Quality Management in Healthcare Services with Special References to Selected Hospitals in Pune

Dr. Sachin S. Vernekar
Dean FMS of Bharati Vidyapeeth Deemed University and Director of Institute of
Management and Entrepreneurship Development (IMED), Pune, India
Shirin Sheykholeslam
Research Scholar of Bharati Vidyapeeth Deemed University, Institute of Management and
Entrepreneurship Development (IMED), Pune, India

Abstract:

Service Quality has been the focus of many studies in recent years. Previous studies mostly revealed that excellence in services is mostly based on the outcome measurements, and no linkage between internal processes. Based on the literature review and the limitation of applied model in this research (EFQM and SERVQUAL), this study offered an opportunity to investigate the internal elements of excellence. In addition, this study measured the impact of internal excellence elements on patients side externally.

This empirical research sought to investigate the Critical Excellence Factors (CEFs) that drive Excellence in selected hospitals in Pune. It measured patients' perception for service quality and it's relation to internal recognized CEFs.

The study combines the EFQM excellence model as an internal assessment tool, with the SERVQUAL gap model for external assessment instrument. Analyzing and contrasting the two sets of results allowed the authors to suggest an integrated model which will help to improve driving excellence in healthcare organizations.

Introduction:
In recent years Quality has become an important part of our life, people and customers look for products and services with good quality only. The importance of quality makes organizations and firms, all around the world, to consider it as an essential part of any

---

production and service process. Quality can be use as a tool to gain advantage in competitions

It is hard to define Quality because of its intangible nature, quality of Healthcare services is even harder to define because of its intangibility, heterogeneity and simultaneity. Health care services cannot be touched physically, felt, viewed, counted, or measured like manufactured goods and therefore is an intangible product. Quantitative measurement is possible for Tangible goods, and they can be tested for quality during or after production process. However, health care service quality depends to interactions of service processes, customers, and service providers. (McLaughlin CP, 2006)

- **Healthcare system in India**

In 1947, with independent from Britain, Indian ministry for health was established. Instead of a central federal government, responsibility of healthcare in India was handed over to each state separately. It makes every state responsible for the results they obtain from healthcare services. The current results show that there is great inequality in healthcare between states, for example the rate of infant mortality in Assam is 56 per thousand but in Kerala it is 12 per thousand.

In the series of 12th five-year plan by government of India (from 2012 to 2017), Health became a priority, which states plan based on the priorities for next five years. National health policy was endorsed by the parliament in 1983, and then updated in 2002.

The 12th five-year-plan has the strategies of healthcare in India based on the universal health coverage; which is: free and accessible essential medicines and treatments at an affordable cost for a large group of population. This plan will continue for next 10 to 15 years.

Healthcare coverage in rural areas is limited and weak, hence National Rural Health Mission was started in 2005 by national government. This mission tries to improve healthcare position in poor regions by focusing on resources in such areas.

India has a universal healthcare system; but there is a large difference between the quality and coverage of healthcare treatment. The healthcare is not only different between states but also between urban and rural areas within a state. Rural areas, in comparison with urban areas, always suffer from lack of physician, and the difference between states is in the adequate healthcare for residents of poor states compared to the residents of a wealthy states. Central government provides technical and administrative healthcare while state government tries to offer education in health and related services.

Lack of adequate public healthcare coverage in India compels many people go to private sectors, which because of the high cost is inaccessible for poor people. Healthcare insurance is available in India, but most people do not include it. So, the large portion of payment for healthcare treatments is out-of-pocket by people.

Private hospitals in India offer high quality services based on the international standards with cost less than other countries; this situation makes India as a popular and largest

destination for medical tourism for both medical treatments and alternative treatments such as Ayurvedic medicine.

Based on the World Health Report (WHO) in 2000, India has been ranked 112 in healthcare system among 190 countries

- **Quality of healthcare in India**

Now healthcare became one of the largest industries in India, and as mentioned before it is facing many difficulties such as unequal resources distribution, healthcare inequity, lack of enough and strict regulation, rising costs, high cost of imported equipments, increasing private sector providers etc. In the last decade, Indian healthcare system experienced rapid changes such as increasing public awareness and private investment, quality based on global standards, partnership of public and private sector and increased use of health insurance plans.

Quality of healthcare is an important part of changes, improving it can have different useful effects on whole industry, including increase the accountability of health managers and providers, resources effectiveness and efficiency, recognition and minimization of the medical errors and provision of the care and services based on the user needs and leading to have satisfied patients.

Healthcare organizations of India are doing Quality assurance in different ways:
- Accreditation: NABH, JCI
- ISO certification
- TQM: Quality Circle, EFQM

Accreditation is a self-assessment and also external assessment by healthcare organization to know about the level of performance and apply the ways to continual improvement. Accreditation is a collection of different activities:
- Self-assessment
- Organizational analysis
- Strategic formulation
- Human resources development
- Quality improvement
- Team work

A beneficial approach for hospital accreditation to the whole system includes: customer, patients, hospital, hospital personnel, medicine faculty and society.
- Patient benefits of accreditation: safety and pain management, evaluation of their satisfaction, getting rights and respects, high quality of care etc.
- Staff benefits of accreditation: develop professional staff, education/training based on standards, quality improvement leadership, continuous learning, good working environment, increase satisfaction
- Hospital benefits of accreditation: continuous improvement, commitment to quality of care, increase confidence in community, benchmarking opportunity

- Community benefits of accreditation: access to comparative data, revolution in quality, preparedness to disasters etc.

With the increasing number of private service providers, the government decided to improve healthcare services and regulate the quality of services by introducing various quality accreditations such as NABH (National Accreditation Board for Hospitals & Healthcare Providers).

NABH is part of Quality Council of India (QCI) board, and aimed to establish and apply accreditation program for healthcare. NABH is as a joint effort between the Confederation of Indian Industry (CII) and Ministry of Health. It includes of 447 applicant hospitals and 105 accredited hospitals.

NABH objectives are:
- Improve patient safety to promote continuous quality and enhance health system
- Provides hospitals accreditation regardless of their legal status, ownership, degree of independence and size.

In the other side, over 90 countries are using ISO standards; it can be useful by designing a quality control system based on the certain healthcare services; such as: for radiology, pathology laboratory etc.

Total quality management principals are customer oriented, and each specific quality objective and policy is defined clearly; All activities will be based on these objectives and strategies. Personnel of these organizations are qualified and they have enough knowledge and skills for quality achievements.

Thus, all above mentioned ways are trying to say a services organization will be successful only if tries to reach to services excellence (SE) and also change its programs towards continuous improvements. However, delivering quality services to the patients is the most vital factor for a health care organization to survive in the competitive world. Because of that there are 2 main literatures in this study:
a) Service Quality (SERVQUAL) and
b) Quality Excellence Model (EFQM).

The service quality reveals the factors that influence healthcare service quality. Services quality has an important effect on customer satisfaction which leads to their desire to buy that service and continue to do it in future. Currently the most popular service quality instrument is SERVQUAL.

SERVQUAL work is based on measuring the gap, between customer expectation of services and their perception of received services, regarding 5 criteria: Tangibility, Reliability, Responsiveness, Assurance and Empathy. Customers rate their expectation from an excellent organization services, and then rate their received services from a specific organization. The difference between these 3 criteria shows the gap, which smaller gap showing the better service quality (Landrum H. et al., 2008).

The quality excellence model reveals the continual improvement in organizational process. For example, the EFQM model base on the Total Quality Management (TQM) principles tries to improve service quality. EFQM excellence model known as a practical tool which helps organizations to establish an appropriate management system to measure the organization is on the path to excellence, help them to understand gaps and shortages; and finally suggesting a solution for improvements. (EFQM 2003)

- EFQM model includes many advantages: First, for achieving Excellence in Services, it provides a holistic approach.
- Second, this model tries to satisfy both stakeholders and customers.
- Third, financial result is also one of its concerns.
- Finally, it can be use as an internal self assessment instrument based on TQM principles, which will help to find out gaps in processes.

Research Design:
Table 1 show the research design applied in current study

Table 1: Research Design

Source Of Literature	Process Management	Services Quality
Models	EFQM Excellence Model	SERVQUAL Model
Research Purpose	Exploratory + Explanatory	
Strategy to apply	Survey (Questionnaire)	
Data Type	Primary & Secondary	
Data Collection Method	Documents & Questionnaire	
Unit of Analysis	Head of Departments (HODs) in selected hospitals	Patients with more than 48 hours hospitalization
Type Of The Data	Quantitative	
Analysis Structure	Explanatory Investigation	
Conclusion & Recommendation	Suggest an integrated excellence model based on the findings	

Research Methodology:

1. Research Phase One: Hospital Self-Assessment using EFQM Model
For internal quality self-assessment we used European Foundation for Quality Management (EFQM) questionnaire as an instrument; this tool worked as a structural diagnostic instrument. By that we found out about the important excellence factor which is applying in Pune selected hospitals.

The objectives of this phase were:
- Investigate about how hospitals were driving quality excellence factors
- What were the common elements of excellence in Pune selected hospitals

- Determine how good hospitals were in driving excellence factors

EFQM questionnaire was used as a self-assessment tool for quality in selected hospitals. It includes 78 questions and measures 9 variables of EFQM: Leadership, Policy and Strategy, People, Partnership and Resources, Process, People Results, Society Results, Customer Results, Key Performance Results.

The questionnaire comprised of Likert Scale questions. The responses had following options to be answered from: Weak, Acceptable, Strong, and Extremely Strong.

In EFQM self-assessment questionnaire, we decided to choose our sample among heads of departments in selected hospitals. There were almost 30 departments in each selected hospitals and due to limited number of subjects without any sampling method all population was included. We distributed our EFQM questionnaire to all, which makes the total number of 134.

EFQM questionnaire includes of two parts:
1- Demographic information: it consist of participates profile
2- Self-assessment of Services Quality: by using of process management measures quality based on nine criteria

85% of questionnaires were collected, and only 15% were not completed.

2. <u>Research Phase Two:</u> **Assess Customer's (patient's) Perceptions and Expectations using SERVQUAL Instrument (Measure Quality of Services)**

To external quality evaluation we used SERVQUAL model. SERVQUAL questionnaire randomly distributed between patients with at least two days hospitalization. It helped to understand about patients expectations about an ideal hospital and then their perceptions about current hospital. It showed the gap in quality of provided services.

The SERVQUAL questionnaire includes 24 questions, distributed across 5 variables related to quality of services from patient's point of view: Tangible, Reliability, Responsiveness, Assurance, and Empathy.

The questionnaire comprised of Likert Scale questions. The responses had following options to be answered from: Strongly disagree, Disagree, Neutral, Agree, Strongly agree.

Based on the following formula (Cochran 1963:75) we estimated our necessary sample size:

$$n = \frac{Z^2 \times p \times q}{E^2}$$

consider that as 5%. So, the minimum sample size will be:

$n = \frac{(1.96)^2 \times 0.5 \times 0.5}{(0.05)^2} = 384$

n = Require Sample size

Z = the value of standard normal variate at 5% level of significance (1.96)

p = Proportion of "strongly agree" customers under uniform condition

q = 1- p

We added 20% of sample size to our final sample size because of the possibility of incomplete questionnaire. So, a total of 450 patients were estimated to involve in our survey, 90 from each hospital.

SERVQUAL questionnaire includes of three parts:
1- Demographic information: it consist of participates profile
2- Participates Expectations: this part dealing about patients expectation from an excellent hospital
3- Participates Perception: it is patients perception from current quality of services in selected hospitals

88% of questionnaires were collected, and only 12% were not completed. The valid collected sample was 396.

3. <u>Research Phase Three:</u> Investigation of Relationship
This phase was intended to look into the causality effects and establish causal connections between the independent variables and dependent variables.

Independent variables identified for this research are the hospitals related Critical Excellence Factors (CEFs), and the dependent variables are customers' (Patient's) perceptions from service quality

Research Findings:
The following section includes the findings revealed by analysis of the collected data:

4. Demographic Profile of Respondents :
- **SERVQUAL Questionnaire:**
Respondents selected among patients with at least 48 hours of hospitalization.
 i. **Gender:** From 396 valid respondents, 184 (46.5%) were men and 212 (53.5%) were women.
 ii. **Age:** 1% of respondents under age 20, 15.9% between 20 to 20, 17.2% Between 30 to 39, 20.7% between 40 to 49 and the major age group was of more than 50 which was 45.2% among participants.
 iii. **Educational Qualifications:** 31.6% had master degree or more, which represented majority, 25.0% had bachelor, 22.2% had High School degree or less and 21.2% had no degree.
 iv. **Professional Status:** Majority of participants were employee at private sectors which was 37.6%, unemployed were 32.3%, 21.7% had job in government sectors and 8.3% had other different kind of professional status.

- **EFQM Questionnaire:**
Respondents selected among head of departments (HODs) in selected hospitals.

i. **Gender:** From 114 valid respondents, 46 (40.4%) were men and 68 (59.6%) were women.
ii. **Age Group:** 16.7% of respondents had age was between 20 to 29, the major age group among participants was between 30-39 with 43%, 28.9% were between 40 to 49 and only 11.4% were over 50.
iii. **Educational Qualification:** 74.6% had master degree or more which represented majority, 25.4% had bachelor degree.
iv. **Professional Status:** Majority of participants worked as middle managers with 65.8%, top managers were only 4.4% and operational managers participant were 29.8%.
v. **Job Experience:** The majority of them had job experience between 5 to 10 years with 43%, 26.3% had less than 5 years and 30.7% had more than 10 years job experience.

- **Service Quality Gap:**

Table 2 shows the service quality gap size for each dimension in selected hospitals in Pune.
i. In **Tangible** dimension all results are slightly negative, which means, there is gap between patients expectations and perception. Calculating mean for tangible dimension revealed with a **slight gap**; Inamdar, Sancheti, Jehangir and Ruby Hall hospitals were very close to meet patients expectations, and this difference was more in Bharati Vidyapeeth Hospital in comparison to other 4 hospitals.
ii. In **Reliability** dimension, calculated means show negative scores which means existence of gap in Reliability dimension. In comparison of other 4 dimensions, Reliability seems to have **the greatest gap** identified by patients. Bharati has the biggest gap and it followed by Sanceti, Ruby Hall, Jehangir and Inamdar hospitals.
iii. In **Responsiveness** dimension, all scores are **slightly negative** which means there is gap in Responsiveness dimension too, and all hospitals are bellow patient expectations, however these gaps are not so far from patients expectations. The biggest gap belongs to Bharati Vidyapeeth hospital and it followed by Sancheti, Inamdar, Ruby Hall and Jehangir hospitals.
iv. **Assurance dimension** is **the second biggest concern** by patients after Reliability. The biggest negative gap belongs to Bharati Vidyapeeth and followed by Sancheti, Ruby Hall, Jehangir and Inamdar hospitals.
v. Scores shows **slight negativity** in **Empathy**, and there is not so much difference between patients perception and expectations, however the biggest gap belongs to Bharati Vidyapeeth hospital and it followed by Ruby Hall, Sancheti, Inamdar and Jehangir hospital.

Table 2: Service Quality Gap size for each dimension in Pune selected hospitals

	Inamdar	Sancheti	Ruby Hall	Jehangir	Bharati Vidyapeeh
Tangible	-1.1	-1.2	-1.6	-1.3	-4.3
Reliability	-3.5	-4.2	-4	-3.6	-6
Responsiveness	-1.5	-1.6	-1.4	-1.2	-2.2
Assurance	-2.9	-3.8	-3.6	-3.5	-5.4

Empathy	-1.4	-1.7	-1.9	-1.1	-3.2

Total Gap Size for Each Hospital

Table 3 shows the overall service quality gap scores for each hospital. Inamdar and Jehangir hospitals were closer than other hospitals to meet patient expectations, with gap scores of -10.4 and -10.7. Ruby Hall clinic and Sancheti came into second place and they meet patient expectations almost in same way with -12.5 and -11.3 scores. Finally Bharati Vidyapeeth hospital had the biggest gap and far away from patient's expectation, with a gap score of -21.1.

Table 3: Overall Service Quality Gap Scores for each Hospital

|	Inamdar	Sancheti	Ruby Hall	Jehangir	Bharati Vidyapeeth
The total of all five gaps	**-10.4**	**-12.5**	**-11.3**	**-10.7**	**-21.1**

- **Hospital's Assessment Scores by EFQM Criteria**

i. **Leadership:** All hospitals showed comparable scores, ranging from 59 to 74 points out of 100. Jehangir hospital had a biggest point with 74, and Bharati Vidyapeeth hospital had the lowest one with 59 point.

ii. **Policy and Strategy:** Regarding this criteria, Jehangir, Inamdar and Ruby Hall hospitals reported relatively the highest score, 63, 60 and 56 Out of 80. On the other hand Sancheti and Bharati Vidyapeeth hospitals obtained lower scores, 55 and 51 respectively.

iii. **People:** The scores were between 42 to 58, Jehangir hospital had the highest score with 57 points, followed by Sancheti, Ruby Hall and Inamdar with 53, 50 and 44 points respectively. As usual the lowest score belongs to Bharati Vidyapeeth hospital with 42 points out of 90 points.

iv. **Partnership and Resources:** Jehangir hospital had the highest score with 68, and followed by Inamdar, Ruby Hall and Sancheti hospitals with 63, 60 and 59 respectively. Bharati Vidyapeeth hospital reported the lowest score with 52 out of 90.

v. **Processes:** The scores are comparable except for Bharati VidyaPeeth which had the lowest score with 79 out of 140. The highest score belongs to Jehangir hospital with 108 points and followed by Sancheti, Ruby Hall and Inamdar hospitals with 98, 96 and 94 points.

vi. **Customer Result:** The highest score belongs to Jehangir hospital with 161 points out of 200 points, followed by Inamdar, Ruby Hall and Sancheti hospitals with 146, 139 and 128 points respectively. The lowest score belongs to Bharati VidyaPeeth hospital with 117 Point.

vii. **People Result:** The highest score belongs to Jehangir hospital with 70 points out of 90. Followed by Inamdar and Ruby hall hospitals with 64 and 62 points respectively. The lowest scores belong to Sancheti and Bharati Vidyapeeth hospitals with 54 and 50 points respectively.

viii. **Society Results:** The results are comparable and very close. They range from 38 to 46 out of 60 points. The highest score belongs to Inamdar hospital with 46 point and

followed by Jehangir, Ruby Hall, Sancheti and Bharaty VidyaPeeth with 45, 44, 42 and 38 points respectively.

ix. **Key Performance Result:** The results show very close scores among selected hospitals except Bharati BidyaPeeth hospital which has the lowest score with 97 point out of 140 points. The highest score belongs to Jehangir hospital with 126 point and followed by Inamdar, Sancheti and Ruby Hall with 123, 116 and 114 points respectively.

Total Assessment Scores of Hospitals: Figure 1 shows the selected hospitals' total EFQM assessment scores. the mean score for all hospitals is 686. Jehangir hospital reported the highest score with 772 point from total 1000 points. Inamdar and Ruby Hall hospitals scores are close to each other, scoring 708 and 692 points respectively. Sancheti and Bharati Vidyapeeth hospitals were the only 2 hospitals to score below the mean, scoring 671 and 585 points respectively.

Figure 1: Hospital's Total Assessment Scores
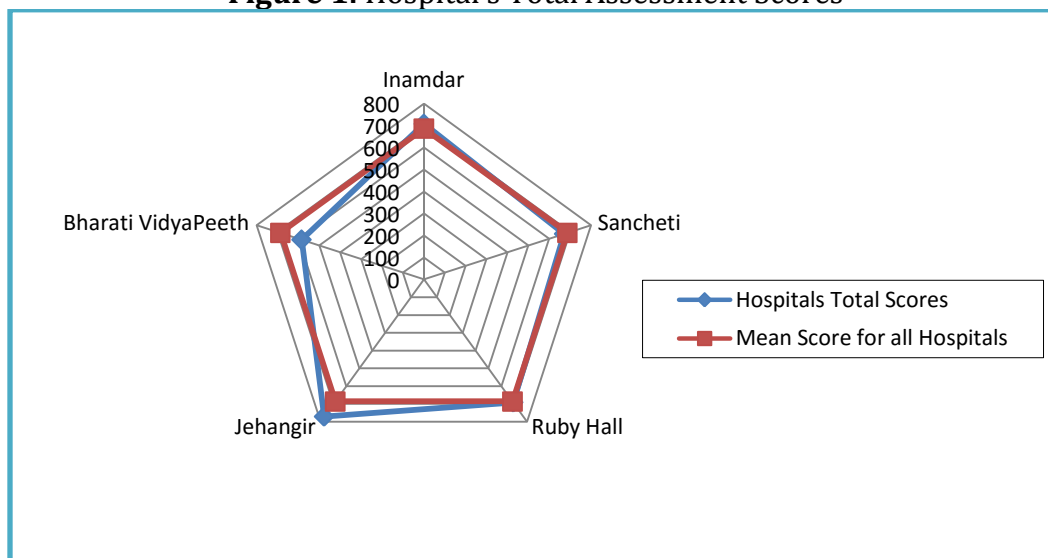
Pearson correlation and multiple regression analysis were applied to find the relationship between independent and dependent variables, identified independent variables in this study are Critical Excellence Factors (CEFs) and dependent variables are patients (customers) perception from service quality.

Following table shows the result of correlation among all variables in this study.

Table 4: Pearson Correlation Matrix among all Variables

| | CEFs | | | | | | | | | Customer's Perception SERVQUAL Gap |
| | Enablers | | | | | Results | | | | |
CEFs	Leadership	Policy & Strategy	People	Partnership and Resources	Processes	Customer Results	People Results	Society Results	Key Performance Result	
Leadership	1									
Policy & Strategy	.158	1								
People	.664**	.429**	1							
Partnership and Resources	.521**	.816**	693**	1						
Processes	.732**	.384**	.665**	.663**	1					
Customer Results	.113	.503**	.161	.458**	673**	1				
People Results	.159	.618**	.268**	.524**	.592**	.868**	1			
Society Results	.167	.572**	.257**	.522**	.562**	.782**	.833**	1		
Key Performance Result	.034	.717**	.230**	.614**	.488**	.771**	.806**	.768**	1	
Customer's Perception SERVQUAL Gap	.528*	.400*	.697**	.431**	.308*	.749**	.652**	.530**	.774**	1

** Correlation in significant at the 0.01 level (2-tailed)

*Correlation is significant at the 0.05 level (2-tailed)

Table 4 shows that all variables are positively correlated, but not every positive correlation was significant. Leadership with Customer Results, and also People with Customer Results also showed a weak significant correlation.

It also shows the biggest correlation among EFQM enablers and SERVQUAL gap size belongs to people criterion (.697) and it followed by Leadership (.528), Partnership and Resources (.431), Policy & Strategy (.400) and Process (.308) respectively.

In EFQM result part, Key Performance result (.774) shows the biggest correlation with patients perceptions and it followed with Customer Result (.749), People result (.652) and Society result (.530) respectively.

As table 5 shows for examine the impact of EFQM enablers which known as CEFs in this study as internal independent variables on patients perception which is SERVQUAL gap size as external dependent variable, a regression analysis conducted.

Table 5: Regression Analysis for CEFs and Patients Perception

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.738a	.544	.505	23.05813

a. Predictors: (Constant), EFQM Enablers

"R" demonstrates the significant of regression equations, and in this test it shows a strong positive relationship between the Critical Excellence Factors (CEFs) and the Service Quality (SQ) gap (R=.738). besides, "R-Square indicate how much Enablers scores affect the SERVQUAL gap, which CEFs has explained 54.4% of variance in the Patient's Perception in this study (R^2=.544).

Table 6 shows relationship between Critical Excellence Factors (CEFs) and Service Quality (SQ) gap. t statistics provide data about the relative importance of each variables.

Table 6: Relationship between CEFs and SQ gap

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	122.014	12.750		7.962	.000
	EFQM Enablers	1.245	.334	.738	2.057	.012

Above table explains that the variables have a significant Beta weight (beta=.738) and t=2.057 at p=.012. the t-test results a significance effect of the CEFs as independent variables on Patient's perception of Services Quality (SQ) as dependent variable (independent factors have a significance of t< .05). Thus, the results clearly indicate that the model is significant and holds well, which means a positive and strong relationship between EFQM enablers as CEFs and SERVQUAL gap size as patients' perception.

Table 7 shows the regression analysis between service quality gap size as independent variable and EFQM results as dependent variable

Table 7: Regression Analysis for SERVQUAL gap and EFQM result

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.749a	.561	.364	13.58148

a. Predictors: (Constant), TotalGap

Based on the above table, there is a positive relationship between a Service Quality (SQ) gap and Customer Results criterion (R=.749). Moreover, Services Quality (SQ) gap has explained 56.1% of variance in Customer's Perceptions (R^2=.561).

Table 8: Relationship between SQ gap and Customer's Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-73.445	14.895		-4.526	.002
	TotalGap	.084	.021	.749	3.021	.018

Table 8 shows the results of multiple regression analysis, it clearly indicate that the model is significant and holds well while Beta weight (beta=.749) and t= 3.021 at p=.018 were significant.

Table 9 shows the regression analysis between patient perception and key performance result, to find out about the role and importance of customer perception role to have healthier quality result.

Table 9: Regression analysis for SERVQUAL gap and Key Performance result

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.774a	.575	.104	34.70312

a. Predictors: (Constant), TotalGap

The above table indicate a positive relationship between a successful Service Quality gap and the Patient's result criterion (R=.774). SQ has explained 57.5% of variance in Key Performance results (R^2=.575).

Table 10: Relationship between Patient's Results and Key Performance Results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	115.310	9.218		8.465	.000
TotalGap	1.018	.321	.774	3.532	.033

Table 10 indicate that the model shows a significant Beta Weight (beta= .774) and t= 3.532 at p= .033. This result suggests that the Services Quality is significantly related to Key Performance Result.

Discussion:
The results from correlation and regression analysis showed the meaningful relation between variables. So, the internal impact of CEFs (Leadership, Policy and Strategy, People, Partnership and Resources, Process) was confirmed on Patients side. This conclusion also was in tune with several previous research findings.

First, the positive correlation between leadership and customers was confirmed by Zeithaml et al., (1990); Rust and Oliver, (1994); Edvardsson et al., (1994); Milakovich, (1995); Schneider and Bowen (1995); Lovelock, (2001); Berry, (2004); and Bou-Llusar et al., (2005).

Second, the established positive correlation between the Policy and Strategy as a part of the CEFs and the customer perception was reported and confirmed by many earlier studies (e. g. Zeithainl et al., 1988; Ittner and Larcker, 1997; Quazi and Padibjo, 1998; Calvo-mora et al., 2005).

Third, the influence of People management on customers is verified by Deming, (1986); Zeithaml et al., (1996); Eskildsen and Dahlgaard, (1999); Samson and Terziovski, (1999); and Bou-Llusar et al., (2005).

Fourth, the study revealed that Partnership and Resources management is positively correlated with Customers results, which is consistent with the findings of the following studies: Samson and Terziovski, (1999); Nilsson and Samuelsson, (2001); Kaynak, (2003); and Calvo-mora et al., (2005).

Fifth, the revealed positive correlation between Process management and Customers results is consistent with previous studies (Samson and Terziovski, 1999; Flynn and Saladin, 2001; Nilsson and Samuelsson, 2001; Yasin et al., 2004; Bou-Llusar et al., 2005).

Ultimately, the CEFs are considered as a part of the TQM elements. Therefore, Juran (1988), Schmidt and Finnigan (1992), and they claim that the TQM elements are capable of

generating value in the firm through an improved understanding and satisfaction of customer needs.

Furthermore, Ahire and Waller (1996) confirm that with many organizations striving to implement TQM, it becomes paramount that managers see a link between the quality of their products and their customers' perceptions of the quality of their products.

The second correlation and regression analysis of current research was about investigating the positive relationship between Customer perceptions and Customers Result.
This conclusion is supported with finding in many previous studies (Blanchard and Galloway, 1994; Oliver and Bearden 1997; Kandampully, 1998; LeBlanc and Nguyen, 1988; Edvardsson, 1994).
Third correlation and regression analysis of this research was a positive correlation between customer's results and Key performance results.
This conclusion was also supported by many previous studies which claimed the impact of Services Quality and Customer's satisfaction on Key performance results and financial results (Rust and Zahorik, 1993; Rust et al., 1995; Danaher and Rust, 1996; Hallowell, 1996).

Model Suggestion:
The importance elements which are critical for driving excellence in healthcare have been identified by this research. Combining the important elements into a generic model will be appropriate and beneficial to provide an excellence healthcare organization. All identified Critical Excellence Factors (CEFs) were classified into 5 main clusters: Excellence in Vision and Value, Operational Excellence, Service Excellence, Performance Excellence, and Innovation and Learning. Figure 2 shows the integrated suggested model.

Figure 2: The Integrated proposed model for excellence
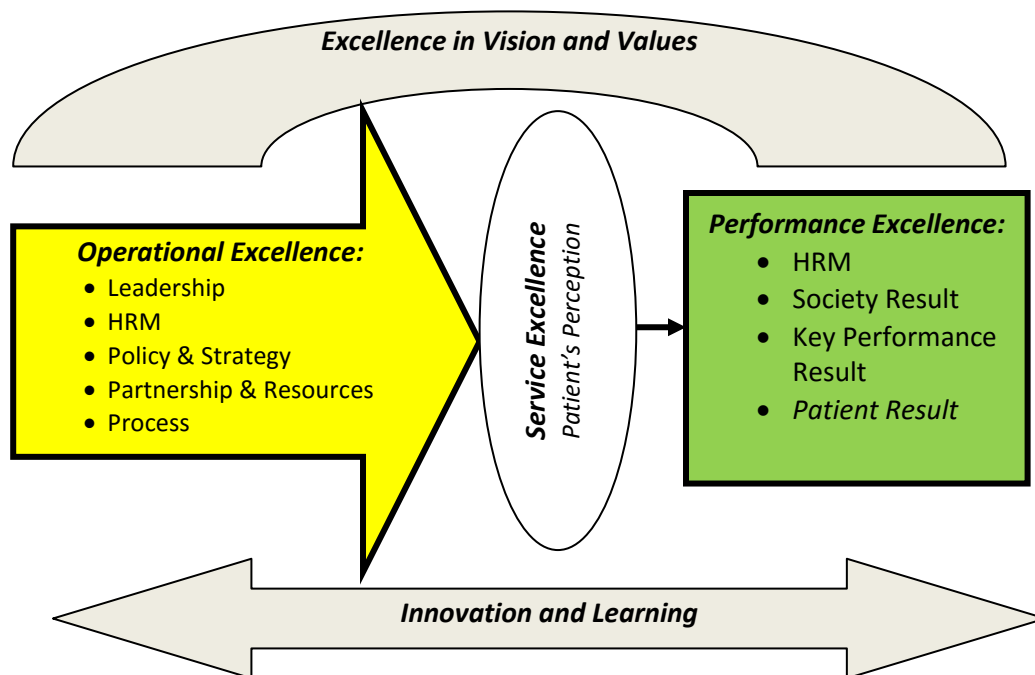
- **Operational Excellence**

The identified Critical Excellence Factors (CEFs) in this study are Leadership, Partnership and Resources, Policy and Strategy, People, and Process. The internal operational activities depend on these elements, which are close together inside the firm. It is described together as Operational Excellence.

- **Service Excellence**

There are different theories about Service Quality such as Gap theory model (Zeithmal et al., 1990), In proposed model Service Quality is built from Patient point of view.

- **Performance Excellence**

Based on EFQM (1999), enablers work to achieve balanced stakeholders satisfaction which increases profitability of long term success.

For most healthcare organizations customers are more important than shareholders, employees, partners and local communities. Customer relationship often goes far from what it might traditionally be viewed, patients as customers are main fund suppliers. So, in proposed model not only the people, key performance and society results are important but also customer (Patient) result is considered too.

- **Excellence in Vision and Values**

In main model of EFQM, the Vision is considered as part of the Leadership criterion, which a visionary leader informs the organizational culture to understand, accept and carry forward the plans. In some studies vision was considered as critical task of top managers (Philips and Hunt, 1992). Vision also represented as pattern for future of an organization (Kouzes and Posner, 2002)

In proposed model, vision is detached from leadership and addressed separately as one of main drivers of excellence because was found that these issues are vital and have huge impact on performance. Therefore it should be considered separately.

- **Innovation and Learning**

Organizational performance can be maximized with continuous learning, innovation and improvement. In proposed model, hospitals would learn from feedback by reviewing impact of strategies and actions, results and trends, compare performance with targets and benchmarking with the best sample of excellence.

Conclusion:

Even with various strands of literature about Service Excellence, it is still in its early stages. Current study brought a large number of Service Quality (SQ) and Service Excellence (SE) relevant literature, and unified diverse thought into one integrative perspective. In particular:
- This study has uniquely identified and described components that make up integrated approach to organizational excellence. This research provides an empirical assessment of the Critical excellence factors (CEFs) and their impact from various perspectives.
- This study also shows that the visioning process and managing patients' values are 2 important factors for driving excellence in organization.

The results of this thesis could be relevant to different hospitals in different country. This study also makes a significant contribution to the society by providing an insight in various techniques and principles to drive excellence in organization.

This study proposed a generic integrated model in this study which is a combination of EFQM and SERVQUAL model based on the research findings, this model even considered critical issues for stakeholder's satisfaction. The proposed model will enhance the current practices which will lead to excellence organizations. The results of this research will help top managers in decision makings and resource allocation for driving the excellence successfully.

Applying identified CEFs can lead to a wide range of benefits of tangible and intangible nature. It is hoped that the proposed theory and the results of this thesis can aid to development of excellence in service provider organizations such as hospitals.

Reference:

1. Ahire, S.L., Golhar, D.Y. and Waller, M.W. (1996), "Development and validation of TQM implementation constructs", Decision Sciences, Vol. 27 No. 1, pp. 23-56.
2. Berry, L. (2004). "Marketing Services: Competing Through Quality", Free Press.
3. Blanchard, R. and R. Galloway (1994). "Quality in retail banking." International Journal of Service Industry Management **5**(4): 5-23.
4. Bou-Llusar, J., Ana B. Escrig-Tena, et al. (2005). "To what extent do enablers explain results in the EFQM excellence model? An empirical study s." International Journal of Quality & Reliability Management **22**(4): 337-353.
5. Calvo-mora, A., A. Leal, et al. (2005). "Relationships between the EFQM model criteria: a study in Spanish universities." Total Quality Management & Business Excellence **16**(6): 741.
6. Danaher, P. and R. Rust (1996). "Indirect Financial Benefits from Service Quality." Quality Management Journal **3**(2): 63–75.
7. Deming, W. (1986), (2000); "Out of the Crises." MIT Center for Advanced Engineering Study, Cambridge, MA.
8. Edvardsson, B., B. Thomasson, et al. (1994). "Quality of service: making it really work", McGraw-Hill International.
9. Eskildsen, J., J. Dahlgaard, et al. (1999). "The impact of creativity and learning on business excellence." Total Quality Management **10**(4): 523-530.
10. Hallowell, R. (1996). "The relationships of customer satisfaction, customer loyalty, and profitability: an empirical study." International Journal of Service Industry Management **7**(4): 27-42.
11. Ittner, C. and D. Larcker (1997). "Quality strategy, strategic control systems, and organizational performance." Accounting, Organizations and Society **22**(3): 293-314.
12. Juran, J. (1988). "Managing for quality." The Journal for Quality and Participation **11**(1): 8-12.
13. Kandampully, J. (1998). "Service quality to service loyalty: A relationship which goes beyond customer services." Total Quality Management **9**(6): 431-443.
14. Kaynak, H. (2003). "The relationship between total quality management practices and their effects on firm performance." Journal of Operations Management **21**(4): 405-435.
15. Kouzes, J. and B. Posner (2002). "The leadership challenge", Jossey-Bass San Francisco.

16. LeBlanc, G. and N. Nguyen (1988). "Customers'perceptions of service quality in financial institutions." International Journal of Bank Marketing **6**(4): 7-18.
17. Lovelock, C. (2001)." Services marketing: people, technology, strategy", Prentice Hall.
18. McLaughlin CP, Kaluzny AD. "Continuous quality improvement in health care", 3rd Ed. Sudbury, MA: Jones & Bartlett Publishers; 2006.
19. Milakovich, M. (1995). "Improving Service Quality", CRC Press.
20. Nilsson, L. and P. Samuelsson (2001). "Self-assessment Practices in Large Organizations: Experience from Using the EFQM Excellence Model." International Journal of Quality and Reliability Management **19**(1): 10-23.
21. Oliver, R., L. and W. O. Bearden (1997). "Satisfaction: A Behavioral Perspective on the Consumer", New York: McGraw-Hill.
22. Parasuraman, et al. (1990). "Delivering quality service: balancing customer perceptions and expectations", Free Press.
23. Phillips, R. and J. Hunt (1992). "Strategic Leadership: An Introduction." Strategic leadership: A multi-organizational - level perspective: 3-14.
24. Quazi, H. and S. Padibjo (1998). "A journal towards TQM through ISO 9000 certification–a study of small and medium enterprises in Singapore." International Journal of Quality & Reliability Management **15**(5): 489-509.
25. Rust, R. and A. Zahorik (1993). "Customer satisfaction, customer retention, and market share." Journal of Retailing **69**(2): 193-215.
26. Rust, R. T. and R. W. Oliver (1994). "Video Dial Tone: The New World of Services Marketing. " Journal of Services Marketing 8(3): 5-16.
27. Rust, R., A. Zahorik, et al. (1995). "Return on Quality (ROQ): Making Service Quality Financially Accountable." Journal of Marketing **59**(2): 58-70.
28. Samson, D. and M. Terziovski (1999). "The relationship between total quality management practices and operational performance." Journal of Operations Management **17**(4): 393-409. Zeithaml, V., A.
29. Schmidt, W. and J. Finnigan (1992)."Race without a finish line: America's quest for total quality", Jossey-Bass Publishers.
30. Schneider, B. and D. Bowen (1995). "Winning the service game", Harvard Business School Press Boston, Mass.
31. Yasin, M., J. Alavi, et al. (2004). "TQM practices in service organizations: an exploratory study into the implementation, outcome and." Managing Service Quality **14**(5): 377-389.
32. Zeithaml, V., A. Parasuraman, et al. (1990). "Delivering quality service: balancing customer perceptions and expectations", Free Press.
33. Zeithaml, V., L. Berry, et al. (1996). "The Behavioral Consequences of Service Quality. " Journal of Marketing 60(2): 31-46.
34. Zeithaml, V., L. Berry, et al. (1988). "Communication and Control Processes in the Delivery of Service Quality. " Journal of Marketing 52(2): 35-48.