A MINOR RESEARCH PROJECT ON

“AN IN-DEPTH STUDY OF FINANCIAL PERFORMANCE OF SELECTED FERTILIZER COMPANIES IN INDIA”

SUBMITTED TO:

UNIVERSITY GRANTS COMMISSION
FILE NO: 23-2928/11(wro)
DATED: - 25/01/2012

SUBMITTED BY:

DR. RAMESH A. DANGAR
ASSOCIATE PROFESSOR
J.H.BHALODIYA WOMEN’S COLLEGE
RAJKOT
MINOR RESEARCH PROJECT
### SUMMARY, FINDINGS AND SUGGESTIONS

<table>
<thead>
<tr>
<th>No.</th>
<th>Particular</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Overview of industry</td>
</tr>
<tr>
<td>2</td>
<td>Overview of sample company</td>
</tr>
<tr>
<td>3</td>
<td>Review of literature</td>
</tr>
<tr>
<td>4</td>
<td>Conceptual framework of performance analysis</td>
</tr>
<tr>
<td>5</td>
<td>Research methodology</td>
</tr>
<tr>
<td>6</td>
<td>Performance analysis and interpretation of data</td>
</tr>
<tr>
<td>7</td>
<td>Finding</td>
</tr>
<tr>
<td>8</td>
<td>Suggestion</td>
</tr>
<tr>
<td>9</td>
<td>Conclusion</td>
</tr>
<tr>
<td>10</td>
<td>Bibliography</td>
</tr>
</tbody>
</table>
SUMMARY, FINDINGS AND SUGGESTIONS

INTRODUCTION

Agriculture sector is the mainstay of the Indian economy, contributing about 17% of national Gross Domestic Product (GDP) and more importantly, about 60% of the India’s population and workforce is dependent on agriculture and allied activities for their livelihood. Successive Five Year plans have stressed on self-sufficiency and self-reliance in food grains production and concerted efforts in this direction have resulted in substantial increase in agricultural production and productivity. This is clear from the fact that from a level of about 52 million tones in 1951-52, food grains production rose to above 230 million tones in 2007-08. More and more food will be needed to meet the demand of an increasing population in the country, and the world in general.

Substantial evidence has demonstrated that chemical fertilizer have played an important role in sustaining food production. Chemical fertilizers have played a vital role in the success of India's green revolution and consequent self-reliance in food-grain production. The increase in fertilizer consumption has contributed significantly to sustainable production of food grains in the country.

With the limited arable land resources, and burden of increasing future population numbers, chemical fertilizers will continue to play an important role in sustaining food security in India. It is expected that India's available arable land (net sown area) might drop below the current level of about 140 million hectares, if the use of farmland for commercial/non-agricultural purpose is not restricted in the near future. Therefore, the only way to improve food security is to increase crop yields through the scientific use of fertilizers using the limited arable land, with an emphasis on protecting the environment.
The Government of India has been consistently pursuing policies conductive to increased availability and consumption of fertilizers in the country. Over the last five and half decades, production of nitrogen (N) and phosphorus (P2O5) fertilizer together has increased from mere 38.7 thousand tones in 1951-52 to about 14.6 million tones in nutrients terms in 2007-08. Since there are no commercially viable sources of potash (K2O) in the country, its entire requirement is met through imports. The overall consumption of fertilizers in has an impact on future distribution of nutrients.

**SUMMARY**

**CHAPTER – 1**

Fertilizer is defined as any substance which is organic or inorganic, natural or artificial, supplies one or more of the chemical elements required for plant growth. Carbon, oxygen and hydrogen are directly supplied by air and water and therefore not treated as nutrients by the fertilizer industry. One of the vital industries for the Indian economy is the Indian Fertilizer Industry as it manufactures a very critical raw material for agriculture which is the major occupation of the country. The fertilizers especially like the ammonia urea plants are energy demanding in their operation.

Indian fertilizer industry's main objective is to ensure the supply of primary and secondary nutrients in the required quantities. The Indian Fertilizer Industry is the most energy intensive sectors according to the context of environmental discussions. As there is increasing productivity through the implementation of competent and pollution free technologies in the manufacturing sector it would be desirable in combining economic, environmental and social
development objectives. Today the Indian fertilizer industry in the past 50 years has grown in size and stature as it ranks third in the world.

CHAPTER – 2
Chambal fertilizer and chemicals Ltd.
The company was founded by Dr. K.K. Birla, one of India's most respected industrialists. He realized early that to fulfill India's food security needs, the agriculture industry urgently needs infusion of science and technology. The reasoning was sound. 70% of India was an agrarian society. Farmers would always require fertilizers, of which there was an acute shortage. The demand would only increase with the years. And there was a clear need for self-reliance in such an important field. A decision was taken to align with the best in the world to bring cutting edge technologies into India.

Deepak fertilizer and petrochemicals Ltd.
Among India’s leading producers of industrial chemicals and fertilisers, a name that spells quality and trust, Deepak Fertilisers And Petrochemicals Corporation Ltd (DFPCL) has established a prime position for itself over the last three decades across Indian and global markets. Set up in 1979 as an Ammonia manufacturer, DFPCL today is a publicly listed, multi-product Indian conglomerate with an annual turnover of over USD 300 million with a multi-product portfolio spanning industrial chemicals, bulk and specialty fertilisers, farming diagnostics and solutions, technical ammonium nitrate, mining services and consulting and value added real estate.

Madras fertilizer ltd.
MFL was incorporated on December 8, 1966 as a joint venture between GOI and AMOCO India incorporated of U.S.A (AMOCO) in accordance with the Fertilizer
Formation Agreement executed on 14.5.1966 with equity contributions of 51% and 49% respectively. In accordance with the participation agreement between GOI, AMOCO and National Iranian Oil Company (NIOC), an undertaking of Government of Iran, NIOC acquired 50% of the shareholding of AMOCO in MFL on 22.11.1972. With this acquisition, shareholding of AMOCO and NIOC were at 24.5% each, with the balance 51% being held by GOI. Subsequently, on 22.7.1985, the shareholding of AMOCO was proportionately purchased by GOI and NIOC. As a result, GOI and NIOC shareholding was revised to 67.55% and 32.45% respectively. Subsequent to the issue of rights shares in 1994 for part-financing the project, the holding of GOI and NIOC stood at 69.78% and 30.22% respectively.

MFL had an initial public offering of its shares in May 1997.

Rashtriya chemicals and fertilizers ltd.

An ISO 14001:1996 and ISO 9001:2000 certified Rashtriya Chemicals & Fertilizers Ltd. Was incorporated on 6th March, 1978 as chemical manufacturer. The company operates in two segments includes fertilizers and industrial products, with 20 operating plants at Trombay and 5 large plants at its fertilizer unit, the company produce methanol, sodium nitrate, ammonium bicarbonate, methyamines, dimethyl formamide and dimethylacetamide.

CHAPTER – 3

Financial performance analysis is vital for the triumph of an enterprise. Financial performance analysis is an appraisal of the feasibility, solidity and fertility of a business, sub-business or mission. Altman and Eberhart (1994) reported the use of neural network in identification of distressed business by the Italian central bank. Using over 1,000 sampled firms with 10 financial ratios as independent variables, they found that the classification of neural networks was
very close to that achieved by discriminant analysis. They concluded that the neural network is not a clearly dominant mathematical technique compared to traditional statistical techniques. Gepp and Kumar (2008) incorporated the time “bias” factor into the classic business failure prediction model. Using Altman (1968) and Ohlson’s (1980) models to a matched sample of failed and non-failed firms from 1980’s, they found that the predictive accuracy of Altman’s model declined when applied against the 1980’s data. The findings explained the importance of incorporating the time factor in the traditional failure prediction models.

Campbell (2008) constructed a multivariate prediction model that estimates the probability of bankruptcy reorganization for closely held firms. Six variables were used in developing the hypotheses and five were significant in distinguishing closely held firms that reorganize from those that liquidate. The five factors were firm size, asset profitability, the number of secured creditors, the presence of free assets, and the number of under-secured secured creditors. The prediction model correctly classified 78.5% of the sampled firms. This model is used as a decision aid when forming an expert opinion regarding a debtor’s likelihood of rehabilitation.

No study has incorporated the financial performance analysis of the central public sector enterprises in Indian drug & pharmaceutical Industry. Nor has any previous research examined the solvency position, liquidity position, profitability analysis, operating efficiency and the prediction of financial health and viability of public sector drug & pharmaceutical enterprises in India.
CHAPTER – 4

Financial performance is the snapshot of a concern’s position and ability to washstand the ever changing environment. It is the blue print of the financial affairs of the concern and reveals show a business has prospered under the leadership of its management personnel. In fact, it can be said that financial performance in the medium of evaluation of management performance.

The overall objective of a business is to earn satisfactory return on the funds invested in it. Consistent with maintaining a sound financial position an evaluation of such performance is done in order to measure the efficiency of operations or the profitability of the organization and to apprise the financial strength as compared with a similarly situated concern.

The financial appraisal is generally directed towards evaluation the liquidities, stability and profitability of a concern which put together symbolizes the financial efficiency of a concern.

The word ‘Performance is derived from the word ‘parfourmen’, which means ‘to do’, ‘to carry out’ or ‘to render’. It refers the act of performing; execution, accomplishment, fulfillment, etc. In border sense, performance refers to the accomplishment of a given task measured against preset standards of accuracy, completeness, cost, and speed. In other words, it refers to the degree to which an achievement is being or has been accomplished. In the words of Frich Kohlar “The performance is a general term applied to a part or to all the conducts of activities of an organization over a period of time often with reference to past or projected cost efficiency, management responsibility or accountability or the like. Thus, not just the presentation, but the quality of results achieved refers to the performance. Performance is used to indicate firm’s success, conditions, and compliance.
CHAPTER – 5

1. **Data collection :-**
   
The study is mainly based on secondary data. The relevant information in this regard is collected from various sources like capabilities software, annual report of the companies and websites. It is supported by various journals and business magazines.

2. **Methodology :-**
   
   Methodology means a system of methods used in a particular field. In this research I am using the questionnaire method questionnaire was prepared which includes some question related with shipyard.

   **Objective of the study**
   
   ◆ To understand financial analysis as a concept.
   ◆ To gain familiarity with phenomenon or to achieve new insight into it.
   ◆ To check the different scope of financial analysis.
   ◆ To measure the position of the financial statement i.e. balance sheets and profit and loss account for the period of 2009-10 to 2013-14.
   ◆ To understand overall performance of the bank.
   ◆ To find the proportions and compatibility of different figures b using this study.
   ◆ To understand and recognize the volatility of ratios.
   ◆ To suggest the way of planning the capital requirement by the financial statement analysis.
   ◆ To check effect of financial position by using the techniques of financial analysis i.e. through different ratios and trend percentage method.
CHAPTER – 6

The financial performance analysis identifies the financial strengths and weaknesses of the firm by properly establishing relationships between the items of the balance sheet and profit and loss account. The first task is to select the information relevant to the decision under consideration from the total information contained in the financial statements. The second is to arrange the information in a way to highlight significant relationships. The final is interpretation and drawing of inferences and conclusions. In short, “financial performance analysis is the process of selection, relation, and evaluation.”

Financial performance refers to the act of performing financial activity. In broader sense, financial performance refers to the degree to which financial objectives being or has been accomplished. It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.

CHAPTER – 7

◆ From Gross profit ratio, we can find out that the ratio of DFP is higher as compared to other four companies and the ratio of RCF is lowered as compared to other four companies and other three companies ratio’s are between DFP’s and RCF’s ratio.

◆ From Net profit ratio, we can find out that the ratio of DFP is higher as compared to other four companies and the ratio of KCF is lowered as compared to other four companies and other three companies ratio’s are between DFP’s and KCF’s ratio.
From Operating ratio, we can find out that the ratio of DFP is higher as compared to other four companies and the ratio of RCF is lowered as compared to other four companies and other three companies ratio’s are between DFP’s and RCF’s ratio.

From Return on assets ratio, we can find out that the ratio of KCF is higher as compared to other four companies and the ratio of CFC is lowered as compared to other four companies and other three companies ratio’s are between KCF’s and CFC’s ratio.

From Earning per share, we can find out that the ratio of DFP is higher as compared to other four companies and the ratio of KCF is lowered as compared to other four companies and other three companies ratio’s are between DFP’s and KCF’s ratio.

From Investment turnover ratio, we can find out that the ratio of RCF is higher as compared to other four companies and the ratio of KCF is lowered as compared to other four companies and other three companies ratio’s are between RCF’s and KCF’s ratio.

From current ratio, we can find out that the ratio of CFC is higher as compared to other four companies and the ratio of KCF is lowered as compared to other four companies and other three companies ratio’s are between CFC’s and KCF’s ratio.

From Quick ratio, we can find out that the ratio of CFC is higher as compared to other four companies and the ratio of MFL is lowered as compared to other four companies and other three companies ratio’s are between CFC’s and MFL’s ratio.

From Inventory turnover ratio, we can find out that the ratio of DFP is higher as compared to other four companies and the ratio of KCF is lowered
as compared to other four companies and other three companies ratio’s are between DFP’s and KCF’s ratio.

◆ From Debt-equity ratio, we can find out that the ratio of MFL is higher as compared to other four companies and the ratio of RCF is lowered as compared to other four companies and other three companies ratio’s are between MFL’s and RCF’s ratio.

◆ From Interest coverage ratio, we can find out that the ratio of RCF is higher as compared to other four companies and the ratio of MFL is lowered as compared to other four companies and other three companies ratio’s are between RCF’s and MFL’s ratio.

◆ From Financial changes coverage ratio, we can find out that the ratio of RCF is higher as compared to other four companies and the ratio of MFL is lowered as compared to other four companies and other three companies ratio’s are between RCF’s and MFL’s ratio.
<table>
<thead>
<tr>
<th>No.</th>
<th>Particulars</th>
<th>Comparison with company</th>
<th>Comparison with year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gross profit ratio</td>
<td>Accepted</td>
<td>Rejected</td>
</tr>
<tr>
<td>2</td>
<td>Net profit ratio</td>
<td>Rejected</td>
<td>Rejected</td>
</tr>
<tr>
<td>3</td>
<td>Operating ratio</td>
<td>Accepted</td>
<td>Rejected</td>
</tr>
<tr>
<td>4</td>
<td>Return on assets</td>
<td>Accepted</td>
<td>Rejected</td>
</tr>
<tr>
<td>5</td>
<td>Earning per share</td>
<td>Accepted</td>
<td>Rejected</td>
</tr>
<tr>
<td>6</td>
<td>Investment turnover</td>
<td>Rejected</td>
<td>Rejected</td>
</tr>
<tr>
<td>7</td>
<td>Current ratio</td>
<td>Accepted</td>
<td>Rejected</td>
</tr>
<tr>
<td>8</td>
<td>Quick ratio</td>
<td>Accepted</td>
<td>Rejected</td>
</tr>
<tr>
<td>9</td>
<td>Inventory turnover ratio</td>
<td>Rejected</td>
<td>Rejected</td>
</tr>
<tr>
<td>10</td>
<td>Debt-equity ratio</td>
<td>Rejected</td>
<td>Rejected</td>
</tr>
<tr>
<td>11</td>
<td>Interest coverage ratio</td>
<td>Accepted</td>
<td>Rejected</td>
</tr>
<tr>
<td>12</td>
<td>Financial changes coverage ratio</td>
<td>Rejected</td>
<td>Rejected</td>
</tr>
</tbody>
</table>
CHAPTER – 8

➢ **Efficiency:**
The demands of fertilizers have increased and are increasing day by day. To meet the requirement the units have to increase its productivity through researches, reducing wastages and by handling the material carefully. It is also found that the productivity of the Indian units is not in the line of the developed countries.

➢ **Investment:**
Considering the high demand world over, this industry is required to invest more capital. The co-operative sector has its own limitations for the investment but other units can generate funds through the open market.

➢ **Capacity:**
The demand of the fertilizer industry is increasing and to meet the demand of the market, the industry is required to expand its capacity. There is a high potential demand even from the underdeveloped countries for the fertilizers and to meet them there is an urgent need to increase the capacity of the plants. Again it requires more investment.

➢ **Subsidy:**
According to the agreement with the WTO, Indian industry is required to reduce the subsidy given on the price of fertilizers. Due to this the prices of the fertilizers will go up and it may not be within the reach of the poor farmers. This may affect the industry adversely.

➢ **New fertilizer policy:**
The new fertilizer policy of the Indian government is also one of the important challenging factors for the industry. The main provisions of the policy are as follows:
Make Urea free from control by 2006
Introduction of group reward of 2001
Increased prices of Urea every year by 7%

➢ **Productivity:**
It is found that the agricultural productivity of Indian land is inferior to the developed countries. Even the size of the farm in India is small so the use of the fertilizer is not found proper by the Indian farms.

➢ **Liquidity:**
The fertilizer industry in India is depended on the Government subsidy, Moreover the efficient usage of the various resources is not found proper among the various units. This results in the insufficient financial liquidity for the units.

➢ **Competition:**
After globalization Indian market is open for the foreign companies. This results in high competition for the Indian companies. Indian production cost is very high as well quality is also required to improve to match the international standard. This affects the industry adversely.

**CHAPTER – 9**

Though the minor research work on profitability of Chambal fertilizers and chemicals Ltd., Deepak fertilizers and petrochemicals Ltd., Madras fertilizers Ltd., Rashtriya chemicals and fertilizers ltd., & Khaitan fertilizers and chemicals Ltd. It can be conducted that the considering the current scenario of Indian economy and environment there is wide scope of expansion of fertilizers industry. Fertilizer plays an important in Indian economy.

I have taken five companies i.e. Chambal fertilizers and chemicals ltd., Deepak fertilizers and petrochemicals ltd., Madras fertilizers ltd., Rashtriya
fertilizers and chemicals ltd. and Khaitan fertilizers and chemicals ltd. In depth the analysis of these five companies are included in this minor research project.

BIBLIOGRAPHY

<table>
<thead>
<tr>
<th>No.</th>
<th>Book name</th>
<th>Author</th>
<th>Publishing house</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Financial management: Theory &amp; problem</td>
<td>Dr. P.L.chauhan &amp; Dr. Ashvin Solanki</td>
<td>Shanti prakashan Ahmedabad</td>
</tr>
<tr>
<td>3</td>
<td>financial management</td>
<td>Shashi gupta</td>
<td>Kaylani pubilsher</td>
</tr>
<tr>
<td>4</td>
<td>Research methodology</td>
<td>C.R.Kothari</td>
<td>New age publisher</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No.</th>
<th>Websites</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><a href="http://www.chambalfertilizers.com">www.chambalfertilizers.com</a></td>
</tr>
<tr>
<td>2</td>
<td><a href="http://www.dfpcl.com">www.dfpcl.com</a></td>
</tr>
<tr>
<td>3</td>
<td><a href="http://www.madrasfert.com">www.madrasfert.com</a></td>
</tr>
<tr>
<td>4</td>
<td><a href="http://www.rcfltd.com">www.rcfltd.com</a></td>
</tr>
<tr>
<td>5</td>
<td><a href="http://www.khaitanchemfert.com">www.khaitanchemfert.com</a></td>
</tr>
<tr>
<td>6</td>
<td><a href="http://www.weiku.com">www.weiku.com</a></td>
</tr>
</tbody>
</table>