Working Capital Analysis for Selected farmers Fertilizer Companies in Chhattisgarh

Jitesh Ramani,
Kalinga University Naya Raipur, Chhattisgarh, India

Dr. Arvind Saxena,
Kalinga University Naya Raipur, Chhattisgarh, India

Abstract
The fertiliser business in Chhattisgarh is enormous since agriculture plays a significant role in the state's economy. The best infrastructure and socioeconomic growth can be attributed to agriculture in any nation or state. A crucial and significant ingredient for raising agricultural output is fertiliser. Chhattisgarh promotes the fertiliser industry for the development of agriculture. Farms are able to constantly produce at a high level thanks to fertilisers. In Chhattisgarh, there are numerous fertiliser businesses operating at the moment. In this paper, ways to compete with the competition and get a competitive edge over the competitors are discussed by studying 11 selected companies out of these companies and analysing their impact on the market here in their working capital. The major goal of this essay is to create an effective marketing strategy for the various fertiliser businesses in Chhattisgarh. The outcome of the factor analysis, which was necessary for the construction of adequate and efficient marketing mix policies, was cited as a key factor. The goal of this study is to examine working capital management, a crucial facet of financial management, in the context of certain fertiliser companies. In this essay, we used the Chi Square approach to examine the working capital needs of the Chhattisgarh Fertilizer Company.

KEYWORDS
Inventory Management, Working Capital Correlation, Financial Ratios, Fertilizer Company, Chhattisgarh

Introduction
The fertiliser market in India has grown significantly over the last 30 years. Government officials want to guarantee that farmers operating in remote areas with challenging terrain have access to fertiliser. The prices, accessibility, and mobility of phosphate and potassic fertilisers have been decided to be deregulated. Through the application of measures, a rise in the number of non-chemical fertilisers at reasonable prices has been ensured. There are 53 laboratories for fertiliser quality control across the country. Because they are regarded as an effective, reasonably priced, and sustainable alternative to chemical fertilisers, the federal government is putting into action a National Project on Use of Bio-fertilizers and its Development. One national and six regional centres have been established with the aim of organising training, demonstration programmes, and conducting quality tests on bio-fertilizers.

Contrary to fertilisers, the use of organic material really hasn't significantly increased over the past two to three decades. Approximately 5 million tonnes of readily available nutrients (NPK) come from organic sources each year, with a potential increase to 7.75 million tonnes by 2025. As a result, using organic manures has a significant positive impact on the supply of nutrients. Along with improving the physio-chemical properties of the soil, additional as well as complementary applications of organic manure increase the effectiveness of using mineral fertilisers.

Use of fertilisers is necessary to increase agricultural productivity. It is an important and highly valued part of the industrial process. The research on fertiliser marketing in the state of Chhattisgarh is included in the current article. The researcher has made a sincere effort to characterise the fertiliser selling environment over the entire state. The characteristics of Chhattisgarh agriculture are covered, as well as problems with fertiliser marketing, the sector's economic importance to Chhattisgarh, the necessity for infrastructure, and the fertiliser industry's marketing strategy. We cover the basic and ultimate goals of the study in this work.

All of the aforementioned studies give us a strong foundation and an understanding of working capital management and its components with respect to particular farmers and the fertiliser company in Chhattisgarh. Also, they provide us with the findings of previous studies that were done in the same region but for other states and environments and from various angles. We have created our own study approach for the fertiliser companies in Chhattisgarh using the results of these studies conducted in various nations.

Chhattisgarh has a burgeoning agricultural sector. The opportunities that the assisting organisations provide could be used to describe its potential for growth. The state's fertiliser marketing strategy continues to have a number of problems. We have some doubts and concerns about the fertiliser marketing mix. Applying the right blend of marketing strategies can help rural farmers' circumstances, leading to greater growth and productivity. The farmers can be educated through the dissemination of accurate information when paired with successful pricing and advertising strategies, from a marketing perspective.

The financial outcomes for the five years from 2013–2014 to 2017–2018 have been attempted to be analysed here using the financial statements for that time frame. For measuring financial performance, four ratios—current ratio, liquid ratio, cash ratio, inventory turnover ratio, debtor turnover ratio, fixed asset turnover ratio, and cash flow analysis—have been chosen. To operate the businesses of the enterprises under consideration, an efficient working capital policy is still required.

The largest factor in business failure has always been a lack of working capital. Even profitable company organisations, the so-called blue chip corporations, have been pushed to the verge of bankruptcy due to inadequate planning for the working capital requirements of the business. Working capital is the warm blood that pumps through the veins and keeps the engine of the company turning. Lack of reservoirs for working capital causes a new company to fail. Even profits crumble like a house of cards as working
cash reservoirs dry up. In a business, liquidity and profitability are the two factors that matter most. Profitability is a prerequisite for liquidity, and it’s challenging to attain without enough liquid resources. These two factors are intimately tied to one another. The management of the business as a whole consequently includes projecting working capital requirements and controlling working capital. The essential components of working capital for the sample units will be examined in this chapter. Analysis of Ratios Alexander Pole introduced the methodological theory of ratio analysis for the first time in 1909 AD. Financial statements are examined with the aid of ratios. Ratios are used to analyse the financial liquidity of the Chhattisgarh chemical fertiliser industry successfully.

Ratio is an interrelationship used to compare two elements of a financial report. Accounting ratios highlight the importance of relationships between the balance sheet, profit and loss account, and the numerical components of the budgetary control system. Ratio is the name given to the mathematical expression of the relationship between two figures. - Hingorani, Ramnathans, and Greecual. Ratios are important because they can be used to evaluate a company’s performance and identify areas for improvement. They can also be used to make important financial decisions and conduct comparative analyses of businesses operating in the same sector. Ratios also help investors keep effective tabs on their debt and credit, and they can be used to make investment decisions.

Working Capital- The biggest factor in business failure has always been a lack of working capital. Due to inadequate planning for the working capital requirements of the firm, even profitable corporations, the so-called blue chip companies, have been brought dangerously close to bankruptcy. Working capital is the warm blood that circulates through the veins and drives the business's equipment. A new company fails because to a lack of reservoirs for working cash. Even profits crumble like a house of cards if working cash sources dry up. The two most important components of a corporation are liquidity and profitability. Liquidity is mostly determined by how profitable a business activity is, and profitability is difficult to attain without sufficient liquid resources. These two factors are intimately connected. The management of the business as a whole therefore includes forecasting working capital requirements and controlling working capital.

Methodology

This investigation's primary objective is to examine the effects of working capital management at several fertiliser businesses in Chhattisgarh. The study's exclusive focus is on the various fertiliser industries in Chhattisgarh. This study, which is one of several that aim to analyse the working capital management of various fertiliser manufacturers' financial annual reports, collected the data that is presented in this study between 2017–18 and 2021–22. Statistical returns, audited financial statements, firm biographies, brochures, and bulletins were among the secondary data. Requirements of fertilizer in Chhattisgarh. The research project's strategy is its most crucial component. The sources available for data collecting, the organisation of the data, and the statistical tools and techniques used to analyse, evaluate, and compare the results with the created hypothesis could all be the subject of this issue.

Agriculture contributes significantly to the economy of the nation (20.2% of GDP). With the introduction of the "green revolution" in the 1960s, there was a noticeably increased use of chemical fertilisers. In Chhattisgarh, consumption of fertilisers has been on the rise over time. The CGR of fertilizer use in the state is considerable at 1%, and for the study period of 2005–2020, the instability index value was assessed to be 9.91 (Little instability). This combination of rapid growth and little instability indicates ideal fertiliser consumption. Agriculture makes up the majority of the economy of Chhattisgarh, where paddy dominates all other crops and covers more than 80% of the state's arable land during the kharif season. Throughout the state's agricultural year 2018–19, 1145.96 Tonnes of fertiliser were consumed.

Nitrogen consumption data for Chhattisgarh for chemical fertilisers was 525,090 Ton Tons in 2021. This represents an increase from the prior figure for 2020 of 449,680 Ton tonnes. Chemical Fertilizers: Chhattisgarh's NPK Consumption An average of 343,240 Ton tonnes of nitrogen data, with 18 observations, is updated yearly. The statistics peaked in 2021 at 525,090 Ton th and hit a record low in 2004 of 163,350 Ton th. Chemical Fertilizers: NPK Consumption; Chhattisgarh: Directorate of Economics and Statistics, Department of Agriculture and Farmers Welfare publish nitrogen data, which continues to have an active position in CEIC.

Popular Fertilizer Companies in Chhattisgarh

1. IFFCO
2. BEC Fertilizer
3. Krishna Specialty Chemicals Pvt Company
4. SRT Agro Science Pvt Ltd
6. Khaitan Chemicals & Fertilizers Ltd
7. GBT agro chemicals private limited
8. Narmada phosphate limited
9. Krishak Bharati Cooperative Limited
10. Fertilisers and Chemicals Travancore Limited
11. Rashtriya Chemicals and Fertilizers Limited
12. Coromandel International Limited
13. Chambal Fertilisers & Chemicals Limited
14. National Fertilizers Limited
Working capital of Fertilizer Companies in Chhattisgarh

Comparison chart for selected fertilizer companies

Ratio is an interrelationship used to compare two elements of a financial report. Accounting ratios highlight the importance of relationships between the balance sheet, profit and loss account, and the numerical components of the budgetary control system. Hear Comparison chart for average ratios and data for selected companies’ year of 2017-18 to 2021-22.

Table 1  Comparison chart for average ratios and data for selected companies’ year of 2017-18 to 2021-22

Table 2  Comparative Analysis of working capital turnover ratio in Fertilizer CompaniesFrom 2017-18 to 2021-22

<table>
<thead>
<tr>
<th>Findings</th>
<th>BEC Fertilizer</th>
<th>Krishna Specialty Chemicals Pvt Company</th>
<th>SRT Agro Science Pvt Ltd</th>
<th>Akshant Fertilizer &amp; Plant Nutrition Pvt Ltd.</th>
<th>Siesto System Pvt Ltd</th>
<th>GTB agro chemicals private limited</th>
<th>Narmada phosphate limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>current ratio</td>
<td>0.371597</td>
<td>3.18484</td>
<td>1.5011</td>
<td>0.893564</td>
<td>13.556</td>
<td>3.0429</td>
<td>1.2415</td>
</tr>
<tr>
<td>Quick Ratio</td>
<td>0.22326</td>
<td>2.566</td>
<td>1.001</td>
<td>0.5004</td>
<td>15.6775</td>
<td>1.6926</td>
<td>0.3198</td>
</tr>
<tr>
<td>Cash Ratio</td>
<td>0.013496</td>
<td>0.028917</td>
<td>0.00637 7</td>
<td>0.023836</td>
<td>0.354</td>
<td>0.1264201</td>
<td>0.0193532</td>
</tr>
<tr>
<td>Inventory Turnover Ratio</td>
<td>1.3028</td>
<td>7.48</td>
<td>1.671</td>
<td>0.2553</td>
<td>5.178</td>
<td>55.85</td>
<td>1.4965</td>
</tr>
<tr>
<td>Working Capital Turnover Ratio</td>
<td>0.91624</td>
<td>3.75815</td>
<td>5.8458</td>
<td>3.37466</td>
<td>2.93</td>
<td>5.948</td>
<td>16.38</td>
</tr>
<tr>
<td>Debtor Turnover Ratio</td>
<td>29.869</td>
<td>21.51</td>
<td>1.61</td>
<td>3.789</td>
<td>4.8</td>
<td>1.898</td>
<td>42.71</td>
</tr>
<tr>
<td>Creditors Turnover Ratio</td>
<td>0.0006</td>
<td>18.58</td>
<td>3.17</td>
<td>1.34</td>
<td>23.964</td>
<td>2.5139</td>
<td>0.0934</td>
</tr>
<tr>
<td>Working Capital</td>
<td>66984630</td>
<td>7</td>
<td>231267125 4985952 2</td>
<td>-6895853</td>
<td>133327424</td>
<td>5173250</td>
<td>21107442</td>
</tr>
<tr>
<td>Inventory to Current assets</td>
<td>0.29266</td>
<td>0.20922</td>
<td>0.3303</td>
<td>0.4421</td>
<td>0.248</td>
<td>0.4394</td>
<td>0.756488</td>
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<tr>
<td>Debtor to Current Assets</td>
<td>0.3972</td>
<td>0.3221</td>
<td>0.46</td>
<td>0.4954</td>
<td>0.39</td>
<td>0.4996</td>
<td>0.1649</td>
</tr>
<tr>
<td>Cash &amp; Bank to Current Assets</td>
<td>0.0497</td>
<td>0.0112</td>
<td>0.05955</td>
<td>0.02745</td>
<td>0.098</td>
<td>0.0385</td>
<td>0.04838</td>
</tr>
<tr>
<td>Loan &amp; advances to current assets</td>
<td>0.2407</td>
<td>0.43338</td>
<td>0.58021</td>
<td>0.01075</td>
<td>0.198</td>
<td>0.004787</td>
<td>0.0617</td>
</tr>
<tr>
<td>Sales</td>
<td>63995883</td>
<td>3</td>
<td>78521100 9309843 5.4</td>
<td>67131239</td>
<td>7987491.4</td>
<td>20007581.8</td>
<td>144067635</td>
</tr>
<tr>
<td>profit</td>
<td>13857874</td>
<td>7</td>
<td>23255200 2100078 8.8</td>
<td>1563242.14</td>
<td>730265.4</td>
<td>257714.4</td>
<td>3385786.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unit</th>
<th>Working Turnover Average Rank</th>
<th>Capital Ratio Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEC Fertilizer</td>
<td>0.91624 6</td>
<td>1.872746331 3</td>
</tr>
<tr>
<td>Krishna Specialty Chemicals Pvt Company</td>
<td>3.75815 4</td>
<td>0.820894766 2</td>
</tr>
<tr>
<td>SRT Agro Science Pvt Ltd</td>
<td>5.8458 3</td>
<td>10.44864829 5</td>
</tr>
<tr>
<td>Akshant Fertilizer &amp; Plant Nutrition Pvt Ltd.</td>
<td>-3.37466 7</td>
<td>32.35609611 7</td>
</tr>
<tr>
<td>Siesto System Pvt Ltd</td>
<td>2.93 5</td>
<td>2.308470967 4</td>
</tr>
<tr>
<td>GTB agro chemicals private limited</td>
<td>5.948 2</td>
<td>0.288032297 1</td>
</tr>
</tbody>
</table>

Findings

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<tr>
<td>GTB agro chemicals private limited</td>
<td>5.948 2</td>
<td>0.288032297 1</td>
</tr>
</tbody>
</table>
The null hypothesis is disproved from the aforementioned statistically average analysis, and chi-square analysis in all the companies shows that the working capital turnover ratio indices do not appear to be closer to the straight line assumption as their chi-square values are higher. It shows that the working capital turnover ratio of Akshant Fertilizer & Plant Nutrition Pvt. Ltd. shows very poor result in terms of working capital turnover ratio.

Table 3 Comparative Analysis of Current Ratio in Fertilizer Companies From 2017-18 to 2021-22

<table>
<thead>
<tr>
<th>Unit</th>
<th>Average Current ratio</th>
<th>Rank</th>
<th>Chi square Value</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEC Fertilizer</td>
<td>0.371597</td>
<td>7</td>
<td>1.853588466</td>
<td>5</td>
</tr>
<tr>
<td>Krishna Specialty Chemicals Pvt Company</td>
<td>3.18484</td>
<td>2</td>
<td>0.328503457</td>
<td>2</td>
</tr>
<tr>
<td>SRT Agro Science Pvt Ltd</td>
<td>1.5011</td>
<td>5</td>
<td>0.061883772</td>
<td>1</td>
</tr>
<tr>
<td>Akshant Fertilizer &amp; Plant Nutrition Pvt Ltd.</td>
<td>0.893564</td>
<td>6</td>
<td>0.94726797</td>
<td>3</td>
</tr>
<tr>
<td>Siesto System Pvt Ltd</td>
<td>13.556</td>
<td>1</td>
<td>14.09405008</td>
<td>7</td>
</tr>
<tr>
<td>GTB agro chemicals private limited</td>
<td>3.0429</td>
<td>3</td>
<td>1.05608218</td>
<td>4</td>
</tr>
<tr>
<td>Narmada phosphate limited</td>
<td>1.2415</td>
<td>4</td>
<td>2.617815769</td>
<td>6</td>
</tr>
</tbody>
</table>

The null hypothesis is disproved from the above statistically by average analysis as it demonstrates a substantial difference, and from chi square analysis in all the companies, quick ratio indices don't appear to be closer to the assumption as their chi-square values are greater.

Suggestions -
- Because their current ratios are the lowest of all, BEC Fertilizer and Akshant Fertilizer & Plant Nutrition Pvt. Ltd. should work to increase their current liabilities.
- Compared to other companies, Siesto System Pvt Ltd and Krishna Specialty Chemicals Pvt Ltd have the strongest financial positions; therefore, the company should work to retain this position.

Table 4 Comparative Analysis of Quick Ratio in Fertilizer Companies From 2017-18 to 2021-22

<table>
<thead>
<tr>
<th>Unit</th>
<th>Quick Ratio average</th>
<th>Rank</th>
<th>Chi square Value</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEC Fertilizer</td>
<td>0.22326</td>
<td>7</td>
<td>1.92364592</td>
<td>4</td>
</tr>
<tr>
<td>Krishna Specialty Chemicals Pvt Company</td>
<td>2.566</td>
<td>2</td>
<td>0.5445288</td>
<td>3</td>
</tr>
<tr>
<td>SRT Agro Science Pvt Ltd</td>
<td>1.001</td>
<td>4</td>
<td>0.01524603</td>
<td>1</td>
</tr>
<tr>
<td>Akshant Fertilizer &amp; Plant Nutrition Pvt Ltd.</td>
<td>0.5004</td>
<td>5</td>
<td>0.12164782</td>
<td>2</td>
</tr>
<tr>
<td>Siesto System Pvt Ltd</td>
<td>15.6775</td>
<td>1</td>
<td>25.6332759</td>
<td>7</td>
</tr>
<tr>
<td>GTB agro chemicals private limited</td>
<td>1.6926</td>
<td>3</td>
<td>2.21053416</td>
<td>5</td>
</tr>
<tr>
<td>Narmada phosphate limited</td>
<td>0.3198</td>
<td>6</td>
<td>3.79810574</td>
<td>6</td>
</tr>
</tbody>
</table>

The null hypothesis is disproved from the above statistically by average analysis as it demonstrates a substantial difference, and from chi square analysis in all the companies, quick ratio indices don't appear to be closer to the assumption as their chi-square values are greater.

Suggestions - It is also vital to mention that the plant needs to improve its liquid position by taking the necessary steps. Here are some ideas:
- BEC Fertilizer and Narmada Phosphate Ltd should improve the ratio of their Quick Assets to Current Liabilities.
- With relation to the present ratio, Siesto System Pvt Ltd and Krishna Specialty Chemicals Pvt Ltd should endeavour to reduce their current liabilities.

Conclusion
The goal of the study was to evaluate the working capital management of the former fertiliser industry in the Chhattisgarh state. By using the ratio analysis tool and annual reports from 2017–18 to 2021–22, the financial status of the chosen companies was examined and analysed. The present study makes use of the statistical tools average and chi-square value. The statistics are gathered from the annual reports of chosen businesses, and certain additional supporting documents are also taken into account.
Suggestions-

- In order to meet urgent demands, the company should keep enough cash on hand in the bank.
- In order to make good profits, the company must increase sales through inventory management.
- The company should make an effort to shorten the inventory cycle to guarantee delivery on time.
- Business should call clients and advise them about the cash discount available for early payment.
- The business should continue to notify clients of the unpaid balance every week.
- Due to long outstanding amounts, suppliers are reluctant to accept orders on credit. As a result, the company should work to reduce supplier debt so that they can extend their credit terms as much as feasible.
- The business must pay its suppliers on time in order to maintain excellent connections with them.
- The company should pay on time to avoid incurring interest.

Overall the companies are moving forward with average management

References

[26] Simpson & Kafka. ’Basic Statistics’