

Service Quality Improvement Planning Based on Analyse the Service Performance of Public and Private Hospital in Iraq

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Abstract

Hospital is one of the most important and vital part in health care sector that must always improve the service performance quality level that provides to patients. It spends little effort on planning for service quality. The ensuing costs associated with poor service quality planning lead to lower profitability as part of the “cycle of service failures.

In this research, a comparative study between famous public and private hospital in Baghdad city have been established to measure and assess the service quality in both hospitals from patient point view. SERVQUAL model used and gaps analysis have been calculated for each main and sub dimensions in order to assist management to continuously improve service quality. Also, weight method was used to identify the better hospital that has a good actual service quality using the perception service. The data was collected by using the questionnaire. The final result was illustrated that the weighted Perception service quality for public hospital is (4.196), while for private hospital is (2.928). So, the public hospital has better quality service than private hospital.

Keywords: Expectation Service, Gap Analysis, Public Hospital, Private hospital, Perception Service, SERVQUAL, Weight Method.

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Introduction

Today, Patient is more aware and conscious than before about hospitals service quality concept where patient is a customer of hospital whose satisfaction must be done. Hospital is an organization that provides various health services to the patients when needed. It is one of the most important facilities providing healthcare services all over the world. Poor service quality planning lead to lower profitability. The quality and cost-effectiveness of healthcare delivered are major issues to be continuously improved in order to have higher patient satisfaction [1].Two common types of hospitals are studied, a public and a private hospital. The Public hospital is runs and belongs by the government without charge or by a few charges whether in simple or critical health situations. The private hospital is a profitable investment hospital that belongs to investors and provides health services to the patient with high cost. Any shortage or weakness in any delivered health service to the patient leads sometimes to catastrophic results for patient health.

Currently, many researchers are focusing on service quality which is one of the important factor for achieving success in business through customer satisfaction, customer retention, customer loyalty and profitability where profit can be increase with increase of the service quality level for any organization, Figure 1 show the impact of service quality level on organization profits.

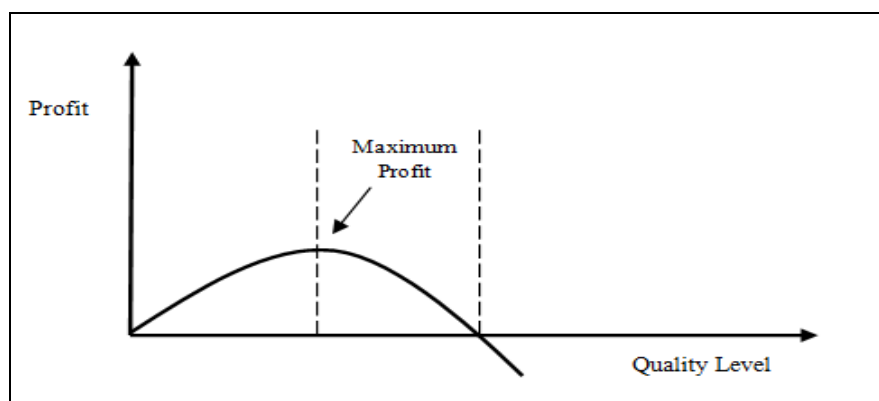


Figure 1: The Relationship between Quality Level and Profit [2]

Measuring service quality is a challenging task because the concept of service quality is inherently intangible in nature and difficult to define [3]. Some researchers defined service quality as a function of expectations, outcome and image [4], other defined it as the degree fit of the service between patient perception and expectations [5]. When the

service perception was better than service expected, the customer is satisfied. If the service quality was less than the patient expectations then quality is low and the patient may be dissatisfied, while the service perceived quality is acceptable if it matches the patient expectations, Figure 2 illustrate the perceived quality level [5].

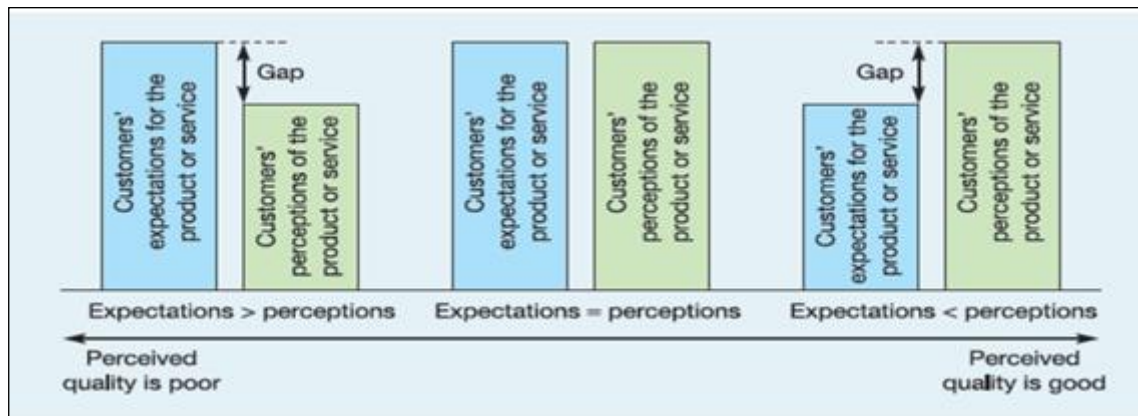


Figure 2: Quality Degree [5]

Mehdizadeh Ali (2015) [6] Used improved SERVQUAL model to analysis the patient satisfaction to assess and improve the service quality of the new hospital established in Semnan named Kowsar hospital in Iran.

Mustafa Hermanto (2015 [7]) used Service quality analysis to determine the perceptions and the expectations of respondents towards service quality that provided by the studied, the result showed that the hospital should find strategies to improve their service quality.

Nguyen Thi Lan Anh (2016) [8] Studied the difference between patients' expectation and perception on health care service quality at Thai Nguyen National Hospital, Vietnam by using gap analysis. The result showed that tangibility, assurance, empathy, reliability, responsiveness has a strongest influence on patient's perception.

Al-Momani, Mohammed Mahmoud (2016) [9] Measured patients' satisfaction by study the gap between patients' expectations and perceptions about the nursing care to identify the areas that need improvement to increase the service quality.

Rezarta Kalaja (2016) [10] Study the quality of services in public hospital in Albania. The survey is based on "SERVQUAL" model using five dimensions of service quality such as: empathy, tangibility, responsiveness, assurance and reliability were used for measuring the perceptions and expectations of patients in each of them.

Farzad Faraji Khiavi and et al (2018) [11] Established a descriptive survey that study during 2015 in Ahvaz University of Medical Sciences teaching hospitals 5550

outpatients to identify the gap analysis between perception and expectations of service quality from the patients' viewpoint. The research has been conclude that the service quality was lower than the expectations of the patients so determine the gaps in service quality dimensions and employing proper policies will lead to improve the service performance quality.

Fatemeh Hoseini (2018) [12] Studied and analysed at the year 2015 the quality gap using SERVQUAL to select a good hospital in Golestan Province .

In this research, the researchers will study by questionnaire many aspects:

1. Analysing and Comparison of the customers' perception and expectations about service quality of public and private hospitals.
2. Calculate the gap value and rank the main and sub-dimensions from low to high weak dimension to assist the hospital management to suggest strategy to improve the service quality.
3. Knowing the level of patients' awareness about the health service quality dimensions by identifying the importance of service dimensions from the patient point view.
4. Compare the service quality for the two hospitals using the weight method for the five dimensions to determine which hospital has better than service performance. Figure 3 the methodology of the research.

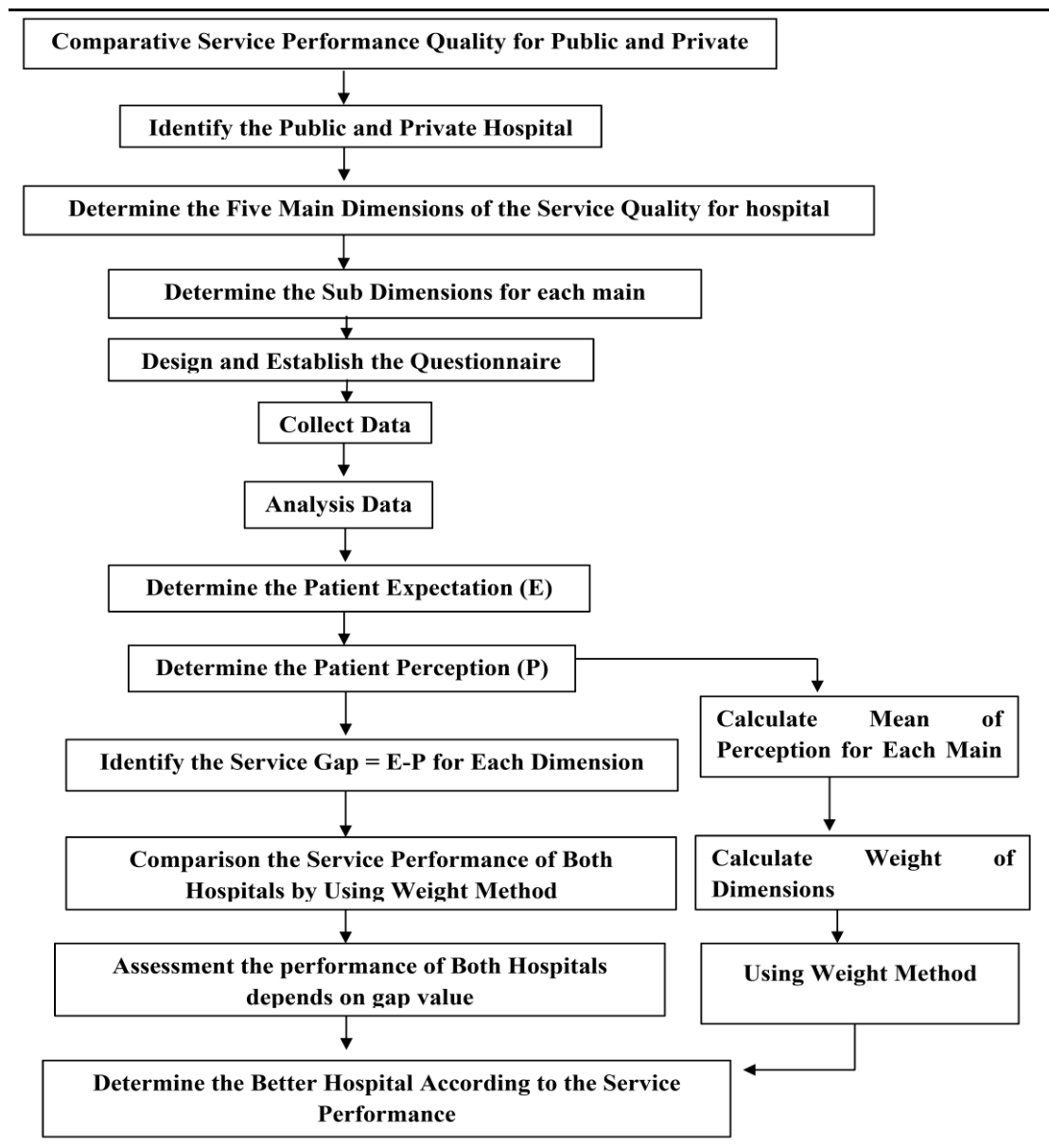


Figure 3: Research Methodology

SERVQUAL model is widely used in measuring service quality; it proposes that the patient evaluates the service quality based on five dimensions. Also, these five dimensions contain twenty-two sub dimensions (statements). a five - point Likert scale is used to score the five service quality dimensions namely; reliability, responsiveness, assurance, empathy, and tangibles in addition to sub-dimensions for assessing patient's perceptions and expectations regarding the quality of a service, Table 1. The attitudes of the five dimensions are [13]:

- Tangibles: The appearance of appearance of personnel, physical facilities, communication materials and equipment, and.

- Reliability: The ability of hospital to perform the promised service accurately and dependably.
- Responsiveness: The willingness of hospital's personnel to help patients and provide emergency and speed service.
- Assurance: The knowledge and courtesy of hospital staff and their ability to inspire trust and confidence.
- Empathy: The caring, individualized attention the hospital provides to its Patients.

Many types of gaps that service quality is studied, Table 2 explain the gaps and definitions.

Table 1: The Twenty Two Main and Sub- Dimensions

No	Service Quality Dimensions	Sub-Dimensions	Description
1	Tangible	X1	Modernization of the medical devices, equipment and supplies currently in use
		X2	The nature of patient lounges, waiting areas, Physician' offices and staff
		X3	The attention of the hospital management and the workers in the manner and body work clothes
		X4	The possibility of managing the hospital to provide the physical supplies within its available facilities
2	Reliability	X5	The hospital administration is committed to its promises to patients in the provision of health and therapeutic services
		X6	Sympathy of hospital management with customers when Submit a complaint
		X7	The attention of the hospital management to provide services in a timely manner, quickly and accurately
		X8	Condition the patients and their confidence in the skills of the medical profession with confidence and safety
		X9	The attention of the hospital administration in recording information about patients and their health in the records and computer
3	Responsiveness	X10	Inform patients about service times
		X11	Providing immediate service by patient staff
		X12	Help patients permanently
		X13	Employee response to patients' immediate requests despite their busy
4	Assurance	X14	Full patient confidence in workers
		X15	Assured the patient that it is in safe with the workers
		X16	Interact the medical staff and worker with patients and treat them gently and tactfully
		X17	Competence, courtesy, reliability of employees when performing work
5	Empathy	X18	The attention of the hospital management to the nal care of patients
		X19	The ability of hospital staff to provide personal attention for patients
		X20	Knowledge of employees for the needs of patients
		X21	Provide the best hospital management for patients
		X22	Working of the hospital management with hours of work according to the needs of patients

Table 2: Gaps Model for Service Quality [14].

Gaps Model	Definition
Gap1 (the positioning gap)	Managers Perception of consumers expectations and the relative importance consumers attach to the quality dimensions
Gap 2 (the specification gap)	The difference between what management believes the consumer wants and what the consumers expect the business to provide
Gap 3 (the delivery gap)	The difference between the service provided by the employee of the business and the specification set by management
Gap 4 (the communication gap)	The promises communicated by the business to the consumer do not match the consumers' expectations of those external promises
Gap 5 (the perception gap)	The difference between the consumers internal perception and expectation of the service

In this research, the perception gap is used to measure the quality of the hospitals service. The perception gap is studied the difference between service quality perceptions and expectation from patient point view, it is a function that is expressed as follows [15]:

$$Gap\ Analysis = \sum_{i=1}^k (E_{ij} - P_{ij}) \tag{1}$$

Where: -

E_i: is the patient expectation value for sub dimension i for dimension j.

P_i: is the perception value of patient for sub dimension i for dimension j.

The SERVQUAL questionnaire has been designed using a self-administered questionnaire to collect data for the research where the Self-administered questionnaire is the survey and it is a superior type for minimizing bias and improving response rates where the respondents take responsibility for reading and answering the questions. the questionnaire is formed from three parts the first and second parts is similar where the first is a patient

expectations measure, and the second is a measure of patient perceptions to the actual service delivered, Likert scale from (1-5) score was used in questionnaire to score each dimension and sub-dimension to calculate the expectations and perceptions level of service quality. The third part of questionnaire is investigation survey where the patients have been asked to score the five dimensions of service quality according to the importance of the dimension from their point view using scale from (1-5) degree where (1) is less important and (5) is so important. Fifty patients that visited both the public and the private hospitals have been asked by questionnaire about the service quality level from their point of view.

The questionnaire data has been analysed to use it for calculation of mean of service expectation and service perception for each main and sub dimension in addition to calculate the service gap according to equation 1.

Gaps values was ranked to determine the weak service quality for each main and sub-dimensions where rank (1) is less weak and (5) is high weak, this will give the hospital management vision about the priority improvement for the wreaked dimension, Table3 and 4 illustrate the gaps ranking for each hospital.

Table3: Gaps Calculations for The Public Hospital

NO	Dimensions	Expectation	Perception	Gap	Rank
1	Tangible	2.55	3.85	1.3	1
	X1	2.4	3.8	1.4	5
	X2	2.6	3.3	0.7	1
	X3	2.8	4.4	1.6	10
	X4	2.4	3.9	1.5	9
2	Reliability	2.76	4.36	1.6	3
	X5	3	4.2	1.2	2
	X6	2.8	4.6	1.8	16
	X7	2.6	4	1.4	6
	X8	2.8	4.6	1.8	17
3	Responsiveness	2.65	4.35	1.7	5
	X10	2.6	4.2	1.6	11
	X11	2.8	4.6	1.8	21
	X12	2.8	4.4	1.6	12
	X13	2.4	4.2	1.8	19
4	Assurance	2.65	4.1	1.5	2
	X14	2.6	4.2	1.6	13
	X15	2.6	4	1.4	7
	X16	3	4.2	1.2	3
	X17	2.4	4	1.6	14
5	Empathy	2.56	4.16	1.6	4
	X18	2.6	4	1.4	8
	X19	2.2	4.2	2	22
	X20	3	4.2	1.2	4
	X21	2.6	4.2	1.6	15
	X22	2.4	4.2	1.8	20

Table4: Gaps Calculations For The Privat Hospital

NO	Dimensions	Mean (Expectation)	Mean(Perception)	Gap(E-P)	Rank
1	Tangible	2.7	3.25	0.6	5
	X1	2.6	3	0.4	7
	X2	2.8	3	0.2	2
	X3	2.6	3.6	1	20
	X4	2.8	3.4	0.6	14
2	Reliability	2.76	3.1	0.3	1
	X5	2.6	3	0.4	8
	X6	3	3.2	0.2	3
	X7	2.6	3	1.6	22
	X8	3	3	0	1
3	Responsiveness	2.65	2.95	0.3	2
	X9	2.6	3.3	0.7	17
	X10	2.6	3.2	0.6	15
	X11	2.6	2.8	0.2	4
	X12	2.8	3	0.2	5
4	Assurance	3.1	2.55	 -0.6 	3
	X13	2.6	2.8	0.2	6
	X14	3	2.6	-0.4	9
	X15	3	2.6	-0.4	10
	X16	3.4	2.4	-1	21
5	Empathy	3.08	2.48	 -0.6 	4
	X17	3	2.6	-0.4	11
	X18	3.4	2.8	-0.6	16
	X19	2.6	2.2	-0.4	12
	X20	3.4	2.6	-0.8	18
	X21	3.4	2.6	-0.8	19
	X22	2.6	2.2	-0.4	13

Table 5 show that the gaps have different ranking and the value in both hospital for main and sub- dimensions, so this

indicate that each hospital has weakness but not the same weak or gap , this require from management of these

hospital to investigate the reasons about this weakness in quality of service in each one to improve as soon as possible to increase patient reliability towards hospital and increase revenue of hospital.

Positive value of the service gap means the perception service is greater than the patient expects and negative gap

value means the patient expectation is higher than delivered service. In the public hospital, the highest value of the service quality rank was (1.7) for the responsibility dimension, while the highest value for the private hospital rank was (0.6) for tangible dimension. The results also showed that the values of empathy rank were equal for both hospitals.

Table 5: Comparison of The Gaps Ranking for Both Hospital

NO	Dimensions	Private Hospital		Public Hospital	
		Gap	Rank	Gap	Rank
1	Tangible	0.6	5	1.3	1
	X1	0.4	7	1.4	5
	X2	0.2	2	0.7	1
	X3	1	20	1.6	10
	X4	0.6	14	1.5	9
2	Reliability	0.3	1	1.6	3
	X5	0.4	8	1.2	2
	X6	0.2	3	1.8	16
	X7	1.6	22	1.4	6
	X8	0	1	1.8	17
3	Responsiveness	0.3	2	1.7	5
	X9	0.7	17	1.8	18
	X10	0.6	15	1.6	11
	X11	0.2	4	1.8	21
	X12	0.2	5	1.6	12
4	Assurance	-0.6	3	1.5	2
	X13	0.2	6	1.8	19
	X14	-0.4	9	1.6	13
	X15	-0.4	10	1.4	7
	X16	-1	21	1.2	3
5	Empathy	-0.4	11	1.6	14
	X17	-0.6	4	1.6	4
	X18	-0.6	16	1.4	8
	X19	-0.4	12	2	22
	X20	-0.8	18	1.2	4
	X21	-0.8	19	1.6	15
	X22	-0.4	13	1.8	20

Patient that visited the public hospital has been delivered service greater quality than expect, so the service quality is consider good. Figure 4 illustrate that.

Also, this figure shows a significant gap between the perceived quality of service and the expected service in the public hospital. On the other hand, the gap between the

perceived quality of service and the expected service in the private hospital is relatively low, but there is an intersection at assurance dimension. So, a decline in perceived quality of service in the private hospital compared to the public hospital for both assurance and empathy dimensions.

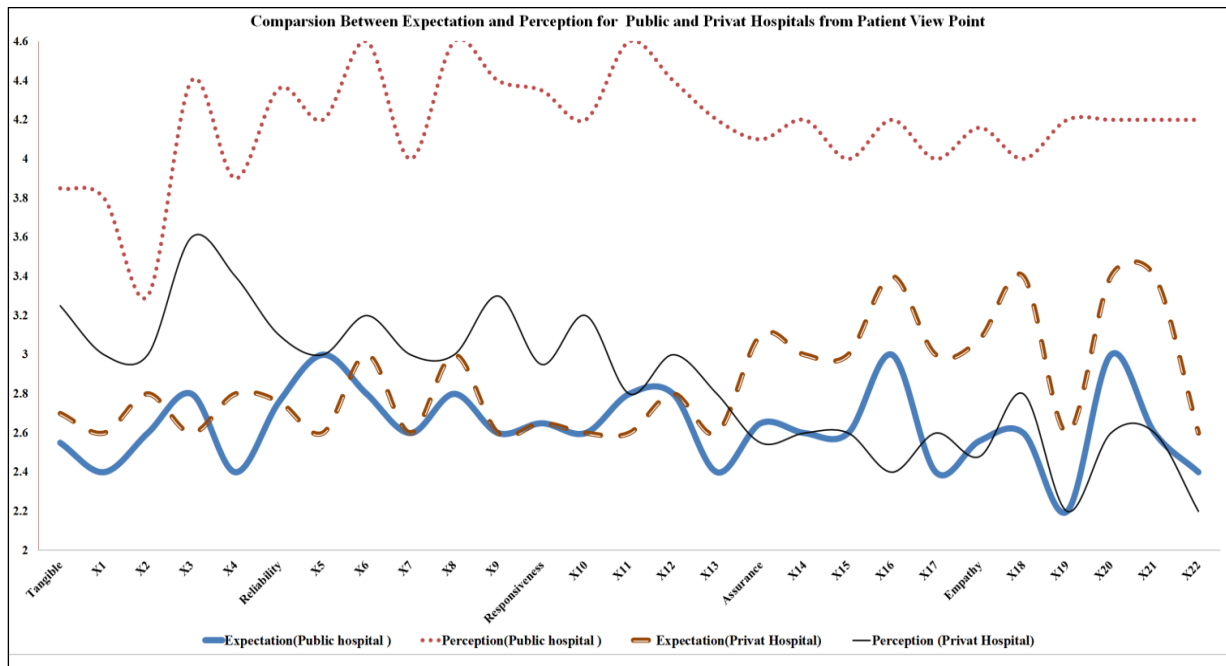


Figure 4: The Differences between Perception and Expectation Service for Both Hospitals

Knowing the level of patients' awareness about the health service quality dimensions to assess the hospital performance is an important step in service quality improvement process. The third part in questionnaire was assigned to assess the dimensions importance, where the patient has been asked to rank the main dimension in order

according to its importance from patient point view by scoring the five dimensions from (1-5). Responsiveness dimension is the most important dimension then reliability, tangibility, assurance and less dimension from patient point view is the empathy. Figure 5 illustrate the dimensions importance.

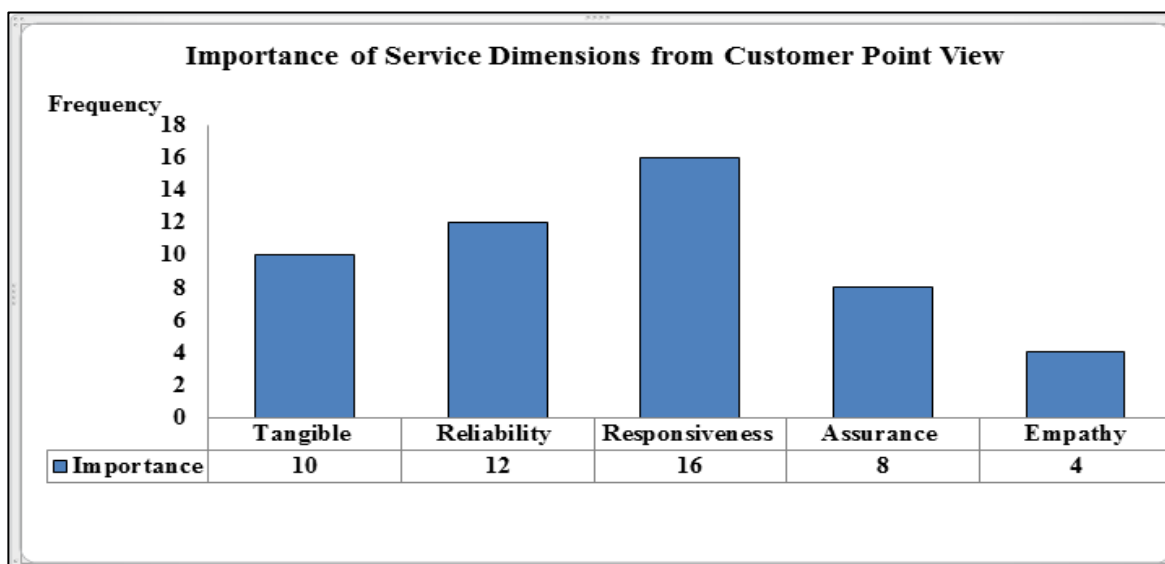


Figure 5: Importance of Service Dimensions from Patient Point View

The dimensions importance was transferred to weights for using it through comparative process to identify the best performance hospital as weight method. Table 6 illustrates the comparative process between the perception services in both hospitals using the weight method. This table show that the public hospital has weight

higher than the private hospital, so this is indicate that the public hospital was delivered serves in high quality than the private hospital. Consequently, the public hospital that studied in this research is better service quality and performance than the private hospital.

Table 6: Weighted Perception Service Quality of Public Hospital and Private Hospital

		Perception Service	
Dimensions	Weight	Public Hospital	Private Hospital
Tangible	0.20	0.77	0.65
Reliability	0.24	1.046	0.744
Responsiveness	0.32	1.392	0.928
Assurance	0.16	0.656	0.408
Empathy	0.08	0.332	0.198
		Total= 4.196	Total= 2.928

Conclusion

1. Planning the Service Improvement is very important issue by focusing on the weak dimension and depend the continuous improvement strategy will help the hospital to delivery high quality service.
2. Sometime, Belief that the private hospital is better quality service than the public hospital is wrong, where some public hospital may delivery service in high quality than private hospital.
3. Patient that visited the public hospital has been delivered service greater quality than expect so the service quality is consider good.
4. Private hospital has acceptable service quality because the delivered service is approximately as the patient expects.
5. Service quality in private hospital is lower than the service quality in public hospital.
6. The expectation service at both hospitals from patient point view is the same but the perception in public hospital is greater than the private hospital.
7. Main and sub-dimension from patient point view in both hospitals have different ranking so this indicate that the service quality dimensions in vary from hospital to another.
8. Gap analysis can consider an efficient tool to assess the hospital quality service.

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