CHAPTER 2

REVIEW OF LITERATURE

2.1 Introduction
2.2 Importance
2.3 Review of the Studies
2.4 Conclusion
2.1 **Introduction:**

There is a great need to review the past studies so that we can avoid duplication of doing unwanted research and at the same time the findings of such studies provide guide line for future study. In this chapter at attempt is made to focus on available literature which is useful in the research work. The selection of the topic for the study has been undertaken after a brief review of literature and research available on the subject. The purpose of referring to the research papers, project reports, case studies and dissertation is to derive supporting evidence for some of the findings of the study. An attempt has been made to refer to some of the national as well as international journals.

2.2 **Importance:**

Crude oil is the main raw material for the refinery. Such studies provide various alternatives to fulfill the demand of oil and oil products such as bio-fuels and renewable hydrogen etc. This type of study also suggests that by influencing consumer behaviour e.g. vehicle choice, driving style, vehicle use, etc. can help to remove crisis of oil and oil products.

This type of study also gives guideline to remove air pollution and other type of pollution too. This type of study suggests that by following IPPC and BAT's guidance and policy, every refinery can solve the pollution problems. If Indian refinery do not improve ROI and do not improve more
production of jet fuel and diesel to meet demand of it, Indian refineries will also face the problems as same as UK refineries.

Review of past studies also focus that India’s fuel demand is grown faster than refining capacity of Indian refinery. So, Indian refineries need to improve its production capacity so that refineries of India can meet the demand of fuels.

This study also focuses that Hurricanes Katrina and Rita disrupted refining operations in USA which affected finally to other country’s refinery also. Therefore, there should be taken security steps by Government officials to control natural disaster. This type of study also gives guideline to the Government to help Indian refineries by providing a stable policy, regulatory and fiscal environment that gives individual oil refineries confidence to make the substantial long term capital investments required.

2.3 **Review of the Studies:**

**Study No.: 1:**

1. **Concawe Study (The Oil Industry's European Research Group) – A Case Study**
2. **Writers’ Names:** Malcolm Watson and Nick Vandervell.
3. **Publication Year:** 23rd May, 2006.
4. **Statistical Analysis:**

   The study suggested that in order to meet a high demand for oil products. The EU world needs around 3.5 million tones/annum of extra hydrocracking capacity to produce more diesel and jet fuel. This would cost up to € 10 billion of capital expenditure and increase refinery emissions of CO₂ by up to 18 million tones/annum. Without product trading the capital expenditure could increase to € 20 billion and refinery emissions of CO₂ by 25 million tones/annum.
In the study, the researcher has shown and discussed about annual UK sales of jet fuel from 1977 to 2005 with the help of statistical data and charts e.g. UK sales of jet fuel rising 18 mte in 2020, crude oil selection affects yields of products and fuel oil production from different crude oils.

The researcher covered data from the year of 1977 to 2005 of UK sales of jet fuels and its demand in mte/q.

5. Findings:
The major findings of this study are as under:

- UK sales of jet fuel and automotive diesel are expected to increase over time as consumer demand for mobility grows. For petrol, sales are expected to continue to decline as vehicle efficiency improves and consumers choose to buy more efficient diesel powered cars. Demand for non-energy uses of oil (bitumen, greases, lubricating oil, electrode coke, petrochemical feedstock, etc.) will remain strong, whilst fuel oil demand for use in power generation and heating will decline. Demand for gas oil is expected to fall as off-road equipment switches to automotive diesel. Demand for marine fuel is expected to increase in line with the growth in trade with other countries.

- Refining produce a range of products. The balance between the different products is constrained by the refinery processing equipment installed and the crude oil processed. Large swings in demand for products, e.g. the rise in demand for jet fuel can only be met by imports or installing new refinery equipment. Closure of refineries will exacerbate any shortage as it will affect supply of all products.

- As production of low sulphur North Sea oil declines, UK refineries will have to process different crude oils. Initially, other low sulphur crude may be used, but over time the crude oils available will become heavier and sourer (i.e. contain more
sulphur) and low sulphur crude will carry an even greater premium.

- UK refineries will have to adapt to processing more challenging crude oils with higher sulphur levels, lower yields of transport fuels and higher yields of fuel oil or even heavier, more viscous crude oils with higher metals contents.

- Switching the crude oil processed in UK refineries to Middle East crude oil, for example, would increase the yield of unwanted fuel oil from around 12% with North Sea crude oil to 20-30% with a consequent reduction in the production of transport fuels.

- Crude oils that increase the production of fuel oil will either require more crude oil to be processed to give the same volume of transport fuels, or investment in expensive processes which convert fuel oil into transport fuels, at around £ 500 million per refinery. Both these options will increase the use of energy and hence carbon dioxide emissions per unit of products made. In addition the products form refining more sulphurous crude oils will require more desulphurization to meet EU specifications. Again, this will require more energy and produce more carbon dioxide emissions. Government has to decide Head Office, New Delhi extra carbon dioxide emissions will be covered under the cap imposed through the EU Emission Trading Scheme (ETS).

- The alternative is to process the same amount of crude oil, export the surplus fuel oil and produce less transport fuel. This will not affect the EU ETS cap, but will leave the UK more dependent on imported products.
6. **Suggestions:**

The major suggestions are as follows:

- A recent study by Concawe (the oil industry's European Research Group) suggested that, in order to meet a high demand for oil products, the EU would need around 35 million tones/annum of extra hydrocracking capacity to produce more diesel and jet fuel.
- The cost up to €10 billion of capital expenditure and increase refinery emissions of CO₂ by up to 18 million tones/annum. Without product trading the capital expenditure could increase to €20 billion and refinery emissions of CO₂ by 25 million tones/annum.
- The study also suggests that to improve energy efficiency in all sectors and influence consumer choice will have a role to play in balancing future energy needs and reducing emissions of greenhouse gases.
- The study also suggests that for the road transport sector this can be achieved by improving vehicles efficiency (i.e. better miles per gallon (mpg)), using alternatives to oil (e.g. biofuels and renewable hydrogen) and by influencing consumer behaviour (e.g. vehicle choice, driving style, vehicle use, etc.)

7. **Conclusion:**

In addition, overtime product specifications, especially on sulphur are likely to become stricter still. This will require refiners either to use more expensive low sulphur crude oil or to invest in new hydrofining units enabling the production of low sulphur products from less expensive, high sulphur crude oils. These changes will affect refinery economics, because the units needed are costly and take several years to plan and build.
**Study No.: 2:**

1. **Financial performance of Dairy Co-operatives in Gujarat with particular reference to Dudhsagar Dairy and Banas Dairy** (Dissertation Submitted for the Degree of M. Phil. (Commerce))

2. **Name of researcher:** Ms. Sneha Joshi

3. **Publication Year:** June 2008

4. **Objectives of the study:**
   The main objectives of the study are:
   - To know the overall status of dairy industry
   - To study the origin and the growth of selected dairy units
   - To evaluate the profitability trends of selected dairy units
   - To compare the financial performance of the selected dairy units
   - To derive conclusions and suggest measures for improving their financial performance.

5. **Period of the study:**
   The study is mainly confined to the financial performance analysis of Dudhsagar and Banas Dairy. The annual reports of these dairies have been studied for the period of consecutive five years from 2002-03 to 2006-07.

6. **Sample Design:**
   The researcher has selected two dairy industry known as Dudhsagar Dairy of Mehsana and Banas Dairy of Palanpur. The sample is of reasonable size to draw meaningful conclusion for further generalization.
7. **Chapter Plan:**
   - Introduction
   - Conceptual framework
   - Profile of Dudhsagar Dairy and Banas Dairy
   - Analysis of Financial Performance of Dudhsagar and Banas Dairy
   - Ratio Analysis
   - Findings and Suggestions
   - Bibliography
   - Questionnaire

8. **Findings:**
   The major findings of this study are under:
   - The profitability performance of Banas Dairy was better than Dudhsagar Dairy because fold growth of the profit of Banas Dairy was 4.98 and Dudhsagar Dairy was 1.40 during the period from 2002-03 to 2006-07.
   - The gross expenditure and income of the selected dairies showed a continuous increasing trend during the period of 2002-03 to 2006-07. Consequent through observation, found that operating expenses and production expenses were proportionately. Highest in both the dairies during the period as from 2002-03 to 2006-07.
   - The sales of Dudhsagar Dairy and Banas Dairy clearly indicate that Banas Dairy was better in performance of sales than Dudhsagar Dairy. Because the fold growth of sales of Banas Dairy was 2.03 and Dudhsagar Dairy was 1.70 during the period from 2002-03 to 2006-07.
   - Comparatively found that total reserve and funds fold growth of Banas Dairy was 1.41 and Dudhsagar Dairy was 1.18. So, reserve and funds performance of Banas Dairy was better than Dudhsagar Dairy during the period from year of 2002-03 to 2006-07.
• The total assets performance of the Dudhsagar Dairy was better than Banas Dairy, because the fold growth of Dudhsagar dairy was 2.13 comparatively Banas Dairy was 1.24 during the period from 2002-03 to 2006-07.

• Rate of return on equity of both dairies shown increased trend. The average of return on equity in Banas Dairy at 10.19 is better than that of Dudhsagar Dairy during the year 2002-03 to 2006-07.

• It is observed that current ratio of Banas Dairy was better in comparison to Dudhsagar Dairy. The average current ratio of Banas Dairy was 1.65:1 and Dudhsagar Dairy was 1.35:1. So, the performance OF Banas Dairy in current ratio is better than Dudhsagar Dairy during the period 2002-03 to 2006-07.

• It was found that Fixed Assets Turnover Ratio of Banas Dairy increased in all years than Dudhsagar Dairy which shows dairy expand his area, plant, machinery for getting higher profit and better position in forthcoming years.

9. Suggestions:
The researcher has noted major suggestions as follows:

• The paid up share capital of the dairy should be raised substantially, so that more cost free fund is available to them.

• The top management should review periodically the accounts of the dairy and take suitable steps before the situation gets out of control.

• Dudhsagar Dairy and Banas Dairy both should implement new techniques of financial management for the better performance in future.

• Effort should be made to reduce cost and improving financial policies by adopting better management.

• Dudhsagar Dairy should try to improve the profitability performance by the use of available resources.
Credit policy for export market should be relaxed and for local market is vast so, balance them. So, this will help in increase the turnover as well as profitability.

10. **Conclusion:**

   India is the world’s highest milk producer and all set to become the world’s largest food factory. In celebration, Indian dairy sector is now ready to invite NRI’s and foreign investors to find this country a place for the mammoth investment projects. Be it investors, researchers, entrepreneurs or the merely curious. Indian dairy sector has something for everyone.

   Milk production is relatively efficient way of converting vegetable material into animal food. Dairy cows, buffalos, goats and sheep can eat fodder and crop by products which are not eaten by humans. Yet the loss of nutrients energy and equipment required in milk handling inevitably make milk comparatively expensive food. Also if dairying is to play its part in rural development policies, the price to milk producers has to be remunerative. In a situation of increased international prices, low availabilities of food aid and foreign exchange constraints, large scale subsidization of milk conception will be difficult in the majority of developing countries.

   Hence in the foreseeable future, in most of developing countries milk and milk products will not play the same role in nutrition as in the affluent societies of developed countries. Effective demand will come mainly from middle and higher income consumers in urban areas.

   There are ways to mitigate the effects of unequal distribution of income. In Cuba where the Government attaches high priority to milk in its food and nutrition policy, all pre-school children receive a daily ration of almost a liter of milk at the reduce price, cheap milk and milk products outside the rationing system are sold price
which is well above the cost level. Until recently, most fresh milk in the big cities of China was reserved for infants and hospitals, but with the increase in supply rationing has been relaxed.

In other countries dairy industries have attempted to reach lower income consumers by variation of compositional quality or packaging and distribution methods or blending milk in vegetable ingredients in formula foods for vulnerable groups. For instance, pricing of products rich in butter fat or in more luxury packaging above cost level so as to enable sales of high protein milk products at a somewhat reduced price has been widely practiced in developing countries. This policies need to be brought in Indian Dairy scenario.

**Study No.: 3:**

1. **Financial performance in Indian ports – A Case Study**
2. **Name of Researcher:** Dr. Santu Kumar Bose
3. **Publication Year:** June 2000 (Indian Journal of Accounting Vol. XXXI).
4. **Objective and Methodology:**

   The present study is based on secondary data and other information provided by Port Trusts in their "Administration Reports and Annual Account". The relevant data has been collected from the "Administration Reports and Annual Accounts" of the respective ports for 13 years. From 1980-81 to 1992-93. Financial management and statistical analysis techniques are used to analyse the performance of Calcutta Haldia Port. Technical analysis of the constraints affecting the ports has been resorted to wherever necessary. A comparison is made of Calcutta Haldia port with other major ports of India, to see if there are any peculiarities particular to the former. An assessment is made of the position of Calcutta Haldia in relation to the total financial results for the major ports as a whole, in order to determine its economic importance.
5. **Period of the study:**
   The study period was from 1980-81 to 1992-93.

6. **Findings:**
   The major findings of this study are under:
   - Gross surplus of all major ports has risen considerably over the last eighteen years. This is a reflection of improvement in port management in India. However, at CHP, this increase in net port surplus has largely been drawn from HDC to the detriment of CDS. CHP has been the most consistent among major ports in generating operating surplus, but runs large non operating surplus, but runs large non operating deficit because of heavy debt charges on loan capital and towards meeting employee benefits.
   - Operating ratios declined at most major ports, but the operating ratios for CHP have generally been higher than at other ports. The decline followed revision of port charges. Timely enhancement of tariff, accompanied by diversification of cargo in favour of general cargo to raise port income and cost economies have helped major ports to improve their operating ratio.
   - Return on capital employed at CHP was very low, till recently. Since the return on capital employed depends on net surplus earned at a port, such low return is attributable to continuous growth in capital employed, and / or to substantial decline in net surplus. The gap between recommended and released rate of return has been very wide, because of non realization of expected traffic volume and much lower traffic capacity utilisation than at other ports.
   - A port with a high net surplus margin would capitalize internal profits more effectively in favourable conditions like falling operating cost or increasing volume of traffic. The net surplus margin at CHP has been much lower than at other ports and despite mid period improvement has begun to fall again.
is thus an urgent need for measures to increase operating income and decrease operating costs in order to improve financial performance.

- Turnover on capital employed at CHP has grown slowly because of slow increase in total port income. The efficiency of fixed creation at a port should be assessed in relation to the result operating income. Turnover of fixed assets at CHP shows increasing trend corresponding to growth in operating income.

7. **Suggestions:**

The major suggestion of this study is as under:

- Calcutta, Madras and Visakhapatnam ports need to improve their non operational performance.
- Fixed assets turnover ratio of Calcutta port was decreased in the year 1989-90 (0.461) and in the year 1990-91 (0.462) in comparison to year 1988-89 (0.467). Therefore, Calcutta ports should improve FATR.
- Operating ratio of Bombay ports was decreased in the year 1992-93. Bombay ports should also try to improve this ratio.

8. **Conclusion:**

Ports play an important economic role in maritime nations by facilitating foreign trade. They are thus catalysts for social and economic development in any maritime nation. In developing countries with extensive coast lines it is accepted that ports impart an impetus to economic progress by providing support services to industry. In India, which is a developing maritime nation with its coast line extending to 5660 Kms, the need for adequate port facilities for rapid socio economic development can hardly be over emphasised. The pace of our economic development is vitally linked with the growth of foreign trade which in turn depends upon port facilities.
There are, at present 11 major ports, 23 intermediate ports and 144 minor ports in India, classified in terms of the Indian Ports Act, 1908 in case of major ports, the responsibility for development of port facilities devolves on the Union Government. Of the 11 major ports 5 are located on the Eastern sea board, namely Calcutta-Haldia, Paradip, Visakhapatnam, Madras and Tuticorin, while the other 6, namely Kandla, Nhava-Sheva, Bombay, Mormugao, New Mangalore and Cochin, lie on the west coast. Ports are classified as export based or import based depending on the net directional flow of trade which passes through them. At present, the export based ports are only three in number i.e. paradip, New Mangalore and Mormugao while six others, i.e. Calcutta-Haldia, Madras, Tuticorin. Coachin, Nhava-Sheva and Kandla are import based. In two exceptions namely Bombay and Visakhapatnam, import and export flows almost balances each other.

**Study No.: 4:**

1. **Financial Analysis of selected Co-operative Banks in Anand District**
   (Dissertation submitted for the degree of M. Phil. (Commerce))

2. **Researcher's Name:** Ms. Mamta Bhatiya

3. **Publication Year:** June 2008

4. **Objectives of the study:**

   Analysis of financial performance of the The VVCC Bank Ltd. and the AMC Bank Ltd banks have been undertaken with the following objectives.

   - To study the evaluation and growth of co-operative banks in Gujarat and particularly in Anand in the various areas of their activities.
   - To analyse and interpret the financial performance of The VVCC Bank Ltd. and The AMC Bank Ltd.
   - To compare the performance of the selected co-operative banks.
• To derive the conclusion of the study and provide necessary suggestions for further growth of co-operative banks.

5. **Period of the study:**

The study has been undertaken for a period of 5 years i.e. from the financial year 2002-03 to 2006-07.

6. **Sample Design:**

The researcher has selected two co-operative banks known as (i) The VVCC Bank Ltd. and (ii) The AMC Bank Ltd. The sample is reasonable size to draw meaningful conclusion for further generalisation.

The researcher is quite aware of the limitation of the convenient sampling. However, the entire samples were handled without any prejudice what so ever.

7. **Chapterisation:**

The whole research work had been divided into following chapters:

- Introduction
- Profiles of selected co-operative banks.
- Conceptual frame work
- Financial analysis of selected co-operative banks
- Ratio analysis
- Findings and suggestions

8. **Findings:**

The major findings of the study are as under:

- The co-operative banks are common man’s banks as they finance their members who are predominantly persons of limited means like salary earners, self employed small business. The retail traders, persons running cottage, small and tiny industries and the professionals.
• It is very clear that the co-operative banks do not aim to maximize profit by making the advances to its members but they charge one percent less interest than that of other commercial banks so that advances do not create additional of the Urban co-operative banks. This has proved the high degree of profitability.

• From the study, it was found that, the total share capital fold growth rate of VVCC was 4.60% which was more than AMCB i.e. 0.98%.

• It was observed that the fold growth rate of deposits of AMCB was 1.20% on the other hand the deposits fold growth of VVCC was 0.90%. Therefore the performance of AMCB with reference to deposits was better than VVCC during the period from 2003-07.

• The interest expenses to total income of The VVCC Bank Ltd. was 75.41% in 2002-03 while it was 65.64% in 2006-07. On the other hand the interest expenses to total income of The AMC Bank Ltd. were 71.84% in 2002-03 and 56.66% in 2006. As the interest expenses to total income of the AMC Bank Ltd. was lower than the VVCC Bank Ltd. the performance of The AMC Bank Ltd. was better than The VVCC Bank Ltd. during the period from 2002-03 to 2006-07.

• The average net profit of The AMC Bank Ltd. was better than The VVCC Bank Ltd. during the period from 2003 to 2007. Because as the p-value is less than 0.05 it is concluded that there is a significant difference between the net profit of The VVCC Bank Ltd. and The AMC Bank Ltd. at less than 5% level of significance.

9. **Suggestions:**

The major findings of the study are as under:

• There is a need for a comparative study of financial performance of cooperative banks.
• Performance appraisal for the banking sectors employees should also be attempted as a part of core research programme.
• Co-operative banks should really try and undertake pilot studies in the areas where they are not operating today but they may operate tomorrow.
• In a liberal financial sector importance of training of the personnel is really most essential input which should really be emphasized at all level in the banking industry.
• The WCC Bank Ltd. and The AMC Bank Ltd. both should try to get consistency in net profit.
• Both the banks should try to implement new techniques of financial management for the better performance in future.

**Study No.: 5:**

1. Financial analysis of GMM Pfaudler Ltd. and Power Build Ltd.  
   (Dissertation submitted for the degree of M. Phi. (Commerce))
2. Name of the Researcher: Namita M. Bhatt
3. Publication Year: June 2008
4. Objective of the Study:
   The main objectives of the study are:
   • To know the overall status of selected engineering units in Vithal Udyognagar.
   • To compare the financial statement of the selected engineering units.
   • To study the origin and growth of selected engineering units.
   • To know the strengths and weaknesses of selected engineering companies.
   • To derive conclusions and suggest measures for improving their financial performance.
5. **Period of Study:**

The study is mainly confined to the financial trends of GMM and Powerbuild Ltd. The annual reports of these companies have been studied for consecutive five years from 2002-03 to 2006-07.

6. **Data collection and analysis:**

The present study is based on secondary and primary data. The data relating to the financial statement of both engineering companies.

For the purpose of analysis of balance sheet and profit and loss a/c, they have been rearranged and presented in a condensed form. The figures taken from annual reports and accounts have been rounded off up to two decimal places in Lakhs of rupees.

The techniques of ratio analysis, trend analysis and comparative analysis have been adopted for the purpose of comparative analysis of the two engineering companies. The statistical techniques like percentage, averages, means, graphs have also been applied.

7. **Sample Design:**

The researcher has selected two medium scale industries known as GMM Pfaudler Ltd. and Powerbuild Ltd. The sample is reasonable size, to draw meaningful conclusion for further generalization.

The researcher is quite aware of the limitations of the convenient sampling. However, the entire samples were handled without any prejudice whatsoever.
8. **Chapterisation of the study:**
The study has been divided into six chapters.
- Introduction
- Review of literature
- Profile of GMM Pfaudler Ltd. and Power Build Ltd.
- Analysis and comparison with the help of Du pont Chart.
- Ratio analysis
- Findings and suggestions
- Above six chapters generally discuss about financial performance of GMM and Powerbuild Ltd during the period of 2002-03 to 2006-07.

9. **Findings:**
The major findings of the study are as under:
- The comparative scenario of the profitability performance of Powerbuild Ltd. was better than GMM Pfaudler Co. Ltd., because fold growth of the profit of Powerbuild was 8.41 more than GMM Co. Ltd. i.e. 5.50 during the period from 2002-03 to 2006-07.
- The gross expenditure and income of the GMM Pfaudler Ltd. and Powerbuild Ltd. showed a continuous increasing trend during the period of 2002-03 to 2006-07.
- The sales of the GMM and Powerbuild clearly indicate that Powerbuild was better in performance of sales than GMM during the period from 2002-03 to 2006-07 because fold growth of GMM was 2.20 while PBL was 5.40 fold growth.
- The total assets performance of PBL was better than GMM, because the fold growth of PBL was 2.43 during the period from 2002-03 to 2006-07.
- Total turnover of GMM Co. Ltd. was 11494.91 lakhs and PBL was Rs. 8120.39 lakhs in the year of 2006-07.
• Comparatively found that the shareholders fund of PBL was better than GMM Co. Ltd. indicating the fold growth i.e. in the case of PBL, it was 1.99 and the GMM, it was 1.54 which is lower than PBL.

• The average debtors’ turnover ratio of GMM was 6.6 times and the PBL was 2.50 times for the period from 2002-03 to 2006-07. Hence that GMM was better than PBL.

10. **Suggestions:**

• The top management should review periodically the accounts of the companies and take suitable steps before the situation gets out of the control.

• The paid up share capital of the companies should be raised substantially, so that more cost free fund is available to them.

• GMM should try to reduce the gap between available capacity and its utilisation.

• GMM and PBL both should implement new techniques of financial management for better performance in future.

• GMM Pfau'dler Co. Ltd. try to improve the profitability per performance by the use of available resources.

• GMM Pfau'dler Co. Ltd. try to improve the adequate return of the assets.

11. **Conclusion:**

   Financial analysis is a scientific evaluation of profitability, efficiency and soundness of any business concern. The analysis is an attempt made to help the preparation of the most profitable design of promising alternatives and aid in selecting the most feasible option. The analysis looks at the projected as well as past performance.


STUDY No.: 6:

1. **Investment in UK Refining – A Case Study**
2. **Writers' Names:** Malcolm Watson and Nick Vandervell.
3. **Publication Year:** 23rd May, 2006.
4. **Analysis of the Study:**

   This article reveals that the oil industry is a complex, capital intensive and financially risky and highly competitive business. Oil companies can choose where in the world they invest to produce products; they rank all their investment opportunities and then invest where they can make the best return. As well as downstream options, they also have the device of investing in oil exploration and production, where returns are traditionally better. Indeed, investment in finding and producing new oil supplies is likely to be more attractive when oil prices are high. For the foreseeable future, upstream is also likely to be the primary focus of attention, given the challenge in satisfying the increased rate of oil consumption, particularly in developing economies.

   This article also reveals that Downstream oil refining is a stand alone activity that has to generate an acceptable return on capital in its own right. UK refineries must therefore compete for available funding against other projects around the world, in both the upstream and downstream sectors. They will only attract major investment if they provide the best location for a given project. Profits in area, sector or country are not used to subsidise another. UK refining, distribution and marketing must rely on its own activities to generate a profit and justify further investment in the UK, rather than overseas.

   This study also focuses that UK refining should not be taken for granted – refineries do close. If the return on capital of a major refinery investment project, or the risks associated with it, are not attractive then an alternative is to invest overseas and import the refined products required. Thus the supply of oil products to inland
consumers in the UK is not wholly dependent on a domestic refining industry – the nation’s energy needs could be met partially by imports – but with potential implications for security of supply, prices and balance of payments.

The present study also shows that the UK downstream oil market is extremely competitive and produces low, unacceptable return on capital employed compared with other world markets or indeed other UK sectors. Its ability to produce consistency some of the lowest pretax price fuels in Europe may reflect the efficiency of UK manufacturing, but low profits are not conducive to a healthy sector over time.

This article shows that returns have improved in the last two years; the long term rate of investment return over the past five or more years has been unacceptably low. The forecast of future financial returns from this sector will also be an important element in investment decisions.

5. Findings:
The major findings of the study are as under:

- It was found from the study that the Government can help by acknowledging the role of UK refining in contributing to the nation’s security and diversity of energy supply.
- It was also seen that the Government can help to UK refining by providing a stable policy, regulatory and fiscal environment that gives individual oil companies the confidence to make the substantial long-term capital investments required.
- It was also found that there should be a clear, consistent long-term energy policy that sets realistic, achievable targets, allows the market to find the best means of meeting them and reflects the ongoing importance of oil.
• It was also found from the study that Oil Company should choose the place of investment to produce products where they can make the best returns.

6. **Suggestions:**

The major suggestions are as follows:

• It can be suggest that UK Government can help by advocating proportionate and science based regulation that is not 'gold plated' or attempts to forecast winning technologies and allowing sufficient time for implementation.

• The UK Government can help to UK refinery by allowing competitive markets to operate freely without favour for particular players or countries.

• It can be also suggest that UK Government should recognize consumers' strong desire for mobility and applying an appropriate level of regulation to oil industry operations.

7. **Conclusion:**

The UK oil refinery industry is not seeking special treatment or support. However, in order to attract the necessary future investment to UK refineries, projects need to meet commercial objectives. Government policy establishes a road framework for these decisions. Hence, there needs to be confidence in the Government's approach to policy and an acknowledgement in UK energy policy of the vital role that the industry will continue to play in meeting the nation's future energy needs.
STUDY No.: 7:

1. A probe study into working capital management of Elecon Engineering Co. Ltd. in Vithal Udyognagar (Dissertation submitted for the degree of M. Phil. (Commerce))

2. Name of Researcher: Ms. Megha Shah

3. Publication Year: June 2008

4. Objective of study:
The main objectives of the study are:

   • To study various theoretical aspects of working capital management.
   • To know overall status of Elecon Engineering Co. Ltd. in Vithal Udyognagar.
   • To study working capital management of Elecon Engineering Co. Ltd.
   • To evaluate the performance of each component of working capital management of Elecon Engineering Co. Ltd.
   • To study liquidity position of the Elecon Engineering Co. Ltd.
   • To analyze working capital position of the Elecon Engineering Co. Ltd. through ratio analysis.
   • To derive conclusions and suggest ways and means to improve the working capital management of Elecon Engineering Co. Ltd.

5. Period of study:
The study is mainly confined to the working capital management of Elecon Engineering Co. Ltd. The study is related to the period of five years during 2002-03 to 2006-07.

6. Data collection and Analysis and Sample Design:
The present study of working capital management of Elecon Engineering Co. Ltd. is based on secondary as well as primary data taking into consideration relevant financial statements as from the year 2002-03 to 2006-07.
The researcher has selected one medium scale, industry known as Elecon Engineering Co. Ltd. The sample is reasonable size, to draw meaningful conclusion for further generalization.

The researcher is quite aware of the limitations of the convenient sampling. However, the entire samples were handled by without prejudice.

7. Chapterisation:

The present study has been divided into eight chapter. The first chapter relates to "Introduction", an overview of the whole study consists of its objectives, scope and limitations. The second chapter named "conceptual Frame Work" discusses types important components, operating cycle of working capital. The third chapter deals with "Profile of Elecon Engineering Co. Ltd." which present glance of Elecon Engineering Co. Ltd. The third chapter named "Working Capital Management" discusses types, importance, components, operating cycle of working capital. Chapter fourth evaluates the cash planning and performance of cash management of Elecon Engineering Co. Ltd. The fifth chapter evaluates the performance of inventory management of Elecon Engineering Co. Ltd. Chapter sixth evaluates the performance of receivable management of Elecon Engineering Co. Ltd. The seventh chapter shows the different ratios of the working capital management of the Elecon Engineering Co. Ltd.

8. Findings:

The major findings of this study are under:

- The working capital of the Elecon Engineering Co. Ltd. was continuously increasing during the period from 2002-03 to 2006-07. The overall performance of the working capital of the Elecon Engineering Co. Ltd. was good during the period from 2002-03 to 2006-07.
• The growth in total current assets was i.e. 4.62 times more than the growth in total current liabilities i.e. 3.88 times in Elecon Engineering Co. Ltd. This resulted in ever rising trend in net working capital.

• The Working Capital Turnover Ratio shows in fluctuating trend, which varies from low as 1.84 times in 2005-06 to as high as 2.49 times in 2004-05.

• The current assets turnover ratio of Elecon Engineering Co. Ltd. was 0.86 times at an average. It fluctuates in between 0.76 times and 1.06 times during the period from 2002-03 to 2006-07.

• The examination of Elecon Engineering Co. Ltd.'s practice in cash management reveals that Elecon Engineering Co. Ltd. does not have the practice of maintaining cash balance in relation to current assets, current liabilities or sales. This is certainly indicative of the lack of proper practice in maintaining cash balances.

9. **Suggestions:**

The researcher has noted major suggestions as follows:

• The overall performance of working capital management of Elecon Engineering Co. Ltd. was good during the period from 2002-03 to 2006-07. The management of the Elecon Engineering Co. Ltd. should try to maintain it.

• Company's financial officer should plan its cash and credit sources in such a way that normal operations of the company are not disrupted by a shortage of cash and further the opportunities for capital expenditure are not lost because of financial liability of them.

• The company should pay special attention to the management of inventory as inventories constitute the most significant part of the total current assets.
The management of Elecon Engineering Co. Ltd. has to take action of improve the profitability by controlling / minimizing the cost of production and by increasing the sales turnover of the company.

The top management should also review periodically the strictly accounts and take suitable steps before the situation gets out of control.

10. Conclusion:
Working capital is regarded as the life blood and nerve knot of a business firm. There might not be any business firm in the world where besides investment in fixed assets funds would not be required for carrying on day to day operations of the business. Liquidity and profitability are two vital aspects of a corporate business life. No firm can survive, without making profits but it can not survive without liquidity. A firm not making profit may be treated as sick but, one not having liquidity may meet its death over a period of time. Working capital management thus has become a basic and broad measure of judging the performance of a business firm.

Study No.: 8:
1. Financial Appraisal of Selected Engineering Units
   (Dissertation submitted for the degree of M. Phil. (Commerce)).
2. Name of the Researcher: Swaty R. Parab
3. Publication Year: December 1998
4. Objective of the Study:
The basic aim of Elecon Engg. Co. Ltd. was to produce machinery helpful to the basic industries like mining, cement, chemical etc.
5. Period of the Study:
The duration of the study was eight years i.e. from 1990-91 to 1997-98.
6. **Sample Design:**

   The study was held for financial appraisal of selected engineering units i.e. Eimco Eng. Co. Rolcon Eng. Co. and Elecon Eng. Co. Ltd. in Vithal Udyognagar.

7. **Chapterisation of the Study:**
   - Historical background of the Eng. Units
   - Appraisal of profitability
   - Appraisal of capital structure
   - Appraisal of fixed assets
   - Appraisal of working capital
   - Conclusions and suggestions

8. **Findings:**
   - Elecon Eng. Co. Ltd. earned a Gross Profit Margin of 23% on sales on an avg. during the period of the study Eimco Elecon Eng. CO. Ltd. earned an average 16.04% G.P. Margin on sales Rolcon Eng. Co. Ltd. earned 10.03% of G.P. margin on an average.
   - The net profit margin of Elecon Eng. Co. Ltd. was 1.66% whereas Eimco Elecon Eng. Co. Ltd. was 8.31% and Rolcon Eng. Co. Ltd. was 5.83%.

9. **Suggestions:**
   
   The profitability analysis shows poor performance of Elecon Eng. Co. Ltd. throughout the period of the study. It should improve its position and take measure to increase its profit margin and also try to make optimum utilisation of the capital employed. The sales and net profit showed rise in the last two years which should be maintained.
Study No.: 9:

1. Profitability performance of GMM Pfaudler Ltd. and Swiss Glasscoat Equipment Ltd. in V.U. Nagar A Comparative Study in the year 2005 June (Dissertation submitted for the degree of M. Phil. (Commerce))

2. Name of the Researcher: Jatin P. Soni

3. Publication year: June 2005

4. Objective of the study:
   To know the overall status, to evaluate the financial performance, to compare the financial position and lastly to derive conclusion for improving financial performance of selected engineering units.

5. Period of the study:
The period of the study was five years from 1999 to 2002-03.

6. Sample Design:
   Two medium scale industries known as GMM Pfaudler Ltd. and Swiss Glasscoat Equipments Ltd.

7. Chapterisation of the study:
   - Introduction
   - Conceptual frame work
   - Profit of GMM Pfaudler Ltd. and Swiss Glasscoat Equipments Ltd.
   - Analysis and comparison of profitability performance with the help of Du-Pont Chart
   - Profitability ratios
   - Findings and Suggestions
8. **Findings:**
   - The total assets performance of the Glascoat was better than GMM, because the Fold growth of Glascoat was 1.32, comparatively GMM was 1.13 during the period from 1999 to 2002-03.
   - The average gross profit ratio of Glascoat was 6.59% and the GMM was 2.14% so that comparatively Glascoat was higher than GMM during the period from 1999 to 2002-03.

9. **Suggestions:**
   - Efforts should be made to reduce and cost and improving financial policies by adapting better management.
   - GMM and Glascoat both should implementing new technique of financial management for better performance in future.
   - GMM Pfaudler performance by the use of available resources.

10. **Conclusion:**
    Research in common parlance refers to a search for knowledge for the purpose of the study, review of literature plays a vital role, to undertake the study on financial analysis of GMM Pfaudler Ltd. and Power Build Ltd. in Vithal Udyognagar. This study is mainly based on the published literature and data available from various publications.

**Study No.: 10:**

1. **Performance Evolution of Gujarat Refinery (A unit of IndianOil Corporation Ltd.)** (Dissertation submitted for the degree of M. Phil. (Commerce))
2. **Writer's Name:** K. V. Solanki
3. **Publication Year:** June, 2003.
4. **Selected Area / Department:**

The researcher has selected three major department of Gujarat Refinery.

a. Financial Department
b. Production Department
b. Personnel and Human Resource Department

5. **Period of the Study:**

The study has been covered period from the year of 1994-95 to 2001-02.

6. **Statistical Analysis:**

i. **Financial Department:**

In financial department the researcher has prepared various tables of expenses, details of chemical, catalysts and stores expenses, repairs and maintenance expenses, details of establishment expenses and Administrative Expenses, Operating cost of Gujarat Refinery, Net Profit etc.

In this department the researcher has find out that trend of increase and decrease of various expenses of refinery. The researcher has prepared tables and charts of the financial affairs.

ii. **Production Department:**

Gujarat refinery is a part of IOCL. It has various departments in which production plays a vital role among all departments. Gujarat refinery covers about 200 acre area. It has separate production department. The production department has various sub units namely primary and secondary units.

There are units in primary units AU-I, AU-II, AU-III, AU-IV, AU-V.
There are 22 units in secondary unit e.g. CRUMS, ARU, Xylene, CRU Total, VBU, BIH, VBU - FO, VBU - LSHS, VBU - TOTAL, VDU - IMP, VDU - TOTAL, BBU, FPU, FCCU.

In short in this study the researcher has covered 22 secondary units and 5 primary units. Each units works with the help of another units. One unit is connected with another. The waste of one unit is feed for another.

The researcher has prepared various tables of data regarding production value, product wise production, production at middle distillates, details of heavy ends, total distillates, details of cost of raw material, crude intake etc.

In this department, the researcher has tried to show trend of production and production efficiency. The researcher has also shown the production at various levels and its quality too.

The researcher has also shown inventory status of Gujarat Refinery in this dissertation.

iii. Personnel and Human Resources Department:

For this department, the researcher has shown recruitment and selection policy, training and development, promotion and transfer policy, wage and salary administration, employee welfare and service, provident fund, performance appraisal system in Gujarat refinery.

The researcher also shown and discussed about various tables such as department wise strength, increase and decrease of employees, new projects and implementation, new project and implementation, unit level awards that is received by the employees of the refinery.
7. **Findings:**
The major findings of this study are under:

- Refining capacity of Gujarat Refinery increased from 20 Lacs tones to 95 Lacs.
- Net profit is increased.
- This Refinery is one of the India's first organizations to get ISO-9002 certification for support service.
- This refinery has received ISO 14001 for Environmental Management in 1997.
- Pay scale of employee is also increased.

8. **Suggestions:**
The researcher has noted major suggestions as follows:

- Power and Fuel expenses increased in last three years therefore, refinery should control its power and fuel expense.
- Chemicals, catalysts also increased in last three year, so the refinery should decrease these expenses.
- Establishment expenses and Administrative expenses of Gujarat Refinery is decreased in last year. This is good for the refinery. The refinery should control these expenses in future too.
- Operating cost is also increased. So, the refinery should try to control it.
- Net profit of Gujarat Refinery is increased in last three years. This shows that refinery's profitability has increased and this also proves that refinery's performance is good. In comparison of the profit of other refineries like Guwahati, Barauni, Haldia, Mathura, Panipat etc. the profit of Gujarat refinery is very high. Other refineries like Guwahati, Barauni and Haldia have incurred loss in some years, but in comparison of these refineries Gujarat Refinery has never incurred lose, so this also proves that performance is better.
• Having come to know from the relevant sources that Gujarat Refinery is failed to give employment to the land seller. So, there is some dissatisfaction in the people residing in around the refinery. So, refinery should try to give employment to those people.

9. **Conclusion:**
Gujarat refinery is the best efficient unit then other units of Indian Oil Corporation Ltd.

**Study No.: 11:**

1. **Profitability Trends of Selected Indian Oil Refineries** (A Research Paper)
2. **Writer's Name:** Dr. C. K. Sonara
3. **Publication Year:** July, 2008
4. **Summary of the Research Paper:**

   The research paper has been discussed the profitability performance of refineries of Indian Oil Corporation Ltd. in India. The paper has been divided into four segments.

   1. Introduction
   2. Objectives of the Refineries
   3. Financial Structure of Oil Refineries
   4. Conclusion and Suggestions

   The research paper has focus on profitability of six refineries during the period from 2002-03 to 2006-07 and also discussed the Net Profit Ratios of selected oil refineries.

   The last portion of the research paper is concluding remark. It has covered suggestions for the improvement of the financial performance of selected refineries of IOCL.
2.4 **Conclusion:**

In short, the researcher has done total 11 studies as review of literature in support study for the title of the thesis.

The researcher has taken five case studies, five dissertations and one article for review of literature. One dissertation study on Performance Evaluation of Gujarat Refinery (A Unit of Indian Oil Corporation Ltd.) is more useful as a support study because this study focuses about net profitability of the refinery and also focuses on the basic problems of the refinery such as increase in operating cost and various expenses of the refinery. So, this study is helpful to understand the problem of other refineries of IOCL.

Conclave study is also useful for refinery of the world to meet a high demand for oil products. Concave study done by Malcolm Watson and Nick Vandervell also helps to solve oil crises and offers useful suggestions for other alternatives of petroleum products such as bio-fuels, renewable hydrogen etc. This study is more useful as the support study for the present research.

A case study done by Dr. Santu Kumar Bose, on Financial Performance in Indian Ports is also useful to improve FATOR of ports of India. This study also helps to improve financial performance of Bombay ports.

Investment in the U. K. Refining – A Case Study done by Malcolm Watson and Nick Vandervell, also focuses on how the Government can help to the refineries for better progress.

A dissertation titled “A Probe Study in to Working Capital Management of Elecon Engineering Co. Ltd., Vithal Udyognagar” also helps to understand the overall performance of working capital management of the refinery units.
The research paper on "Profitability Trends of Selected Indian Oil Refineries" written by Dr. C. K. Sonara (Reader, P. G. Department of Business Studies, Sardar Patel University) also one of the most important studies for review of literature which helps to understand profitability performance of refineries of IOCL.

An analytical study of five other dissertations also highlights financial performance of the selected units. This study has significantly contributed to my understanding of financial performance of selected refineries of IOCL.
REFERENCES:


4. www.newacademy.ac.uk

5. www.ukpia.com