above general equation, the Profitability is the dependent variable, and it is influenced by the independent variables i.e., ACP, APP, ITD and CCC.

7. Sample and data collection

The main source of data is the S&P Capital IQ website. Many studies have been conducted to examine the relationship between the financial performance and working capital management. These studies have been done relating to the cement companies, trading companies, manufacturing companies, pharmaceutical

companies and only a few have been carried out about trading companies. So for the present study sample is taken from trading companies.

The present study aims at to provide some empirical evidence of impact of working capital management on profitability for a sample of 15 trading companies for the period of five years from 2015 to 2019. These companies are randomly selected from all listed companies in the New York Stock Exchange (NYSE). The sample companies includes: 1) Applied Industrial Technologies Inc. (AIT), 2) DXP Enterprises Inc., 3) Eco Shift Power Corp. (ECOP), 4) EVI Industries Corp., 5) General Finance Corp. (GFN), 6) Gypsum Management and Supply Corp. (GMS), 7) W.W. Grainger (GWW), 8) H&E Equipment Inc. (HEES), 9) HD Supply Inc. (HDS) 10) Houston Wire and Cable Company (HWCC), 11) Huttig Building Products Inc. (HBP) 12) Kaman Corporation (KAMN), 13) MRC Global Inc., 14) MSC Industrial Direct Co. Inc. (MSM), 15) ProShares Ultra Health Care (RXL).

The Net Profitability is taken as the dependent variable and the average collection period (ACP), average payment period (APP), inventory days converted to sales (ITD) ad cash conversion cycle (CCC) are considered as independent variables.

8. Results

The analysis of data is done using descriptive statistics, correlation matrix and regression analysis.

The following observations are made from the above **Table 2** compiled with five years data for 15 trading companies:

1. The Net profitability for these companies ranges from −7.308 to 31.895 with a mean of 3.637 and standard deviation 5.85 which shows high variance.

2. ACP ranges between 18.57 and 133.28 days with an average of 51 days and standard deviation of 16.88 signifying very high variability across the companies.

3. The APP ranges between 9.6 and 79.69 with an average of 36.76 and standard deviation of 14.62. The minimum time taken to make the payment is 9 days which is unusual.

4. The ITD ranges between 30.62 and 139.53 with an average of 71.24 and standard deviation of 26.05. The maximum time taken to convert inventory into sales is 139 days which is a very large time period to convert inventory into sales.

5. The CCC ranges between 18.02 and 193.18 with an average of 85.85 and standard deviation of 36.63. The maximum time taken for cash conversion cycle is 193 days which is a large time taken to convert cash.

Variable	Mean	Standard deviation	Minimum	Maximum
Net profitability	3.637	5.859	−7.308	31.895
ACP	51.38	16.886	18.576	133.28
APP	36.766	14.617	9.61	79.698
ITD	71.24	26.05	30.62	139.53
CCC	85.85	36.63	18.024	193.18

Table 2.
Descriptive statistics of 15 companies for the years from 2014 to 2019.

9. Correlation analysis

Correlation analysis is used to measure the degree of association between different variables under consideration. Correlation matrix of all variables included in the analysis is presented in **Table 3** which is calculated based on data of 15 trading companies for a period of five years 2015 and 2019.

An attempt has been made to find the relationship between profitability and WC, for this purpose Pearson's coefficient of correlation analysis is done. As indicated in the above studies there exist a negative correlation between the profitability and the collection period, the lower the average collection period higher will be the profitability. The correlation between average payment period and profitability is 0.127 which shows a positive relationship if there is an increase in payment period it leads to an increase in profitability. There exist a negative correlation between profitability and the cash conversion cycle is −0.271 which indicates an increase in collection period leads to increase in CCC and vice versa and ultimately effects profitability The correlation between inventory conversion days and profitability is positive which is beyond expectation. There exists a negative correlation between cash conversion cycle and average payment period.

It is recommended that the companies should avoid an increasing cash conversion cycle because it means that the business is becoming more operating inefficient, locking more and more cash into its processes. They should maintain a lowest cash conversion cycle compared to their peers, or at least a decreasing one. A decreasing CCC represents a more efficient company that converts its inventories faster as well as gets paid faster and probably is paying its suppliers later thus, holding cash for more time (**Table 4**).

	NP	ACP	APP	ITD	CCC
NP	1				
ACP	−0.353391495	1			
APP	0.127879206	0.25544055	1		
ITD	0.225071917	0.20822956	−0.140703	1	
CCC	−0.271955653	0.50715839	−0.381359	0.8633495	1

Table 3.
Correlation matrix of 15 companies for the year 2015 and 2019.

Regression statistics	
Multiple R	**0.782**
R square	0.584
Adjusted R square	0.425
Standard error	0.515
Observations	75

Table 4.
Regression results of 15 companies for the year 2015 to 2019.

10. Regression analysis

The regression analysis showed the value for the R-squared in the model is 0.584, i.e., 58.4% of the variation in the dependent variable (NI) is explained by the independent variables working capital of the model, which is represented by CCC, APP, ACP, and ITD and 42% is affected by other factors.

11. Summary and conclusions

The study is carried out for a sample of 15 trading companies for the period of five years from 2015 to 2019. These companies are randomly selected from all listed companies in the New York Stock Exchange (NYSE).

This study examined the relationship between Net Profitability and several variables of working capital management such as average collection period, average inventory turnover in days, average payment period and cash conversion cycle. The results showed that there exist a negative relationship between the profitability and the average collection period, the lower the average collection period higher will be the profitability. The correlation between average payment period and profitability is 0.127 which shows a positive relationship if there is an increase in payment period it leads to an increase in profitability. It is found that the cash conversion cycle decreases it will lead to an increase in profitability of the firm, and managers can create a positive value for the shareholders which indicates that it has been maintained.

The results of this study show that there is a strong relationship between the working capital and profitability of the firms. It means if the financial managers keep an eye on the liquidity it will lead to profitability. So, it is recommended that Companies should always maintain a sound collection policy and it is further suggested that managers can create value for their shareholders by reducing the number of days accounts receivable, increasing the number of days accounts payable and inventories to a reasonable minimum.

The hypotheses is accepted for working capital management that it has strong impact on profitability. There is a significance relationship between Working Capital Management and profitability. The study has examined the impact in terms of average collection period, average payment period, inventory turnover days and cash conversion cycle on profitability.

Furthermore, On the basis of the above analysis the results can be further strengthened if the firms manage their working capital in more efficient ways. Management of Working capital means the management of current assets and current liabilities. If these firms efficiently manage their cash, accounts receivables, accounts payables, and inventories, this will ultimately increase profitability of these companies.

12. Limitations of the study

1. The study is carried out for a period of five years only i.e., 2015 to 2019.

2. The study is based on secondary data collected from the website of S&P Capital IQ.

3. The study is carried out about 15 Trading companies.

IntechOpen

IntechOpen

Author details

Rafathunnisa Syeda
Northeastern Illinois University, Chicago, IL, USA

*Address all correspondence to: srafathunnisa@gmail.com

IntechOpen

© 2021 The Author(s). Licensee IntechOpen. This chapter is distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/3.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. CC BY

References

[1] Azhar, Syed. Impact of liquidity and management efficiency on profitability: An empirical study of selected power distribution utilities in India. Journal of Entrepreneurship, Business and Economics 2015. https://iranept.rcv.org.uk/empirical_analysis_of_entrepreneurship_and_economic_growth_international_studies_in_entrepreneurship.pdf

[2] Yogendrarajah, Rathiranee. Working capital management and its impact on firms' financial performance: An analysis of trading firms. Research Gate 2011. https://www.researchgate.net/publication/256088750_Working_Capital_Management_and_its_Impact_on_Firms'_Financial_Performance_An_Analysis_of_Trading_Firms

[3] Mansoori, Ebrahim. The effect of working capital management on firm's profitability: Evidence from Singapore. Interdisciplinary Journal of Contemporary Research in Business 2012. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2185840

[4] Rimsha Khalid, Tehreem Saif, Abdul Rehman Gondal, and Hamza Sarfraz. Working capital management and profitability. Mediterranean Journal of Basic and Applied Sciences (MJBAS) 2018;2(2):117-125.

[5] Nasser A. Alsulayhim. The relationship between working capital management and profitability. International Business Research 2019;12(8). DOI:10.5539/ibr.v12n8p142

[6] Kafeel, Ali, J., Ud Din, M., Waris, A., Tahir, M., and Khan, S. Working capital management and firms' profitability: dynamic panel data analysis of manufactured firms. Journal of Financial Risk Management 2020;9:494-517. DOI:10.4236/jfrm.2020.94027

[7] Arnaldo Arnaldi, Barbara Novak, Remo Roscigno Wu Zhan. Working capital management and profitability: Empirical evidence. International Journal of Business Management and Economic Research (IJBMER) 2021;12(2).

[8] Ul Haq, Ikram, Muhammad Sohail, Khalid Zaman, and Zaheer Alam. The relationship between working capital management and profitability: A case study of cement industry in Pakistan. Research Gate 2011. https://www.researchgate.net/publication/288946070

[9] Panigrahi, CMA (Dr.) Ashok. Relationship between inventory management and profitability: An empirical analysis of Indian cement companies. SSRN 2013. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2342455.

[10] Karaduman, Hasan Agan, Halil Emre Akbas, Arzu Ozsozgun, and Salih Durer. Effects of working capital management on profitability: The case for selected companies in the Istanbul stock exchange (2005-2008). Research Gate 2010. https://www.researchgate.net/publication/290164649_Effects_Of_Working_Capital_Management_On_Profitability_The_Case_For_Selected_Companies_In_The_Istanbul_Stock_Exchange_2005-2008

[11] Thappa, Sankar. Working capital management in Indian oil and gas industry – A case study of Reliance Industries LTD. Academica Science Journal 2014. https://www.researchgate.net/publication/334442075_Working_Capital_Management_In_Indian_Oil_Gas_Industry_-_A_Cas_Study_of_Reliance_Industries_LTD

[12] Safdar Sial, Muhammad, and Aqsa Chaudhry. Relationship between

working capital management and firm profitability: Manufacturing sector of Pakistan. Research Gate 2012. https://www.researchgate.net/publication/255855851_Relationship_between_Working_Capital_Management_and_Firm_Profitability_Manufacturing_Sector_of_Pakistan

[13] Asif Iqbala and Zhuquan Wang. Effect of working capital management on profitability. 2018 5th International Conference on Key Engineering Materials and Computer Science (KEMCS 2018).

[14] Puteri Shahirah Binti Ghazali. Relationship between working capital management and profitability. https://www.researchgate.net/publication/336720653_Relationship_Between_Working_Capital_Management_and_Profitability

[15] Ntui Ponsian, Kiemi Chrispina, Gwatako Tago, Halim Mkiibi. The effect of working capital management on profitability. International Journal of Economics, Finance and Management Sciences 2014;2(6):347-355. DOI:10.11648/j.ijefm.20140206.17

[16] Rajwinder Kaur. To analyze relationship between working capital management and profitability. International Journal of Management, Technology and Engineering. https://www.researchgate.net/publication/343162003_To_Analyze_Relationship_between_Working_Capital_Management_and_Profitability