

# USE OF BUSINESS INTELLIGENCE TO IMPROVE THE EFFECTIVENESS OF ENTREPRISE RESOURCE PLANNING: PILOT STUDY

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**Abstract**—*The Dairy cooperative is one of the main cooperative in western Maharashtra which helps to uplift the landless farmers. Now days there are various challenges before dairy cooperative. Milk unions are implanting ERP but its effectiveness will be improved using Business Intelligence. This paper explains pilot study conducted to study the problems, need and status of Business Intelligence and Enterprise Resource Planning in dairy cooperative. Also highlights on objective and hypothesis testing of the study.*

**Key words**—*Enterprise Resource Planning, Pilot , Study, Business Intelligence.*

## 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, Akluj 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. Cross functional integration employs proven business processes

## II. PILOT STUDY

Pilot study refers to mini version of full scale study. Its also called feasibility studies. It is pre testing of a particular research instrument such as questionnaire. Pilot studies are a crucial element of good study design. Pilot studies fulfill a range of important functions and can provide valuable insights for researcher. It plays vital role in development of research. An initial pilot survey was done for pre- testing the questionnaires. The purpose of the pilot study was to test the quality of items in questionnaires and confirm the feasibility of the study. The questionnaires were edited in the light of the result of pilot study. The reframed and modified questionnaires were used for the survey. Initially framed single questionnaire but in pilot study it is observed that technical questions are not answered by end user and management user. Hence two questionnaire designed and used for the survey. leads to better customer service, productivity and lowering of costs links customers and suppliers lays foundation for e-commerce. Only ERP implementation is sufficient further Business Intelligence implementation is necessary which will help to improve the effectiveness of Enterprise Resource Planning.

## III. OBJECTIVE OF STUDY:

The current pilot study design will help researcher to achieve following objectives :

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

## IV. HYPOTHESIS

The hypotheses formulated are as follows:

1. The success of ERP implementation is independent of the involvement of top management of the organization.
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. DATA COLLECTION

Requisite data was collected through questionnaire. While collecting data need to discuss with user, management and IT heads . The present study deals with data collection using questionnaire.

VI. QUESTIONNAIRE

Considering above mentioned objective and questionnaire were designed. Questions were grouped as follows –

A. General Information

Collects general information of organization i.e. employee strength, exiting hardware, existing software .

B. Pre Implementation

Questions related to preparation of ERP is covered in this group.

C. Training

Investment done for training and importance given for training is checked in this group of questions.

D. Implementation

Efforts taken for ERP implementation and role of various departments is considered in this group.

E. ERP Features

Collets Features of ERP software implemented in organization.

F. Post Implementation

Post implementation review taken is checked in this group.

G. Hardware Infrastructure and Security

Hardware infrastructure and security measures taken is sufficient or not is checked in this group.

H. BI Related Information

Status of Business Intelligence and it need considered in this section.

I. ERP Modules Implementation Status

Various modules implemented and at what extent is studied in this group.

K. ERP Impact

Impact of Enterprise Resource Planning implementation on organization performance is evaluated in this group.

Almost all the questions have options strongly agreed, Agree, Neither agree nor disagree, Disagree and strongly disagree. Also Implementation and impact is evaluated on rating basis.

VII. SAMPLE DATA

Sample data is collected from one Milk union where ERP implemented successfully. **VIII. DATA ANALYSIS** Using measure of reliability Combac’s alpha the reliability of questionnaires was tested Reliability of questionnaire is tested and found to be **satisfactory**. (Combac alpha is .615)

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.722	.615	40

**Hypothesis Testing** Problems faced by all milk unions in ERP implementation are of similar in nature.

Category * Hurdles Cross tabulation					
Count	Hurdles				
Category	Non Qualified Staff	Language Barrier	Management Interface	Other	Total
Management	1	1	2	1	5
End User	2	1	1	0	4
IT User	0	0	3	0	3
Total	3	2	6	1	12

It observed from sample data Management, End User and IT users replied Management interface is problem reported highest replies. Using statistical tests hypothesis will accepted or rejected after actual data.

VIII. CONCLUSION

The pilot study will draws conclusions as follows : The reliability of questionnaire found satisfactory.

- Helps to identify impact of ERP on performance of milk union.
- Helps to study the status of ERP and BI implementation.
- Gives information related to pre implementation and post implementation efforts.

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