CHAPTER – 7

FINDINGS AND RECOMMENDATIONS

The study has attempted to present the findings of a study conducted to measure TQM applications to the university libraries in DU, JNU and JMI, Delhi. The study analysis, of the quantitative statistics of university libraries three DU, JNU, and JMI is the highly used library. The unit cost and processing cost of each book acquired by purchase is lowest in Delhi University. The total library cost per user, staff salary cost per user and staff salary cost per book is lowest in Delhi University Library and highest in JMI University, staff salary per book is highest in Jawaharlal Nehru University Library, Delhi.

The information collected through questionnaire indicates that the Librarian and other senior professional staff of Delhi University Library rated their library at the highest level of TQM, culture and quality dimensions as compared to other University Library in Delhi.

The results of the users survey indicate that the Jawaharlal Nehru University Library scored points and ranked at first position with regard to quality in products, services and consultation, while Delhi University Library, scored the lowest rank.

Librarians of DUL and JNUL are effective in managing 4.98% and 4.23% of the total university budget for the university library. The huge salary expenditure i.e. 64.05% of the library budget of JNUL 60.81% and 59.26% DUL is against total quality management Delhi University Library is effective enough in controlling its salary expenditure up to 43.16% of its budget during 2006-07. The total number of books added are also highest i.e. 8445 in Delhi University Library. The unit cost per user, staff salary cost per user, staff salary cost per added book in the library and staff salary cost per book in the library is lowest in Delhi University. The librarian also rated library at 3.926 point level of TQM, culture and service quality which is fully endorsed by library staff and ranked at first position by the users of library. Although Delhi University Library is rated at the highest level of TQM by the librarian and staff but ranked at the second position by the users of the library. This high level of quality management speaks well for this library.
and in near future this library may be ranked at first position with regard to service quality also. It can be said by quoting an IBM Vice-President saying “Now where is quality more crucial than in organizations and institutions involved in handling information”. (Jurow and Barnard, 1993). We the professional therefore ought to incorporate this view into our visions for the 21st Century and the new millennium.

**Barriers to Implementing TQM**

The implementation of TQM in library organizations provides an opportunity to update and enhance the liabilities of the staff to work effectively, yet it is still not free from some barriers. These could be listed as under to overcome the barriers for implementing Total Quality Management (TQM) in university libraries.

(a) **The Vocabulary Barrier**: The words “total”, “quality” and “management” imply that standards are not already being observed, nor is quality work valued. DU and JMI is facing this problem.

(b) **The Commitment Barrier**: TQM requires long-term commitment, perhaps even longer in the service sectors like libraries and information centres. Cultural change which can not be accomplished over night or in a year, may be positive changes, particularly in staff attitudes and learning, but they should occur early in the process.

(c) **The Process Barrier**: Some times the process merely represents a desire to postpone decision making or reluctance to resolve the issue. We would learn to define problems better at the outset and then give them the kind of systematic analysis which can lead to lasting solutions. This barrier is not effective in JMI library.

(d) **The Professional Barrier**: The higher the degree of professionalisation within an organization, the greater the resistance to certain elements of TQM, particularly its customer focus. Professionals simply are mystified by, if not fearful of, the consequences of what they think could mean turning over their services and practices, which are based on tradition, standards and respected bodies of knowledge to the uniformed whims of customers.
In the new millennium, the librarian has to focus on the right priorities. They have to lead with clear vision to fulfill its objective, unleashing power of all employees in turn to meet competitive challenges. In brief, libraries need to address the working conditions to total quality management.

Total quality management is part of a holistic approach to progress. It is in ascendancy as the new year approaches. In every organization that genuinely commits itself to total quality, there is a tremendous unlocking of energy in management and the workforce. Total quality has the potential power to transform the tangrams into running figures, liberating people at work to become more truly themselves and more creative. Total Quality Management (TQM) in libraries appear well suited for each other. The system is based on continuous improvement and centres on the needs of customers. Total Quality Management is a process which focuses on understanding customer needs and improving customer service and satisfaction. The TQM approach shifts the focus to continuous improvement in systems and processes. Its motto could be “continue to improve it even if it ain’t broke”. Continuous improvement rests on the simple premise that a structured problem-solving process produces better results that an unstructured one. Instead of just trying to “do better” in an undefined, intuitive way, continuous improvement can enable libraries to set measurable goals based on quantitative performance indicators, and to monitor progress towards those goals.

Support for staff is particularly important during rapid and major change. If people feel threatened, it will affect the quality of their work and their energies will be diverted. Managing change means recognizing that every change involves an ending and, as an effective manager, acknowledging the links with the past rather than trying to deny or ridicule them. Many staff feel that a change in priorities for whatever reason means that their previous work was a waste of time. It is essential to challenge this assumption, for it leads to staff feeling undervalued and lowers morale.

Another aspect which helps in implementing change is to promote a vision of the future which introduce staff to the new beginning. Promoting the new beginning through purpose, pictures and plans is an important element in encouraging staff (and customers)
to adapt to the new circumstances. Equally important, however, is ensuring the reality matches the theoretic i.e. that management’s actions are consistent with their words. Another useful approach is to ensure and celebrate early success.

Many libraries have implemented TQM successfully in U.K. which rewrote the library’s vision statement for example, and considered changes that would have to be made in order to develop a new organization culture one that “highlights the changing nature of staff roles and responsibilities in an era of pervasive change”. With the help of consultants. It has been found that the principles of service excellence, teamwork, ongoing training and skill building, process/systems focus, continuous improvement, and cooperation among libraries could help them make the changes they need.

The results of the SEM model, in general, provide support for the multidimensionality of TQM in the sense that TQM embodies two different models of practices, mechanistic and organic, with each showing a different role in association with two different types of performance, quality and innovation. Furthermore, the findings support the proposition in pairing the mechanistic elements of TQM with quality performance and the organic elements with innovation. The contrasting roles of different TQM practices in predicting performance are also consistent with the results of previous studies.

However, we strongly suggest that one needs to put in a precaution when drawing implications of this result. For example, while leadership and people management practices and not show a significant relationship with product quality, we believe that it will certainly contradict theoretical views if one simply concludes that organizations can ignore these two aspects and only concentrate on customer focus and process management practices for pursuing quality performance. It is absolutely clear from the survey that TQM has strongly advocated the important role of leadership and people for achieving a high level of quality performance. It is therefore important to reconcile these contradictory results. The plausible explanation is that the relationship between TQM practices (variables) and organizational performance may not take place as a simple linear and simultaneous model tested in this study; rather, it could work in a more
complex interrelationship among the elements of TQM practices as examined in several studies. No less important is the likelihood of moderating or mediating interrelationships among TQM practices in explaining variance of organizational performance that will enable us to identify indirect relationships as well as direct relationships between TQM variables and library’s performance measures.

Further results in this study indicate that although the multidimensionality of TQM has been established, there is no supporting evidence to suggest that libraries will emphasize certain practices more than others when pursuing different strategic performances. Organizations usually implement TQM in a holistic manner rather than in a piecemeal fashion. Also, our results do not indicate that the coexistence of the mechanistic and organic elements of TQM causes a situation where one undermines the other, or vice versa. This finding therefore supports the argument for the juxtaposition of different elements of TQM in an organization even though these elements are contradictory in nature.

This issue becomes even more important when it is viewed in relation to the fact that in today’s highly competitive environment, organizations need to pursue a more and more complex or multidimensional aspects of performance, including quality, cost, delivery, flexibility, responsiveness, and innovation. More importantly, these different aspects of performance have become more and more interrelated with each other, even accumulative. Therefore, it is plausible to consider that libraries today need to pursue these multiple aspects of performance, including quality and innovation, simultaneously. It is suggested that each of these two types of performance (i.e., quality and innovation) requires a different model of practices; hence, it is necessary for libraries to maintain practices that are even antagonistic in their nature. Indeed, maintaining paradoxes can be one of the biggest challenges for organizations in today’s competitive environment.

Finally, the coexistence of multidimensional TQM practices can be explained from the contingency perspective. The level of uncertainty surrounding the implementation of TQM would determine the effectiveness and the applicability of these two different models, and the different level of uncertainty existing in both the external
environment and the internal environment (i.e., different functions) of the organizations. Innovation scholars have also agreed on the need for different types of approaches in different innovation stages, with the organic-type approach being required during the innovation initiation or development stages, and mechanistic-type approach being suitable for the implementation stage.

In conclusion, the results have verified the proposition that both mechanistic and organic types of practices can coexist under the umbrella of TQM, hence, establishing the multidimensionality of TQM. The result has also demonstrated the different role of each type of practice in determining different measures of performance with customer focus and process management practices being associated with product quality whilst leadership and people management being related to product innovation. However, further results indicate no variation in the configurations of TQM practices even when libraries pursue different types of strategic performance. This suggests that all TQM practices are equally important although each of them has a different role in determining different types of performance.

Further research should focus on identifying and examining several key factors that drive the application of the multidimensionality of TQM from both internal and external perspectives. For example, how TQM practices are implemented in various libraries with different levels of uncertainty and dynamism. It is also important to explore the practices of TQM in different functions or departments within the same library, for example, between marketing of products. Given that, to date, most of the major research on TQM has been focused at the organization level, such a study will provide a significant contribution in developing a better understanding of the flexibility and multidimensionality of TQM applications in libraries.

The dimensions of TQM have an impact on the different types of performance. In particular the results indicate that:

(1) Dynamism and munificence directly influence user focus that points to user satisfaction as the most important requirement for long-term library success.
Higher levels of users focus are associated with more frequent changes in environment. However, when environment is not very healthy and present few difficulties for the library’s development or growth. In munificent environments libraries accumulate scant resources that are necessary for their survival therefore, the library can focus on a small group of users that will guarantee a minimum use of library collection.

(2) The users do not support that dynamism, munificence and complexity directly affect continuous improvement. Nevertheless, such effects have an indirect effect on continuous improvement, through the mediating effect of teamwork. These findings suggest that environmental characteristics are not associated with high levels of continuous improvement, which involves an attempt to enhance firm products and processes as a means for satisfying the users.

(3) Teamwork is directly and positively related to dynamism, munificence and complexity. The efforts with a high level of instability, with diversity in the activities for satisfying the customers, but with resources favorable for growth, the collaboration between the firm members in different scopes will be greater. This cooperation is important given its influence on user focus and continuous improvement.

(4) Financial measured as library service satisfaction has been positively and directly determined by users focus and continuous improvement, and negatively by teamwork. Nonetheless, it is possible to check that the indirect and positive effect of teamwork is greater. The direct and negative relationship between teamwork and financial performance should be explained considering that a high level of collaboration demands suitable personnel who are trained for this. This might turn out to be costly since it will mean extra expenses for recruitment, staff selection, training, specialization and etc.

(5) User focus is positively associated with operational performance, as would be expected. Continuous improvement has a role for mediation but not a direct one in
the improvement of product and service quality. In this study they did not find a direct significant relationship between continuous improvement and user satisfaction either.

(6) Teamwork is the only TQM dimension to positively influence employee performance. Regardless of the fact that continuous improvement or users focus may mean great significance for the work performed, employee satisfaction is an attitude that depends on multiple aspects which might affect the significance of the relationship employees, reaction towards TQM may vary from one university library to another depending on the style of management. Management style would seem to be one of the main factors that determines the employees’ reaction. The employees who express doubts about TQM are those who are least convinced by the scope of the change in the attitudes and behavior of the libraries. However, in the case of the relationship between teamwork and employee satisfaction, other factors may be influential such as the relationship with colleagues or with their immediate supervisor. Higher levels of satisfaction are possible when the direct superior is understanding and friendly, congratulates staff for good performance, listens to their opinions and shows personal interest in them.

Managing implications

The foregoing discussion and conclusions suggest several implications for the librarians of university library planning to implement TQM. TQM is especially suited for libraries that serve in dynamic environment. In these cases greater users focus is achieved and the teamwork in the firm is reinforced to a great extent. The greater the demands for adapting to changes imposed by technological improvement grant the firm greater flexibility and capacity for reaction. Moreover, significant knock-on effects may be achieved in terms of profits, product quality and employee satisfaction. On the opposite, greater stability in the environment and greater adaptation to routine situations leads to the less user orientation and lower levels of participation and teamwork. Consequently, firms located in stable environments will find it more difficult to implement TQM and achieve profits, since the restrictions in the environment are less noticeable. In these
cases, the success in implementation and in the results might be achieved if the need was to arise from within the organization itself and the efforts made were kept up.

Libraries with TQM might deem that promoting the relationships with users is less important for their development, although munificence will allow them to achieve greater cooperation, and therefore, greater employee satisfaction and needs higher levels service quality. Hence, in munificent environments, libraries must post the true need for implementing TQM. On the one hand, the growth in users demand and the favorable service opportunities guarantee, by themselves. Moreover, munificence has a negative effect on users focus commitment, and this may have a negative effect, not just service but also on the libraries strategies or its image on service. Despite this, some advantages might be obtained deriving from the greater cooperation that would improve employee and the performance.

The present study sought to examine the impact of user need on the relationships between the use of TQM practices of user focus, and product design and organizational performance. More specifically, the results of this study support our hypotheses that the higher the degree of market competition, the more positive are the relationships between TQM practices of users focus and product design and library performance.

Second, the results of this study contribute and extend the existing TQM literature. From a theoretical perspective, the results show that the adoption of TQM practices enhances library performance. This finding lends further support to the frequently suggested management practices and strategies for achieving improved organization performance in TQM libraries.

Third, the results of our study have implications for libraries that operate in a highly competitive service environment. It is suggested, that libraries facing intense service performance attitude, should produce high quality products to meet users expectations and quality standards. Such quality-related use of TQM practices of user focus and product associated with increased competitive performance should result in improved product quality, which leads to increased users satisfaction. The results of our
study provide some support for the TQM literature. Specifically, the results of our study suggest TQM practices are the primary determinant of quality performance. As quality performance improves, cycle times are reduced because there is less non-value added times resulting from the need to rework defective products. Thus the quality focus reduces costs and increases users satisfaction. In the long-run, it is suggested that a strong emphasis in user focus and product design initiatives should lead to both service expansion, and ultimately, in improved library performance. Moreover, as users expect a minimum quality standard in all product offerings, library must respond accordingly. The quality management literature suggests that benchmarking allows library to determine what level of performance is achievable and to identify superior methods for designing products and processes.

**No need to give here and suggestions for future research**

Several limitations of the current study should be noted. First, the sample was drawn from three university libraries located in Delhi. As such, the results may be generalizable only to that membership. Future research may extend and replicate this work focusing on other libraries such as the public and special libraries. Further studies to compare two libraries such as acquisition and the service and financial sources would be worthwhile.

Second, the scales employed in this study represent individuals’ perceptions of TQM practices, and consequently, they may not reflect objective reality. Future studies can extend this study by utilizing different methodologies such as case studies and adopting a longitudinal approach.

Third, the use of self-rating scales to measure perceptions are likely to have higher mean values (higher leniency error) and a restricted range (lower variability error) in the observed score compared to more objective methods.

Fourth, this study examined the impact of one contingency factor (i.e. intensity of service competition) on the relationship between TQM practices and libraries performance. Future studies may examine other potential factors on the relationship
between TQM and library performance that might include strategies. Furthermore, the literature on TQM practices generally investigates the impact of these practices on organizational performance without considering the potential impact of other new organization practices. In fact, some researchers believe in, and argue conceptually, favor of the value of understanding the joint effects of TQM practice on organizational performance. Thus, future research to explore the joint effects of library performance and TQM practices on library performance would be worthwhile.

Finally, this study is only able to demonstrate associations amongst the variables studies. While existing empirical and theoretical research suggest that the independent variable (i.e. TQM practices) precede the dependent variables (i.e. organizational performance), such an assumption is entirely theory-driven and cannot be imputed from the cross-sectional survey method. Therefore, the potential for reverse causality cannot be ruled out. Future research could employ different research methods (e.g. longitudinal field studies), case studies and experiments) to investigate more systematically the casual relationships implicit in this study.

However, the libraries are the ideal places to implement TQM. They are service organizations dedicated to their customers, the patrons. By formulating a strategic plan, and following it with a commitment to continuous quality improvement, library managers can transform and improve their organizations. The notable principles of TQM: (1) manage by fact: make library decisions after careful analysis of data gathered with tools such as check sheets, histograms, and (2) eliminate rework: library work is often labor intensive-simplify it and make sure it is done properly the first time; (3) respect people and ideas: staff are the library’s most valuable resources, and they should been corrugated to point out problems without fear of management; and (4) empower people: trust library staff to act responsibly and give them the appropriate authority to make decisions that can improve the quality of work they do. Finally, we should remember that TQM is not a “quick fix”. It needs to be implemented gradually over a period of time to ensure efficient and effective functioning/services of the libraries.