Chapter 6
Findings and Recommendations

6.1 Findings of the Study

“Study the role of Information and Communication Technology (ICT) on organizational performance in the manufacturing industry in the rural area of Nashik District” is an attempt to compare organizational performance of manufacturing industries using ICT. Followings are the empirical findings of the study. This chapter reveals the key findings of the study from the primary data collected from the selected samples.

It is observed from the study that use of Information and Communication Technology in the manufacturing industry of rural area of Nashik district has got positive impact and has improved overall performance at a firm level, such that the involvement of ICT in the production process has led to the increase in the production scale. In addition, it was also observed that the degree of ICT usage in the companies also has a significant optimistic effect on the organizations performance in a way that those companies that have used ICT have a greater advantage than those that are not, as far as productivity is concerned.

The study portrays the impact of ICT with reference to skilled and unskilled employees in manufacturing industries. It is witnessed from the study that due to effective implementation of ICT in manufacturing industries, small number of skilled employees is needed.

It is found that the usage of conventional machines decreases gradually and use of automated machines help in improving production as well as reduces rejection.

It is observed from the study that after effective implementation of ICT in manufacturing industries the productivity increases. Further, it shows the use
of ICT in manufacturing industries increases total sales, turnover as well as profit.

The outcome of the study shows that before the implementation and use of ICT in manufacturing industries and after the implementation and use of ICT in manufacturing industries, the production scale of the manufacturing industries has increased by 71.92%, sales increased by 24.33%, turnover increased by 57.71% and profit increased by 85.13%.

It is known from the study that rejection rate reduces by 60% and customer complaints decreased by 62%.

The respondents strongly agree that effective use of ICT helps in making proper decisions and positive changes in the organizational performance.

There exists no functional area in the department of HR, where ICT is not used. It is clear from the data collected that each and every function in the department of HR utilizes the ICT tools for better performance even in the rural areas of Nasik.

In the manufacturing industries use of Information and Communication Technology gives better result in production and sales. It is observed that use of ICT increases productivity of manufacturing industries. It also affects the profit of business organization. Rejection of the product is reduced by the use of Information and Communication Technology in various stages of production. Also it reduces customer complaints. This study shows that it differs between, before and after the use of ICT and it is found all over that use of ICT improves the organizational performance.

Each department of an organization benefits from the use of ICT. The implementation of ICT in rural areas helps the organization to improve the performance as follows:
a. The ICT enables to increase the productivity.
b. It enhances the rate of working efficiency.
c. Need of Skill employee is reduced.
d. The unskilled employee can be put to better use.
e. The time and space utilization is optimum.
f. Work pressure is reduced due to Implementation of ICT.
g. Accuracy and reliability of production is maximum with negligible rejections.
h. Implementation of ICT is easily accepted by the organizations.
i. Reduces absenteeism and casual leaves of employees.
j. Automated records and documents are generated which makes management function efficient.
k. Financial statements are as per the legal framework.
l. Efficiency of finance department increases as the payroll system, tax aspects, financial statements and records are automated.
m. Facilitates quick completion of set production level.

In the rural areas, while implementing ICT, it is found that manufacturing industries faces various problems. The study shows that there are infrastructural problems like electricity, water etc. The study also shows that some HR related problems like unavailability of repair and maintenance person, lack of awareness about technology and its applications and lack of expertise available for training workers. It was also found that their do exist some network problems such as Internet service providers, communication network and interruption in network connectivity etc.

Thus overall it can be stated that manufacturing industries in the rural area of Nashik districts are using I.C.T. to a great extent, to enhance their productivity, which is also evident from the data obtained. But there are still technological shortfalls and lack of human resources due to which rural areas are facing challenges in implementation and effective use of I.C.T.
6.2 Utility of the Study and contribution made to the body of knowledge on the subject

The study shows that Information and Communication Technology plays an important role in manufacturing industries almost in every stage of production, quality control, marketing and sales, finance etc. A business cannot be successful without applying ICT. The study shows role of ICT in HR department largely for recruitment process, Time keeping records, salary and wages, deduction calculations, attendance and leaves, keeping update of employees’ information and also in performance assessment. The study also shows that ICT plays an important role in finance department almost for all functions. Mainly in receipts and payments, payroll, bill passing, e-TDS, Return and VAT filing, for stock valuation, bank reconciliation, finalization of accounts etc. ICT is very useful for marketing (Sales and Distribution) department in all respect such as for enquiry generation, e-mail and communication, order booking, preparation of packing list, preparation of invoice, receipts of material, receipts of sales return, stock reconciliation and export documents.

The study contributes to explore the key areas of manufacturing sector, where ICT can lead to an increase in the level of performance of the organization.

Contribution made to the body of knowledge on study the role of Information and Communication Technology (ICT) on organizational performance in the manufacturing industry in the rural area of Nashik district can be depicted by setting up an appropriate ICT set up in the organization. A model of ICT Setup has been developed which can enhance the functioning of the various departments of the manufacturing organization and would eliminate or reduce the existing problems in the use and implementation of ICT.

6.2.1 Model Developed for ICT Set up

After a careful study developed a model of ICT set up which, can bring more effectiveness in the functioning of manufacturing industry
Some of the remedies that could be adopted to overcome the problem areas in the use and implementation of ICT are suggested as follows

1) Inadequate electric power supply: Alternative solutions can be non-conventional energy like solar, wind power, power generation through sugar factories,

2) Repairs and maintenance: Cluster wise people can be train to resolve immediate problem or dedicated experts can be deployed.

3) Government Policy: Subsidy for procurement of hardware and software
4) Expertise to train workforce and create awareness: Proper training can be given by government officials or an appointment of trained professional consultant

5) Fund availability: Proper budgeting is to be done

6) Infrastructure problem: Virtual Private Network (VPN), leased line, Special Purpose Vehicle (SPV) (it can be trust or government appointed nodal agencies), hardware configuration, distribution of setup, internal power back up, cyber security(firewall, antivirus, password protected network)

7) ICT device used in remote areas.

While implementing Information and Communication Technology in the rural area, manufacturing industries should prepare and adopt the above alternatives.

6.3 Recommendations and Suggestions

It is recommended that to bring automation in the core departments of the manufacturing organization that is production, planning and control department and quality assurance and testing department. By using ICT in these departments automation will move the productivity towards best quality and increase the performance of the organization as whole.

Awareness in people should be created and increased regarding the various automated machineries and the softwares. 100 percent automation in the departments of manufacturing industries will result in better performance.

The ability of a manufacturing industry to use ICT is becoming worldwide. So, it is recommended that ICT investment should be part of budget in the rural area of Nashik District.

From the above findings, there are some suggestions which can be used during analytical study on organizational performance. It would help in applying the change in the organizational performance and also help in improving
productivity. During this research study, the researcher analyzed the many facts about the impact of ICT on organizational performance in manufacturing industries. The researcher tried to cover all aspects of the information and communication technology in every department of manufacturing industries as well as service industries.

It is observed that ICT has got some impact on the manufacturing industries from the rural area of Nashik district. It is also observe that the productivity and organizational performance of the manufacturing industries heavily dependent on ICT these days. This is a good sign that adoption of ICT by the manufacturing industries are on the right path to be competitive in the world. While Government and its cooperating partners must be commended for their efforts, government can speed up this ICT through the enforcement of the ICT policy introduced in 2006.

In addition, in order for these manufacturing industries to gain more positive results from ICT, senior employees within the company has to realize that ICT in itself will not be more productive. Therefore the benefits of ICT will be greater.

In order to further improve productivity, ICT investment has to be complemented by a high level of skill among the workers in order to have more effect on output. Furthermore, the effect of ICT will be even greater when it is combined with an increase in the number of unskilled employees and a reduction in the number of skilled ones. This is so because automation helps unskilled employees, usually they do not have problems coping with the new systems implemented therefore improving efficiency and effectiveness when interacting with the technologies. Training should be compulsory for every employee so that employees easily cope up with the changes.

It is suggested that the small manufacturing industries should introduce and implement ICT in their business. They should try to grow their business by increasing efficiency and performance by using ICT.