Chapter-6

CONCLUSIONS AND RECOMMENDATIONS

The present research is about the assessment of quality measures being taken and the results obtained by various health care organizations in India and Iran. The resulted scenario is compared with the experiences of those who have won the Baldrige national quality award in this field. This benchmarking is expected to help India and Iran improve their health care quality. This chapter deals with conclusions, recommendations, and limitations of the work.

6.1 Conclusions

India and Iran both have limited health workforce and spend a fair amount of money on health. According to the WHO statistics (WHO, 2009) the per capita total expenditures on health in these countries are estimated as US$30 and US$200, respectively. Less than 10 physicians and only approximately 15 nurses are available per 10,000 population in the two countries. These figures reflect a poor scenario of health of the two nations and draw attention to improve the returns from the limited health resources. Even in the USA, where the health care costs the highest in the world, 30-40 per cent of the money spent on medical care is wasted due to the poor system of performance measurement (AHA, 2009).

Evolving a performance measurement system for health care organisations has always been a complex issue because of their intangible outcomes and diversified stakeholders. Patients, health care providers, clinicians, purchaser organizations, government, regulators, and the citizens form the different groups of stakeholders of health care organizations. The performance measurement areas in health care systems include population health, health outcomes of individuals, quality and appropriateness of clinical care, responsiveness of the system, equity, and productivity (Smith et al., 2008). A health care performance measurement system should, therefore, be designed to monitor and evaluate the extent to which these aspects of the health system meet their key objectives. At micro level, the performance of any health care system is
expected to generate data which are easily interpretable and usable by both the users and the service providers.

In view of having diversified stakeholders and their interests, the WHO justifies different approaches for collection and analysis of data to manage the performance of health care organizations. Data for this purpose may accordingly be gathered from the concerned population like patients and health care providers. Like other organizations, it is recommended for health care organizations also to design a performance measurement that should possess the characteristics of acceptability, feasibility, reliability, sensitivity to change, and validity (Smith et al., 2008).

Health care organizations have been adopting various approaches like six sigma, lean programs, and business process reengineering (BPR) to improve the quality of their services and enhance the patient satisfaction. The main focus of such type of programs is the processes. Total Quality Management (TQM) is one approach that not only promises improvement in the quality but also helps reduce the cost. Though difficult to capture and implement in its true sense, TQM has shown a great potential to solve quality problems and make health care more affordable. Experiences from Europe and the USA are evidence to this fact (Övretveit, 2000). The Baldrige quality award framework is a structured road-map for implementing TQM. Health care organizations were invited to apply for this award first time in the year 1998 and the first award was received by the St. Louis, MO-based SSM Health Care in 2002 (Bryant, 2008).

The growing need to take initiatives by hospitals in countries like India and Iran to improve the service quality and reduce wastage of resources has inspired the researcher to study this subject. The thesis had three broad objectives- (a) to develop an instrument to measure health care quality and performance, (b) to examine the health care organizations of the two countries on their quality and performance, and (c) to benchmark these organizations against those American organizations which have won the MBNQA in the health care sector.

Based on the literature available on the subject, a questionnaire consisting of 67 questions on quality measures and their results was designed to collect data. Another
seven questions were included to know the respondent profile. The questionnaire considered mainly the Baldrige health care criteria for performance excellence 2009-10 (NIST, 2010). Another two major documents used in the background of preparing the set of questions are the performance measurement for health system improvement: experiences, challenges, and prospects (WHO, 2008), and hospitals in pursuit of excellence (AHA, 2009). The data were collected from 50 hospitals in India and 60 from Iran.

Using factor analysis, a model has been developed and validated for measuring quality and performance in health care organizations (Appendix-II). The model is referred to as instrument for health care quality and performance measurement (IHCQPM). The instrument consists of ten constructs, namely, non-financial performance, patient focus, quality planning, workforce and process, goal setting, leadership, work environment, communication, knowledge management, and financial performance. The constructs are then compared with the Baldrige framework (NIST, 2010), a guide suggested by the American Hospital Association (AHA 2009), and the background document of the WHO European conference (2008) on health systems (WHO, 2008). The contents of the instrument are also verified with one of the seminal studies using the Malcolm Baldrige national quality award for comparing quality practices in different countries (Schniederjans et al., 2006). The constructs are found matching with the standards referred above and taking care of all major requirements outlined for health care performance systems.

All the ten dimensions of quality and performance correlate significantly with each other. Among the strong correlations are quality planning - workforce and process, patient focus - workforce and process, and communication – work environment. Non-financial performance has got relatively better relationship with communication, patient focus, and financial performance. The leadership- non-financial performance correlation has been comparatively lower than that with financial performance. The study by Schniederjans et al. (2006), involving manufacturing, processing, and service companies, has also got significant correlations among all the nine dimensions, they have evolved.
A null hypothesis that "India and Iran are not different in practicing the philosophy of total quality management for performance excellence in health care" is tested using the analysis of variance. Except for goal setting and work environment the F-values did not show any significant difference between the two populations. The mean values on the ten constructs for Indian hospitals exhibit the following hierarchy of the constructs in order of their decreasing importance- work environment, leadership, goal setting, patient focus, knowledge management, quality planning, financial performance, workforce and process, non-financial performance, communication. In case of Iran, this hierarchy appears as following- non-financial performance, patient focus, work environment, knowledge management, communication, financial performance, leadership, quality planning, workforce and process, and goal setting.

Comparative analyses of the means of the average scores on the ten constructs are also conducted by size and type of the responding organizations. The ANOVA indicates that the whether a hospital is private, semi-government, or government, it does not have any significant effect on its perception and assessment about the quality measures.

A post-hoc Turkey test, comparing the three types of health care organizations with each other indicates that the private and semi-government hospitals are significantly different in patient focus, whereas, the leadership aspect is found significant when private hospitals are compared with the government ones. Comparison between the government and semi-government hospitals did not show any significant difference between them.

Analysis of variance is also conducted to test the null hypothesis of equal means among the three types of health care services considering the two countries separately. It has been found that the three types are significantly different in India on knowledge management with the government services being the best followed by the semi-government set ups. In Iran it is the leadership that makes a significant difference among the three types. Private services in Iran have got the best score on this construct.
According to the number of beds, the sample (110 hospitals) was divided into three categories—small, medium, and large. The size of a hospital, using ANOVA, is found influencing the scores on patient focus, communication, and financial performance. A pair-wise comparison using the Turkey test reveals that small- and medium-sized hospitals are significantly different from each other on patient focus, communication, and financial performance. To further examine the TQM scenario in hospitals of different sizes in the two countries, ANOVA is run for India and Iran separately. The results show that the size makes a significant difference among the Indian hospitals regarding their focus on patients. In Iran, however, one single significant difference is found for communication, where, the medium-sized hospitals indicate a better mean than the remaining two.

Keeping the theme of the thesis in mind, the perceptions and assessments of the Indian and Iranian hospitals on TQM are benchmarked against the performance of those hospitals in the USA which have received the Malcolm Baldrige National Quality Award in the health care sector. The average scores of Indian and Iranian hospitals on different constructs of the IHCQPM model are compared with the major results achieved by the recipients of the MBNQ award. In no case the hospitals from India and Iran are found scoring close to the benchmarks.

6.2 Recommendations
Health care organizations are supposed to be more customer-oriented than all other organizations owing to the nature of service they are meant to offer. The quality of their services is crucial to the patients and the community. Based on the analysis of the data gathered on TQM practices from hospitals in India and Iran and comparing them with the performance of the MBNQA recipients, following suggestions are proposed.

- Indian hospitals need to follow a patient-oriented approach of functioning, an area they lack the most. This suggestion is supported by the hierarchy of the TQM constructs in prevailing in the Indian hospitals.

- Though leadership has emerged out as one of the strongest dimension of TQM in Indian hospitals, it does not seem to be effective as the performance
parameters (patient focus, financial performance, and non-financial performance) do not show encouraging outcomes. Therefore, the top management is advised to take initiatives, for example improving on the communication aspect, to make leadership result-oriented.

- Iranian hospitals, though have scored better than their Indian counterparts on patient focus and non-financial performance, are suggested to improve the constructs like workforce and process, goal setting and quality planning to retain and excel in patient-oriented functioning.

- Though the community aspect of the health care services is not addressed separately by the present research, it is suggested that the hospitals in both the countries should equally take care of the community services in general. This can be observed from the highlights of the results achieved by the MBNQA recipients that community services have got an important place in their TQM practices.

- Regular surveys of satisfaction from all the stakeholders as well as the employees need to be conducted to continually assess, monitor, and improve the performance. This also seems to be a regular feature of the MBNQA recipients.

6.3 Limitations and Scope for Future Research

The present study, with all its limitations, is likely to help health care organizations improve the quality of their services and simultaneously reduce the cost. This two-fold broad objective is expected to benefit both those who seek health care and those who provide it. The ultimate result of using the Baldrige framework for performance excellence in the health care industry can be seen in the form a healthy nation.

A cross-country study on Baldrige national quality award criteria has been recently undertaken by Schniederjans et al. (2006) in the context of both manufacturing and service industries. The countries in question were India, Mexico, and the United States. With an overall response rate of 23 per cent the final sample consisted of 555
respondents. The present research is based on 110 responses from two countries and that too from a single industry. The sample size, though seems to be reasonable, yet had a scope for further enlargement. A larger sample might have improved the quality of the comparative analyses, particularly with reference to size and type of organizations. The sampling adequacy though has been confirmed by the KMO test, a more reliable composition of factors possible with a sample size bigger than 110 as the number of items has been fairly high, 67.

The geographical coverage of the sample also limits the applicability of the findings of this study as hospitals only in the capital cities and their nearby places are covered. Inclusion of rural health care services would have added more value to the present work.

Though quite a large number of people visit outpatient departments of hospitals, the present research examines only the inpatient and emergency services. Moreover, the contents of the questionnaire are of general nature and do not address issues related to specialties. Some of the hospitals in the sample are attached to medical colleges which altogether have a different orientation. The findings are likely to have been affected by this fact also.

Such limitations may be taken care of by future researchers to widen the scope and improve the robustness of the instrument proposed to measure the quality and performance of health care services. The proposed instrument may be used by hospitals for self-assessment and benchmarking, by the governing bodies for evaluation purpose, and by patients to choose the right place for them to go.