

Service Quality and Customer Satisfaction in Donated Book Library Services

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Abstract: Improving customer satisfaction in donated book library services is highly significant for university operations. In the present study, the conceptual model was firstly constructed, and the questionnaire survey was conducted later. With the employment of the regression analysis, the final statistical results demonstrate that: service quality positively impacts perceived value in donated book library services; service quality positively impacts customer satisfaction in donated book library services; perceived value positively impacts customer satisfaction in donated book library services; and among the three dimensions of service quality, library resources own the strongest impact on perceived value or customer satisfaction. The mediating effect of perceived value on the relationship between service quality and customer satisfaction is also validated.

1. Introduction

Donated books are the valuable asset of the library's collection resources, and they are also one of the important ways to alleviate the lack of purchasing funds and enrich the number of collections. Donated books can not only help libraries to carry out the construction of collection resources, but also meet the diverse needs for readers. In the past decades, the source of donated books in libraries has gradually diversified and service level has been continuously improved, but there are still a few shortcomings, such as low donation efficiency, low reader lending rate and satisfaction, and so on. How to improve the service quality of the donated book library and further improve the readers' satisfaction is a question worth answering. The present research will explore the relationship among service quality, perceived value and customer satisfaction in the donated book library services.

2. Literature review and research hypothesis

2.1 Service quality

Researchers have made great efforts to understand the concept of service quality since the 1980s. The most representative one is the concept of service quality first proposed by Christian who argued that service quality was a subjective feeling of customers and was the gap differences between the customer's expectation of getting the service and the actual service effect [1]. Similarly, Parasuraman proposed a conceptual model of service quality, which regarded service quality as a comparison of performance and expectations [2]. Service quality was classified into four main elements to be measured: design quality, production quality, process quality and output quality [3]. In terms of the service quality of the library services, two methods are usually used for evaluation. The first one relies on indicators such as collection resources and library environment, while the other one focuses on readers' expectations and satisfaction which indicates the latter one is consistent with the definition of service quality in other service domains. Existing models for evaluating library service quality involve the SERVQUAL model, the LibQUAL model, and the five-factor model [4,6]. Among them, the SERVQUAL model measures services from tangibles, reliability, responsiveness, assurance and empathy. Based on the SERVQUAL model, the LibQUAL model measures library service quality from four dimensions.

2.2 Perceived value

The concept of perceived value was first proposed by Thaler and was defined as the difference between the performance obtained by the customer and the cost paid [7]. Most scholars maintain that perceived value is a comparison between total revenue and total expenditure. There are different views on the division of the perceived value dimension. Parasuraman believed that perceived value had three dimensions including products, prices and quality [8]. Sweeney and Geoffrey declared that four dimensions, including emotional, social, quality/performance and price/value for money, were termed for perceived value [9]. If one service provider provides quality service to the customers, it will enhance the perceived value of the customer. Researches has been done to illustrate that service quality has a significant impact on perceived value [10]. The former is the driving factor for the latter. In mobile value-added services, a study by [11] showed that service quality had a positive effect on perceived value. Similarly, a study was conducted for public transit passengers by [12] and the results revealed that service quality also had a significantly positive effect on perceived value. To verify the conclusions of the previous studies, the following hypothesis is firstly proposed:

H1: Service quality positively impacts perceived value in donated book library services.

2.3 Customer satisfaction

In the late 20th century, the research community conducted a great deal of research in the field of customer satisfaction. The theory proposed by [13] provided a solid foundation for the study of satisfaction, claiming that when the actual performance of a product exceeded expectations, the customer was considered satisfied, otherwise the customer was regarded unsatisfied. In fact, in addition to expectations affecting customer satisfaction, emotional factors also have an impact on satisfaction. Customer satisfaction can be given an explanation from the transaction-specific or cumulative perspective [11], whereby The former is meant to evaluate customer satisfaction with the recent purchase experience, as opposed to the latter which is considered to be overall evaluations covering all the purchase experience. For customer satisfaction in library services, Wang and Shieh defined it as the degree of perceived quality which met customers' expectations [14].

Regarding the relationship between service quality and customer satisfaction, many scholars agree that satisfaction comes from the process of service delivery and service base, and that service quality is the primary factor that impresses consumers most in this process. Whether transaction-specific satisfaction or cumulative satisfaction, service quality is an important driver of customer satisfaction [15]. The study conducted by [16] used a hierarchical model to assess visitor satisfaction and its relationship to service quality. It was found that service quality was significantly positively correlated with visitor satisfaction. Therefore, we propose the second hypothesis as follows:

H2: Service quality positively impacts customer satisfaction in donated book library services.

Customer perceived value is the foundation of all marketing campaigns. High value is one of the main motivators for customer satisfaction. Previous research has provided empirical support for perceived value as a prerequisite for satisfaction. Using the example of a consumer buying a hybrid car, [17] decomposed perceived value into perceived social, emotional, and functional values, and the results showed that all three dimensions had significant positive impact on customer satisfaction. In this way, the perceived value in the donated book library service is proposed to have a positive impact on customer satisfaction:

H3: perceived value positively impacts customer satisfaction in donated book library services.

2.4 Mediating effect of perceived value

Several studies have revealed an indirect relationship between service quality and customer satisfaction through perceived value. Using the hospitality industry as a research subject, [18] demonstrated that process quality and outcome quality do not have a direct effect on visitor loyalty, and perceived value mediates them. Yet, [19] examined the relationship among service quality, perceived value, and customer satisfaction in airline services, and the results show that perceived value plays a partial mediating role in service quality and customer satisfaction. Based on a review of

relevant literature, the hypothesis of perceived value as an intermediary between service quality and customer satisfaction is formulated as follows:

H4: Perceived value mediates the relationship between service quality and customer satisfaction in donated book library services.

Although quite a number of existing literatures have studied the relationship among service quality, perceived value and customer satisfaction, only a few have studied its application in library service scenarios. Wang and Shieh took a university library as an example to study the relationship between service quality and user satisfaction. The results showed that the overall service quality had a significantly positive impact on user satisfaction [14]. Sahu employed survey methodology to explore service quality and customer satisfaction in academic libraries [20]. Bakti and Sumaedi investigated the relationship among service quality, customer satisfaction, and customer loyalty in university library services and the results showed that service quality had a direct impact on customer satisfaction, but had no significant direct impact on customer loyalty [21]. Noticeably, there are few studies on the relationship among service quality, perceived value, and user satisfaction in donated book library services, which provides a great opportunity to this study.

3. Methodology

3.1 Conceptual model

Based on the literature review in the aforementioned part, the conceptual model for our study is depicted in Figure 1. Major objectives of the study are to explore the relationship among service quality, perceived value and customer satisfaction in donated book library services.

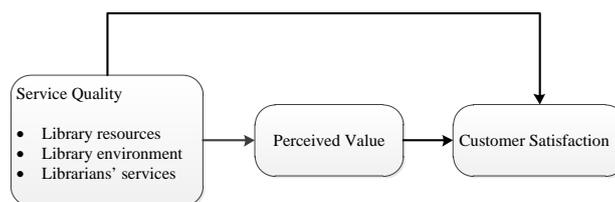


Figure 1 Conceptual model

3.2 Definition of variables

In the present study, service quality is defined as the difference between the services that library users expect and the services they actually perceive. Here, service quality includes three dimensions which are library resources, library environment and librarians' services. Perceived value is defined as the difference between the actual benefits and emotional dependencies, and the time cost and lack of trust, which are brought to users in library services. At last, customer satisfaction is defined as the degree to which users are generally satisfied with the services provided by library.

3.3 Questionnaire design

Faculty and students of one university who use the donated book library services was invited to join the questionnaire survey. Before this, a questionnaire had been designed based on the existing variables and scales. The measurement method of the questionnaire design employs five-point Likert scale, ranging from 1 to 5 points which indicates the attitude of the respondents from "completely disagree" to "fully agree". The questionnaire is divided into two parts, of which one is a survey of the basic information of the respondents and one measures their perception of each construct in the conceptual model.

4. Result Analysis

4.1 Analysis of the sample

This study surveyed users who borrowed books from the library. A total of 220 questionnaires were distributed, and all of them were collected. 206 questionnaires were valid and accounted for

93.64%. 69.42% of the valid samples were female, whereas 30.58% were male, which was generally consistent with the proportion of women and men in the university investigated. 96.60% of the respondents were students which constituted the majority of all users. Also, the results indicate that users commonly go to the donated book library once a week and their intention focus on loaning and returning collections.

4.2 Reliability and validity analysis

The data collected from the questionnaire cannot be directly used in empirical analysis. It is necessary to perform reliability and validity analysis and optimize the scale to ensure the validity of the analysis results. Like most other studies, this study employs Cronbach's alpha to check reliability of the scale. The larger Cronbach's alpha is, the higher the internal consistency of items in the scale is. Each Cronbach's alpha of all five variables is larger than 0.7, which indicates the reliability of the scale is acceptable. Still, confirmatory factor analysis is used to measure the construct validity of all variables. As each factor loading is larger than 0.5 and statistically significant, the constructive validity is also verified.

4.3 Regression analysis

In this study, three factors of the service quality in denoted book library services were used as independent variables, and perceived value and customer satisfaction were respectively used as dependent variables. By general linear regression analysis, the relationship among these variables are tested to decide whether the corresponding hypothesis is accepted or not.

When using perceived quality as the dependent variable, the significance probability of the regression equation are all less than 0.001, indicating that the three factors of service quality have significant effects on perceived value. According to the Beta value, the correlation coefficients of the three factors and perceived value are sorted in descending order as follows: library resources, librarians' services, and library environment. In another words, the variable of library resources owns the strongest impact on perceived value. Details can be seen in Table 1.

Table 1 Relationship between service quality and perceived value

Independent variables	Dependent variable	R^2	F -value	Estimated β	T -value	Sig.	Hypothesis
Library resources	Perceived value	0.448	33.21	0.386	7.282	0.000	accepted
Library environment				0.295	5.596	0.001	accepted
Librarians' services				0.377	7.089	0.000	accepted

When customer satisfaction is treated as the dependent variable, the significance probability of the regression equation also are all less than 0.001, indicating that the three factors of service quality have significant effects on customer satisfaction. The value of Beta shows that the variable of library resources owns the strongest impact on perceived value with librarians' services being second. This may be related with the insufficient collection resources in this library. Details can be found in Table 2.

As shown in Table 3, when customer satisfaction is the dependent variable with perceived value being the independent variable, F -value is 385.443 and the significance probability is less than 0.001, indicating that perceived value has a significantly positive influence on customer satisfaction in donated book library services. The value of Beta is 0.787, demonstrating the influence is considerably strong.

Table 2 Relationship between service quality and customer satisfaction

Independent variables	Dependent variable	R^2	F -value	Estimated β	T -value	Sig.	Hypothesis
Library resources	Customer	0.538	6.553	0.415	8.332	0.000	accepted

Library environment	satisfaction			0.306	6.151	0.000	accepted
Librarians' services				0.393	7.880	0.000	accepted

Table 3 Relationship between perceived value and customer satisfaction

Independent variables	Dependent variable	R^2	F -value	Estimated β	T -value	Sig.	Hypothesis
Perceived value	Customer satisfaction	0.652	385.443	0.787	19.489	0.000	accepted

Three steps need to be conducted to determine whether a variable owns the mediating effect. The first one is to validate that independent variable significantly influences dependent variable, which is also regarded as the precondition for testing mediating effect. The second one falls into testing whether the independent variable significantly influences the intervening variable. At last, regression analysis is performed among these variables in one equation, and the mediating effect can be verified if the intervening variable still significantly influences dependent variable. In the present study, the first two steps have been validated, which is depicted quite clearly in Table 1 and Table 2. Based on the previous work, the third step was conducted with the results showing in Table 4. First of all, Library resources and perceived value all significantly and positively influence customer satisfaction in the 99% confidence interval. Note that β value of library resources decreases from previous 0.415 to 0.338, indicating perceived value acts as a partial mediator between library resources and customer satisfaction. Similarly, perceived value has the partial mediating effect on the relationship between library environment and customer satisfaction, and also on the relationship between librarians' services and customer satisfaction.

Table 4 Validation for mediating effects of perceived value

	Customer satisfaction	Customer satisfaction	Customer satisfaction
Library resources	0.338**		
Library environment		0.241**	
Librarians' services			0.305**
Perceived value	0.582**	0.504**	0.526**
R^2	0.521	0.556	0.544
F -value	45.87	38.36	40.92

** means $P \leq 0.01$.

5. Conclusions and management implications

Improving customer satisfaction in donated book library services is highly significant for university operations. In the present study, the conceptual model was firstly constructed, and the questionnaire survey was conducted later. With the employment of the regression analysis, the final statistical results demonstrate that: service quality positively impacts perceived value in donated book library services; service quality positively impacts customer satisfaction in donated book library services; perceived value positively impacts customer satisfaction in donated book library services; and among the three dimensions of service quality, the variable of library resources own the strongest impact on perceived value or customer satisfaction. Also, perceived value plays a partial mediator role on the relationship between service quality and customer satisfaction.

In order to further improve customer satisfaction in donated book library services, some management measures should be conducted next: firstly, enthusiasm on donating more books should be inspired in our society and the channels of donated books should be expanded to get more high-quality books; secondly, management specifications of donated books should be improved. For example, incomplete books should be excluded when receiving or repaired instead of directly putting on the shelves for reading; finally, librarians should service readers according to service standards, answer reader questions in a timely and polite manner. Only when we do so accordingly can we improve the perceived value of readers and further improve their satisfaction.

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