Chapter 6

FINDINGS AND SUGGESTIONS

This chapter highlights the major findings and suggestions of the study and puts forth the suggestions for adopting the ISO 9001 certification for the quality standardization by adhering the conditions required of the clauses in ISO 9001 certification.

6.1 Introduction

The ever changing scenario in economy after liberalization, privatization and globalization has become more competitive. The market has become more complex. Quality can be most important reason for the survival of business in market. A deeper understanding of quality and while adoption of quality is important may make it possible to pursue the industrialization, thereby leading to results that are more equitable and efficient. So, due to the increment in industries and there is an increment in the employment. Quality is the key strategy for maintaining competitive advantages and ISO 9001 integrated approach to improve the quality of goods and services. Whether the activities is updated through ISO 9001 certification or not? Whether ISO 9001 is a way of managing companies to improve its overall effectiveness and performance towards achieving world class status (Zhang et al. 2000), Chapman and Al Khawaldeh (2002).ISO 9001 and its widespread international acceptance, there is considerable confusion and frustration surrounding the role and business value of ISO 9000 certification. Research pointed out to the quality initiatives through ISO 9001 to measure the impact on productivity. Growing adoption of ISO 9001 certification has led to the emergence of a distinct stream of quality research. In majority of studies have been conducted in foreign countries and very few studies has been conducted in Indian context to evaluate the performance before and after the ISO 9001 certification. Productivity and quality are an integral component in the working of companies. Therefore, the primary purpose of the study is to identify the impact of ISO 9001 implementation on productivity in respect of the selected companies especially under power, steel and textile sector. Research in power area plays an important role in every sphere of the economic development of the country. India’s per capita electrical energy consumption is targeted for 50% growth in the Eleventh five year plan from present level of 704 units per year.
Therefore, it considered as backbone of industrial & agricultural growth. The 2005 National Steel Policy (Government of India 2005) sets out the Indian Government’s vision for the future of the steel industry. The central goal is the creation of an industry with 110 million tones of capacity and 100 million tones of production by 2019-20 — implying an average growth in production of nearly 7 per cent a year. The Indian Ministry of Steel estimates that achieving this goal will require an extra US$65 billion in capital expenditure in addition to funds for technology upgrades at existing facilities. The policy focuses on the domestic sector but also envisages a steel industry growing faster than domestic consumption, which will enable export opportunities to be realized. Current steel investment plans India’s ready availability of iron ore and low cost labor contribute significantly to the cost competitiveness of producing steel in India. The textile industry occupies a unique place in our country. One of the earliest to come into existence in India, it accounts for 14% of the total Industrial production, contributes to nearly 20% of the total exports. Being the largest foreign exchange earner, accounting for more than 5 per cent of GDP and providing direct employment to 38 million people, primarily the weaker sections, it is the second most important sector only after agriculture. A number of policies have been put in place to make the industry more competitive (A report on Indian textile industry). That’s why I have selected these three sectors from the economy. Every sector is having its own importance and these sectors have potential for the major growth due to their importance in daily life. So, I have selected these sectors. How productively companies produces output majorly depends upon the mainly human resource. So, it’s important to know the perception of the employees toward the impact of ISO 9001 on human resource practices. So, the secondary study is supplemented by the primary study.

**FINDINGS OF STUDY**

6.2.1: Finding related to Productivity of power sector companies during pre and post adoption period:

The highest growth during the three years of adoption of ISO 9001 certification. The productivity has been declining during the five years period before ISO 9001 certification. The productivity is highest during the post adoption period from 1 year to 3 years that is Rs.125.06millions. Lowest increment in productivity during the pre adoption period is Rs.115.346millions. Implementation of ISO 9001 fixes the responsibility, accountability and
authority of the employees in the organization. ISO 9001 will also improve various skills and competencies of employees. It also create healthy environment in the organization. It is clear that the productivity of the companies has increased during the period of ISO 9001. This result is also supported by the studies such as Haj Ali (1996), Shajrawi (1999) and Sadder (1996). They also found in their researches that it improves the morale, loyalty as other related benefits of the employees.

6.2.2 Finding related to Productivity of steel sector companies during pre and post adoption period: Five years before and five years after the certification have been taken to study the average trends of the selected companies of steel sector. Trend of Productivity shows a declining trend from 2 years to 4 year in pre adoption period. Productivity ranges from Rs. 316.381 millions to Rs. 298.069 millions for 2 year to 4 year respectively. The productivity is highest during the post adoption period from 1 year to 3 year that is Rs.439.282 millions. It explains that ISO 9001 helps to avail the benefits of marketing through which sales are increasing and Heras et al. (2002a) supported the results that there is a significant difference between pre and post period of the ISO 9001 certification. ISO 9000 adoption will improve an organization’s financial performance (e.g. Corbett et al., 2005; Sharma, 2005; Simmons and White, 1999; Naveh and Marcus, 2005; Heras et al., 2002b).

6.2.3: Finding related to Productivity of textile sector companies during pre and post adoption period: Five years before and five years after the certification have been taken to study the average trends of the selected companies of textile sector. Productivity had a declining trend Rs.107.634 millions to Rs.101.164 millions respectively. Productivity of selected companies of textile sector is declining during pre adoption period (1 year to 5 year). The productivity is highest during the post adoption period from 1 year to 3 year that is Rs.104.613 millions. Lowest average of productivity during the pre adoption period (1 year to 5 year) is Rs.101.659 millions. So, overall the average productivity of post five years is higher (i.e. Rs. 104.387 millions). Results supported by (Garvin, 1984; Hammer and Champy, 1993; Harry and Schroeder, 2000) they found in their research that process management practices cite expectations of improved quality and efficiency, leading to increased revenue, reduced costs, and ultimately higher profits results.
6.3.1: Finding related to Net Profit Margin of power sector companies during pre and post adoption period: There is overall higher average net profit margin (Rs. 25.714 millions) during pre adoption period as compare to the post adoption period. The table reveals that there is a fluctuation trends during the pre & post adoption period of ISO 9001 certification of the selected companies in power sector. These companies have to look into the reasons of the decreasing the net profit margin during the post adoption period. The hypothesis being rejected there is no significant difference between the pre and post adoption period. It can be pointed out that ISO 9001 rather have a negative impact as per the results of the analysis. So, the null hypothesis being rejected and there is a significant difference between pre and post period of ISO 9001 certification in net profit margin of selected companies in power sector.

6.3.2: Finding related to Net Profit Margin of steel sector companies during pre and post adoption period:

Overall, mean value of net profit margin during (5 years before certification) pre adoption period (Rs. 3.371 millions) is less than the mean of (5 years after the ISO 9001 certification) post adoption period (Rs. 4.810 millions). According to M. J. Benner and F. M. Veloso (2008) ISO is may be the one of the vehicle for creating the linkage and synergies across the vehicle. According to Corbett et al., (2003); Terziovski and Samson (1999); Zaïri et al. (1994), TQM can have a positive effect on operational and business results, there is no guarantee that it will definitely and alone directly produce superior profitability, since other factors may be present. The hypothesis being rejected that there is no significant difference between the pre and post adoption period of ISO 9001 certification.

6.3.3: Finding related to Net Profit Margin of textile sector companies during pre and post adoption period:

The trend during pre adoption period there is a decline in subsequent years. On other counterpart, during the post adoption period also a declining trend. Overall, results show that there is a negative impact on net profit margin of companies in textile sector. So, the hypothesis being rejected that there is no significant difference between net profit margin of pre and post adoption period of ISO 9001 certification in selected companies of textile sector. Crosby’s defends that quality has no costs; one of the negative aspects of certification for firms is their high cost.
According to some authors, the costs that the firm incurs to undertake a quality management system and certify it are greater than the potential benefits that might derive from it (Jones, 1997; Brown, 1998). There is a fall in the average net profit margin during the post adoption period of ISO 9001 certification, it may be due to an increase in cost and a resultantly decrease in profitability.

6.4.1: Finding related to return on assets of power sector companies during pre and post adoption period:

The trends during the pre adoption period show a fluctuating trend as initially decline then increases in subsequent years. On the other counterpart, during the post adoption period the increasing trend has been found such as Rs. 220.594 millions to Rs. 253.499 millions. Further, it increases to Rs. 294.610 millions. The hypothesis being accepted that there is no significant difference between return on assets of pre and post adoption period of ISO 9001 certification in selected companies in the power sector. Hareton et al. (1999), this study concludes that the time taken to obtain certification does not affect the relation cost–benefit. It is possible that the conclusion has been reached, due to the enterprises that have obtained the certification more quickly, restricted to fulfill the minimum, forgetting that once the certification is achieved, there is the possibility of unanticipated investments, because the certification is only the beginning of a long journey to maintain the quality of its products or services.

6.4.2: Finding related to return on assets of steel sector companies during pre and post adoption period:

During the pre period of the ISO 9001 certification ROA having a declining trend such as from Rs. 613.977 to Rs. 317.249 millions. In post adoption period there is an increasing trend but the rate of increase is quite low than the pre period of ISO 9001 certification. So, there is a superior ROA during the pre adoption period. There is a significant difference between ROA during pre and post adoption period of the certification. Hence, the hypothesis being rejected there is no significant difference between the pre and post adoption period. From the average trends it was found that profitability during pre adoption is better than the profitability during post adoption period of ISO 9001 certification. So, ISO 9001 doesn’t having any impact over the ROA. According to Elmuti (1997), implementing the ISO 9000 requires time, training, communication and hard work. Crosby’s defends that quality has no costs; one of the negative aspects of
certification for firms is their high cost. According to some authors, the costs that the firm incurs to undertake a quality management system and certify it are greater than the potential benefits that might derive from it (Jones et al., 1997; Brown et al., 1998).

6.4.3: Finding related to return on assets of textile sector companies during pre and post adoption period:

During the pre period having a fluctuating trend such as initially decline then it starts increasing. On other counterpart, the trend during the post adoption period the growth of average of return on assets has been also decrease such as from Rs. 16.027 million to Rs. 7.321 millions but the hypothesis being rejected that there is no significant difference between the pre and post adoption period. Costa and Lorente (2007) use financial ratios on a longitudinal approach to analyze the performance of 713 Spanish manufacturing companies and observed that companies that implemented ISO 9000 obtain considerably less earnings and ROA during the three years following registration. According to Wilson et al. (2003), the evaluation of costs and benefits associated with ISO 9001 certification depends on a firm’s volume of sales, given that a firm with higher sales can absorb the cost of certification. According to Kaye and Anderson (1999), the costs of certification can act as barriers of entry in regulated markets, since the company must have the capacity to cope not only with the set-up costs but also the maintenance and training costs.

6.5.1: Finding related to Sales Growth Rate of power sector companies during pre and post adoption period:

There is a fluctuation during pre and post adoption periods. Both periods have declining trends as the rate of declining different but there is highest growth of sales growth during the post adoption period that is Rs. 116.096 millions. Overall, average growth is higher sales growth during the post adoption period (Rs. 111.334 millions) as compare to pre adoption period such as (Rs.110.142 millions). From the table it can be concluded that there is a significant difference between the mean values. There is a significant difference between sales growth rate during pre and post adoption period of ISO 9001 certification of selected companies in power sector such as both trends are moving in the same way i.e., but the rate is quite different. Hence, the hypothesis being rejected there is no significant difference between the pre and post adoption period.
6.5.2: Finding related to Sales Growth Rate of steel sector companies during pre and post adoption period:

There is a higher growth rate (Rs. 116.855 millions) during the post period of the ISO 9001 certification as compare to the sales growth during pre adoption period. It can be concluded that there is a statistically significant difference between pre and post adoption period it may be due to the rate of change in pre and post adoption period. The benefits they can derive from ISO 9001 certification far outweigh the costs of obtaining it (Rayner and Porter, 1991; Flynn, 1995; Buttle, 1997; Dimara et al., 2004,). Considering that certification represents an important asset to those who have it (Struebing, 1997) for the numerous benefits achieved (Buttle, 1997), or the short payback period associated with the investment (Escanciano, 2001; 2000). Hence, the hypothesis being rejected there is no significant difference between the pre and post adoption period.

6.5.3: Finding related to Sales Growth Rate of textile sector companies during pre and post adoption period:

There are fluctuations during pre adoption period. On other counterpart, the sales growth rate is increasing during post adoption period and there is a higher growth rate during the post adoption period of the ISO 9001 certification (Rs. 116.665 millions). As exhibits from table (p=.021<.05). It can be concluded from the result of Mann Whitney U test that there is a statistically significant difference between pre and post adoption period. So, there is a significant difference between respective periods. Gotzamani and Tsiotras (2002) found that certification led to better documentation procedures and clearer working instructions. Buttle (1997) found that “improving efficiency”, “improving awareness of procedural problems” and “better management control” were the top three benefits perceived by the firms studied, followed by “using standard as a promotional tool” and “increasing customer satisfaction”. Tord’s study on certified Danish companies, confirms better business performance based on increased sales. Another study conducted by Heras et al. (2002a) supports the fact that ISO 9000 implementation has a positive impact on sales and profitability.
6.6. Company wise comparison of pre and post adoption period of ISO 9001 certification:

6.6.1: Finding of Total productivity during pre and post period of their ISO 9001 certification on the selected sectors:

Three companies each from power sector and steel showed a significant change and one company from textile showed a significant change on other counterpart, rest of the companies are not significantly affected by ISO 9001 certification. Lamport et al. (2010) according to them many companies view ISO 9000 as a passport for doing business globally. In fact, it is a basic requirement for government tenders in many countries. Companies seek ISO 9000 in order to gain internal efficiency, effectiveness and ultimately profitability. ISO 9000 registration is believed to bring about numerous benefits to organization such as improved communication among employees, cost savings, reduced paperwork, more organized design and output, greater competitive advantage, access to global markets especially for small firms, fewer customer audits, improved productivity, a better trained workforce, increased customer confidence as well as providing a foundation for TQM and overall financial performance and growth.

6.6.2: Finding of Net Profit Margin during pre and post period of their ISO 9001 certification on the selected sectors:

As Adani power ltd (p=0.345), BHEL (p=0.893), JSW Energy ltd (p=0.273), PGCL (p=0.893), NTPC (p=0.225) and Uniflex cable ltd. (p=0.345) all p values are greater than the 5% level of significance. So, it can be concluded that there is no significant difference between pre and post period of the ISO 9001 certification. It can also be stated that it may be due to some external factors which is beyond the control of the organization. It was found that Jindal Steel ltd, Sesa Goa, and SAIL ltd having a significant difference between pre and post period of the ISO 9001 certification (p<0.05). Under the textile sector, OCM has a significant difference between pre and post period of the certification but on other counterpart, rest of the companies from textile sector having no significant difference between pre and post period of the ISO 9001 certification.

6.6.3: Finding of Return on Assets during pre and post period of their ISO 9001 certification on the selected sectors:
Under the power sector, BHEL, JSW are having a significant impact on return on assets in post period of the ISO 9001 certification. On other counterpart, Adani power ltd, PGCL, NTPC, and Uniflex cables ltd not having a significant difference between pre and post period of the ISO 9001 certification. As calculated p value is greater than 5% level of profitability. So, the hypothesis being accepted for certain companies. Under steel sector, Bhushan steel ltd, Jindal saw ltd, Tata steel ltd, Sesa Goa steel ltd, Jindal steel ltd and SAIL. Tata Steel ltd, Jindal steel ltd., Bhushan steel ltd had a significant difference between pre and post period of the certification as (p<.05). Under textile sector, Aditya Birla Nuvo ltd, OCM ltd, Nuchem ltd, and Alok Apparel ltd has been selected to know the impact of ISO 9001 certification on ROA during the post period of the ISO 9001 certification. All selected companies of textile sector had not statistical significant difference in return on assets in pre and post period of the ISO 9001 certification.

6.6.4: Finding of Sales Growth Rate during pre and post period of their ISO 9001 certification on the selected sectors:

From power sector Adani power ltd, BHEL, JSW Energy ltd, PGCL, NTPC and Uniflex cable ltd has been selected. It has been found from analysis that there is no significant difference between SGR during pre and post period of the ISO 9001 certification. Hence, hypothesis being accepted that there is no significant difference between pre and post period of ISO 9001 certification on sales growth of selected companies under certain selected sectors. Under steel sector, companies not having a significant impact during the post adoption period of the ISO 9001 certification on sales growth of selected companies of steel sector namely Bhushan steel ltd, Jindal steel ltd, Jindal saw ltd, Tata steel ltd and Sesa Goa ltd (p>.05). Under the SAIL there is a significant impact of ISO 9001 on sales growth during the post adoption period of ISO 9001 certification. Under the textile sector, selected companies namely Aditya Birla Nuvo ltd, OCM LTD, DCM LTD, Grasim textile ltd, Nuchem ltd and Alok apperal ltd. had not any significant impact on the SGR during the post adoption period as compare to the pre adoption period. So, it can be reported that textile not having a significant impact on the sales growth rate (SGR) during the post adoption period of ISO 9001 certification.

6.5: Finding related to Employees’ perception towards the impact of ISO 9001 on human resource practices in comparison to selected sector:
From the analysis of variance to know the difference between the perception of the employees towards the impact of ISO 9001 on the human resource practices for the quality across the selected sectors namely steel, power and textile.

6.5.1. Finding for the perception of employees towards the impact of ISO 9001 on leadership practices for quality standardization.

The employees of power sector and textile sector have agreed to a great extent that management of both sectors provide personal leadership for quality products and quality improvement. From the analysis of variance it has been found that there is significant difference between the perception of the employees towards the impact of ISO 9001 on the leadership for the quality across the selected sectors namely steel, power and textile. Singh and Sareen (2006) identifies the motivators of ISO 9000 are role of external consultant is very important. Secondly it helps to improve documentation and better maintenance of records. It proved that ISO 9000 is highly beneficial for the system by defined the clear role and responsibilities for each and every one involved. The major problem identified is as scarcity of time and commitment & lack of obligation.

6.5.2. Finding for the perception of employees towards the impact of ISO 9001 on motivational initiatives across the selected sectors:

The table analysis of variance revealed that in respect of top level encouragement, reward, group incentives and non financial incentives there is a significant difference among the perception of employees across the selected sectors namely steel, power and textile sector.

6.5.3. Finding for the perception of employees towards impact of ISO 9001 on information system of management:

Employees among the selected sectors are always appreciated and make availability of information regarding productivity. There is also prevailing check on the working by the manger on the quality of work. The perception of employees among the sectors are significantly different as ANOVA F value is more than the tabulated value.

6.5.4. Finding for the perception of employees towards impact of ISO 9001 on training in organization:

The variance analysis presented in table through ANOVA test shows that there is significant difference in mean score of all the dimensions of the training as F value is more than the
tabulated value (F = 13.350, 3.36, 4.686). Dimension includes such as training priority in an organization, regarding availability of funds and special importance attached to training staff for the application of methods and techniques to improve the quality.

6.5.5. Finding for the perception of employees towards the impact of ISO 9001 on working conditions among the selected sectors:
The variance analysis presented in table through ANOVA test shows that there is a significant difference in the mean score of the dimensions of the working condition viz’ ‘Company kept neat and clean at all time’ ‘Company emphasis on putting all tools and fixture in their place’ ‘Our company is disorganized and dirty’ and ‘I never have trouble finding the tools I needed’.

6.5.6. Finding for the perception of employees towards the impact of ISO 9001 on involvement of employees in product design among the selected sectors:
The variance analysis presented in table through ANOVA test shows that there is significant difference in mean score of all the dimensions of the employees’ involvement in product design as F calculated value is more than the tabulated value. According to Elumuti and Kathawala (1997) in context human resource development ISO 9000 quality programme improves participants and quality of work life. It also helps to reduce supervision.

6.5.7. Finding for the perception of employees towards the impact of ISO 9001 on teamwork among human resource among the selected sector:
The variance analysis presented in a table through ANOVA test shows that there is a significant difference in mean score of all the dimension of the teamwork among the human resource as F calculated value is more than the tabulated value in respect of ‘We use work values and ethics as a criterion in employees’ selection’, ‘During problem solving session we make an effort to get all team member’s opinion and ideas before’, ‘Our company form teams to solve problem’ and ‘In the past five years, many problems solved through small group sessions’.

6.5.8. Finding for the perception of employees towards the impact of ISO 9001 on the permanent quality management among the selected sectors:
The variance analysis presented in table through ANOVA test shows that there is insignificant difference among the sectors in respect of certain dimensions such as ‘We continually strive to eliminate the internal process that leads to irriogational spending of time and money’, ‘Quality system documents are reviewed as necessary’ and ‘ISO 9001 helps in generate quality management ideas and rest of the dimension having a significant difference among the
perception of the employees from the selected sectors. Hence, the hypothesis being rejected that there is no significant difference among the perception of employees across the selected sectors except for the dimensions such as ‘We continually strive to eliminate the internal process that leads to irrigational spending of time and money’, ‘Quality system documents are reviewed as necessary’ and ‘ISO 9001 helps in generate quality management ideas.

6.6. Finding for Employee’s perception towards the impact of ISO 9001 on human resource management practices among senior level employees and line managers:

6.6.1. Finding for Employee’s perception towards the impact of ISO 9001 on leadership practices among senior level employees and line managers:
The results of the test reveal that no significant difference has been found regarding any of the statement concerning role of ISO 9001 in responsibility towards quality between senior level employees and line managers. Thus, the level of truth of various variables concerning role of ISO 9001 is same for the employees of both levels. Hence, there is no difference in the perception of the employees towards the responsibility and leadership towards quality due to an ISO 9001. Hence, hypothesis being rejected. But Pin and Wang in 2001 found executives perceive less resistance than employees do, and executive emphasis the impact of “the level of employees accommodation with ISO system, “the integration level of documentation systems, “budget support”, “implementation model provided for all subordinate division” and “experiences sharing via workshops” more than employees do.

6.6.2. Finding for Employee’s perception towards the impact of ISO 9001 on motivational initiatives among senior level employees and line managers:
The result of the test reveals that significant difference has been found between senior level employees and line managers regarding reward to the workers for the quality improvement and existence of group incentive for quality improvement ideas. It reveals that there is gap between the planning and the implementation. But they are quite agreed in same way in respect for companies provide annual bonus system based on company’s productivity.

6.6.3. Finding for Employee’s perception towards the impact of ISO 9001 on information for system of management among senior level employees and line managers:
The result of the test reveals that no significant difference has been found between senior level employees and line managers regarding working in team with members for the variety of areas to introduce new products, regarding criterion for employees’ selection. So, the null hypothesis being accepted, that there is no significant difference between the perception of senior level employees and line managers. Lee (1998) also investigated how ISO 9000 certified firms would continuously improve their quality management in general. He found that only a small proportion of the construction firms had provided total quality management (TQM) training that most firms were not quite ready for TQM and that greater senior management commitment was needed to move from ISO 9000 to TQM.

6.6.4. Finding for Employee’s perception towards the impact of ISO 9001 on training line managers and senior level employees:
The result of the test reveals that no significant difference has been found between senior level employees and line managers in respect of availability of fund for training thus the hypothesis being accepted. But in context of the priority of training in an organization no significant difference have been found between senior level employees and line managers.

6.6.5. Finding for Perception of employees towards process management through ISO 9001 line managers and senior level employees:
T test has been applied to know the difference between the employees at senior level employees and line managers regarding the concept of the process management system influenced by the ISO 9001 certification. As the table depicts that there is a significance difference between the perception of employees at senior level employees and line managers towards the scenario regarding the hygiene of company.

6.6.6. Finding for Employee’s perception towards the impact of ISO 9001 on involvement of employees in product design among senior level employees and line managers:
The quality is the main agenda or more important role play in new product development process and involvement of employees at initial stage of the product. It reveals that there is the significant difference between the perception of senior level employees and line managers. Senior level employees agreed for the involvement of the employees in the designing of the product but the line managers are neither agree nor disagree (MS=3.07) involvement of employees at the designing of the product. Pin and Wang (2001) the study shows that the registration of ISO 9000 is seen as a tool for creating the structures to integrate changed
responsibilities for the public sector, and that the whole ISO 9000 implementation process requires careful management.

6.6.7. Finding for Employees’ perception towards the impact of ISO 9001 certification teamwork among human resource across line managers and senior level employees:
In respect of the criteria for the selection of employees and group discussion for the problem solution there is a significant difference between the senior level employees and line managers. But in respect of other practices having influence of ISO 9001 mentioned in above table such as selection, growth, development are not having a significant difference between the employees such as line managers and senior level employees. Adanur and Allen, (1995) ISO 9000 costs too much and takes too much time and effort to document and implement. ISO tries to encompass too many elements, overwhelming an organization with too many meetings and activities.

6.6.8. Finding for Employees perception towards the impact of ISO 9001 certification towards the permanent quality improvement among senior level employees and line managers:
In respect of generating quality management ideas there is a significant difference between these levels and in respect of ISO 9001 used as a continuous improvement and statistical process control to monitor the production process there is also a significant difference between the senior level employees and line managers. But on other counterpart, in respect of ISO 9001 helps in generate quality management ideas, working as a team for unified goal, ISO 9001 an international quality standard helps to develop a positive perception towards the image of the company both levels having a similar perception or there is no significant difference between the perception of senior level employees and line managers. Hence, the hypothesis accepted. Ague(1994) suggests that organizations loose right of the link between ISO 9000 and total quality; the process becomes a bureaucratic exercise and a paper chase. This may be explained by the fact that in the early years, the certified companies need some time to adjust their processes or systems to the requirements of ISO standards. Also, workers might experience some adaptation problems which make it difficult to produce better quality products overnight.

SUGGESTIONS
During the course of study of Impact of ISO 9001 on productivity of selected sectors. Certain aspects struck prominently to the researcher. It is relevant to put them under the heading
suggestions; even otherwise the utility of the study receive a sense of fulfillment by incorporating such as heading. The suggestions can be broadly seeking some amendments to adjust their processes or systems of the companies to meet the requirements of ISO standards. Those are being considered for creating and inventing a new procedure. A detailed account of these suggestions is given below:

- The researcher was amazed at the companies of power sector showing declining trends of net profit margin during the post adoption period. Companies should look into the reasons of the decreasing trends of net profit margin during the post adoption period. To be mentioned that ISO 9001 have a negative impact on some companies. Management of the companies has to take steps required for restructuring of processes of organization in view of ISO 9001 certification.

- The companies of steel sector should focus on the crucial aspects of leadership as the employees of power sector and textile sector have agreed to leadership qualities such as commitment and accountability are not effective. There is a urgent need of effective strategy to train the managers for improving their leadership qualities.

- The companies should encourage the teamwork of senior level employee’s of management and line managers to decide the priorities of training in their respective organizations.

- The companies should explore in detail the causes due to which there is gap in the perception of employees at senior level employees and line managers towards the scenario regarding the hygiene of company. There is need to make a check over the hygiene of the company.
• The special attention should be given to the quality of new product development process and involvement of employees at initial stage of the product. The company should incorporate the ideas of employees at initial stage of the work.

• The companies should adopt ISO 9001 as quality driven force but it is possible if the companies direct activities of the employees to follow the requirement of the clauses of ISO 9001. It can be possible to conduct training and workshop of employees before implementing ISO 9001.

• From the analysis it has been found that there is a significant difference only in terms of independent trends during pre and post adoption period. But on an average the impact become negligible or not significant. Future researcher can explore the reasons of such contradiction.

• There should be employees feedback surveys in companies after regular intervals so that information from employees on areas like personal health and wellness, workplace relationships, commitment and problem solving mechanism can be collected.

• An effective training and development programmes for enhancing the knowledge of various clause of ISO 9001 for which timely workshops with the help of experts can be arranged. It helps in building relationship and motivation of employees.

• A supportive climate and culture should be encouraged by providing opportunities to individuals to make meaningful contributions in teamwork planning and administration of the organizations.

• Companies should encourage participate management and smooth flow of communication within the organization. It will encourage employees to express their views on various issues/ problem of implementing ISO 9001.

• It is suggested that companies should emphasis on improving of managerial skills and working conditions of the employees especially involve in implementation of ISO 9001.
It can be suggested for future research that researcher can incorporate more companies for that future research.

**IMPLICATIONS**

Getting the better understanding of “Impact of ISO 9001 on productivity of selected sectors” is the bedrock of the study. Even through ISO is not to be considered a panacea of all problems. Its full integration and application is the requirement of success. Like the most of the researches, the research also has some limitations though it has some contribution to the field. The sample size is small due to the time and cost constraints which may not be suitable to conclude the research. Similar studies can be carried out for developing the theoretical framework. Globalization is opening doors for MNC indeed there is scope for comparison of the ISO impact on MNCs Vs Indian companies.

Any other interested research scholar allowed to explore different dimensions in the same area. The study will help in data base regarding ISO in selected sectors. This will serve as a basis for further research in the realm of ISO 9001.