An Inside View on Blended Learning: The Relationship Between Blended Learning and Service Quality

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Abstract:
The purpose of this paper is to review the application and the development of blended learning from the student perspective. Blended learning combines both the classroom and technology to engage learners in meaningful learning experiences, has led to new teaching models and learning styles that embraces the latest technology. As the number of the student intake are growing, it is important to the university to identify the level of satisfaction on Blended learning. The paper use quantitative research methodology to answer the three research questions of this study. Both descriptive and inferential statistics were used. Data collected was sorted, classified, coded and tabulated for an ease of analysis by using student statistical package SPSS 20. The result shows only two variable are significant to the blended learning. The conclusion shows the topic on blended learning was good because in the developmental stage and it needs effective improvement from the organization in terms of infrastructure and training of instructors and learners with efficient skills in teaching and learning online.

Keywords: Blended Learning, Service Quality, and Teaching and Learning.

Introduction

In recent years, the emergence of the buzz phrase “blended learning” conjures up numerous conceptual ideas as to what exactly it is. On a simple note, blended learning combines both the classroom and technology to engage learners in meaningful learning experiences. Although the term “blended learning” has perhaps been around for some time, the phenomenal spread of the World Wide Web has led to new teaching models and learning styles that embraces the latest technology and face-to-face teaching in the classroom (Dezure, 2000). At its most basic level, BL is when a portion of learning takes place face to face and a portion takes place online. It should be noted that the blending of face to face classes with instruction delivered by technology outside the classroom has taken place for more than 40 years. The adoption of internet and web based technologies, along with low cost laptops and tablets, has made possible and economical interactive multimedia tools for learner instruction that were only possible in the realm of sci-fi novelists two decades ago (Dziuban et al., 2004).

According to Ginns & Ellis (2009), another central aspect of teaching and learning is the students’ own experience of the process. Therefore, we sought to analyse three aspects concerning their perceptions: 1) the benefits gained; 2) how it affected their learning motivation; 3) the degree of satisfaction derived. In the present study, two types of outcome measure were obtained from the blended learning experience: on the one hand, an objective measure constituted of the final exam mark awarded; and on the other, a subjective one, based on the student’s perception of the blended learning experience. This latter measure is grounded on the three aspects mentioned above: utility, motivation and satisfaction.

Akkoyunlu and Soyulu (2006) conducted a study to investigate the view of students regarding the Blended Learning environment. The results of the study revealed that the more the students participated in the online discussion forums, the more they achieved and the more positive views they developed towards Blended Learning. Moreover, the study came up with the conclusion that both the face-to-face lectures and the online tasks contributed to the learning process.
As the number of students' intake in University Technology MARA has increased consistently since the past few semesters and projected to be increased to 200,000 students in last 2010, the use of blended learning course (combination of online learning and face-to-face learning) involves certain number of factors including technology, contents as well as all of the human factors is significant to this issues.

Students’ satisfaction of online/blended learning are important to consider when designing and implementing an online course or using a technology component in a traditional course (blended). The benefits and challenges of the digital learning milieu must be addressed to meet students’ needs and to engage them in course activities.

The key component in developing an acceptance blended learning approach is students’ satisfaction (Iron et al., 2002). Since there are so many paper review on discussion blended learning, yet there is no paper discuss the service quality of blended learning. Therefore, objective of this study are to identify the level of student satisfaction on Blended Learning, and to identify the relationship between service quality and student satisfaction on Blended Learning and finally to identify which one of service quality most influence of student satisfaction on Blended Learning.

Service Quality

Service quality is a focused evaluation that reflects the customer’s perception of elements of service such as interaction quality, physical environment quality and outcome quality according to Brady and Cronin (2001) in (EL-refae, 2012). These elements are in turn evaluated based on specific service quality dimensions or domains. Service quality is also defined as the difference between technical quality (what is delivered) and functional quality (how it is delivered) and as process quality (judged during the service) and output quality (judged after the service) according to Gronroos (1983); Lehtinen (1983) in (EL-refae, 2012).

Service Quality Model

The SERVQUAL (service quality) model of proposed a five dimensional construct of perceived service quality tangibles, reliability, responsiveness, assurance and empathy as the instruments for measuring service quality.

Customer Satisfaction defined

Satisfaction refers to the buyer’s state of being adequately rewarded in a buying situation for the sacrifice he or she has made (Al-alak, 2009). Adequacy of a satisfaction is a result of matching actual past purchase and consumption experience with the expected reward from the brand in terms of its anticipated potential to satisfy the customer’s motives according to Loudon et al. (1993) in (EL-refae, 2012). According to Zeithaml and Bitner (2003) in (EL-refae, 2012) translated Oliver’s definition of satisfaction to mean that satisfaction is the customer’s evaluation of a product or service in terms of whether that product or service has met their needs and expectations.

Nevertheless, according to Swan and Combs (1976) in (EL-refae, 2012) were among the first to point out that satisfaction is associated with performance fulfilling expectations, while dissatisfaction occurs when performance falls below expectations. It is apparent, therefore, that customer satisfaction is an abstract and rather ambiguous concept. Manifestations of satisfaction vary from one person to another and from one product to another (Munusamy, 2010). The state of the so-called “satisfaction” depends on a number of psychological and physical variables, and correlates with certain behaviors. Among the psychological variables, personal beliefs, attitudes and evaluations may affect customer satisfaction according to Ajzen and Fishbein (1980) in (EL-refae, 2012).

Research Methodology

The population of the study included all the students enrolled in Introduction to Human Resources HRM533 at University technology MARA which is 3 credit hour, 2 hour lecture and 1 hour blended learning. The course is a compulsory for Human Resources degree in faculty of business and management.

Questionnaires were used as the principal tools for data collection. Data was collected using self-administered questionnaires. The questionnaires were based on the numerical and likert scale for measurement purpose. The questionnaire was made of 3 sections. The first and second section addressed variable of the study which is blended learning service quality as a independent variable and customer/student satisfaction as a dependent variable and third section captured the general information of the respondents. The respondents were required to fill the questionnaire as honestly as possible. The researcher collected the data within a time frame of three weeks.

Quantitative analysis of data was done to answer the three research questions of this study. Both descriptive and inferential statistics were used. Data collected was
sorted, classified, coded and tabulated for an ease of analysis. The researcher need to analysis the data after the questionnaires have been distribute to the selected respondents.

**Results**

*Analysis for All Variables*

<table>
<thead>
<tr>
<th>Reliability Statistics</th>
<th>Cronbach’s Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Customer Satisfaction</td>
<td>0.911</td>
<td>51</td>
</tr>
</tbody>
</table>

Table above indicates the reliability statistics of the dependent and independent set of data with Cronbach’s Alpha coefficient value of 0.911 which indicates a excellent value. Thus, this indicates that the data and the measuring instrument are excellent and therefore the data obtained for this research is reliable.

*Analysis for Independent Variables*

<table>
<thead>
<tr>
<th>Reliability Statistics</th>
<th>Variables</th>
<th>Cronbach’s Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Tangible</td>
<td>0.737</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Total Reliability</td>
<td>0.829</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Total Assurance</td>
<td>0.730</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Total Empathy</td>
<td>0.642</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Total Empathy</td>
<td>0.899</td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

Table above indicates the reliability statistics for the independent variables used in this study. The first independent is tangible which show that the Cronbach’s Alpha is 0.737. it means that the variable is good value. Next, the independent variable for reliability shows that the Cronbach’s Alpha is 0.829 which indicates the very good value. The third independent variable show that the Cronbach’s Alpha is 0.730 which is indicates good value. For the independent variables which are assurance, it shows that the Cronbach’s Alpha is 0.642 and it indicates the moderate value. For the last independent variables which are empathy, the Cronbach’s Alpha is 0.899 which indicates a very good value. Therefore, all the variables are reliable.

*Analysis on Research Objective 1*

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>N</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Customer Satisfaction</td>
<td>130</td>
<td>3.578</td>
</tr>
</tbody>
</table>

Table shows the descriptive statistic for the dependent variable which is student satisfaction. The average mean for student satisfaction is 3.578. So that, the level of student satisfaction blended learning service quality is moderate.

*Analysis on Research Objective 2*

The Pearson Correlation Coefficient, $(r)$ or correlation coefficient for short is a measure of the degree of linear relationship between two variables. The Pearson Correlation Coefficient, $(r)$ may take on any value between plus and minus one. The closer $r$ is to +1 or -1, the more closely the two variables are related. A positive correlation coefficient tell us there is a direct relationship means that as the value of one variable increases, the value of the other variable increases; as one decreases the other decreases. Furthermore, for a negative correlation coefficient shows the inverse relationship that as one variable increases, the other decreases, and vice-versa.

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Tangible</td>
<td>0.413</td>
<td>0.023</td>
<td>130</td>
</tr>
<tr>
<td>Total Reliability</td>
<td>0.346</td>
<td>0.061</td>
<td>130</td>
</tr>
<tr>
<td>Total Responsiveness</td>
<td>0.541</td>
<td>0.002</td>
<td>130</td>
</tr>
<tr>
<td>Total Assurance</td>
<td>0.284</td>
<td>0.129</td>
<td>130</td>
</tr>
<tr>
<td>Total Empathy</td>
<td>0.212</td>
<td>0.260</td>
<td>130</td>
</tr>
</tbody>
</table>

The variables have positive relationship and correlation. For the relationship between tangible and customer satisfaction, the result shows is 0.413 and according to rules of thumbs, it has moderate relationship.

The result of Pearson coefficient shows the correlation between tangible and customer satisfaction is 0.413 and the significance is 0.023. The hypothesis that “There is a significant relationship between tangible and customer satisfaction” is accepted and the
null hypothesis is rejected. This means tangible have relationship in customer satisfaction.

Next, Pearson coefficient is used to test for the relationship between reliability and customer satisfaction. The variables have positive relationship and correlation. For the relationship between reliability and customer satisfaction, the result shows is 0.346 and according to rules of thumbs, it has weak relationship.

The result of Pearson coefficient shows the correlation between customer satisfaction and tangible is 0.346 and the significance is 0.061. The hypothesis that “There is no significant relationship between reliability and customer satisfaction” is failed to reject and the alternative hypothesis is rejected. This means reliability have no relationship in customer satisfaction.

While Pearson coefficient for the relationship between responsiveness and customer satisfaction, the variables have positive relationship and correlation. For the relationship between responsiveness and customer satisfaction, the result shows is 0.541 and according to rules of thumbs, it has moderate relationship.

The result of Pearson coefficient shows the correlation between responsiveness and customer satisfaction is 0.541 and the significance is 0.002. The hypothesis that “There is significant relationship between responsiveness and customer satisfaction” is accepted and the null hypothesis is rejected. This means responsiveness have relationship in customer satisfaction.

For Pearson coefficient for the relationship between assurance and customer satisfaction, the variables have positive relationship and correlation. For the relationship between assurance and customer satisfaction, the result shows is 0.284 and according to rules of thumbs, it has weak relationship.

The result of Pearson coefficient shows the correlation between customer satisfaction and tangible is 0.284 and the significance is 0.129. The hypothesis that “There is no significant relationship between assurance and customer satisfaction” is failed to reject and the alternative hypothesis is rejected. This means assurance have no relationship in customer satisfaction.

For Pearson coefficient for the relationship between empathy and customer satisfaction, the variables have positive relationship and correlation. For the relationship between empathy and customer satisfaction, the result shows is 0.212 and according to rules of thumbs, it has very weak relationship.

The result of Pearson coefficient shows the correlation between empathy and customer satisfaction is 0.212 and the significance is 0.260. The hypothesis that “There is no significant relationship between empathy and customer satisfaction” is fail to reject and the alternative hypothesis is rejected. This means empathy have no relationship in customer satisfaction.

### Regression Analysis Summary of the Research Model

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.602*</td>
<td>0.363</td>
<td>0.230</td>
<td>0.19897</td>
</tr>
</tbody>
</table>

Table above shows the R square are 0.363, indicating that 36.3% of the variance in the dependent variable was significantly explained by the five independent variables. 36.3% of variance or changes in customer satisfaction are affected by tangible, reliability, responsiveness, assurance and empathy.

### Conclusion and recommendations

Based on this study, tangible and responsiveness had significant relationships towards customer satisfaction. Reliability, assurance and empathy had no significant relationship towards customer satisfaction. Reliability was found to be very weakly connected to customer satisfaction, however no statistical significance was recorded at either the 5% or 10% level, meaning that no meaningful association was found to exist. This factor considered issues such as convenient; improve communication, as well as information pertaining from face to face effectively. For these reasons, customers may not see this as being a noteworthy antecedent of customer satisfaction.

Reliability is found to have positive relationship with customer loyalty. The finding is supported by the previous researchers including Nguyen & Leblanc (2001) and Bellini et al. (2005). Reliability was found to be not significant to customer satisfaction; in the line with the finding that customers may stay with an organization even if they predict they are dissatisfied because they perceive they have no choice (Zeithaml et al., 1996).

Based on the finding, assurance has positive relationship with customer satisfaction, but without significant effect. Assurance is mean of the ability to
inspire trust and confident, the responses state that blended learning does not help learners to build their self-confident, the customers do not feel assurance is being important as part of the service quality that should be included.

In this manner, the blended learning system should improve the assurance in their services. This is a way to retain the customers, and even it can become a point to build the learner self-confident whenever they use the blended learning system.

The results of this study show that there is no significant relationship between the empathy and customer satisfaction. They have no other alternative, but to make personal contact with the staffs. By human nature, people tend to expect empathy and respect from someone who they wish to deal with. Technology provides the platform to mitigate the problem of workloads and error, provide a more efficient and quicker problem solving solution. Yet, the organization maintains and improves the empathy skill since personal contact is still very important in blended learning.

Empathy had no significant relationship with customer satisfaction. Recalling back to the definition of empathy i.e. “caring, individual attention, the firm provides to its customers” (Parasuraman et al., 1988, p. 23) then to the common attributes that were substituted to empathy “welcoming staff”. The reason for the result is simple, whether the staffs are welcoming or not ‘welcoming staff’ is very compulsory and essential because if the customers are not well treated or if the customers have any negative feelings about the staff, when they experience blended learning.

The topic on blended learning was good because in the developmental stage and it needs effective improvement from the organization in terms of infrastructure and training of instructors and learners with efficient skills in teaching and learning online. This study only cover on Human resource student in one campus means that other researcher may need to study other course or discipline in future research.

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