

Ensuring the effectiveness of Reader Service in an Academic Library by adopting Quality Function Deployment.

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Abstract

Library is one of the main service organizations in any university. The assessment of service quality through user perspective is very important. Researchers have been conducted related to how reader services can evaluate and improve, but there has been considerably less studies on how to improve the quality of reader services. In this research the use of quality function deployment (QFD) as a tool for improving reader service quality is explored and an adopted framework as service quality function deployment is proposed. As an initial step, 22 different reader's requirements were identified from previous studies. They have been translated into service requirement then related with reader service activities and finally develop quality management activities to fulfill the reader's needs. The most important reader's requirements were good staff, factual reply and pleasant environment. To fulfill these need we identified important quality management activities such as, employee skill development, software selection, service standardization, employee selection and process planning with the absolute score of 456, 375, 344,330 and 322 respectively. Finally the paper revealed that the quality function deployment is a systematic tool to improve the effectiveness of reader service.

Key Words: Quality Function Deployment, Reader service, Quality improvement, Service quality.

Introduction

The worth of universities in conducting research and promoting higher education in any part of the world is evident to all. These institutes of higher learning produce a massive number of efficient professionals which is a unique contribution to the progress of a country. A library is an integral part in a university, with the sole purpose of facilitating and fulfilling the information needs of its scholars. Libraries usually serve as focal points of information sources that contain knowledge in different formats to fulfil the information needs of their respective users (Sheikh, 2014).

University libraries have implemented the philosophy of customer oriented services. Since the reader service librarians are the straightest link that libraries have with their users, the performance of reader services contribute directly to the quality of general library service by providing the means for marketability and capability (Hernon, 1986). However, the key challenge in service sector is , how to design the service to satisfy the

user's needs and expectations. For this we need quality improving methodologies and technologies to be used in service sector. One of the most efficient qualities improving methodology is the Quality Function Deployment (QFD) (Zheng, 2007). QFD is a quality tool that helps to translate the voice of the user in to new products or service that truly satisfy their needs. QFD is also a customer driven tool in implementing total quality management (Zheng,2007). It is an overall concept that provides a means of translating customer requirements into the appropriate technical requirements for each stage of service design and improvement (Sullivan, 1986). The purpose of this paper is to improve the reader service quality through QFD tool.

QFD Applications to services

QFD is a system for designing a product or service, based on customer demands (John,1993). Traditional QFD is a structured

methodology that has four matrices to translate customer requirements into specific quality design. In this research the principles of traditional product design by QFD are translated into a service design QFD methodology by a three matrices approach (Kniper, 1998)

Each metric consisting of a vertical column of *whats* and a horizontal row of *Hows*. What are the reader's requirements; hows are ways of achieving them.

By use of matrix charts, what means will be used to accomplish the ends are determined. In interactive steps, the prioritized customer needs are translated into identifiable and measureable product specification and designs (Kniper, 1998). The QFD approach has been used, both formally, and informally, in a variety of service industries and its approach has been proved to be useful in the redesign of existing services (John,1994).

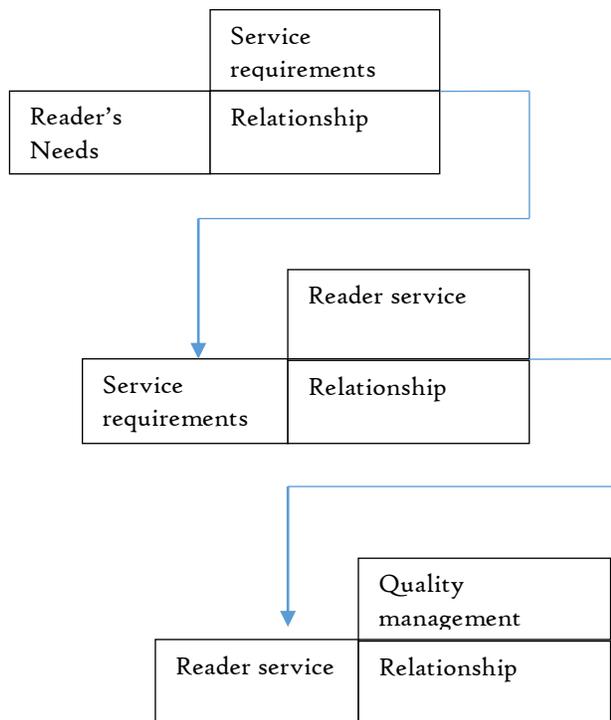


Fig 1: Series Quality Function Deployment
(Source: Kniper, M.K et al, 1998)

Figure 1 displays the modified framework for reader services referred to as service quality function deployment.

Methodology

There are four phases to facilitate communicating service requirements from the readers to the activities related to quality management in respect of the reader services delivering (Whitlach, 1990). The first as usual, is to identify the reader's needs and requirements, second phase, translate into service terms, is to define the requirements of the service and to design to design the co-service system. The third phase consists of process planning. This is a matter choosing the co-service process which produces what the customer requires. Phase four involves the planning of the quality management activities. Special attention has been given to translating reader service process into quality activity (Willam, 1995).

QFD provides a systematic method of identifying which needs are more important than others. Importance rating serves as weighting factors and plays a key role in the QFD process. In general, 1 represents low importance and 9 or the highest value high importance. After the importance rating has been assigned, each service requirement's influence on customer needs and the extent of such influence can be judged through the relationship matrix. Relationships are determined by asking if a service requirement can be achieved a readers needs. The relationship within the matrix are depicted according to "strong", "medium", and "weak" and are assigned conventional weightings of "9", "3" and "1" respectively. The first task is to identify reader's needs, which are in reader's own words of the benefits they want the reader service to provide. In this research reader's needs were gathered from customer complaints, records

of the reader's interviews, and previous user studies. Absolute score was calculated by sum the each reader need's important factor in to relation weight. Relative score was calculated by absolute score for all demanded qualities were summed and each one divided in to the sum and multiplied by 100 to yield a percentage. The requirements with the lowest scores have been dropped before develop the second matrix (Hauser, 1993).

Result and Discussion

1. Translating reader's needs into service requirements

From the first matrix (Figure 2), the primary needs with respect to reader service might be a good staff, factual reply and pleasant environment. In order to direct the reader's need, those should be structured into a hierarchy. Secondary needs are elaboration of the primary needs. Secondary needs specifically show that what can be done to execute the corresponding primary needs.

In reader services, the primary needs for good staff was described as, "good approach" and "good ability". The need for factual reply elaborated into "Accuracy of answer", "easy to understand" and "easy to access". In most cases the secondary needs were further subdivided into "Gentle and good manner", "No delay", and "Staff support reader, in looking up information".

Every single reader's need is to be met in terms of professional term, which is service requirement. The requirements of the reader service need to be clearly demarcated in terms of characteristics that are visible and subject to reader's evaluation. As an example, the needs "Gentle and good mannered" expressed the reader's perception, but librarians

need these needs translated into our vocabulary in order to actually build a service delivering standards and quality management activities. In delivering reader services, "Gentle and good mannered" may be described in terms of approachability, attentiveness, courtesy, and professional skills of the librarian. In total twenty five service requirements have been identified as means to fulfilling the twenty two reader's needs, as shown in the Figure 2.

By translating reader's needs into service requirements, the most important requirement of reader services with respect to achieving reader's happiness are: the professional skills, adaptability, resource knowledge, precision of the outcome and subject knowledge and getting the absolute scores 487,388,384,324 and 308 respectively. Service requirements are mainly divided into three such as response to the readers, process and resource, with in that response to the reader is more important than others getting 1997 as the absolute score. Requirements that exhibit a strong relationship in terms of meeting reader's needs are important to reader, and are determined to be critical points such as confidentiality of the outcome (42) and responsiveness of the librarians (153) and confidentiality of the inquiry (18) receive low score. The needs with the lowest scores have been dropped.

2. Linking service requirements to the reader service process.

Service is a process. Therefore service quality improvement rests, as it must, on identifying and defining processes, and then embedding service requirements into the service delivering process. Reader service can be divided into two categories: direct and indirect

(Whitlach,1990). Direct reader service defined as any assistance given by library staff to readers seeking information and might be categorized into counter service, reader's interview, library instruction. While indirect reader service may be summarized as referring to any back office operations that make the direct services reality, such as, interlibrary loans, resource collection management, reserve books management, current awareness service and selective dissemination of information

From the figure 3, the reader's interview with the absolute score of 1396 can be seen to be the most important process in terms of fulfilling the whole service requirements. The requirements within the process are mainly fulfilled by the processes involving the both counter service with the absolute score of 818 and the user interview (1396), while the requirements related to the resources are most critical in the process of the counter services.

Within the user interview research collection received the high score of 393 and looking the material got 340 for the counter service. Reserved book management has the least score of 19.

3. Linking the reader service process to Quality Management Activities

The requirement process matrix shown in Figure 4, the relationship between the essential process activities have to be analyzed to make high-quality reader service both consistent and continuous.

A reader's encounter with reader services can occur in three basic ways. First, there is the direct encounter, where the reader is physically present and interact directly with the reader service staffs. The second form, it is based on self-service, where this approaches are

used to provide service when the reader service staffs are not available. The third type is the remote encounter, which involves the online catalog and network database systems, which are available through the university computing network or dial-up using a personal computer.

Therefore, the quality of the reader services encounter is a function of the quality of the total service design, involving not only staff, but also technology and system (Bowen, 1985). Success in quality improvement comes as a result of the correct balance among three interfaces.

From the fourth matrix staff, technology, systems are the major categories for the quality activities, which are receiving the absolute scores of 1271, 866 and 1319 respectively. Within the major categories of quality management activities employee skill development having the high score of 455, software selection 374 , service standardization 344, employee selection 330 and process planning 322.

3.1 Staff

Most customers consider the performance of employees to be the most influential attribute of service quality in service sector (Bowen, 1985). This is especially important in reader services, which are characterized by highly human intensive interaction with readers, and where the behavior and performance of individual staff has a direct impact on the quality of service (Ellen,1995). Quality of the reader service may be defined not only as the ability, but also the willingness of staff to give prompt or timely service. Therefore the recruitment and selection, education and training, and attitude cultivation of staffs, as well as their

relation with their supervisor and readers are all critical in quality management.

3.2 Technology

Many services in libraries, reader services in particular, are becoming increasingly based on modern equipment and advanced information technologies (Whitlach, 1990). This growth in high technology has added new dimensions to reader services, and reader services are now recognized as a high technology delivery system. Therefore, in order to improve the quality of reader services, the selection of hardware and software, the layout of facilities, the degree of technology substitution and vendor relation are major activities that need to be seriously managed.

3.3 System

Basically, quality management begins with the design with the design of the service delivery systems. Technology alone does not make a service. The best-intentioned employee can be prevented from satisfactory service if the underlying system design is poor. In order to deliver quality reader services, the following activities should be thoughtfully engaged in: planning reader- friendly process that allows the employees to deliver service in the best way, standardizing service to make sure the reader is received consistently, building service recovery to put things right while the reader is still in the service system, assigning the right person to the right job, and smoothing coordination between functions.

system and technology are the major quality management activities needed for the effective reader services within that planning (321) are the important quality management activities helps to improve the

The purpose behind reader service is to allow information to flow efficiently from the information source to those who need information. Quality service and customer satisfaction can only be achieved through process improvement.

The most important process in reader services, as shown in figure 3, occurs in the reader's interview with the highest absolute score (1396), followed by the counter service and resource collection management. The improvement of the quality of reader services, therefore, must focus on these key processes, and link the internal measures of quality management to meet the external measures of quality service in terms of reader's needs.

Conclusion.

The influence of QFD lies in its founding viewpoint; the voice of the reader's will drive everything an organization does throughout the process of developing and delivering product and services. The reader's expectations and needs must be regarded as critical throughout the whole process of service planning and delivering. The strength of the QFD method is that it systematically translated the "Voice of the reader's" into service requirements, process, and quality management activities. The framework presented in this paper can be customized to reflect the requirements of individual libraries, and will help libraries to highlight where resources and efforts should be used and where time and money should not be spent, in an objective and integrative manner. This paper concluded that staff,

employee skill development (455), software selection (374), service standardization (344), employee selection (330) and process reader service quality.

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