CHAPTER V

OBSERVATIONS, CONCLUSION AND SUGGESTIONS

5.1 INTRODUCTION

The present study is 'PROBLEMS AND PROSPECTS OF IT IMPLEMENTATION IN SUGAR FACTORY WITH REFERENCE TO SONHIRA SAKHAR KARKHANA LTD; VANGI' The IT implementation in Sonhira sugar factory was stared in year 2000-2001. The Crushing capacity of Sonhira sugar factory is 2500 TCD.

5.2 OBSERVATIONS

1. The status of computerization is analyzed considering departments of Sonhira Sugar factory (Reference table no.4.2.1). It has been observed that

   - In General department 33.33% works are fully computerized (General administration) and 66.67% worksare done manually ((Watch & ward) and Godown).

   - In Finance department 75% worksare fully computerized(Share Accounting, Cane A/C, Harvesting Billing ,Transport Billing ,Store A/C & Costing, and Financial Account).12.5% worksare partially computerized (Deposit accounting), and also 12.5 % worksare manually (sugar & By-Product).

   - In Agriculture department 75% work is fully computerized (Harvesting, Weigh Bridge, and Transport Scheduling) and 25% of work is manually (Cane Development & Planting).

   - The HRM department has four sub departments. Three (75%) departments (Attendance System, Payroll and Performance appraisal are fully computerization, and one (25%) department (Selection & appointment) is partially computerized.

   - The Engineering & Manufacturing department has nine sub departments. The Engineering & Manufacturing department has four (44.44%) departments (Laboratory, Juice Weighing, Boiler Atomization, and PH. Control System) are fully computerized. One (11.12%) department (Cane feeding) is partially computerized, and

remaining four (44.44%) departments (Plant Maintenance, Boiling House, Pan Atomization, and Centrifugal atomization) are working manually.

- Purchase and Store has four sub departments. The three (75%) departments (Inventory Management, Sugar Godown, & sugar weighing System) are fully computerized. The remaining one (25%) department (Production planning) is works manually.

- The Civil & E.T.P.(Effluent treatment plant) departments are not computerized i.e.100% work is done manually.

- The Distillery & Co-Generation departments are fully computerized i.e. 100% work is computerized.

- The vehicle department is partially computerized.

2. It has been observed that from year 2005-2006 to 2010-2011 % software module development are increased i.e. % of computerization from 7.89 % to 57.89%. (Reference table no .4.2.2)

3. It has been observed that majority of end users (57.14%) express that in present system peripherals are not sufficient.(Reference table no.4.2.3)

4. It is observed that in software infrastructure DOS Based operating system as well as window based operating system is used and this system was readymade purchased. But the majority of work is done using DOS based operating system. The front end and backend tool is FoxPro which is ready made purchased.(Reference table no.4.2.4)

5. It has been observed that majority of respondents (57.14%) express that not availability of sufficient software infrastructure.(Reference table no.4.2.5)

6. It has been found that majority of respondents (66.67%) express that not sufficient Network infrastructure. (Reference table no.4.2.6)

7. It has been observed that majority of respondents (42.86%) express that a frequency of backup system is occasionally.(Reference table no.4.2.7)

8. It is observed that majority of respondents (52.38%) express that not applying system security measures. (Reference table no.4.2.8)

9. It is observed that if % of effective & efficient IT implementation increases i.e. 80% in year 2011.(Reference table no.4.2.9)

10. It is observed that inadequacy in IT Personnel i.e. 75% IT personnel is available.(Reference table no.4.2.10)

11. It is observed that majority of respondents (66.67%) express that IT Basic training is organized occasionally, 76.19% respondents express that recent trends in IT training are organized occasionally, 54.17% respondents express that System Security Audit training is organized occasionally, and 76.19% respondents express that Hardware and networking training is organized occasionally. (Reference table no.4.2.11)

12. It is observed that majority of respondents (57.14%) express that MIS report are generate as per requirement.(Reference table no.4.2.12)

13. It is observed that majority of respondents agree that Technical problem i.e. Existing system, organization Environment problem i.e. Changing Technology and Personnel problem i.e. Lack of Trained staff available and training are very problematic for implementing IT.(Reference table no.4.2.13

14. It has been observed that the performance analysis of year 2006-2011 is increased when percentage of computerization is increase. And the performance parameter such as sugar recovery, reduced mill extraction, boiling house recovery, and production cost etc. are, better in leading IT Implementation than that of before few percentage of the IT Implementation.(Reference table no.4.2.14)

5.3 CONCLUSIONS

From above observations, discussions and observation on organization the following conclusions are derived:

A. Majorities (57.89%) of work are fully computerized in various departments, 10.53% works are partially computerized in various departments, and 31.58% of the works are manually in departments. (Reference table no.4.2.1)

B. There is not upgrade their IT infrastructure i.e. they performing their activities with old technology. So face many problems related to hardware as well as software.(Reference table no.4.2.3 and 4.2.4)

C. It has been observed that there are no proper guidelines for recruitment of technical staff and also guideline about training given

to users so this also effects on performance of sugar factory.(Reference table no. 4.2.10)

D. It has been observed that majority Problem Occurrences for implementing IT are Technical problem i.e. Existing system, organization Environment problem i.e. Changing Technology and Personnel problem i.e. Lack of Trained staff available and training are very problematic for implementing IT. (Reference table no. 4.2.13)

E. The performance analysis of year 2006-2011 is increased when percentage of computerization is increase. The performance parameter such as sugar recovery, reduced mill extraction, boiling house recovery, and production cost etc. are better in leading IT Implementation than that of before few percentage of the IT Implementation. (Reference table no.4.2.13)

5.4 SUGGESTIONS

Existing IT infrastructure suffering from many problems like old technology, DOS based operating system, network infrastructure, technical staff, training given to the technical staff; MIS report generation as per user requirements, Allocation of resources etc. To eliminate these problems there is a wide scope for implementing IT.

Hence, It is suggested that to use ERP software. In the era of IT and open market competition, use of computer in sugar factory is inevitable. Computerization of several activities of sugar factory is essential for reducing the cost of production and improving efficiency. It is gratifying to note that sugar factory use computer for their activities. However, availability of good quality application software for sugar factory remains a problem. It is observed that the computerization is done by converting the existing procedures/ methods into computer procedures. This results in a simple conversion effect in an old way. There is need for adopting a method of effective planning of all resources in and around the sugar factory. This method is known as Enterprise Resource Planning (ERP) which includes all possible resources for organization namely manpower, money, material etc. ERP covers techniques and concepts responsible to improve the efficiency of

an organization. They should prepare where they implement ERP. There is a need to follow a scientific approach for selecting hardware and software as well as network infrastructure with the help of experts. There is need to reengineering because the old technology has its own limitations. There is a need to change employee mindset focus on IT. Also in this organization inadequate technical staff so need to recruit trained staff on the basis of structure decided by Maharashtra Rajya Sahakari Sakhar Karkhana Sangh Ltd. Mumbai. Regular training is given to the technical staff. MIS reports are generated as per user requirements.

So from above information researcher has to suggest required modules for ERP software.

ERP Packages:

The ERP package for a particular organization is a module as whole with required customization. Customization and backup services become difficult. In reality the software industry is a service industry and the software that they are using should be maintained / modified as per the need and as and when required. At the same time it should be affordable.

For selecting ERP package following points should be kept in mind.

- User friendly
- Easy and Flexible for implementation and customization
- Ability to support section wise planning and control
- Technology- client-server capabilities, Database independence and Ensured security rights wherever and whenever required
- Low cost software solution with assured backup
- Appropriate use of English and Devanagari
- Functional fit with various business processes of sugar factory
- Adaptable to need-based modifications and additional development

5.5INFRASTRUCTURE REQUIRED FOR IMPLEMENTATION OF ERP

ERP software solution needs many factors to work successfully. There should be good infrastructure including computer hardware and software, people who know procedures and trained end-users etc. Sugar factories should meet at least some of the factors which are briefly discussed here:

- **Back-bone:** The sugar mills must have a local Area Network (LAN) in their premises for computerized coordination. It is useful for internal communication which can provide convenience to the whole setup of the mill. The LAN setup must have a structured network cabling which allows future expansions without any patch work. Standard server is the heart of the computerized office. There should be at least two standard servers; one of them can be used for data protection. This is because the office setup will depend on data/ information available in their computer. However, factories may start with one standard server to being with and then add one more lately. This is the temporary adjustment if funds are not adequately available.

- **Multi-user facility:** Multi- user operating systems such as windows- NT, Novel NetWare etc. and Relational Database such as Oracle are essential to run the multi-user application software to achieve appropriate integration of all the activities and divisions in the sugar mill.

- **Application software (Sugar ERPs):** Good quality application software is a must. It should be flexible and easy to maintain. The supplier must be capable enough to give assured backup support over a long period. At the same time it should be affordable.

- **Improvement in the procedures:** It is observed in some cases that computerization is done by converting manual procedures/ methods into computer procedures. This results in a mere conversion effect in an old way. The factory management and the concerned organization may put in efforts to improve the old procedures, formats etc. while implementing ERPs.

- **Selection of equipment:** It is stated above that standard servers and LAN are essential.However; the nodes may not be necessarily from a branded company. This saves expenditure at the time of purchase as well as maintenance.It is a common experience that none branded machines are less expensive and their performance is satisfactory. Their spares are easily

available. Similarly, small size UPSs (500VA, 1 KV) are advisable for the sake of convenience and maintenance in the sugar factories. The user can also think about small size printers rather than heavy duty printers which are expensive to maintain.

- **Trained manpower:** Computer setup in Indian sugar mills should have at least two graduates in computer programming who are required for managing the computer system, maintaining the hardware and software and guiding the users. It is a common experience that computer activities get paralyzed when the computer programmer leaves the organization. Therefore, more than one graduate computer programmers are essential in a sugar factory. Training should be given to the end- user staff.

5.6 CONCEPTUAL DESIGN OF ERP SYSTEM FOR SONHIRA SUGAR FACTORY

As it is necessity to develop a suitable ERP system for the integration of various activities of sugar factory. The suggested ERP modules with their subsystems are as below.

The ERP system should have following modules viz. General Management Module, Finance Module, Agriculture, HRM or Labour and Welfare Module, Engineering and Manufacturing Module, purchase & Store module, civil module, Distillery module, Co-generation module, E.T.P module, and vehicle management module.Following is diagrammatic presentation of ERP modules suggested for cooperative sugar unit.

Fig.No.5.1 ERP software modules for Sonhira sugar factory.
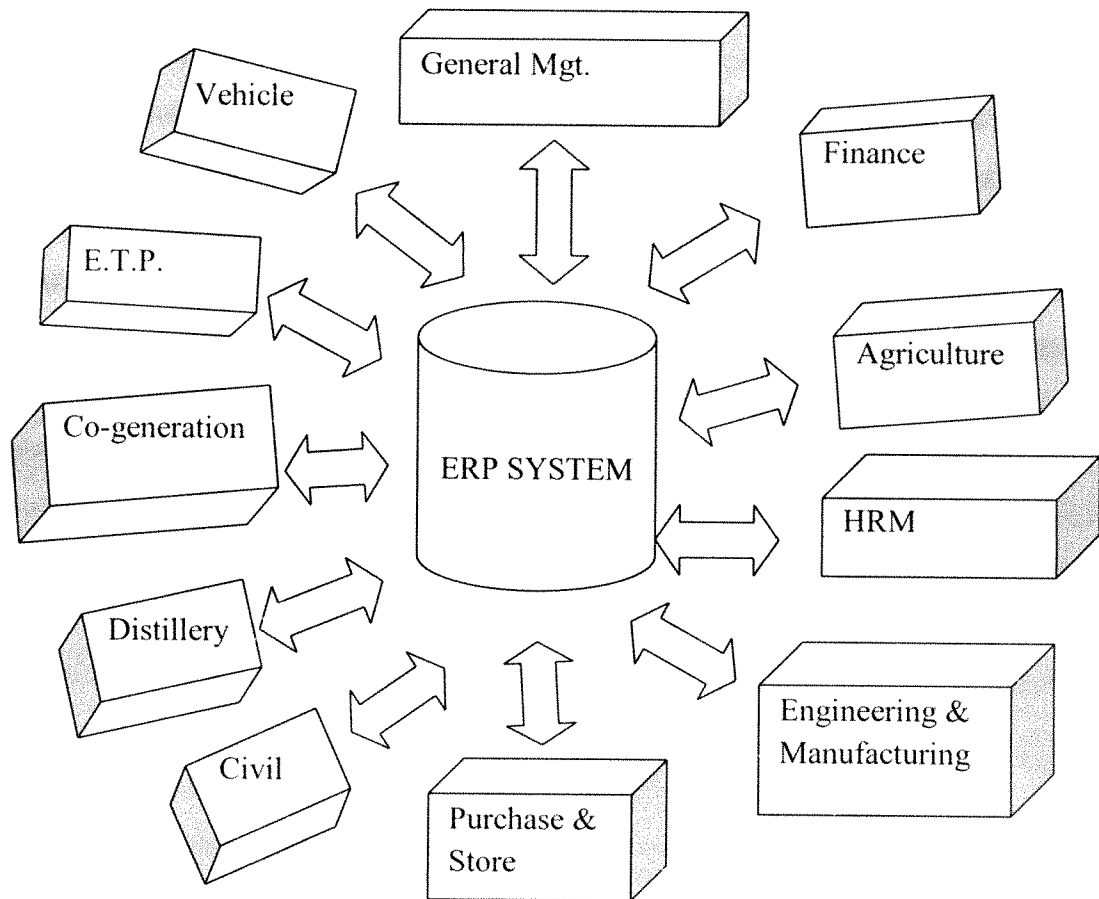
5.7 SCOPE FOR FURTHER RESEARCH

In this research, existing IT Implementation process are studied. After studying the system it is found that it has many limitations. Researcher put statement for further research based on present study. Design and development of ERP system suitable for sonhirasahakarisakharkarkhana and fulfills all requirements of user.

5.8 CONCLUDING REMARK

It is concluded that, managements have to make strategic planning quickly. Today's world demands IT Implementation wherever possible. Existing system is inevitable. Management must take decision to implement ERP Software. And for ERP Software management needs good infrastructure including computer hardware and software, people who know procedures and trained end- users etc. There must have a Local Area network(LAN)in their

premises for computerized coordination, multiuser facility, good quality application software is a must, improvements in old procedures, selection of equipment is good, and require trained manpower. The study carried out on sonhirasahakarisakharkarkhana indicates that there is need to install standardized software solution.