6th International Research Symposium in Service Management, IRSSM-6 2015, 11-15 August 2015, UiTM Sarawak, Kuching, Malaysia

Investigating the Relationship among Service Quality, Emotional Satisfaction and Favorable Behavioral Intentions in Higher Education Service Experience

Wan Salmuni Wan Mustaffa\(^a\),* Mass Hareeza Ali @ Hamid\(^b\), Khuan Wai Bing\(^c\), Rafiduraida Abdul Rahman\(^d\)

\(^{a,d}\) Department of Business & Entrepreneurship, Faculty of Management and Economics, Universiti Pendidikan Sultan Idris, Malaysia.
\(^{b}\) Department of Management & Marketing, Faculty of Economics and Business, Universiti Putra Malaysia, Malaysia.
\(^{c}\) Department of Management & Leadership, Faculty of Management and Economics, Universiti Pendidikan Sultan Idris, Malaysia

Abstract

Most previous research has examined the direct relationship between service quality (SQ) and favorable behavioral intentions (FBI), neglecting the important role of emotional satisfaction (E-SAC). E-SAC is viewed as a crucial indicator in enhancing the relationship between SQ and FBI. It also assists the service provider in higher education to build long-term relationships with students. Thus, the main objective of this research is to examine the relationship among SQ, E-SAC and FBI. This research was conducted at Malaysian Public Universities. The online questionnaire was distributed to 381 international students following the stratified random sampling. The Structural Equation Modeling (SEM) technique using AMOS software was performed to test the relationship among SQ, E-SAC and FBI. The finding reveals that E-SAC mediates the relationships between SQ and FBI with large effects size. This research also discusses the theoretical and practical implications as well as the direction for future research.

© 2016 Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Peer-review under responsibility of the Universiti Teknologi MARA Sarawak

Keywords: emotional satisfaction; service quality; favorable behavioral intentions

* Corresponding author. Tel.: +6-015-481-178-25; fax: +6-019-984-8324.
E-mail address: wan.salmuni@fpe.upsi.edu.my

@10.1016/j.sbspro.2016.05.426
1. Introduction

Recently, Malaysia has been recognized as the international students’ higher education destination (MoHE, 2011). Accordingly, the Ministry of Higher Education aims to attract 200,000 international students to study in Malaysian higher education institutions by 2020. Nevertheless, dealing with the international students creates additional responsibilities and expectations to the universities. The international students may experience different educational approaches as compared to their home country (Yee, Hazrin & Mokhtar, 2013; Richards & Abdul Aziz, 2011; Lim, Yap & Tee, 2011). Furthermore, with the increasingly emphasis of student role as the primary customers, the power in service decision making has shifted from service provider to students (Abili, et al., 2011). Therefore, a strategic tool is needed to capture the process and interactive nature of service system from the lens of students. The previous research has discussed in depth the concept of service quality (Parasuraman, et al., 1985, 1988, 1991; Gronroos, 1984; Cronin & Taylor, 1994; Sultan & Wong, 2010; Voon, 2009; Abdullah, 2005, 2006) and favorable behavior intentions (Zeithaml, Berry & Parasuraman, 1996; Cronin, Brady & Hult, 2000; Singh, 1990; Choi, et al., 2004; Anderson & Sullivan, 1993) to evaluate the customer experience in service context. However, these concepts are only evaluating the customer experience towards service delivery from the cognitive aspect, neglecting the emotional aspect (Ladhari, 2009; Wong, 2004; Stauss & Neuhaus, 1997; Yu & Dean, 2001).

The emotional or affective aspect refers to positive or negative feelings (Wilkie, 1994). Spreng, MacKenzie and Olshavsky (1996) narrow down the concept of customers’ affective as the customers’ emotional reactions, which is consistent with the concept of customer satisfaction. However, there is a debate whether customer satisfaction is a cognitive construct or emotional construct (Babin & Griffin, 1998; Bagozzi, Gopinath & Nyer, 1999). In previous research, customer satisfaction has been defined as a cognitive construct, it seems that the affective construct has been largely ignored (Stauss & Neuhaus, 1997). The Expectation-Disconfirmation Paradigm (EDP) is a well-known paradigm to explain customer satisfaction as a cognitive construct (Oliver, 1980). EDP postulates that satisfaction is a result of customers’ perceptions of the discrepancy between their perceptions of service delivery performance and their expectations. However, the conceptualization of satisfaction from the EDP viewpoint has been criticized. Authors such as Westbrook and Reilly (1983) claim that customers could be satisfied by aspects for which expectation never existed. In addition, Oliver (1993 (b)) criticized the conceptualization of customer satisfaction from the EDP perspective which overlapped with service quality. Thus, there is a need to explore the concept of customer satisfaction from the view of customers’ emotions. Previous research also reveals that the E-SAC could enhance the relationship between SQ and FBI (Choi, et al., 2004). Therefore, this research also aims to investigate the relationships among SQ, E-SAC and FBI where E-SAC plays a mediator role.

2. Literature review

2.1. Cognitive-Affective-Behavioral model

The need to understand the relationships among SQ, E-SAC and FBI lead the literature search to the cognitive-affective-behavioral model (Bagozzi, 1992; Oliver, 1997). According to this model, customers evaluate the service rendered based on three phases namely, cognitive, affective and behavioral. The cognitive-affective-behavioral model claims the causal sequence of cognitive, affective and behavioral. Several empirical research has proven the causal sequence of cognitive, affective and behavioral phase in service context such as Choi, et al. (2004) empirically confirmed the causal sequence of cognitive (service quality and value)-affective (satisfaction)-behavioral (behavior intentions). Cronin, Brady and Hult (2000) reveals that an initial service evaluation (service quality) leads to satisfaction assessment, which in turn drives behavioral intentions. The literature also claims that the affective phase is presented as satisfaction construct. However, there is a debate about whether satisfaction is a cognitive or emotional construct (Babin & Griffin, 1998; Bagozzi, Gopinath & Nyer, 1999).

2.2. The competing theories of customer satisfaction

The concept of satisfaction has been discussed tremendously in management and marketing areas. EDP is the most widely applied theory used to assess customer satisfaction and dissatisfaction within the service context.
This theory postulates that customers compare the actual service performance with their prior expectations. The basis of EDP contains four elements including expectations, performance, disconfirmation, and satisfaction (Churchill & Surprenant, 1982). Despite its dominance, the EDP has been criticized for its conceptual standpoint which overlaps with the service quality concept (Cronin & Taylor, 1994; Halstead, Hartman & Schmidt, 1994; Yuksel & Yuksel, 2001). The customer satisfaction concept within EDP is judged in relations to a comparative standard between the expectations and performance. However, the use of expectation measurement in pre-purchasing stage might be less relevant in experiential service including higher education (Yuksel & Yuksel, 2001). Service experience involves the attributes that can be solely assessed after purchase or during consumption such as taste and value (Zeithaml, 1988; Devlin & Dong, 1994). Therefore, customer satisfaction should be further conceptualized particularly in terms of its unique nature construct.

Westbrook and Reilly (1983) propose the Value-Percept Disparity theory as opposed to EDP. The Value-Percept Disparity theory asserts that customers evaluate satisfaction and dissatisfaction after the purchasing stage in which the expectations never existed. According to value-percept disparity theory, customer satisfaction is conceptualized as the pleasurable emotional state resulting from evaluation of a service as leading individual values. This theory also claims the causal sequence of post-purchase cognitive-affective processes. The emotional satisfaction is triggered by a cognitive evaluative process in which the perceptions of services are compared to one's values. Although the Value-Percept Disparity theory has not received much attention, its theoretical standpoint has guided the researchers to extend the understanding of customer behavior regarding the concept of emotional satisfaction (Taylor & Baker, 1994; Gooding 1995; Chen, 2008; Westbrook & Oliver, 1991).

2.3. The development of research model and hypotheses

Figure 1 illustrates the research model. The early research efforts have concentrated on customer satisfaction as a cognitive evaluation process (Tam, 2004). However, relatively few studies have considered customer satisfaction as an emotional feeling resulting from an evaluative response process (Ladhari, 2009). In addition, emotions may distinguish the concept of SQ from customer satisfaction (Oliver, 1993 (a)). The basic model of the relationships between SQ and E-SAC can be derived from evaluative-response-coping framework by Bagozzi (1992). According to Bagozzi framework, cognitive evaluations precede emotional responses. Among the research that examines the relationship between SQ and E-SAC, Wong (2004) found that SQ was positively associated with E-SAC. This leads to the first hypothesis:

H1: SQ has a significant effect on E-SAC

The previous research indicates that customer emotions influence behaviors such as loyalty and word-of-mouth communications (Westbrook, 1987; Derbaix & Vanhamme, 2003; White & Yu, 2005). Specifically, the customers’ positive emotions tend to link their decisions to stay or continue with the services. Furthermore, the positive emotions lead the customers to share their positive experiences with others (Liljander & Strandvik, 1997). This leads to the second hypothesis:

H2: E-SAC has a significant effect on FBI

Most previous research has examined the direct relationship between the SQ and FBI. Zeithaml, Berry and Parasuraman (1996) offer strong empirical support for the intuitive notion that SQ could increase FBI. The research has examined the association between SQ and FBI’s indicators. Lee, Yoon and Lee (2007) have empirically proven that SQ has a positive relationship with tourists’ willingness to recommend to others. Alexandris, Dimitriadis and Markata (2002) conducted a research to examine the relationships between SQ and behavioral intentions in hotel industry. The results indicate that SQ dimensions have a significant effect on word-of-mouth communications. This leads to the third hypothesis:

H3: SQ has a significant effect on FBI
H1, H2 and H3 describe the direct relationship among SQ, E-SAC and FBI. However, the role of E-SAC as a mediator between the relationship of SQ and FBI is rarely explored. This extend-relationship offers a further understanding on how SQ influences FBI. This leads to the fourth hypothesis:

H4: E-SAC mediates the relationship between SQ and FBI

3. Methodology

3.1. Instrumentation

In this research, an online questionnaire was utilized as the survey instrument. The questionnaire consists of four sections. In section I, an adapted HedPERF scale (Abdullah, 2005, 2006) was utilized to measure the SQ. HedPERF is a multi-dimensional scale that was specifically developed to capture the attributes of service quality within the higher education sector. About 41 items were extracted from the original HedPERF scale used to represent different aspects of higher education services. These items were categorized into five dimensions, namely Academic Aspects (SQA), Reputation (SQR), Program Issues (SQPI), Non-academic Aspects (SQNA), and Access (SQACC). No modification is required as the items were generated and validated within the higher education context. Section II contains six statements regarding the international students’ positive emotions with the experience provided by the universities. This research adapted the positive emotional scales developed by Liljander & Strandvik, 1997; Westbrook & Oliver, 1991; Reynolds & Beatty, 1999. Section III consists of 4 statements to assess the international students’ willingness to sustain the favorable behavior as a result of service experience (Zeithaml, Berry & Parasuraman, 1996). All scales were measured using a seven-point likert-scale ranging from (1) Strongly Disagree to (7) Strongly Agree. Section IV contains 10 questions to gather information regarding respondents’ demographic profile and other information such as gender, age, marital status, and nationality.

3.2. Sampling technique and data collection

This research involved the international students at five Malaysian research universities including Universiti Malaya (UM), Universiti Sains Malaysia (USM), Universiti Kebangsaan Malaysia (UKM), Universiti Putra Malaysia (UPM) and Universiti Teknologi Malaysia (UTM). The required sample size for this research was 375 students. The sample size determination is based on several rules of thumb including the estimation method for sample size in Structural Equation Modeling (SEM) (Hair, et al., 2010; Kline, 2011, Shah & Goldstein, 2006; MacCallum, Browne & Sugawara, 1996), the sample size calculator (www.surveysystem.com/sscale.htm), and table for determining sample size from a given population N (Krejcie & Morgan, 1970). This research employed the stratified sampling technique to select the research elements. Based on the sampling frame, the international students

![Fig. 1. The research model.](image-url)
at each research university have been divided into three geographical region stratums, namely Asia, Middle East and Africa.

3.3. Data analysis

In this research, data gathered was analyzed using the structural equation modeling (SEM) technique. SEM is a powerful statistical technique that consists of two main parts of analysis namely measurement model and structural model (Hair et al., 2010; Kline, 2011; Zainuddin, 2012). The measurement model demonstrates the relationships between response items (observed variables) and their underlying latent variables. On the other hand, the structural model demonstrates the correlational and causal dependencies among the measurement model based on the hypothesized inter relationships among them. The mediation testing was analyzed following the mediation path analysis procedure using AMOS software (Zainuddin, 2012).

4. Results and discussion

4.1. CFA measurement model for SQ, E-SAC and FBI.

The assessment of Confirmatory Factor Analysis (CFA) measurement model was performed simultaneously using the pooled measurement model method (Zainuddin, 2012). This method combines all latent variables in one measurement model in order to measure unidimensionality, validity and reliability. Table 1 reports the results of unidimensionality, validity and reliability of the constructs.

<table>
<thead>
<tr>
<th>Latent Variable</th>
<th>Cronbach Alpha (Above 0.70)</th>
<th>CR (Above 0.60)</th>
<th>AVE (Above 0.50)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Quality (SQ)</td>
<td>0.885</td>
<td>0.811</td>
<td>0.560</td>
</tr>
<tr>
<td>Emotional Satisfaction (E-SAC)</td>
<td>0.930</td>
<td>0.932</td>
<td>0.695</td>
</tr>
<tr>
<td>Favorable Behavioral Intentions (FBI)</td>
<td>0.821</td>
<td>0.833</td>
<td>0.559</td>
</tr>
</tbody>
</table>

The unidimensionality is achieved through the items deletion process for low factor loadings. In this research, the established scales were used to operationalize all latent constructs. All latent constructs have achieved unidimensionality with factor loading for an item greater than 0.60. In this research, two types of validity were tested namely, convergent validity and construct validity. The convergent validity was assessed through Average Variance Extracted (AVE). The value of AVE should be 0.50 or higher to achieve convergent validity (Fornell & Larcker, 1981). The results indicate that the values of AVE for each construct was higher than 0.50 Therefore, all constructs investigated in this research achieved the convergent validity. This means the items that measure a particular construct have a high percentage of shared common variance. On the other hand, the construct validity is achieved when the fitness indexes accomplish the required levels. In this research, all fitness indexes for the measurement model achieved the required levels as follows CFI > 0.90, TLI > 0.90, RMSEA < 0.08, and the ratio of $\chi^2/df$ is less than 5.0. Therefore, all constructs in this research are able to truly capture the theoretical constructs. In this research, the reliability was assessed through internal reliability and composite validity. The internal reliability is achieved when the Cronbach’s Alpha value is higher than 0.70. As shown in Table 1, the values of Cronbach’s Alpha for each construct is greater than 0.70. Thus, the internal reliability for all constructs has been achieved. The composite reliability assesses how reliable the measurement model is in measuring the intended latent construct. A CR value of greater than 0.60 is required in order to achieve reliability for a construct. As presented in Table 1, the values of CR for all constructs are greater than 0.60. Thus, the composite reliability for all construct has been achieved.
4.2. Analyzing the mediation effects

In this research, the indirect hypothesis was examined utilizing the mediation path analysis procedure (Zainuddin, 2012). The following discusses the analysis of testing for the mediation effects (H4). As shown in Table 2, the direct effect of SQ on FBI is significant.

Table 2. The direct effect of SQ on FBI (testing for mediation).

<table>
<thead>
<tr>
<th></th>
<th>Actual Beta</th>
<th>Estimate</th>
<th>S.E</th>
<th>C.R.</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Favorable Behavioral Intentions (FBI)</td>
<td>&lt;</td>
<td>Service Quality (SQ)</td>
<td>1.033</td>
<td>.084</td>
<td>12.311 ***</td>
</tr>
<tr>
<td>Emotional Satisfaction (E-SAC)</td>
<td>&lt; ---</td>
<td>Service Quality (SQ)</td>
<td>1.069</td>
<td>.085</td>
<td>12.556 ***</td>
</tr>
<tr>
<td>Favorable Behavioral Intentions (FBI)</td>
<td>&lt;</td>
<td>Service Quality (SQ)</td>
<td>.592</td>
<td>.095</td>
<td>6.226 ***</td>
</tr>
<tr>
<td>Favorable Behavioral Intentions (FBI)</td>
<td>&lt; ---</td>
<td>Emotional Satisfaction (E-SAC)</td>
<td>.447</td>
<td>.070</td>
<td>6.414 ***</td>
</tr>
</tbody>
</table>

*** indicate a highly significant at p<0.001

Fig. 2. E-SAC mediates the relationship between SQ and FBI (Standardized Regressions).
Figure 2 illustrates the indirect relationship between SQ and FBI when E-SAC enters the model. Figure 2 also indicates that H1, H2 and H3 are supported. The following discusses the procedure for testing mediation for H4.

- The indirect effect: $0.83 \times 0.47 = 0.3901$
- The direct effect = 0.48
- Both indirect effect (SQ to E-SAC and E-SAC to FBI) are significant. However, the indirect effect is lower than direct effect. In this case, the value of beta coefficient (direct effect) in single model was compared with its value when the mediator E-SAC enters the model. The analysis shows that the value was reduced from 0.86 to 0.48 when E-SAC is included. Thus, the type of mediation is partial mediation with large effects size (Zainuddin, 2012).

5. Conclusion and recommendation

The empirical result of mediation testing revealed that the relationship between SQ and FBI was explained through E-SAC. Previous research focused only on the direct effect of SQ on FBI, neglecting the mediator role of E-SAC. This research showed that the relationship between SQ and FBI was partially mediated by E-SAC with large effects size. This indicated that the positive emotions of international students including happy, hopeful, positively surprised, pleasant, contented and enjoyable would enhance the relationships between SQ and FBI. Emotional satisfaction was a crucial indicator that was able to predict the students' decision to stay or continue with the service (Yu & Dean, 2001). Therefore, it would assist the service provider in higher education to build long-term relationships with students. This research findings offer several implications for theorists and practitioners. For theoretical implications, this research will be able to enlarge the body of knowledge in the service context by exploring the concept of emotional satisfaction. Furthermore, this research has proven that E-SAC plays a mediator role in enhancing the relationships between SQ and FBI. This research also has important implications for practitioners. Understanding the concept of E-SAC could be used as guidelines for service providers to implement effective strategies to enhance the international students’ experience towards the service rendered.

References


