A MODEL FOR MEASURING THE RELATIONSHIP BETWEEN SERVICE RECOVERY AND SERVICE QUALITY:
A CASE STUDY AT THE PUBLIC UNIVERSITY LIBRARY

Tan Pei Kian
Faculty of Business and Law, Multimedia University, Melaka, Malaysia

ABSTRACT

The study aimed to investigate the critical success factors of service recovery towards service quality at the National University of Malaysia (UKM) library. The study also proposes a model of systematic complaint management which applied to academic library as a tool of service recovery. The variables included in this research are empowerment, culture and psychology, management system, compensation and speed of recovery as the independent variables and service quality as the dependent variable. A questionnaire was designed and used as the data gathering instrument based on past research. A total of 315 samples were successfully gathered from 377 questionnaires distributed among the regular users of Tun Seri Lanang Library (UKM). Based on the generated results, it's proven that there is a positive significant relationship between service recovery and service quality ($r = 0.632^{**}$, $p = 0.000$) at the 1 per cent significance level.

Keywords: Service recovery; Complaint management; Service quality; Library

INTRODUCTION

Customer satisfaction plays an important role in an organization. It's widely known as the main factor of success for every profit and non – profit oriented organizations as it affects the company share and image. According to Fisk et al. (1993), understanding service recovery is particularly important for managers as the nature of service. Service recovery brings a learning experience to organization on services that should be improve and also provide better service quality. Good service is as much the responsibility of customers as it is of businesses because complaints by customers often notify a business its deficiencies and indirectly educates managers that proper service leave satisfied customers who will then reflect a strong positive impact upon its bottom line (Tan and Ong, 2009). Hence, the general objective of this study is to identify the relationship between service recovery and service quality.

LITERATURE REVIEW

In today's increasingly competitive and complex environment, the voice of a consumer is becoming more powerful than before as they are more wholly educated on their bill of rights (Tan and Ong, 2009). Hence, if they ever felt unsatisfied, they should take action to get the service they deserve. Good service is as much the responsibility of customers as it is of businesses because complaints by customers often notify a business its deficiencies and indirectly educates managers that proper service leave satisfied customers who will then reflect a strong positive impact upon its bottom line (Tan and Ong, 2009). However, not all dissatisfied customers actually complain. When a main service provider fails them, people are far more likely to tell their family, friends and colleagues about their problem than make a complaint. This confirms the belief that complaints only reveal a small part of the damage caused by poor service, and the power of word of mouth recommendation.

Researchers has found out that customer who faced service flaw and being dealt with quickly and properly are more satisfied than customers who have felt flawless service all the time (Mattila and Cranage, 2005). That is why recoveries are important because customers perceiving poor recovery may influence the buyer-seller relationship and purchase elsewhere. Service quality has become a key strategic variable in organizational efforts to satisfy and retain

customers or to attract new customers (Lewis and Clacher, 2001). As a consequence, service failure and service recovery been identified as critical moments of truth for organisations in their efforts to satisfy and retain customers.

Although many firms may aspire to offer 'zero defects' service, the possibility of service failures cannot be wholly eliminated due to variety of factors such as human errors in service delivery (Fisk, Brown, and Bitner, 1993). According to Michel (2008), service failure isn't necessarily a disaster for an organization. If the service recovery as in the actions taken in response to that particular failure is handled well, it will increase customer satisfaction, trust, and loyalty at the same time due to the fact that service recovery has a multi-dimensional impact on the company. Conversely, service recovery brings a learning experience to organization on services that should be improve and also provide a better service quality.

METHODS

The research methodology would manifest the entire process acquired throughout this research study. Based on the literature review, a research framework has been formulated. The research framework is shown in Figure I.
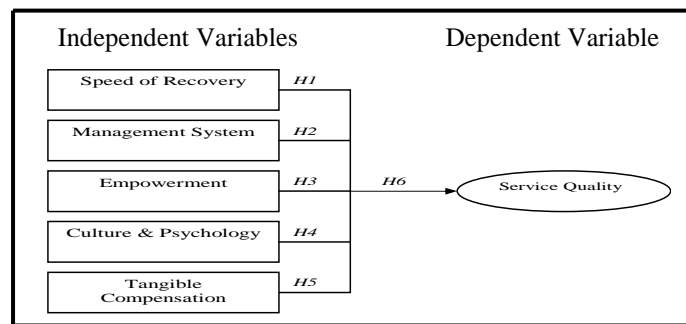

FIGURE I. Research Frameworks

The hypotheses are as follow:

Speed of Recovery
According o Weiner (1980) he argues that the speed of recovery is perceived as an efficiency cue, thus affecting the perception of customers towards the firm's service level. In addition, a fast recovery would be seen by consumers as a platform of a good service provider company (Blodgett *et al*., 1997). In other words, failure to act relatively quickly and actively will lead to deterioration between initial dissatisfaction and final dissatisfaction which leads to negative quality service aspects (Andreassen, 1977). The following hypothesis is therefore proposed.

H1: There is a significant relationship between speed of recovery and service quality.

Management System
Management system is where professional and efficient service recovery process operates which leads to service quality (Eccles and Durand, 1998). According to Jenkins (1992), the end service is determined by the commitment of the management of the service firm. Customer relationship management (CRM) system and if used properly, could enhance a company's ability to achieve the ultimate goal of retaining customers and so gain a strategic advantage over its competitors (Nguyen, Sherif and Newby, 2007). The following hypothesis is therefore proposed.

H2: There is a significant relationship between management system and service quality.

Empowerment

According to Bowen and Lowler (1992), empowerment is giving the employee the power to act in the interest of serving customers better and so to influence organizational performance and service quality. In other words, empowerment allows the employee to provide efficient, personal and more connected to customer service and recovery efforts (Bowen and Lowler, 1992). Align to support this study, De Vyre (1994) study has managed to conclude that 70% of customers are satisfied if they are serving by a positive empowerment system which solves a problem quickly and effectively. The following hypothesis is therefore proposed.

H3: There is a significant relationship between empowerment and service quality.

Culture and Psychology

According to Parasuraman *et al*. (1988), culture which exists within a service firm has a strong influence on the firm's ability to provide excellent service and to effectively recover from service failures. Culture also refers as organizations encourage or welcome complains from their customers. Thus, by doing so, organization can identify the voice of customers (VOC) for future improvement. Moving along, being stated by Eccles and Durand (1998) a firm which fulfils the needs and wants of a customer from a service failures are often being regard as a firm which provides excellent service and committed to it. The following hypothesis is therefore proposed.

H4: There is a significant relationship between culture and psychology and service quality.

Tangible Compensation

According to Wirtz and Mattila (2004), tangible compensation had a positive impact on satisfaction which aligns with service recovery and loyalty leads to service quality. Guided by a study from Bitner *et al*. (1990), it stated that compensation might not only reduce conflict between the customer and the service provider, but also increase the impact which could be positive or negative towards the firm's service. Compensation might be perceived as an admission of guilt, and hence enhance the perception that the service provider had control over the service failure (Tailor, 1994). The following hypothesis is therefore proposed.

H5: There is a significant relationship between tangible compensation and service quality.

Service Recovery

Service recovery is definitely a part of an organization quality management strategy where the main objective is to maintain the business relationship or customer loyalty towards the organization (Schweikhart *et al*., 1993). Service recovery also leads to enhanced view towards the service, products and also the organization itself. This brings us to service quality (Kelley *et al*., 1993). In a later study by Jones and Farguhan (2006), found out that service recovery brings a satisfaction or dissatisfaction of a customer which can lead to superb or a poor service quality.

H6: There is a significant relationship between service recovery and service quality.

Questionnaires are administered through a face to face method. Statistical Package for Social Science (SPSS) version 16.0 is used to analyze the data based on the information stated in the questionnaire. The measurement and analysis method that is used shall consist of descriptive analysis, reliability test, correlation analysis and multiple linear regression. A total of 315 samples have been gathered from the 377 questionnaires distributed. Finally, a six-point Likert scale has been employed in the questionnaires.

RESULTS AND DISCUSSION

Descriptive Analysis

A total of 377 questionnaires have been distributed and due to incomplete and missing data, 315 questionnaires have been selected for data analysis with a response rate of 83.6%. The participants were approximately 61.9% Malay, 27.9% Chinese, 7.3% Indian and others with 2.9%; 77.1% of graduate students, 14.3% post – graduate and outsiders with 8.6% participated in this study. A total of 25 respondents (8%) have said that they have encountered dissatisfaction and experienced of logging a complaint whereas 290 respondents (92%) never. For the question of whether the library took corrective actions or not based on customer complaints they have received, 2 respondents (0.6%) have stated that the library did not do anything when they complain, while 23 respondents (7.4%) did receive the proper corrective action after they have complained. Out of 315 respondents, 286 respondents (90.8%) have stated that by complaining, they can help the company to realize their mistake and would provide a better service in future whereas only 29 respondents (9.2%) disagree and felt otherwise.

Reliability Analysis

The value of alphas (α) obtained from this research were between 0.8100 ~ 0.9089 with all the constructs above 0.80. All scales exceed Nunnally (1967) suggested alpha level of 0.70. This indicates that the instruments used in setting up the questionnaire in this research are highly reliable and with high internal consistency. The number of variables, reliability measures and no of items are summarized in Table I.

TABLE I
SUMMARIZATION OF RELIABILITY MEASURES

No	Section	Variables	Cronbach alpha (α)	No of Item
1	Factors Influencing Service Recovery	Speed of Recovery	0.8677	5
2		Management System	0.8613	5
3		Empowerment	0.8655	5
4		Culture and Psychology	0.8520	5
5		Tangible Compensation	0.8100	5
6	Impact of Successful Service Recovery	Service Quality	0.9089	6

Hypotheses Testing

TABLE II
H1: THERE IS A SIGNIFICANT RELATIONSHIP BETWEEN SPEED OF RECOVERY AND SERVICE QUALITY

Variable	Mean	Standard Deviation	Pearson Correlation, *r*	Significant, *p*	Results
Speed of Recovery	4.9048	0.66434	0.491**	0.000	Supported

** Correlation is significant at the 0.01 level.

The correlation result as shown in Table II is 0.491; this indicates it has a moderate positive relationship. Since the *p* – value = 0.000 calculated is smaller than alpha 0.01, H1 was therefore supported at 1% significant level. This indicates that the sample provides sufficient evidence that there is a significant relationship between speed of recovery and service quality.

TABLE III
H2: THERE IS A SIGNIFICANT RELATIONSHIP BETWEEN MANAGEMENT SYSTEM AND SERVICE QUALITY

Variable	Mean	Standard Deviation	Pearson Correlation, *r*	Significant, *p*	Results
Management System	4.8660	0.66979	0.591**	0.000	Supported

*** Correlation is significant at the 0.01 level.*

Table III shows whether there is any association between management system and service quality. There is a moderate positive relationship between these two variables because Pearson correlation value is 0.591. Since the calculated p – value = 0.000 is smaller than alpha 0.01, H_1 was therefore supported at 1% significant level. This indicates that the sample provides sufficient evidence that there is a significant relationship between management system and service quality.

TABLE IV
H3: THERE IS A SIGNIFICANT RELATIONSHIP BETWEEN EMPOWERMENT AND SERVICE QUALITY

Variable	Mean	Standard Deviation	Pearson Correlation, *r*	Significant, *p*	Results
Empowerment	4.8660	0.66979	0.531**	0.000	Supported

*** Correlation is significant at the 0.01 level.*

Based on the outcome of the analysis, it is found that the solid variables have a moderate relationship with each other where it is positively correlated of a value 0.531, as shown in Table IV. With that since the p – value = 0.000 on which it is smaller than alpha 0.01, H_1 was therefore supported at 1% significant level. This indicates that the sample provides sufficient evidence that there is a significant relationship between empowerment and service quality.

TABLE V
H4: THERE IS A SIGNIFICANT RELATIONSHIP BETWEEN CULTURE AND PSYCHOLOGY AND SERVICE QUALITY

Variable	Mean	Standard Deviation	Pearson Correlation, *r*	Significant, *p*	Results
Culture and Psychology	4.8965	0.65702	0.533**	0.000	Supported

*** Correlation is significant at the 0.01 level.*

The correlation result as shown in Table V is 0.533; this indicates it has a moderate positive relationship. Since the p – value = 0.000 calculated is smaller than alpha 0.01, H_1 was therefore supported at 1% significant level. This indicates that the sample provides sufficient evidence that there is a significant relationship between culture and psychology and service quality.

TABLE VI
H5: THERE IS A SIGNIFICANT RELATIONSHIP BETWEEN TANGIBLE COMPENSATION AND SERVICE QUALITY

Variable	Mean	Standard Deviation	Pearson Correlation, *r*	Significant, *p*	Results
Tangible Compensation	4.4063	0.69554	0.388**	0.000	Supported

*** Correlation is significant at the 0.01 level.*

The results denote that the Pearson correlation r – value = 0.388 and p – value < 0.01 as shown in Table VI. H1 was therefore supported at 1% significant level. Hence, there is a significant relationship between tangible compensation and service quality.

TABLE VII
H6: THERE IS A SIGNIFICANT RELATIONSHIP BETWEEN SERVICE RECOVERY AND SERVICE QUALITY

Variable	Mean	Standard Deviation	Pearson Correlation, r	Significant, p	Results
Service Recovery	4.7455	0.54109	0.632**	0.000	Supported

*** Correlation is significant at the 0.01 level.*

The correlation between these two variables is 0.632 which considers having a strong and positive relationship. Since the calculated p – value < 0.01, H1 was therefore supported at 1% significant level. This indicates that the sample provides sufficient evidence that there is a significant relationship between service recovery and service quality.

Multiple Linear Regression

Table VIII shows the results of the multiple linear regression from the research conducted on the relationship between the dependent and independent variables. The results show that R^2 is 0.421 which implies that around 42% of the variance in service quality is explained by five independent variables speed of recovery, management system, empowerment, culture and psychology and tangible compensation. Besides that, the results illustrate the adjusted R^2 is 0.412 and significant F – value of 44.978 being significant at $p = 0.000$. In addition, from the results it shows that management system, empowerment and culture and psychology are significant as $p < 0.05$ and indicates a positive relationship as the beta value is positive. Standard coefficient (Beta) and p – value for management system (Beta = 0.317; p – value = 0.000), empowerment (Beta = 0.250; p – value = 0.000) and culture and psychology (Beta = 0.146; p – value = 0.030). From the results, this imply that management system is the most influential variable to service quality compare to other variables as it recorded the highest beta value (Beta = 0.317). It followed by empowerment (Beta = 0.250) and culture and psychology (Beta = 0.146).

TABLE VIII
MULTIPLE LINEAR REGRESSION

Independent Variables	Standard Coefficients (Beta)	t - value	Sig. (p – value)
Speed of Recovery	0.012	0.183	0.855
Management System	0.317	4.586	0.000
Empowerment	0.250	4.103	0.000
Culture & Psychology	0.146	2.185	0.030
Tangible Compensation	0.043	0.833	0.405

Notes: R^2 = 0.421, Adjusted R^2 = 0.412, F =44.978, Significance F (p = 0.000)

CONCLUSION AND RECOMMENDATION

This research has successfully achieved to fulfil all of the hypotheses and research objective. The six hypotheses that have been formulated were tested quantitatively by means of conducting a customer survey using questionnaires proven that there were significant correlations between all the variables.

UKM library can implement Customer Relationship Management (CRM) system to gain confidence from patrons. Through CRM, it helps to develop better communication and linkage between service provider and patrons (Tan and

Saludin, 2009). According to Wang (2007), a basic CRM system should allow library staff to post and link useful materials and information allow users to make requests and comments to the system, and offer a bi – directional communication channel with their users. Hence, with better customer service such as improving responsiveness and understanding, organizations are actually build customer loyalty and increase the customers' confidence level to deal transaction with them. UKM library can consider organizing customer's communication workshop to enable patrons to share and voice their dissatisfaction through a more unique ways. To improve timeliness in delivering service and recovery, the library should employ a time based strategy (focus on radius time to accomplish). Key performance indicator (KPI) system and by having a standard operating procedure (SOP) could be the best solution to these. The KPI system would measure the performance of each staff based on timeliness in the service provided. At the end of each month, the KPI of each staff will be calculated by using an individual incentive plan. This would assist the library to achieve time reduction which relates to service deliver time, handling of complaints and hence increases productivity (Tan and Saludin, 2009).

There are several limitations for this research. First of all, the questionnaires are only distributed to respondents in one of the public University Library (UKM) alone which means that caution should be taken when generalizing the findings of this study. Due to the geographical limitations, participants from other parts of the country and University may possess different attributes from the ones in UKM, Bangi Selangor. Thus, in any case of future research, questionnaires should be distributed to more Universities in the country to obtain a more accurate data. In this study, the focus was limited to the academic library only. Perhaps for future research, the sample could be expanded to include organizations in other sectors such as manufacturing industry, hotels, hospitals, government agencies, or financial institutions. Furthermore, the model proposed can be extended by looking at the impact of service recovery on customer satisfaction, customer loyalty and organizational image whereby it can be integrated with the variables proposed in the current study in order to produce a more constructive and concise recovery system in the service industry.

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