# The Impact Of Quality Objectives Of Various Services On Revenue Enhancement And Increase In Volume Of Business For Kpj Penang Specialist Hospital, Malaysia

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Abstract: A retrospective study was conducted in KPJ Penang to see the performace of quality objectives for year 2012 compared to year 2013 for Pharmacy department, Radiology department, Physiotherapy department and Laboratory department. The four departments were selected because they are the revenue generating departments. The revenue generated by the four departments were also monitored for year 2012 and year 2013 to see whether there is an improvement in 2013 compared to 2012. The objective is to see whether the improvement in the revenue generated is in line with the improvement of the quality objective for the four departments. The overall statistics for outpatients, inpatients and total revenue of the hospital were also monitored for both 2012 and 2013. Based on the data collected the four departments had achieved the set quality objectives for 2012 and 2013 . However for the Pharmacy department the performance of the quality objective in 2013 was slightly lower compared to 2012 due to the increase number of outpatients. For the other three departments the performance of quality objectives in 2013 was better that 2012. In term of revenue generated, all the four departments had generated revenue which was better in 2013 compared to 2012. From this study we can see that the improvement of quality objectives of the four departments is related to the improvement of revenue generated by them.

**Keywords:** Quality objective, revenue generated, overall statistics.

### I. Introduction

In the upcoming revision to ISO 9001, the most significant change is probably not what you'd expect it to be. It's not continual improvement, customer satisfaction, or even the process-model structure of the standard. The most significant change is that it requires the organization to establish quality objective at each relevant function and level within the organization. The manner in which quality objectives are established and managed will have an enormous impact on the organization's performance. Whether the quality objectives will drive strategic improvements throughout the organization, significantly elevating the importance of the quality management system, or become a meaningless exercise in data collection will depend on how the task is carried out

Quality objectives are selected by the managers who are directly responsible for the processes concerned. Process owners will require assistance from the management representative as the resource personel when selecting quality objectives. The role of the facilitator is to challenge the paradigms that process owners may be using to develop their metrics. Process owners are accustomed to measuring their own performance, but the measures may or may not have any obvious links to the organization's key measures. Quality objectives must also be cross-checked against objectives in other areas to ensure that suboptimization doesn't occur which may harms other functions. Objectives linked to output or machine utilization sometimes cause suboptimization, especially in departments responsible for storing and moving finished goods.

Quality objectives may be set at various functional levels of the organization which may be useful to cover these levels as they add value and contribute to customeror organizational objectives. Employees at all levels must be made aware of the importance of and how they must contribute to the achievement of these objectives.

Quality objectives must be measurable either quantitatively or qualitatively. Quantitative measures are generally more objective in determining whether conformity or effectiveness has been achieved where as the use of qualitative measurements may be appropriate. Also acceptable are objectives based on yes/no criteria, (e.g. - develop new product by March 2006).

The quality objectives of the company are directly related with the company's quality policy and are formulated every year during the management review. The company's management is committed to formulate measurable quality objectives directly related to the quality policy, the customers' demands and its objective capabilities

Quality objectives help to determine conformity to requirements such as customer and regulatory and facilitate the quality management system in term of effective deployment and improvement. Quality objectives

must orignate from the quality policy of the organization which are related to strategic business decision where top management will provide the necessary direction and leadership starting with establishing the quality policy and objectives.

The quality policy will provides top management's vision on quality management for the organization focused direction such level as high goals Requirements for quality policies and objectives (e.g., for product as well as product realization processes) may also come from the customer, regulatory bodies and industry standards or codes. The scope of QMS must be in line with the quality policy and objectives and must complement other business objectives such as those related profitability, the environment and occupational health finance, Various management systems (including quality management) should be integrated to achieve its strategic business goals and objectives. However many organizations dis-associate quality management from operational management. Objectives involve measurable results to achieve your goals and are focused on critical issues and milestones which describe the activities and targets to achieve the goals.

KPJ Penang had been certified by TUV for the integrated management system consisting of ISO 9001, OSHA 14001 and EMS 18001. With those certification this organization subscribed to the international standards for quality improvement.

How poducts and services supplied by a company meet or surpass customer expectation is considered as customer satisfaction and it defined "the number of customers, or percentage of total customers which had some experience with a firm, its products, or its services (ratings) exceeding specified satisfaction goals. In a survey conducted by (Farris, 2010), involving nearly 200 senior marketing managers, 71 percent responded that they found a customer satisfaction metric very useful in managing and monitoring their businesses. It is seen as a key performance indicator within business and is often part of a balanced scorecard. Gitmant (2005) quoted that in a competitive marketplace, customer satisfaction is seen as a key differentiator and increasingly has become a key element of business strategy. Customer satisfaction is a measurement of how pleased customers are with a particular product or service.

Satisfied customers are likely to make repeat purchases and often refer others and is important in measuring the company's quality growth. It is important because it also increases sales from potential customers and the monitoring shouldn't wait until it is too late. High quality products and services will leads to customer satisfaction and in turn to higher profits. Many companies use some form of customer satisfaction programme in developing monitoring and evaluating their products and services, formulate strategies to enhance satisfaction, and compensate employees based on satisfaction ratings to improve their competitive position. (Matzler et al., 2004;Matzler & Pechlaner, 2001). Satisfaction is the overall customer attitude or behavior towards a service provider, or an emotional reaction towards the difference between what customers expect and what they receive . It is also regarding the fulfillment of some desire, need or goal (Hansemark, & Albinsson, 2004; Kotler, 2000; Hoyer, & MacInnis, 2001). Customers will maintain and increasingly repeat business with the organization when an organization creates a benefit for customers and it will effect customer loyalty (Anderson, & Jacobsen, 2000). It is in fact a deeply held commitment of customers to prefer products or services of a particular organization in future despite situational constraints or marketing influences to cause the switching behavior. When customers become advocate of an organization without any incentive then true customer loyalty is created (Oliver, 1997).

The service-profit chain establishes relationships between profitability, customer loyalty, and employee satisfaction, loyalty, and productivity. The links in the chain (which should be regarded as propositions) are as follows: Profit and growth are stimulated primarily by customer loyalty. Loyalty is a direct result of customer satisfaction. Satisfaction is largely influenced by the value of services provided to customers. Value is created by satisfied,loyal, and productive employees. Employee satisfaction, in turn, results primarily from high-quality support services and policies that enable employees to deliver results to customers

Numerous studies have shown that provision of high-quality services is directly related to increase in profits, market share, and cost savings (Devlin and Dong, 1994). With competitive pressures and the increasing necessity to deliver patient satisfaction, the elements of quality control, quality of service, and effectiveness of medical treatment have become vitally important

#### II. Objectives

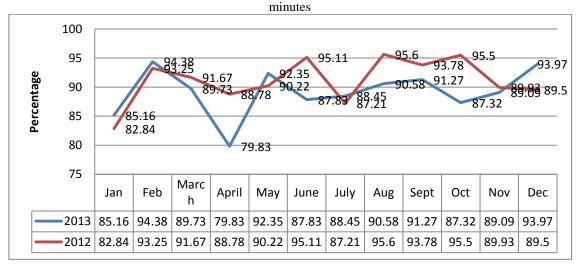
- 1. To monitor the achievement of quality objective for various departments
- 2. To see the impact of quality objective of various departments on the revenue generated by those department

## III. Methodology

Retrospective study was done to collect data on the achievement of quality objectives for department of pharmacy, radiology, physiotherapy and laboratory for year 2012 and 2013. Revenue of those departments for year 2012 and 2013 was also monitored and tabulated to see the variance between year 2012 and year 2013. Other data such as total outpatients, total inpatients and total revenue generated by the hospital were also collected for year 2012 and 2013. Data collected will be analyzed and later tabulated to see the impact of quality objectives improvement and their relationship with the increase of revenue generated by the four departments.

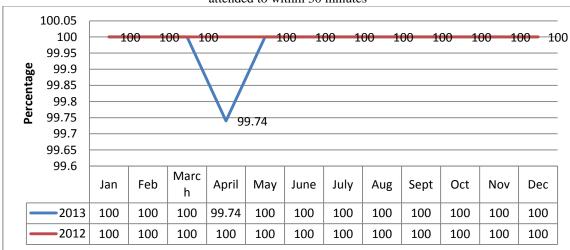
# IV. Results

Table 1 : Quality objective for Pharmacy department : For outpatient prescription dispensing time, not less than 85% of prescription should be dispensed to patients within 15



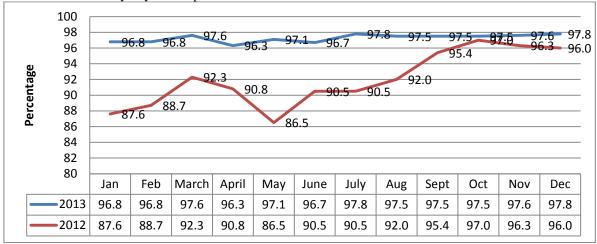
**Quality objective achievement : 2013 = 89.16% ; 2012 = 91.11%** 

Table 2: Quality objective for Radiology department: To ensure 95 % of on call cases are attended to within 30 minutes



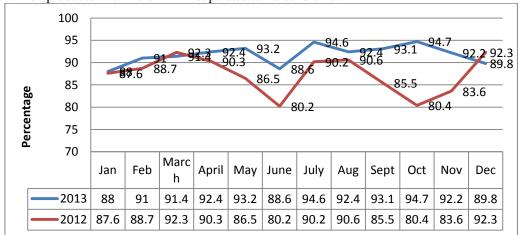
Quality objective achievement : 2013 = 100%; 2012 = 100%

Table 3: Quality objective for Physiotherapy department : To ensure 90% patient (outpatient) are attended by Physiotherapist within 15 minutes



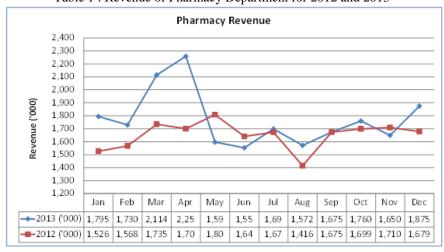
Quality objective achievement : 2013 = 97.25%; 2012 = 91.96%

Table 4: Quality objective for Laboratory department: To ensure 80% of laboratory results will be produced within the stipulated turnaround time.



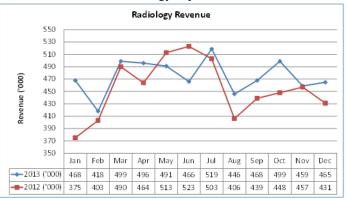
Quality objective achievement : 2013 = 91.78% ; 2012 = 87.35%

Table 1: Revenue of Pharmacy Department for 2012 and 2013



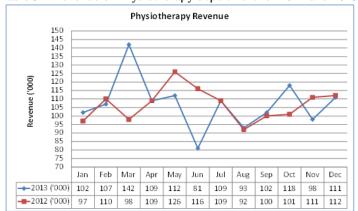
Total revenue for Pharmacy department: 2013 = RM 21,251,000; 2012= RM 19,818,000

Table 2: Revenue of Radiology department for 2012 and 2013



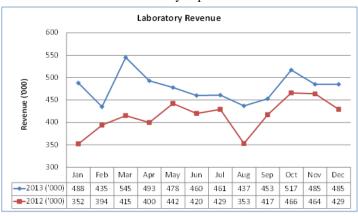
Total revenue for Radiology Department : 2013 = RM 5,694,000 ; 2012 = RM 5,452,000

Table 3: Revenue of Physiotherapy department for 2012 and 2013



Total revenue for Physiotherapy department: 2013 = RM 1,284,000; 2012 = RM 1,281,000

Table 4: Revenue of Laboratory department for 2012 and 2013



Total revenue for Laboratory department : 2013 = RM 5,737,000 ; 2012 = RM 4,981,000

Table 5: Total hospital revenue and total outpatient and inpatient statistic for 2012 and 2013

	2012	2013	Variance
Total inpatient	14,571	15,576	6.9%
Total outpatient	99,268	101,474	2.2%
Total revenue	RM 94.816.116	RM 103.154.577	9.5%

#### V. Discussion

In this study the Pharmacy department, Physiotherapy department, Radiology department and Laboratory department were monitored because they are the revenue generating department. The achievement of quality objective for the the four departments were monitored for the year 2013 and year 2012 to see the improvement. Revenue generated by those departments were also monitored for year 2013 and year 2012 to see is there any improvement in term of performance which can be related to the improvement of quality objective.

For Pharmacy department, quality objective of 85% to be achieved within 15 minutes had been achieved for year 2013 and year 2012. However the performance of 2013 is slightly lower than 2012 because the number of outpatients had increased by 2.2% in year 2013 (101.474) compared to year 2012(99,268). Due the increase in the number of outpatients and inpatients, the revenue generated by Pharmacy department increased by 9.66% from RM 19,818,000 in 2012 to RM 21,252,000 in 2013.

For Radiology department, the quality ofjective of 95 % of on call cases are attended to within 30 minutes had been achieved for both 2012 and 2013. For the whole year 2012 it was 100% achieved. However for 2013, for the months of April 2013 it was 99.74% because one of the staff was on long medical sick leave. However the department had generated an additional revenue of RM 242,000 for year 2013 compared to 2012. The revenue had increased from RM 5,454,000 in 2012 to RM 5,694,000 in 2013.

The quality objective for Physiotherapy department had also been achieved for both 2012 and 2013 . For this department, the quality objective is to ensure 90% patient (outpatient) are attended by Physiotherapist within 15 minutes. The performance of 2013 was better by 5.29% compared to 2012. In term of revenue, the department only generated a slight increase from RM 1,281,000 in 2012 to RM 1,284,000 in 2013.

Laboratory department managed to achieved the quality objective of ensuring 80% of laboratory results will be produced within the stipulated turnaround time. The quality objective for year 2013 was better by 4.43% from 87.35% in 2012 to 91.78% in 2013. The revenue generated had increased from RM 4,981,000 in 2012 to RM 5,737,000 in 2013.

Therefore all the four departments that are revenue generating had shown an improvement in term of quality objectives for year 2013 compared to 2012 and this is in line with the overall improvement in term of revenue for year 2013 compared to year 2012. The overall performance of KPJ Penang Specialist Hospital had also improved in term of outpatients, inpatients and revenue generated from year 2012 to year 2013. Outpatients increased from 99,268 in 2012 to 101,474 in 2013, inpatients increased from 14,571 in 2012 to 15,576 in 2013. In line with the increase of outpatienst and inpatients, the revenue had also increased from RM 94,816,116 in 2012 to RM 103,154,577 in 2013.

The increase in the performance of KPJ Penang Specialist Hospital was in line with the statement made by (Gitman, 2005) that in a competitive market place , customer satisfaction is seen as a key differentiator and increasingly has become a key element of business strategy. When an organization creates a benefit for customers it will effect customer loyalty and they will maintain and increasingly repeat business with the organization (Anderson, & Jacobsen, 2000).

## VI. Conclusion

Based on the retrospective study that was conducted in KPJ Penang Specaislit Hospital, the quality objectives for Pharmacy department, Radiologi department, Physiotherapy department and Laboratory department had been achieved. There was a slight drop in the performance of quality objective for Pharmacy department due to the increase of workload. However for the other three departments the performance of quality objectives for year 2013 was better than year 2012. In line with the improvement of quality objectives the revenue generated by the four departments namely, Pharmacy, Radiology, Physiotherapy and Laboratory had been better in 2013 compared to 2012. The overall performances in term of outpatients, inpatients and total revenue generated by the hospital were also better in 2013 compared to 2012. Therefore we can conclude that the increase in the revenue generated by the four departments in 2013 compared to 2012 is in line with the improvement of quality objectives.

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# The Impact Of Quality Objectives Of Various Services On Revenue Enhancement And And Increase

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