

# USE OF BUSINESS INTELLIGENCE TO IMPROVE THE EFFECTIVENESS OF ENTREPREISE RESOURCE PLANNING: A CONCEPTUAL STUDY

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**Abstract - The Dairy cooperative is one of the main cooperative in western Maharashtra. It helps to uplift the landless farmers. There are various challenges before dairy cooperative. To overcome these challenges Enterprise Resource Planning (ERP) Implementation is must. For any organization Man, Machine, Money and Material are important resources. It is necessary to manage these resources effectively. The ERP is important tool to manage these resources. The ERP will integrate information, track orders, analyze data, monitor process flow, ensure transparency, reduce personnel and increase productivity/profit. As only Enterprise Resource Planning is not sufficient Business Intelligence (BI) will improve the effectiveness of Enterprise Resource Planning. The BI provides analytics, reporting, collaboration and knowledge management. This paper explains need of Enterprise Resource Planning and how its effectiveness can be increased using Business Intelligence. The objective of study is to study present status of ERP and BI implementation. Study design conceptual model for Enterprise Resource Planning Implementation with Business Intelligence. The study will consider only cooperative dairies in western Maharashtra i.e. Sangali, Kolhapur, Solapur, Satara and Pune districts as main dairy cooperatives spread in this area. The data will be collected from cooperative unions in these districts. The study will consider only cooperative unions.**

**Key words - Enterprise Resource Planning, Business Intelligence, Information Communication Technology**

## **I. INTRODUCTION**

The cooperative played important role in development of Maharashtra. Especially in western Maharashtra i.e. Kolhapur, Sangali, Satara, Pune and Solapur districts cooperative is well developed. These cooperatives changed life style of rural peoples. Warana, Akuj are some examples of ideal cooperative movement. Dairy cooperative is one of the sector in which millions of farmers are involved in this business. It is becoming main

source of income for the farmers. It helps to poor families to fulfill their basic needs and routine expenses. Now day's cooperative facing many challenges. They have to compete with private and multinationals. Development of rural farmers depends upon progress of dairy cooperative. It is necessary to minimize bacterial count and time taken for milking to milk received at primary plant. Customer demands for more self life of milk and milk products.

Slowly technology has been used by dairies to provide value based services to their distributors and Milk suppliers. With the emergence of internet technology dairy can further consolidate and effectively manage their diversification portfolio of distribution service offering on the World Wide Web. The main goal of any organization is to maximize profits for its owners and cooperative milk union is not any exception. On line integrated systems offers a perfect opportunity for maximizing profit. The organization's profitability and productivity is mostly depending upon planning of resources of organization as resources are limited.

Worldwide best practices should be implemented. In some cases it needs Business Process Re-engineering must be adopted. It is very important to manage these resources effectively. ERP – Enterprise Resources Planning is important tool to manage these resources. For any organization with multi location and multiproduct nature well placed ERP is very essential. ERP helps to integrate the data in organization under one common platform. ERP can cut down costs; improve the quality of working time and by and large. In organization Man, Machine, Money, Material and Management are important resources. It is observed that most of milk cooperatives failed to implement ERP. Hence researcher studies all aspects of ERP and provides better solution for implementing ERP in milk cooperatives. National dairy development board provides technical guidance to milk unions to implement ERP. Only use of ERP will not serve the purpose its effectiveness will be improved by using Business Intelligence. Business Intelligence (BI) is a set of theories, methodologies, processes, architecture and technologies

that transform raw data into meaningful and useful information for business purpose.+

## II. NEED OF ERP WITH BI FOR DAIRY COOPERATIVE

ERP is Enterprise Resource Planning is management tool for decision making, provides cross functional integration, employs proven business processes leads to better customer service, productivity and lowering of costs links customers and suppliers lays foundation for e-commerce. In the world of internet one can enter data into system or can view data from anywhere.

ERP will help dairy cooperative –

1. To integrate information across functions like stores, purchase, marketing and finance.
2. To track order received from distributor.
3. To analyze sales trend and milk procurement trends – Geographical locations wise analysis.
4. To monitor process flow and product mixing.
5. To ensure the interoperability and transparency in operations.
6. To Reduce Personnel, Inventory, IT cost & various other costs.
7. To increase productivity, profit.

BI technologies provide historical, current and predictive views of business operations. Business intelligence can be applied to the various business purposes like measurement, analytics, reporting, collaboration and knowledge management in order to drive business values. The basic elements of BI are Data Warehouse, Data Mining and Decision Support System. BI can use structured data collected through ERP for analytical techniques. BI can access data from ERP, provide mechanism to transform into knowledge and display knowledge which will help for effective decision making for management.

## III. OBJECTIVES OF THE STUDY

For present study following objectives has been formulated -

1. To study present status of ERP implementation and problems in ERP implementation in milk unions.
2. To study the present status of Business Intelligence used in milk unions.
3. To study impact of ERP and Business Intelligence on performance of milk cooperative unions.
4. To design conceptual model for ERP with BI for cooperative milk unions.
5. To suggest remedial measures if any.

## IV. RESEARCH HYPOTHESIS

The study is also undertaken to test following hypotheses.

1. Problems faced by all milk unions in ERP implementation are of similar in nature.
2. Performance of milk unions depends on extent of BI usage.

3. Information generated through BI will improve the Performance of the milk unions.

## V. RESEARCH METHODOLOGY

1. Sample Design – For the present study random and connivance sampling will be adopted to collect primary data from milk unions of western Maharashtra. The district and union number of employees in cooperative milk unions are given as follows

Sr	District	Name of the Union	No of Employees	To be Selected for study
1	Kolhapur	Warana , Warananager	1825	90
		Gokul, Kolhapur	1912	95
2	Sangali	Rajarambapu, Islampur	210	11
3	Satara	Koyana, Karad	290	14
		Ajinkaytara, Satara	85	5
4	Solapur	Shivamrut, Akluj	620	30
		Solapur District, Solapur	1170	58
5	Pune	Pune District, Katraj,Pune	523	26
		Total	6635	329

Source of district wise union information – Regional dairy development Office, Pune. The study of whole universe is highly impossible therefore researcher decided to select the 5% sample size which will represent the whole universe.

## VI. SCOPE OF STUDY

The scope of present study is selected milk unions in western Maharashtra i.e. Kolhapur, Sangali, Satara, Solapur and Pune districts. As major dairy cooperatives of Maharashtra are located in this area. Hence there is wide scope for studying Use of BI and ERP Implementation in dairy cooperative. The study is limited to only milk unions running on cooperative basis. Many dairy cooperatives have adopted computerization for their day-to-day transactions as long as it meets the exception of internal users (employees) and external users (the distributors, milk suppliers and government). The study is taken to identify problems in ERP implementation and how effectiveness can be achieved using BI in cooperative milk unions of western Maharashtra. The study is confined to develop road model for ERP and BI implementation. The research includes case study analysis of selected cooperative unions

and Interviews. The study is emphasized from management of implementation perspective.

## **VII. LIMITATIONS OF THE STUDY**

Study is limited to design a Road Model for ERP including Business Intelligence. The system development i.e. programming is not in the scope of this study as it requires manpower. Studies finding will be based on collected data provided by users and managers in cooperative unions. Study will be based on accessible information based on each milk union's policy.

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