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Review Article

A STUDY ON THE WORKING CAPITAL MANAGEMENT OF PHARMACEUTICAL INDUSTRY (A CASE STUDY OF CIPLA LTD.)

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ABSTRACT

This paper empirically investigates the relationship between the components of working capital and firms' profitability of firms in the pharmaceutical industry. We undertake profitability (return on assets) as a dependent variable and the inventory conversion period (ICP), the average collection period (ACP), the average payment period (APP), and the cash conversion cycle (CCC) are used as independent variables and are considered for measuring working capital management. The data were taken from secondary data source named as "Cipla Ltd., covering the period from 2012–2013 to 2016–2017." The correlation result shows that profitability has an insignificant positive relationship of APP and significant positive relationship of total assets. Even though, ICP, ACP and CCC were significant negatively related to profitability. The results show that for overall pharmaceutical industry, working capital management has significant impact on the profitability of the firms.

Keywords: Profitability, Cipla Ltd., Working Capital.

INTRODUCTION

In the fast-moving business world, firms are highly competing among them. In general, we believe that finance covers three main topics that are capital budgeting, capital structure, and working capital management. Capital budgeting and capital structures are associated with investment decisions while working capital management is the functional area of finance. It involves the relationship between a firm's short-term assets and its short-term liabilities such as managing inventories, accounts receivable and payable, and case [4]. The main purpose of any firm is to maximize profit. However, maintaining liquidity of the firm also is an important objective. Hence, liquidity and profitability are both the two different sides of the same coin. The problem is that increasing profits at the cost of liquidity can bring serious problems to the firm. Thus, the strategy of the firm must maintain a balance between these two objectives of the firm. Dilemma in working capital management is to achieve the desired trade-off between liquidity and profitability. Referring to the theory of risk and return, an investment with more risk will result in more return. Thus, firms with high liquidity of working capital may have low risk and low profitability. Conversely, a firm that has low liquidity of working capital faces high risk; this result leads to high profitability. Although this might increase profitability (due to increase sales), if may also adversely affect the profitability if the costs tied up working capital exceed the benefits of holding more inventory and/or granting more trade credit to customers.

ABOUT THE INDIAN PHARMACEUTICAL INDUSTRY

Introduction

The Indian pharmaceuticals market is the third largest in terms of volume and 13th largest in terms of value, and it accounts for 20% in the volume terms and 1.4% in value terms of the Global Pharmaceutical Industry as per a report by Equity Master. India is the largest provider of generic drugs globally with the Indian generics accounting for 20% of global exports in terms of volume. Of late, consolidation has become an important characteristic of the Indian pharmaceutical market as the industry is highly fragmented.

India enjoys an important position in the global pharmaceuticals sector. The country also has a large pool of scientists and engineers who have the potential to steer the industry ahead to an even higher level. Presently, over 80% of the antiretroviral drugs used globally to combat Acquired Immuno Deficiency Syndrome (AIDS) are supplied by Indian pharmaceutical firms.

The UN-backed Medicines Patent Pool has signed six sub-licenses with Aurobindo, Cipla, Desano, Emcure, Hetero Labs, and Laurus Labs, allowing them to make generic anti-AIDS medicine Tenofovir alafenamide for 112 developing countries.

Market size

The Indian pharma industry, which is expected to grow over 15% per annum between 2015 and 2020, will outperform the global pharma industry, which is set to grow at an annual rate of 5% between the same period! The market is expected to grow to US$ 55 billion by 2020, thereby emerging as the sixth largest pharmaceutical market globally by absolute size, as stated by Mr. Arun Singh, Indian Ambassador to the US. Branded generics dominate the pharmaceuticals market, constituting nearly 80% of the market share (in terms of revenues). The sector is expected to generate 58,000 additional job opportunities by the year 2025.

India's pharmaceutical exports stood at US$ 16.4 billion in 2016–2017 and are expected to grow by 30% over the next 3 years to reach US$ 20 billion by 2020, according to the Pharmaceuticals Export Promotion Council of India.

Indian companies received 55 Abbreviated New Drug Application (ANDA) approvals and 16 tentative approvals from the US Food and Drug Administration (USFDA) in Q1 of 2017. The USFDA approvals are expected to cross 700 ANDA in 2017, thereby recording a year-on-year growth of 17%. The country accounts for around 30% (by volume) and about 10% (value) in the US$ 70–80 billion US generics market.

India's biotechnology industry comprising bio-pharmaceuticals, bio-services, bio-agriculture, bio-industry, and bioinformatics is expected grow at an average growth rate of around 30% a year and reach US$ 100 billion by 2025. Biopharma, comprising vaccines, therapeutics, and diagnostics are the largest sub-sector contributing nearly 62% of the total revenues at Rs 12,600 crore (US$ 1.89 billion).

Investments

The Union Cabinet has given its nod for the amendment of the existing Foreign Direct Investment (FDI) policy in the pharmaceutical sector to

allow FDI up to 100% under the automatic route for manufacturing of medical devices subject to certain conditions.

The drugs and pharmaceuticals sector attracted cumulative FDI inflows worth US$ 14.71 billion between April 2000 and March 2017, according to data released by the department of industrial policy and promotion.

Some of the major investments in the Indian pharmaceutical sector are as follows:

- The exports of Indian pharmaceutical industry to the US will get a boost in FY18, as branded drugs worth US$ 50 billion will become off-patented.[#]
- Private equity (PE) and venture capital investments in the pharmaceutical sector have grown at 38% year-on-year between January 2017 and June 2017, due to major deals in this sector.
- Indian pharmaceutical firm, Eric Lifesciences Pvt., Ltd., has launched its initial public offering worth Rs. 2000 crore (US$ 311 million) in June 2017.
- Indian pharmaceutical company, Cadila Healthcare Ltd., is planning to raise Rs. 1000 crore (US$ 155 million) through a qualified institutional placement of shares shortly.
- Capital International Group, a PE fund, has acquired a 3% stake in Intas Pharmaceuticals Ltd. from ChrysCapital Llc for a consideration of US$ 107 million, thereby valuing Intas Pharma at approximately US$ 3.5 billion.
- Aurobindo Pharma Ltd. has acquired four biosimilar products from Swiss firm TL Biopharmaceutical AG, which will require TL Biopharmaceutical to supply all the developmental data for four molecules, which will be developed, commercialized and marketed by Aurobindo Pharma.
- Piramal Enterprises Ltd. acquired a portfolio of spasticity and pain management drugs from UK-based specialty biopharmaceutical company Mallinckrodt Pharmaceuticals, in an all-cash deal for Rs. 1160 crore (US$ 171 million).
- Aurobindo Pharma has bought Portugal based Generis Farmaceutica SA, a generic drug company, for EUR 135 million (US$ 144 million).
- Sun Pharmaceutical Industries Ltd., India's largest drug maker, has entered into an agreement with Switzerland-based Novartis AG, to acquire the latter's branded cancer drug Odomzo for around US$ 175 million.
- Kedaara Capital Advisors LLP, a PE firm, plans to invest Rs. 430 crore (US$ 64.5 million) to acquire a minority stake in Hyderabad-based diagnostics chain Vijaya Diagnostic Centre Pvt. Ltd.
- Sun Pharmaceuticals Industries Limited plans to acquire 85.1% stake in Russian company Biosintez for US$ 24 million for increasing its presence in Russia through local manufacturing capability.
- Abbott Laboratories, a global drug maker, based in the US, plans to set up an innovation and development center (I and D) in Mumbai, which will help in developing new drug formulations, new indications, dosing, packaging, and other differentiated offerings for Abbott's global branded generics business.

Government initiatives

The implementation of the Goods and Services Tax is expected to be a game-changer for the Indian Pharmaceuticals industry. It will lead to tax neutral interstate transactions between two dealers, thereby reducing the dependency on multiple states and increasing the focus on regional hubs. It is expected to result in an efficient supply chain management, which is expected to reduce its cost considerably. The cost of technology and investment is expected to reduce on account of tax credit which can be availed now on the duties levied on import of costly machinery and equipment.

Some of the initiatives taken by the government to promote the pharmaceutical sector in India are as follows:

- In the Union Budget 2017–2018, the Department of Biotechnology received Rs. 2222.11 crore (US$ 333.31 million), an increase of 22%, to continue implementing the department's national biotech strategy.
- In an attempt to revive the active pharmaceutical ingredient (API) and bulk drug market in India, the Government of India has proposed peak customs duty on the import of APIs and also plans to set up mega drug parks to give a boost to domestic production.
- The Government of India unveiled "Pharma Vision 2020" aimed at making India a global leader in end-to-end drug manufacture. Approval time for new facilities has been reduced to boost investments.
- The government introduced mechanisms such as the Drug Price Control Order and the National Pharmaceutical Pricing Authority to deal with the issue of affordability and availability of medicines.
- Mr. Ananth Kumar, Union Minister of Chemicals and Petrochemicals, has announced setting up of chemical hubs across the country, early environment clearances in existing clusters, adequate infrastructure, and the establishment of a Central Institute of Chemical Engineering and Technology.

REVIEWS OF LITERATURE

Many researchers have studied working capital from different views and in different environments. The following study was very interesting and useful for our research.

Haresh [1] observed that a negative relationship between account receivables and corporate profitability and a positive relationship between accounts payable and profitability. The researcher concludes that the firms properly manage their cash, accounts receivables, accounts payables, and inventories in a proper way, will ultimately increase the profitability of these firms.

Bose [2] found that out of seven ratios (such as working capital turnover ratio, net current assets to total assets ratio, inventory turnover ratio, cash position ratio, and current ratio), only cash position ratio has positive influence on return on total assets and the remaining has a negative correlation with return on total assets and also found that return total assets is negatively associated with days of working capital.

Mogaka and Jagongo [3] found that the negative correlation between return on assets (ROA) and the firms average collection period (ACP) and cash conversion cycle (CCC) while the positive correlation with inventory holding period, accounts payment period. The authors conclude that working capital management has a significant impact on the profitability of the firms and play a key role in value creation for shareholders as large CCC have a negative impact on the profitability of firms. Ratio has a positive significant impact on ROA, and there is no significant impact of current ratio on ROA.

Bukhari and Malik [6] found that positive and insignificant relationship of ACP and profitability while the negative and insignificant relationship between profitability and average age of inventory and also found that the relationship between the average payment period (APP) and profitability is negative and significant. Moreover, the operating cycle has positively insignificant while CCC is positively significant relationship with profitability. The authors suggest that managers of these companies should spend more time to manage CCC of their firms and make strategies of efficient management of working capital. Above studies provide base and idea regarding working capital management and its components. However, these studies do not provide clear-cut direction of the relationship between working capital and firms' profitability. However, there are a few studies with reference to India on working capital management and firm profitability. Therefore, the present study is an attempt to fill this gap and estimates the relationship between working capital management variables (inventory conversion period (ICP), ACP, APP, and CCC) and profitability of firms in Indian Textile Industry.

OBJECTIVES OF THE STUDY

The major objective of the study is to examine the relationship between working capital management components and profitability of Cipla Ltd.

To achieve the main objective, the following specific objectives were used:

a. To determine whether there is a significant relationship between ICP and the profitability of the firm.
b. To examine whether there is a significant relationship between ACP and the profitability of the firm.
c. To establish if there is a significant relationship between APP and the profitability of the firm.
d. To ascertain if there is a significant relationship between CCC and profitability of the firm.

RESEARCH METHODOLOGY

The present study is based on secondary data collected from secondary source (published annual report) named as "CIPLA Ltd. then various issues of magazines and journals, working papers, and newspapers were also accessed for the relevant and covering the period from 2012–2013 to 2016–2017 (5 years), as a part of study designed to an evaluation of profitability and working capital management of CIPLA Ltd., based on the following statistical tools were used: Summary statistics, correlation analysis, and t-test.

Variables explanation

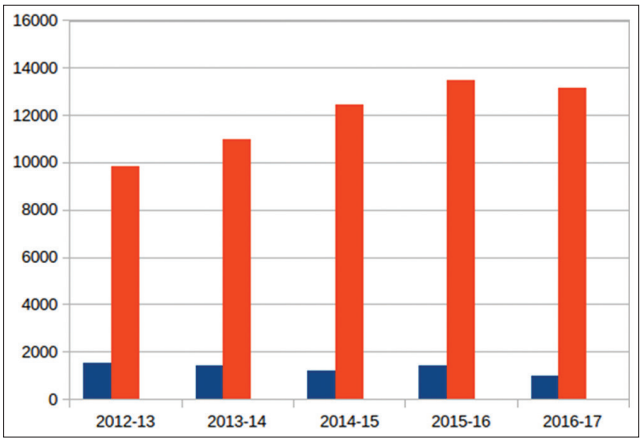
In this study, we undertake profitability (ROA) as a dependent variable and the ICP, the ACP, the APP, and the CCC are used as independent variables and are considered for measuring working capital management. All the dependent and independent variables stated below have been used to test the hypotheses of the study.

ROA

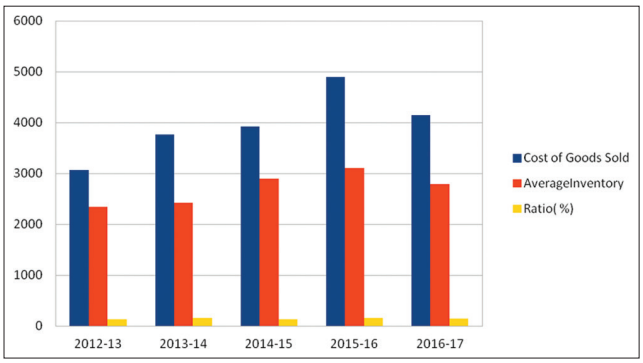
Profitability is measured by ROA, which is defined as the ratio of earning after tax to total assets. ROA is used as a dependent variable. The ROA determines the management efficiency to use assets generates earnings. It is a better measure since it relates to the profitability of the company to the asset base.

ICP

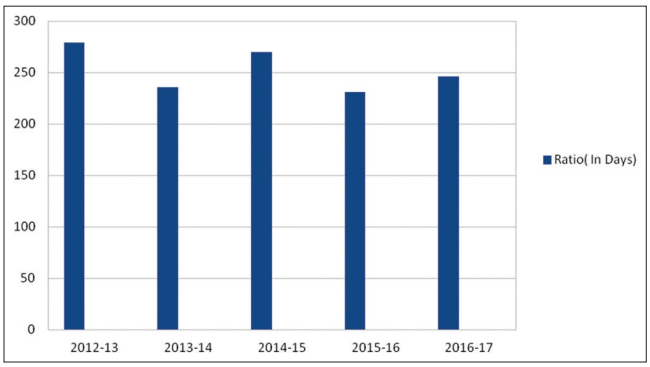
ICP calculates how quickly the inventory is converted into sales. It is an excellent measure of the efficiency of the company in managing the



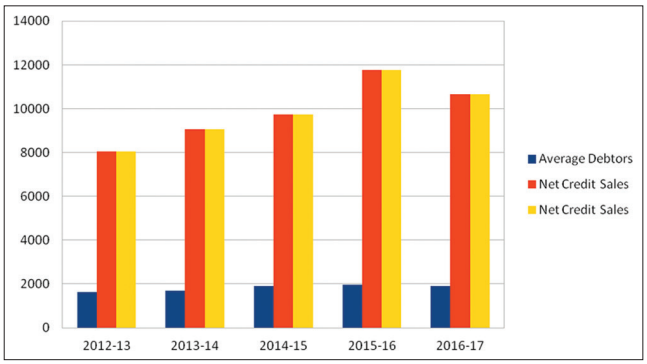
Graph 1:



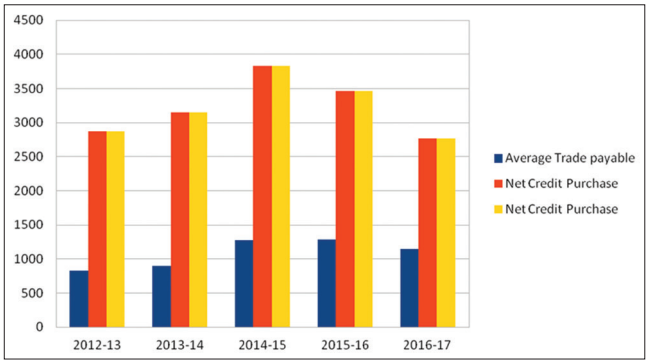
Graph 2:



Graph 3:



Graph 4:



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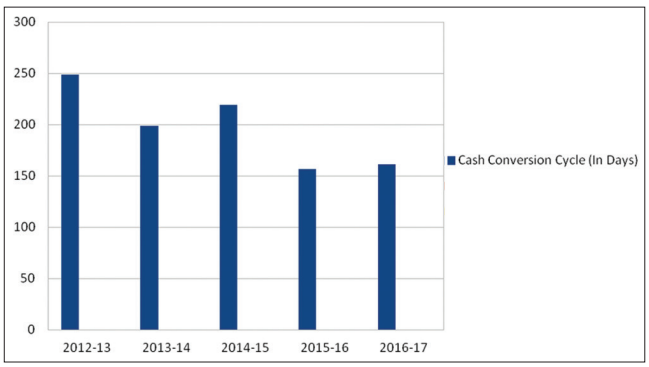

Graph 6:

inventory. The important decision regarding inventory is that how much amount of cash should be tied up in inventory while meeting the other operations and functions of the business and demands of customers. It is calculated as 365/(Cost of goods sold/average inventory).

ACP

It is used as a proxy for the working capital collection policy is an independent variable. ACP is calculated by dividing trade debtors by sales and multiplying the result by 365. It indicates the time taken to collect cash from customers. The higher the value, the more will be the investment in account receivables.

APP

APP used as a proxy for the payment policy is also an independent variable. It is the time taken to pay the firms suppliers. The longer the time period the more advantageous for the firm so that funds can be put to other uses. It can be calculated as trade Paybles/(purchases/365).

CCC

Taking together ICP, ACP, and APP, CCC is calculated. It is used as a comprehensive measure of working capital management is another independent variable. It considers the amount of time to sell the inventory, collect the receivables and to pay bills. It is expected to have a negative relationship with profitability as a lower value of CCC shows less investments in current assets and also signifies higher liquidity, which easily converts its short-term investments in current assets to cash while higher value of CCC signifies greater investment in current assets and therefore shows the greater need for financing of current assets. It is calculated as adding ICP with ACP and deducting APP.

COMPANY PROFILE

CIPLA Ltd.

Cipla is a global pharmaceutical company whose goal is ensuring no patient shall be denied access to high quality and affordable medicine and support. Cipla's journey began in 1935 when our founder, Dr. KA Hamied, set up an enterprise with the vision to make India self-sufficient in health care. Over the past 77 years, they have emerged as one of the world's most respected pharmaceutical names, not just in India but worldwide.

Cipla Limited is a holding company. The company is a pharmaceutical company. The company's strategic business units include APIs, respiratory, and Cipla Global Access. The company's geographical segments include India, USA, South Africa, and Rest of the World. The company manufactures metered dose inhalers, dry powder inhalers, nasal sprays, nebulizers, and a range of inhaled accessory devices. Cipla Global Access is a tender-based institutional business that concentrates on approximately four therapy areas: Human immunodeficiency virus (HIV)/AIDS, malaria, multidrug-resistant tuberculosis, and reproductive health. The company offers its products for the therapeutic areas, including cardiovascular, children's health, dermatology and cosmetology, diabetes, HIV/AIDS, infectious diseases and critical care, malaria, neurosciences, oncology, ophthalmology, osteoporosis, respiratory, urology, and women's health.

For patients, caring is a promise that they will do whatever it takes to ensure they have continued access to the highest quality medicines at affordable prices; whether a disease affects millions or just a few hundreds.

To the medical fraternity, caring means the assurance of world-class medicines and support across multiple therapeutic areas.

For business partners, caring brings the confidence of always getting world-class quality and competitive prices.

For employees, caring manifests itself in a safe, equal-opportunities' workplace that fosters innovation for a healthier world.

DATA ANALYSIS AND INTERPRETATIONS

ROA=net profit/total assets

Return on asset ratio indicates the ratio of a firm's Net profit to total assets. Total assets for the years 2012–2013, 2013–2014, 2014–2015, 2015–2016, and 2016–2017 were Rs. 9826.36, Rs. 10,960.01, Rs. 12,461.79, Rs. 13,462.13, and Rs. 13,124.84 crore, respectively. Also, the net profit for the same period was Rs. 1507.11, Rs. 1388.34, Rs. 1181.09, Rs. 1398.03, and Rs. 974.94 crore, respectively. Table 1 depicts the average net profit ratio as 11.06%. The growth rate of total assets for these years was 33.56% and that of net profit was −35.31%. Total asset has been showing a constant increase every year except the year 2016–2017 but net profit ratio decrease every year during these period except 2015–2016. It shows the poor situation of the company.

Testing of the hypotheses

Hypotheses 1

H0: There is no significant relationship between net profit and total asset.

Ha: There is a significant relationship between net profit and total asset.

Table 2 relates to correlation results of total assets and net profit. Karl Pearson coefficient of correlation was used to test the hypotheses at 0.05 significant level between the net total assets and net profit with r=−0.63, which shows a moderate degree of negative correlation. Hence, there is a significance relationship between net profit and total assets.

D.O.f--- (n−2)=5−2=3

n=5

Table value of t-test=3.182

Calculated value of t-test=1.41.

The calculated value of t-test is 1.41 which is less than table value. Hence, null hypotheses are rejected and there is no significant relationship between net profit and total asset.

Inventory turnover ratio=cost of goods sold/average inventory

Inventory turnover ratio indicates the ratio of firm's cost of goods sold to average inventory. Cost of goods sold for the years 2012–2013, 2013–2014, 2014–2015, 2015–2016, and 2016–2017 was Rs. 3062.97, Rs. 3760.62, Rs. 3981.10, Rs. 4899.25, and Rs. 4141. 30 crores, respectively. Furthermore, the average inventory for the same period was Rs. 2343.37, Rs. 2427.265, Rs. 2900.18, Rs. 3103.835, and Rs. 2785.985 crore, respectively. Table 3 depicts the average inventory turnover ratio as 145.448%. The growth rate of cost of goods sold for these years was 35.20% and that of average inventory was 18.88%. The cost of goods sold has been showing a constant increase every year except 2016–2017 but average inventory ratio increase and decrease every year during these period. It is a progressive situation of the company.

Table 1:

Year	Net profit	Total assets	Ratio (%)
2012–2013	1507.11	9826.36	15.34
2013–2014	1388.34	10,960.01	12.67
2014–2015	1181.09	12,461.79	9.48
2015–2016	1398.03	13,462.13	10.38
2016–2017	974.94	13,124.84	7.43

Sources: Published annual report from 2012–2013 to 2016–2017

Statistical analysis			
Arithmetic average	1289.902	11,967.026	11.06
Growth rate (%)	−35.31	33.56	

Table 2: Correlation results

Correlation	Results
Karl Pearson coefficient of correlation	−0.63

ICP=365/inventory turnover ratio

ICP indicates about the average time to convert our total inventory into sales. It is the relationship between total days in year and inventory turnover ratio. In other words, it measures the length of time on average between the acquisition and sale of merchandise. ICP for the years 2012–2013, 2013–2014, 2014–2015, 2015–2016, and 2016–2017 was 279, 236, 270, 231, and 246 days, respectively. Table 4 depicts the average ICP as 252 days. The growth rate of these years was −11.83%. It is progressive situation of the company.

Testing of the hypotheses

Hypotheses 2

H0: There is no significant relationship between net profit and ICP.

Ha: There is a significant relationship between net profit and ICP.

Table 5 relates to correlation results of ICP and net profit. Karl Pearson coefficient of correlation was used to test the hypotheses at 0.05 significant level between the ICP and net profit with r=0.1089, which shows a low degree of positive correlation. Hence, there is a significant relationship between net profit and ICP.

D.O.f--- (n−2) =5−2=3

n=5

Table value of t-test=3.182

Calculated value of t-test=0.1897.

The calculated value of t-test is 0.1897 which is less than table value. Hence, null hypotheses are accepted and there is no significant relationship between net profit and ICP.

Table 3:

Year	Cost of goods sold	Average inventory	Ratio (%)
2012–2013	3062.97	2343.37	130.71
2013–2014	3760.62	2427.265	154.93
2014–2015	3918.10	2900.18	135.1
2015–2016	4899.25	3103.835	157.85
2016–2017	4141.30	2785.985	148.65

Sources: Published annual report from 2012–2013 to 2016–2017

Statistical Analysis			
Arithmetic average	3956.448	2712.127	145.448
Growth rate (%)	35.20	18.88	

Table 4:

Year	Ratio (in days)
2012–2013	279
2013–2014	236
2014–2015	270
2015–2016	231
2016–2017	246

Sources: Published annual report from 2012–2013 to 2016–2017

Statistical analysis	
Arithmetic average (in days)	252
Growth rate (%)	−11.83

Table 5: Correlation results

Correlation	Results
Karl Pearson coefficient of correlation	0.1089

ACP=(Average debtors/net credit sales)* 365

ACP indicates that the ACP is the average number of days required to collect invoiced amounts from customers. The measure is used to determine the effectiveness of a company's credit granting policies and collection efforts. Net credit sale for the years 2012–2013, 2013–2014, 2014–2015, 2015–2016, and 2016–2017 was Rs. 8042.40, Rs. 9075.84, Rs. 9738.94, Rs. 11,779.90, and Rs. 10,673.52 crores, respectively. Furthermore, the average debtor for the same period was Rs. 1645.22, Rs. 1686.66, Rs. 1893.505, Rs. 1978.825, Rs. 1918.765 crore, respectively. Table 6 depicts the ACP as 68. The growth rate of net credit sale for these years was 32.72% and that of average debtor was 16.63 %. It is progressive in the collection process of the company.

Testing of the hypotheses

Hypotheses 3

H0: There is no significant relationship between net profit and ACP

Ha: There is a significant relationship between net profit and ACP.

Table 7 relates to correlation results of ACP and net profit. Karl Pearson coefficient of correlation was used to test the hypotheses at 0.05 significant level between the ACP and net profit with r=0.2391, which shows a low degree of positive correlation. Hence, there is a significant relationship between net profit and ACP.

D.O.f--- (n−2) =5−2=3

n=5

Table value of t-test=3.182

Calculated Value of t-test=0.43.

The calculated value of t-test is 0.43 which is less than the table value. Hence, null hypotheses are accepted and there is no significant relationship between net profit and ACP.

APP=(Average trade payable/net credit purchase)*365

APP indicates the average period taken by the company in making payments to its creditors. A shorter payment period indicates prompt payments to creditors. APP also indicates the creditworthiness of the company. Hence, a very short payment period may be an indication that the company is not taking full advantage of the credit terms allowed by suppliers. Net credit purchase for the years 2012–2013, 2013–2014, 2014–2015, 2015–2016, and 2016–2017 was Rs. 2874.95, Rs. 3155.01, Rs. 3828.51, Rs. 3465.65, and Rs. 2765.40 crore, respectively. Furthermore, the average creditor for the same period was Rs. 827.09, Rs. 903.31, Rs. 1278.385, Rs. 1284.04, and Rs. 1144.525 crore, respectively. Table 8 depicts the APP as 124 days. The growth rate of net

Table 6:

Year	Average debtors	Net credit sales	Ratio (in days)
2012–2013	1645.22	8042.40	75
2013–2014	1686.66	9075.84	68
2014–2015	1893.505	9738.94	71
2015–2016	1978.825	11,779.90	61
2016–2017	1918.765	10,673.52	66

Sources: Published annual report from 2012–2013 to 2016–2017

Statistical analysis			
Arithmetic average	1824.595	9862.12	68
Growth rate (%)	16.63	32.72	

Table 7: Correlation results

Correlation	Results
Karl Pearson coefficient of correlation	0.2391

Table 8:

Year	Average trade payable	Net credit purchase	Ratio (in days)
2012–2013	827.09	2874.95	105
2013–2014	903.31	3155.01	105
2014–2015	1278.385	3828.51	122
2015–2016	1284.04	3465.65	135
2016–2017	1144.525	2765.40	151

Sources: Published annual report from 2012–2013 to 2016–2017

Statistical Analysis			
Arithmetic average	1087.47	3217.904	124
Growth rate (%)	38.38	–3.81	

Table 9: Correlation results

Correlation	Results
Karl Pearson coefficient of correlation	–0.7785

credit purchase for these years was 88.11% and that of average trade payable was 38.38%. It is consistency level maintain in payment to the supplier of the company.

Hypotheses 3
H0: There is no significant relationship between net profit and APP
Ha: There is a significant relationship between net profit and APP.

Table 9 relates to the correlation results of APP and net profit. Karl Pearson coefficient of correlation was used to test the hypotheses at 0.05 significant level between the APP and net profit with r=–0.7785, which shows a high degree of negative correlation. Hence, there is a significant relationship between net profit and APP.

D.O.f--- (n–2) =5–2=5

n=5
Table value of t-test=3.182
Calculated value of t-test=2.15.

The calculated value of t-test is 2.15 which is less than the table value. Hence, null hypotheses are accepted, and there is no significance relationship between net profit and APP.

CCC=(ICP+ACP–APP)

CCC indicates how many days it takes a company to receive cash from a customer from its initial cash outlay for inventory. Cash conversion period for the years 2012–2013, 2013–2014, 2014–2015, 2015–2016, and 2016–2017 was 249, 199, 219, 157, and 161 days, respectively. Table 10 depicts the average cash conversion period as 197 days. The growth rate of these years was 35.34%. It is progressive situation of the company.

Hypotheses 3:
H0: There is no significant relationship between net profit and cash conversion period
Ha: There is a significant relationship between net profit and cash conversion period.

Table 11 relates to correlation results of cash conversion period and net profit. Karl Pearson coefficient of correlation was used to test the hypotheses at 0.05 significant level between the APP and net profit with r=0.4872, which shows a moderate degree of positive correlation. Hence, there is a significant relationship between net profit and cash conversion period.

Table 10:

Year	ICP	ACP	APP	CCC (in days)
2012–2013	279	75	105	249
2013–2014	236	68	105	199
2014–2015	270	71	122	219
2015–2016	231	61	135	157
2016–2017	246	66	151	161

Sources: Published annual report from 2012–2013 to 2016–2017,
ICP: Inventory conversion period, ACP: Average collection period, APP: Average payment period, CCC: Cash conversion cycle

Statistical analysis				
Arithmetic average	252	68	124	197
Growth rate (%)	11.83	12	43.80	35.34

Table 11: Correlation results

Correlation	Results
Karl Pearson coefficient of correlation	0.4872

D.O.f--- (n–2) =5–2=3

n=5
Table value of t-test=3.182
Calculated value of t-test=1.10524.

The calculated value of t-test is 1.10524 which is less than the table value. Hence, null hypotheses are accepted and there is no significant relationship between net profit and cash conversion period.

CONCLUSION

By observing the relationship between ROA and all other research variables that affect the firm's profitability in the Cipla Ltd. through the correlation test, we can find that moderate degree of negative correlation and insignificant relationship of total assets and profitability and also APP is high degree negative relationship with leverage but statistically insignificant. Even though, ICP and ACP were significant low degree positive related to profitability and CCC were significant moderate degree of positive relation. The results show that for overall Cipla Ltd., working capital management has a significant impact on the profitability of the firms. These results suggest that managers can create value for their shareholders by reducing the number of day's accounts receivable and increasing the account payment period and inventories to a reasonable maximum and also suggests that managers of these firms should spend more time to manage CCC of their firms and make strategies of efficient management of working capital. We may further conclude that these firm properly manage components of working capital such as cash, marketable securities, receivables, and inventory management should be explored, and their relationship with more proxies of profitability should be examined.

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