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4.1 INTRODUCTION:

We know that in the struggle for existence only the fittest survive, so there is always the struggle for existence where by the strong oppress the weak or there is strong rivalry or even violence for existence especially among the beasts and animals, but human beings are noble living things. They are social by nature so they like to help one another. This is also called co-operation.

Co-operation means association of economically weak persons against exploitation & monopoly of rich and socially privileged persons for the betterment of their economic condition. Thus under co-operation weak persons who have common problems unite together against exploitation or monopoly etc, and fulfill their needs by helping each other with full co-operation.

Then, in the context of the co-operative movement it was developed during the period of the industrial revolution in the west as an alternative to the exploitative capitalist system in which the industrial workers were unequal partners and where the ill-effects of the industrial revolution were felt severely by the working classes and the farmers. From that time a consumer co-operative society was established in Rochdale in England. The co-operative movement has now spread all over the world and has developed in several economic forces. For the consumer especially in the western countries, the movement has helped
to create a healthy system of distribution of consumer commodities which guarantees the consumers fair prices, quality goods and efficient services by becoming an important distributive enterprise of consumer role in stabilizing prices of consumer commodities.

The co-operative movement is known for the implementation of schemes of national development which require the participation of the people for the reason that any government is weakest at the village level and this is where the co-operative movement is strongest. Therefore, co-operatives must play their vital role in the implementation of schemes of national development. But that alone is not enough. Co-operative must provide people at the grass root level with the opportunity of learning how to manage their own affairs of learning the processes of democracy and of becoming initiators of policy.

4.2 GENESIS & DEVELOPMENT OF CO-OPERATIVE MOVEMENT GLOBALLY, IN INDIA & IN GUJARAT:

The genesis of co-operative movement can be traced back to the first half of the 18th century. Industrial revolution in U.K. had increased the production at the cost of morality and values of man kind as man was replaced by machine. Because of lust and lure for the production, it had directly resulted in the exploitation of the man kind and so co-operative movement took birth in U.K. for removing the bad conditions of the laborers. From England co-operative movement spread out all the over the world.
MOVEMENT IN INDIA:

In India modern co-operation was introduced in the early part of the 20th century solely as a defensive institution to provide relief to the agricultural producers in their struggle against the very high interest rates, charged by the moneylenders.

In India there is no scarcity of milk giving animals; neither there is scarcity of animals keepers. The only requirement is that the milk producers should be inspired to adopt better methods of cattle rearing and this is possible through co-operative dairy milk movement, if the co-operative milk dairies are run or managed with a true spirit.

MOVEMENT IN GUJARAT:

The co-operative movement in Gujarat is similar to the milk dairy co-operative movement of Gujarat. Due to the exploitation of the middle man called the "Bhatiya", the farmers decided to form their own association to save their interest. So, the first co-operative society was started in 1939 in Surat and that was the beginning of new era of co-operative movement in Gujarat. Before the birth of Amul Dairy, Anand, there was no systematic marketing for milk in Gujarat and in India also and then, with the birth of "Amul" in 1946, the co-operative movement began as a revolution and then it emerged as a "White Revolution".
PRESENT SCENARIO OF GUJARAT CO-OPERATIVE MILK MARKETING FEDERATION:

Gujarat Co-operative Milk Marketing Federation is India's largest food products marketing organization. Under its 13 district co-operative milk producers' unions and 2.7 million Producer members. It has 13141 village societies. The total milk handling capacity is 10.21 million litters per day. Milk collection of the last year (2007-08) is 2.69 billion litters. The daily average of milk collection is 7.4 million litters. The milk drying capacity is 626 Mts. per day. The sales turn over of last 5 years (2003-08) is increasingly as follows:

THE SALES TURN OVER OF LAST 5 YEARS (2003-08) IS INCREASINGLY AS FOLLOWS

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Rs.(MILLION)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-04</td>
<td>28941</td>
</tr>
<tr>
<td>2004-05</td>
<td>29255</td>
</tr>
<tr>
<td>2005-06</td>
<td>37736</td>
</tr>
<tr>
<td>2006-07</td>
<td>42778</td>
</tr>
<tr>
<td>2007-08</td>
<td>52554</td>
</tr>
</tbody>
</table>

Profitability:

Profitability means the profit earning ability of the enterprise, and the capacity of management to generate surplus in the process of business operations. It is overall measure of efficiency.
Profitability is distinguished from "profit". Profits refer to the absolute quantum of profit. Where as the profitability refers to the ability to earn profits.

It indicates the overall amount of profit earned by a transaction. Very high profit does not always indicate a sound organizational efficiency and low profit is not always a sign of organizational sickness.

Thus, the profitability is the ability of an organization to earn profit. In other words, profitability is a composite concept relating to the efficiency of an organization to earn profit.

\[
\text{Profitability} = \frac{\text{Operating Income}}{\text{Operating Assets}}
\]

⇒ **Liquidity**:

Liquidity means the debt repaying capacity of an undertaking. It refers to the firm's ability to meet the claims of the suppliers of goods, services as well as the suppliers of capital.

There are two types of liquidity, on the basis of time: viz short term liquidity and long term liquidity.

Short-term liquidity provides the capacity to repay the short-term debt from out of the current assets.
Long-term liquidity refers to the ability of the firm to repay long-term debt and interest and other long-run obligations. When relationships are established along these lines, it is assumed that in the long-run, assets could be liquidated to meet the financial claims towards the firm.

4.3 RATIONALE FOR THE STUDY:

In the context of co-operative milk dairies and their profitability cum liquidity which is the subject chosen for research by the researcher. The implicit question posed or the problem raised is: Are the co-operative dairies capable enough by the required profitability cum liquidity to survive against the encroachment of private dairies at present and in future under the delicensing policy of government for dairy industry which has come into existence after 1991 due to New Industrial and Economic policy of 1991 granting to the industries liberalization, privatization and globalization.

To find out the answer to this problem of survival of co-operative dairies the researcher has collected information regarding present problems faced by co-operative dairies and to find profitability and liquidity position of the some co-operative dairies of Gujarat. Information & data of last eight years have been collected and treated under Ratio Analysis method to highlight present profitability and liquidity condition of the co-operative dairies and to get a synopsis of the current scenario indicating for future actions and decisions.
4.4 TITLE OF THE STUDY:

Title of Research is :

"A comparative study of profitability vis-à-vis liquidity of co-operative milk producers' unions of Gujarat State."

4.5 REVIEW OF LITERATURE:

In the present study, the profitability and liquidity of co-operative milk dairy industry of Gujarat state have been analyzed by considering their financial data. This study is based on secondary data taken from published annual reports of the co-operative milk dairies various reports of Gujarat co-operative milk marketing federation Ltd. (GCMMF) Anand, National Dairy Development Board (NDDB)-Anand, unstructured personal interviews of key persons has also been used for this study. Most of the research of the study was conducted by means of secondary sources through extensive library research based on books, websites, periodicals, fresh government report, Magazines, journals etc.

Various researchers have done considerable research in the field of milk dairy industry and its finance. This can be seen from the list given here below:

(1) Dr. S. J. PARMAR published a book in 2001. The book is a systematic study of the modern financial measurement techniques useful for management in planning and controlling corporate activities with increasing participation by the general public and financial institutions as present and corporate bodies have to be
on their guard and manage their efficient financial efficiency in the area of globalization. This book covers topics of concepts and measurement of profitability, cost & sales trend, profit margin, assets turnover, analysis of return on investment common size of value added statements.

(2) Dr. MISS KAILASH P. DAMOR has done research on "A comparative analysis of profitability trends in co-operative sugar industry of India" in the year 2002. In her research she has given clear idea about profit and profitability.

   Profit means; "it is an excess of Income over expenses."
   Profitability means "it is a capacity of earning profit."

   Profitability is related with two words, Profit and Ability. We discuss the word profit in many senses but the word profit is used as per its purpose, where as the ability shows the capability of earning profit from business. Profitability also shows our capacity of how much return we can give to our investors on their investment.

(3) Dr. RASIK N. BAVARIA has completed his research on "A comparative analysis of profitability vis-à-vis Liquidity performance in cement industry of India" in the year 2004.

   He has given importance of profitability and liquidity; by the term 'Liquidity' is meant the debt - repaying capacity of an undertaking. It refers to the firm's ability to meet the claims of suppliers of goods services and capital.
Study of financial statement analysis is always made objectively. Generally, the external analyst uses the information as per his requirements. Financier would like to know profitability. Management would be interested in the operational efficiency and profitability.

Position of the management profitability vis-à-vis liquidity should also balance in the portfolio. But if the management likes profitability, liquidity becomes less and if the liquidity is liked more the profitability gets less, for a short period of time. In the long run both will go together.

(4) CHAKAVARTY AND REDDY had written an article on the financial performance of the industry for period from 1967 to 1971 by making comparison in 1993. They used ratio analysis as major tool for financial performance and had studied 22 ratios of profitability, proprietary, liquidity and turnover groups.

(5) KAURA AND SUBRAMANIAM published on the financial performance of 10 units relating to the period from 1972 to 1979 which mainly observed liquidity, profitability, financial structure and over all performance. For this study they used conventional ratio analysis and merit rating approach. They found that the financial strength of the units has declined over the years.

(6) DR. SANJAY J. BHAYANI has done his Ph. D. thesis on "Analysis of financial statements of cement industry in India". In this study he is considering various financial concepts, like
conceptual framework of financial profitability, working capital, financial structure and summary, findings and suggestions.

(7) PARUL P. BHATI has done a project work on "study of Sabarkatha District co-operative milk producers"

She has studied on general aspect of activities of Sabarkantha dairy. In her project work she explained activities of various departments like production department, human resource department, marketing department, finance department, etc. Sabarkantha dairy has a very simple distribution channel. All the products manufactured by Sabar dairy are marketed by GCMMF Ltd. All the products are manufactured & sold under the brand name of "Amul". The advertising, distribution of the products and development of the marketing policies are performed by GCMMF Ltd. The main competitors of Amul are Nestle, Glax co. Royal, Cadbury & other private dairies. Local milkmen are main competitors of the Sabar dairy. This is a good example of co-operative organization.

(8) DR. HARISH P. DESAI:

He has done his Ph.D. on "Financial performance appraisal of selected district dairies co-operative in Gujarat" in may-2006.

Under this study he has made a modest attempt in assessing the financial health of the selected co-operative dairy units by applying accounting tools and techniques to the date of nine district co-operative dairy unions in Gujarat State.
For this purpose he has used many accounting tools and techniques like common size statement, Ratio analysis, etc. He has also used some statistical techniques like, mean, Regression, F-test, T-test, Diagrammatic and graphic presentation of data.

(9) DR. V.K. SAPOVADIA:

He has done his research work in year 2004. Under his research work he studied financial performance of various co-operative sectors. For this purpose he also calculated some ratios. Title of his study is "A Comparative study on financial performance Appraisal of Indian co-operative sector and USA based co-operative sector." The chapters of his study are as under:

(1) Introduction, Rationale, Objectives etc.
(2) Historical scenario & development of co-operative.
(3) Working Environment & Structure.
(4) Performance Appraisal of co-operative Movement.
(5) It also deal with issues of performance.
(6) Focuses of Role & Importance of co-operative.
(7) Describes three case studies.

(10) DR. DEEPAK M. SHARMA:

Here, the researcher has done his research work on Indian Banking Sectors. He has calculated the profitability and productivity of various banks. The title of his thesis is "Critical Evolution of Indian Banking sector."[ with reference to private
sector banks & public sector banks.] For purpose of finding the profitability the researcher has used the analysis of Common Size Financial Statements.

4.6 **OBJECTIVES OF THE STUDY**:

(1) To evaluate the profitability trends of co-operatives milk producers’ unions of Gujarat state.

(2) To review the liquidity trends of the co-operatives milk producers’ unions of Gujarat state.

(3) To compare the relationship of profitability & liquidity.

(4) To measure the financial growth of the co-operative milk producers’ unions of Gujarat state.

(5) To find out the financial position of the co-operative milk producers’ unions of Gujarat state.

(6) To know the area for improving the profitability of the co-operative milk producers’ unions of Gujarat state.

(7) To know the area for improving the Liquidity of the co-operative milk producers’ unions of Gujarat state.
4.7 **HYPOTHESIS** :

Researcher would like to examine the following broader hypothesis as under:

(1) There would be no significant difference in selected profitability ratio of dairy units during the period of study.

(2) There would be no significant difference in selected liquidity ratios of dairy units during the period of study.

(3) There would be no significant co-relation in mean score of all profitable ratios and liquidity ratios of sample dairy units during the period of study.

This broader hypothesis would be redrafted with each type of ratio during the analysis work.

4.8 **RESEARCH METHODOLOGY** :

(1) **Data Collection**:

Researcher has collected secondary data from various sources like annual report of milk co-operatives unions. Financial literatures, published articles, related website Magazines, Journals etc.

According to the objectives and need of the study the researcher has applied the necessary tools of analysis like, average mean, ranking, percentage, ratio and graphic presentation of data, Annova Test and Co-relation etc.
(2) **Period of study:**

The study period is 2000-01 to 2007-08

(3) **Sample:**

In the proposed research following dairies have been as sample of study.

1. The Baroda Dist. Co-op. milk producers' Union Ltd.  
   (SUGAM DAIRY) Baroda.

2. The Khaira Dist. Co-op. milk producers' Union Ltd.  
   (AMUL DAIRY) Anand.

3. The Mehsana Dist. Co-op. milk producers' Union Ltd,  
   (DUDH-SAGAR DAIRY) Mehsana.

4. The Rajkot Dist. Co-op. milk producers' Union Ltd.  
   (GOPAL DAIRY) Rajkot.

5. The Surat Dist. Co-op. milk producers' Union Ltd,  
   (SUMUL DAIRY) Surat.

6. Valsad Dist. Co-op. milk producers' Union Ltd.  
   (VASUDHARA DAIRY) Aalipur Chikhli.

7. Ahmedabad Dist. Co-op milk producers' Union Ltd.  
   (UTTAM DAIRY) Ahmedabad.
4.9 OUT LINE OF THE CHAPTER PLAN:

Chapter : 1

Introduction to co-operative movement and dairy industry

This chapter covers Meaning, significance and History of co-operation then the Co-operative movement at world level, India level and Gujarat level. Definition of co-operation, types of co-operative society, advantages and limitations of co-operative societies. In this first chapter of dairy industry we also discussed the history of dairy industry and then co-operative dairy industry.

Chapter : 2

The Concept and Measurement of profitability

This chapter deals with meaning and concept of profitability. Comparing it with profit and productivity and mentioning the different methods of measuring the profitability under Ratio Analysis criteria.

Chapter : 3

The Concept and Measurement of Liquidity

Here, I have discussed meaning and concept of liquidity and tried to show the connection and relation between profitability and liquidity which is inverse to some extent. I have chosen ratio analysis as the base for measuring liquidity in various ways.
Chapter : 4  

Research Methodology

In the fourth chapter of this thesis, the researcher has given the information about his research work. The title of the thesis, the problem of research topic, Method of data collecting, hypothesis of research, limitations, chapter plan, review of literature, bibliography etc.

Chapter : 5  

The Sample Profile

The fifth chapter of my research work is sample profile. In this chapter researcher has talked about all selected dairies. It’s history, it’s growth and it’s present situation etc.

Chapter : 6  

Analysis of profitability

There are many ways of measuring profitability but in the current study the researcher has chosen the ratio analysis method as it is simple to understand and accurate in results. The ratios of profitability which have been selected and used are very much similar to the Du Pont Chart of profitability.

Chapter : 7  

Analysis of liquidity

For liquidity measurement, the short and sweet method is of Ratio Analysis, so the researcher has adopted this method by employing several different ratios indicating liquidity of the different co-operative dairies.
Chapter : 8

A study of relationship between profitability & liquidity

In this chapter it is seen how profitability and liquidity are inversely related to some extent during business operation but ultimately they are complementary.

Chapter : 9

Summary of findings and suggestions

All the outcomes of the research made have been clearly stated and discussed in this chapter and the future plan of action for encountering the problems and challenges has been suggested by the researcher.

4.10 LIMITATIONS OF THE STUDY:

While carrying out the aforesaid research, the researcher is fully aware of its following limitations:

(1) Dairy industry may be working in private, public or co-operative sectors but this study is based solely on the functioning of the dairy industry in co-operative sectors only.

(2) The research is done on co-operative milk dairy unions of Gujarat state only so the findings of study could not be applied to any other areas and other types of business units of India.

(3) Profitability is affected by many factors, internal as well as external factors but the researcher has taken into consideration only some factors which are relevant to study.
(4) The major limitation of the study is non-availability of the information as required by the research forms.

(5) Measurement of profitability and liquidity is full of practical difficulties.

(6) This study is based on secondary data taken from official Websites, Annual reports of co-operative dairy units, published other reports, Magazines, Journals and as such findings depend entirely on the accuracy of such data.

4.11 SELECTED BIBLIOGRAPHY:

| (2) | R.C. Kothari | "Research Methodology" Wishva Prakashan 1996 E.D. |
|---------------------|-----------------------------------------------------|
| (7) Pandey I.M.     | "Financial Management"                                    |
| (10) Gupta R.K.     | Profitability Financial Structure And Liquidity, Printwell Publisher, 1990, Jaipur. |
| (11) H. Calvert     | Law and Principle of Co-operation |
Other Sources Of Data:

1. Annual Reports of G.C.M.M.F
2. Annual Reports of N.D.D.B.
3. Indian Management
4. Management Accountant
5. R. B. I. Bulletin
6. News Digest
7. Sahakar
8. Gram Swaraj
9. Indian Journal of Agriculture Economics
10. The Economics Time
12. WWW.google.com
13. Indian DAIRYMAN (Monthly Magazine)