The Effect of Perceived Value on Customer Engagement with the Moderating Role of Brand Image: A Study Case in Vietnamese Restaurants

Hai Quynh Ngo, Thanh Hoai Nguyen and Gi-Du Kang

Abstract—Customer engagement (CE) has become an exciting new topic and widely discussed among the practitioners and academics. The objective of this study is to supply a new higher-order model of CE that can explain the nature of CE. Therefore, an understanding of the influence of CE is explored in the context of restaurant service in Vietnam. A survey of 517 customers who have enjoyed at restaurants provided data for assessing the model. Data analysis was done using SPSS 21 and AMOS 21, using the Structural Equation Modeling (SEM). The results demonstrate that perceived value is the strongest determinant of CE, followed by service quality. In contrast, the results also illustrate that CE is not affected by customer involvement. Brand image consider as a moderating factor that weakens the relationship between CE and customer loyalty. In addition, the income level of the customer also affect differently to the relationship between CE and related structures. However, this study does not focus on examining the impact of CE's antecedents on its dimensions.

Keywords — customer engagement; perceived value; brand image; loyalty; service quality

1. INTRODUCTION

The value of a company is built on a variety of factors, not only with modern technology, dense orders, and well-known brands but more than its customers and employees. With increasingly demanding requirements, the demand is increasingly diversified nowadays; businesses not only call for creativity and product innovation from the experts and employees but also from the customers, the user of the product. One factor contributing specifically to the success of every business cannot be ignored is the "God of business" - the customer.

With the expansion not only in terms of scale but also in the number of enterprises, the level of competition among companies is getting fiercer. In this challenging new marketing context, consolidating and reinforcing the relationship between business and customers is an important task for all businesses. How to retain existing customers while attracting new customers is, to this respect, an extremely important issue for businesses. Companies are calling customers to participate and engage in product design in order to obtain different perspectives.

Vietnam is seen not only as a newly emerging market for international businesses but also an attractive destination for travelers around the world. The process of globalization, integration, market opening with the penetration of large companies in the world makes the domestic market more competitive. The document of the Ninth Communist Party Congress identified "tourism development as a key economic sector," and this focus has been maintained in XI Party Congress. This identification, in fact, fostered Vietnamese service sector to occupy a large part of Vietnamese economic structure. An important factor contributing to the success of the current tourism service in Vietnam is a food service industry. As such, the big increases and development of Vietnamese restaurants are now supported by various factors. At the same time, however, Vietnamese restaurants have had to encounter the fierce competitions that have never experienced. Therefore, in this context, customer engagement play an important role in retaining existing customers’ attention and also attracting new customers.

In a dynamic business context, CE is emerging in the marketing literature with preliminary research indicating that it has an important construct that not only reflects consumers' interactive experience and the relationship within brand communities (Brodie et al. 2011a) but also is conducive to a firm’s financial value (Bijmolt et al. 2010; Kumar et al. 2010). Moreover, customer engagement authorize product quality amelioration, sales promotion, decrease in costs and risk, rise in customer satisfaction and increase of competitive advantage (Brodie et al. 2013; Di Gangi&Wasko 2009). Thus, most companies aim to initiate their engagement initiatives to provoke a potent customer-brand relationship (Voyles 2007) and have spent a huge investment on tailor their product/brand to match customer preference and consequently initialize customer engagement (Gallup, 2001). Correspondingly, it is suggested that one of the important strategic imperative referring customer loyalty is CE (Bowden 2009). Therefore, social media channel have become extremely important for CE process and the development of customer loyalty which is recognized as important tools for organizations seeking to build long-term sustainable business relationships and provoking future consumption (Kumar et al. 2010; Vivek et al. 2012).
According to the definition mentioned in the literature of relationship in marketing viewed as one of the key elements, marketing outcomes and maintaining customers engaged is essential strategically to raise the number of loyal customers, since loyal customers contribute to the value creation process in most organizations (Brodie et al, 2011 & Bowden 2009b) and could possibly provide enormous benefits such as market expansion (Gounaris and Stathakopoulos 2004) and enhance business profitability (Kabiraj and Shanmugan 2011). By encouraging CE activities on social networking channels, companies can create their own advantages from enhancing brand loyalty (Brodie et al, 2013), stimulating sales (Doohwang et al. 2011). Similarly, CE’s influence on customer loyalty has been examined and its identification as a critical component of relationship marketing’s extended domain (Brodie et al. 2011; Bowden 2009a).

However, explored antecedents and consequences of CE in many researches are quite nebulous and is lack consensus. Furthermore, In addition to the issues of the ambiguous relationships among constructs known to be associated with the customer engagement, there are needs to make it sure the comprehensiveness of the focal construct (i.e., customer engagement). In order to do so, it would be attempted to introduce a new variables and/or modify current framework (Brodie et al. 2013; Hapsari 2015; So et al. 2014). To this respect, the inclusion of moderating factors into the model could also enhance the explanatory power of the model (Chin et al. 2003). There are three factors is suitable to explain the antecedent of CE including service quality, involvement and perceived value. Customer loyalty is also selected as a comprehensive construct for consequence of CE. In additional, the changing relationship between CE and customer loyalty related to brand image which are proposed as a moderating variable.

Thus, this paper promotes a new integrated conceptual framework, looking for the role of customers’ engagement in creating customer loyalty and examining the usual communication among CE with customer involvement, service quality, brand image, perceived value, and loyalty. In addition, this research also assesses the moderating role of brand image and income toward the relationship between CE and other related constructs. The result of this research will assist companies in identifying that these factors are interactions. The study tries to achieve better insights into these marketing constructs. Though, first of all, it is necessary to explore CE concepts.

2. LITERATURE REVIEW

2.1 Customer Engagement

When we come up to a new issue or problem, the question “what it is” is always the first thing, the researcher need to be answer. Although the paper does not focus on definition of engagement, we need to have overview as a background for the study. However, there was a lack of consistency in the conceptualization of engagement. This is because this concept was used in different contexts, resulting in many “engagement” terms as student engagement (Fredricks et al., 2004), customer engagement (Hollebeek, 2012), brand engagement (Hollebeek, 2011), employee engagement (Demerouti et al., 2001), consumer engagement (Brodie et al, 2013), a media engagement (Habibi et al, 2014) and civic engagement (Jennings & Zeitner, 2003) is defined quite extensively, but with customer engagement being perhaps the foundation of all the engagement concepts (van Doorn et al., 2010; Brodie et al. 2011). Inconsistency also occurs with its object, specifically, subject of engagement is diverse from specific products (mobiphone, luxury products), specific services such as public transportation and health care to customer-brand relationship. Thus, defining CE concept and encourage the further researches about its structure and interaction is also significant. Based on previous studies, CE could be classified into five main types.

In marketing disciplines, Van-Doorn et al. (2010) defined CE as “customer’s behavioral manifestations”. In recent years, CE is viewed as a psychological state (Zainol et al. 2016); or a process (Yang et al., 2016) or motivational psychology (Brodie et al. 2011; Wallace et al. 2014) or combination of psychological and behavioral dimensions (Hollebeek 2011; So et al. 2014).

Given in this study, CE is defined as an attitude of customer toward a specific brand by combining of physical and emotional experience aspects and “active mental state” of cognition to promote behavioral intention.

CE has obtained a plenty attention and become a novel phenomenon in the marketing perspective. However, there is a lack of consensus regarding its dimensionality (Cheung et al. 2011). While cognitive, emotional & behavioral dimensions are conceptualized and have a high agreement between researchers, others have altered the engagement dimension in their paper which illustrates its distinct perspectives. Several studies shown that unidimensional conceptualizations are mainly focusing on behavioral aspect of CE (Kumar et al., 2010; Doorn et al., 2010);. while Guthrie and Cox (2001), Kilger&Romor (2007), Malthouse & Peck (2010) emphasis the cognitive aspect of engagement, Heath (2007) highlights the emotional aspects.

However, according to the point of Brodie (2011), this author suggests that unidimensional conceptualization approaches do not reflect the diverse nature of customer engagement. Therefore, the reviewed conceptualizations share a multidimensional perspective of engagement, which appears dominant in the literature (May et al. 2004). Particularly, from two-dimensional perspective, Marks and Prinny (2003) tend a two-dimensional engagement conceptualization including cognition and emotion, meanwhile Bejerholm and Eklund (2007) propose cognitive and behavioral dimensions. Norris et al. (2003), by contrast, propound emotional and behavioral aspects. The dominance of cognitive, emotive and behavioral dimensions was maintained in the studies of So et al. (2016), Cheung et al. (2014), Greve (2014), Chan et al. (2014). Furthermore, Dwivedi (2015) and Patterson et al. (2006) advocate a multidimensional approach of customer engagement, combined dimensions including vigor, dedication, and absorption, in contrast, Hollebeek and Chen (2014)
incorporate activation, passion and immersion, which were acknowledged to match with the dimensions (behavioral, emotional, and cognitive) of engagement (May et al. 2004). Illic (2008) expands this viewpoint by combining two dimensions (additional aspirational and social-Engagement), Vivek et al. (2014) and Cabiddu et al. (2014) spread by combining with conscious attention & social connection, which may also be considered as particular sub-constituents of the emotional aspect of customer engagement. Obviously, Brodie et al. (2011) overview forward engagement revealed the context-specific nature and emphasize multidimensional concept of customer engagement. In short, the three-dimension view, have widely found acceptance in the literate review.

2.2 Related Constructs

The quality of service will directly influence the success of firms especially in the service context such as restaurant industry (Tat et al. 2011) and influenced business operation (Shock and Stefanelli 1992). Zeithaml and Bitner (2003) define quality of service as the consumer’s assessment or overall judgment about the services supplied. The effects of service quality on customer (satisfaction, engagement or loyalty) have explores by some studies. For example, Puriwat and Triposakul (2014) have concentrated on the investigation of the effect of service quality on CE in service industries in Thailand. The results revealed that all service quality dimensions significantly influence on CE. In addition, Gaoshan et al. (2014) also revealed the connection between service quality and CE, and CE is also found that have a role as a mediate factor between continuance usage and service quality.

At the sametime, Gaoshan et al. (2014) also indicated that customer engagement will be influenced by perceived service quality and customer experience, Claussen et al. (2013) proposes that the quality of mobile applications on Facebook will impact customer engagement. When customers are willing to purchase higher quality products, it also results in a behavioral intention such as CE (Kuo et al. 2009, Hollebeek and Chen 2014). Reitz (2012) performed a survey of Facebook users to analyze a conceptual model in online CE context. The results indicate there is a positive relationship between customer perception information quality and customer engagement, in which the former does affect on the later. Therefore, the first hypothesis is proposed:

H1: Service quality will have a positive influence on customer engagement

One of the most conceptually related concepts to CE is involvement (Vivek 2009) which is based on their similarities in encouraging the individual toward a particular object (e.g., a brand) (Hollebeek 2009). Consumer involvement is viewed as a “motivational state” construct which is used to gain a understanding on consumer attitudes and measure the meaning of product or brand to the consumer (Guthrie and Kim 2009). On the other hand, Vivek et al. (2012)stated involvement level of individual will be positively link with the intensitylevel of engagement. Involvement is also driving force that motivates individuals to pay more attention on advertisements, expand greater cognitive and physical endeavors during comprehension, focus broader attention on product-related information on the advertisements, and engage better elaborative comprehension of eachproduct’s information (Celsi and Olson 1988). Involvement likely creates a sense of ongoing psychological responsibility to a specific brand in respect to the feelings and thoughts of customer and their subsequent behaviors (Bowden 2009; Swinyard 1993). Lastly, regarding some researches, authors have suggested that when customers increase the cognition of their involvement, the engagement will consequently rises and involvement have also been proposed as antecedents of CE (Vivek 2009, Brodie et al. 2011b, Islam and Rahman 2016). Therefore, the next hypothesis is proposed:

H2: Customer involvement will have a positive effect on customer engagement

Relationship marketing theory considers perceived value as the main element of long-term relationships that its integration with the customer engagement will create the difference between success and failure of a business (Hollebeek 2013). Perceived value is defined as a “consumer’s overall assessment of the utility of a product/service based on perceptions of what is received and what is given” (Zeithaml 1988), thus reflecting a specific rate /trade-off, between perceived quality and price (Sweeney and Soutar 2001; Kaltcheva et al. 2013b). More importantly, it has revealed across studies that perceived value is also one of the antecedent factors of CE that means the perceived value has the intention to drive CE (Brodie et al. 2011). Moreover, while Hollebeek and Chen (2014) suggested that perceived value influence engagement toward a brand, Verma et al. (2012) indicated that the interaction of social and brand values positively have an impact on CE with whom have a social network fan page. When analyzing interrelationships among airline passenger loyalty and marketing constructs, Hapsari and Dean (2016) demonstrated that CE is influenced by customer perceived value. By the point that customers receive good value from a service, they may be stimulated to level up their engagement to the service provider, either to gain more value in future trading or for psychological reasons (Brodie et al. 2013). Furthermore, Companies that create positive experiences for their engaged customers are likely to improve their perceived value (Vargo and Lusch 2004). Therefore, the first hypothesis is proposed:

H3: Perceived value will have a positive impact on CE

The relationship between CE and customer loyalty to the company would be revealed through this examination, however, it could be noticed that researchers demonstrated them in various methods. While inspecting relations between CE and customer loyalty, Grissemann and Stokburger-Sauer (2012) also studied the relationship between customer loyalty and CE and detected its dependence on each other. According to Banyte (2014), loyal customers have intention to certain proper involvement in a value creation. Under any circumstances, logically, when customers become loyal, they always seek for greater benefit from remaining a
long-term relationship, they suggested that loyalty is positively related to CE into value creation. CE can result in successful marketing findings, including loyalty, spreading word-of-mouth, the weight of wallet and cross-selling (Vivek et al. 2012). According to Sprott et al. (2009), CE with a brand impacts customer findings such as brand perceptions and attitudes which lead to have a significant impact on brand loyalty. Finally, an individual engages in a particular product is more likely to improve more favorable attitudes toward specific brand or company, resulting in entity loyalty (Vivek et al. 2012; So et al. 2016). Referring to it, we form the following hypothesis:

\( \text{H}_5: \text{CE will have a positive impact on customer loyalty.} \)

Brand with high levels of reputation or high brand image level leads to stronger commitment to company (Keller, 1998; Walsh et al., 2009) which plays a crucial role determining customer loyalty. Moreover, the relationship between CE and brand image displays the direction and level of reputation which the brand is in a consumer’s mind (Park et al. 2010). Brand image that helps people distinguish everything from the business side, in order to be clearly defined, company can be beneficial from band image in the long term (Cannon et al. 2009) and regarding the customer's perception of either the reason or rational platform or through more sentiments towards a specific brand (Assael 2004). Similarity, Keller (2013 p. 3) integrates that brand image is a “the brand associations held in a consumer’s memory reflects their perception”. In addition, previous research demonstrates that having a good brand image can create a distinctive and trustworthy appeal and a more effectual distinct form, as well as competitive advantage source for company (Chung et al. 2015). It is also suggested that brand image is not only a matter of window dressing factor but also a reliable indicator of whether business will survive in the future (Yeo et al., 2011). Additionally, while Rahi (2016) revealed that brand image moderated the influence of perceived value on customer loyalty, brand image also moderated the relation between customer satisfaction and customer loyalty (Chung et al., 2015). Furthermore, the Vietnamese society, which is the high interconnection between individuals and all the information and images of the business are shared, have a significant impact to the customers. Hence, the good corporate image will strengthen the relationship between CE and customer behavior intention such as customer loyalty. Logically, we presume that:

\( \text{H}_7: \text{Brand image will moderate the relationship between CE and customer loyalty.} \)

According to Engel et al. (1990), income is the one of the nine variables concerned with social class and has a significant effect on consumer behavior (Durmaaz and Tasdemir, 2014). Moreover, income has considerable roles in building customer loyalty (Laroche et al. 1986) and moderates the relationship between satisfaction and loyalty (Homburg and Giering 1999). Particular, this study results indicate that there is considerable difference between two groups, high-income customer group and low-income customer group, in the relation between customer satisfaction and loyalty. Similar, other research was performed by Razak et al. (2016), showing that income strengthen satisfaction impact on loyalty. Furthermore, considering the consumer behavior theories (Howard 1963) and after the study of Rossiter and Foxall (2008) displays that habits (including beliefs, attitudes, and values) are the direct causes of behavior. This shows that income is a crucial factor that affects the purchasing decisions and consumer behavior of customer. Therefore, in this research, role of income also were investigated in the relationship between customer engagement and the higher-order constructs such as service quality, involvement, perceived value and customer loyalty. Referring to it, we form the following hypotheses:

\( \text{H}_9: \text{The relationship between service quality and customer engagement is moderated by income.} \)

\( \text{H}_8: \text{The relationship between perceived value and customer engagement is moderated by income.} \)

\( \text{H}_7: \text{The relationship between customer involvement and customer engagement is moderated by income.} \)

\( \text{H}_6: \text{The relationship between customer engagement and customer loyalty is moderated by income.} \)

Hence, on the platform of above discussion, the integrated conceptual framework was formed and shown in figure 1.

3. METHODOLOGY

3.1 Sample

This study aims to investigate the factors that impact on customer engagement in restaurant context in Vietnam. Therefore, sample testing involves people who have been served cuisines provided by different types of restaurants located in Vungtau city where is called “tourism city”. And this target population contains people with different age and gender, income groups and occupation. This study was carried out for the first time in 2018.

In order to gain accurate goals for the research and other constraints in process of getting data, we use the purposive sample to collect data. Five males and five females were trained for the data collection. Food services users were selected as participants since food service is considered to have an “experience” value asset which can be easily perceived. The trained interviewers approached and picked up a random person in different locations. Individuals were asked if they were food service users, then they were asked which restaurant was their service provider. Only customers who currently have used food services at our target restaurants can participate in the project. The number of participants was 517.
3.2 Measures

We operationalize six constructs: customer engagement, perceived value, corporate reputation, brand image, customer satisfaction and loyalty, aim to test the research model. The items for each category were conducted in English and then translated into Vietnamese for surveying. The instrument was reviewed by five Vietnamese experts to ensure that the Vietnamese wording and content of items was appropriate.

Service quality

Modification of the instrument for different service provider settings is supported by the developers of the instrument of Puriwat and Tripopsakul (2014). This construct was measured by ten items.

Customer involvement

To assess the involvement level of customer to fit with restaurant context, we adjust the measuring scales of the instrument Zaichkowsky’s scale. This construct was measured by nine items.

Perceived value

Modification of the instrument for different service provider settings is supported by the developers of the instrument (Yang et al. 2014; So et al. 2014 and Dwivedi 2015). Following the suggestions made by these authors, only the perceptions and not the expectations of perceived value were measured, as the measures were used to only evaluate the influence of perceived value on other constructs. This construct was measured by six items.

Brand image

The measures for brand image were developed typically for this study by the authors (Villarjo 2002 & Blasco-Arcas et al. 2016). Brand image of the restaurants was measured by having food service users respond to seven items.

Customer engagement

Regarding the CE scale, Vivek’s (2009), Algesheimer et al.’s (2005) scales have been taken into account to demonstrate this construct’s interactive nature and the importance of proactive role of the individuals. Fourteen items were used to measure this construct.

Customer loyalty

The index of customer loyalty is the final set of items put in this analysis. It is suggested that enhancing customer retention, or lowering the rate of customer defection, is a major key to the potential of a service provider to generate profits (Zeithaml 1996). We used ten items (e.g. I like this restaurant more so than another restaurant) to measure this construct which scale based on research of Brodie et al. (2009) and Ji and Jeon (2003).

A 7-point scale (from “strongly disagree” to “strongly agree”) was used to measure all items mentioned in the constructs.

3.3 Research model

Structural equation modeling approach was going to determine the research model in the test. AMOS 20 was used to estimate the parameters and evaluate the fit of the model shown in Figure 1. Regarding Likert-scaled items, there are 2 different options including a path analysis with a latent variable-the common factor of the sets of item-scores or a simple path analysis of the item-sums (McDonal 2002) which we can choose to apply for examination. As for this study, the later approach will be employed to test the proposed conceptual model. In doing so, the unidimensionality examinations were executed in the previous stage to satisfy the foundational condition for employing the composite scores. In this regard, Anderson and Gerbing (1988) propose a mixture that represents a potentially significant factor if observational measures are posed as indicators of a latent structure that accepts a unidimensional.

4. RESULTS

4.1 Evaluation and refinement of measurement scales

Descriptive analysis provides the respondents’ demographic characteristics. 558 questionnaires were provided to potential respondents. Potential participants may withdraw from the study in any time. The invalid questionnaires are 41 as they selected the same options for every question or couldn’t complete the questionnaire. The common reason cited to quit from the survey was a require to leave the restaurant. Incomplete responses of fewer than 20% in one observation were listwise cut out or excluded from the analysis considering the process conducted by Enders & Bandalos (2001), Roth et al. (1999) suggestion. Thus, 517 observations were considered tolerable for this research.

While most of the respondents were male, accounted for 58.6% of sample size, female only capture 41.4%. Among the respondents, 26.9% were under 30 ages, 54.5% were between the ages of 30 and 40, remain 18.7% were above 40 ages. Most of the interviewees will choose a high restaurant to savor meals with 76.2%. About 68.5% of respondents have low income of less than 3 million VND per month, while high income is 23.8%. Only 58.6% of sample size, female only capture 41.4%. Among the respondents, 26.9% were under 30 ages, 54.5% were between the ages of 30 and 40, remain 18.7% were above 40 ages. Most of the interviewees will choose a high restaurant to savor meals with 76.2%. About 68.5% of respondents have medium income from 3 million to 8 million VND per month, while high income is 23.8%. Only 7.7% of respondents have low income of less than 3 million VND.

After examining descriptive characteristics of demographic data, the successive step is reliability test. Measures of internal consistency were calculated, and which low reliability were removed or modified accordingly. 54 items was clarified by calculation of item-to-total correlations employing the suggested cutoff .50. As summarized in table-1
Table 1: Summary of internal consistency test

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Before item deletion</th>
<th>After item deletion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of items</td>
<td>Item-total correlation</td>
</tr>
<tr>
<td>Perceived value</td>
<td>6</td>
<td>0.509-0.824</td>
</tr>
<tr>
<td>Brand image</td>
<td>7</td>
<td>0.466-0.831</td>
</tr>
<tr>
<td>Customer involvement</td>
<td>9</td>
<td>0.548-0.861</td>
</tr>
<tr>
<td>Service quality</td>
<td>10</td>
<td>0.554-0.766</td>
</tr>
<tr>
<td>Customer engagement</td>
<td>14</td>
<td>0.536-0.817</td>
</tr>
<tr>
<td>Customer loyalty</td>
<td>8</td>
<td>0.234-0.864</td>
</tr>
</tbody>
</table>

To improve the coefficient alphas and item-to-total correlations, seven items across the six factors were eliminated. The coefficient alphas ranged from 0.900 to 0.950 for six domains.

Verification of the standardized residual matrix also did propose that various items should be disqualified from the instrument (Kang 2004). Thus, items measuring more than one substantive factor have to be detected and eliminated in unidimensional measurement of a set of items (Viswanathan, 2004), the higher the number of residuals that area greater than ±2.58, the worse the fit of a research model (Kline, 1998b). Because, according (Kang 2004) these high standardized residual values manifest a problem with the items toward the posited elements, the items causing the unusually high standardized residual values were flamed out and removed using following procedures. First, abnormally high standardized residual were inspected in descending order. Second, performs a check and compares the occurrence of high residual items with corresponding items. Finally, the indicator that caused a number of outstanding residuals was disposed. The result is displayed in table 2.

Table 2: Summary of the purified items for each construct

<table>
<thead>
<tr>
<th>Construct</th>
<th>Number of items</th>
<th>Discarded items</th>
<th>note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived value</td>
<td>5</td>
<td>4</td>
<td>PV1</td>
</tr>
<tr>
<td>Brand image</td>
<td>6</td>
<td>5</td>
<td>BI3</td>
</tr>
<tr>
<td>Service quality</td>
<td>8</td>
<td>7</td>
<td>SQ2</td>
</tr>
<tr>
<td>Involvement</td>
<td>9</td>
<td>8</td>
<td>IV1</td>
</tr>
<tr>
<td>Customer engagement</td>
<td>13</td>
<td>12</td>
<td>CE13</td>
</tr>
<tr>
<td>Customer loyalty</td>
<td>6</td>
<td>4</td>
<td>CL5, CL8</td>
</tr>
</tbody>
</table>

The results from the analysis of model 1 (47 items) suggested that 7 items should be deleted to aid in improving a more parsimonious scale.

4.2 Measurement model assessment

CFA aims to assess the factorial structure of the entire scale and to evaluate the validity and reliability of the measurement model through the convergent and discriminant validity to ensure unidimensionality of the multiple-item constructs (Bollen 1989).

In the model (40 items), the fit indices are presented in table 3. The results indicate that Model (40 items) with 40 items created a rational fit of the data to the model. The fact that items were clarified from the model structure displays the melioration in the instrument with related to parsimony. The RMSEA value for model (40 items) (0.059) decreased, indicating improvement in the model structure. The X2 value for Model (40 items) decreased from model (47 items), indicating an improvement in the model specification. Compared with the structure of model (47 items), in model (40 items), the values for PNFI (0.817), TLI (0.913), CFI (0.919) increased, while RMR value (0.050) decreased, also indicating a better fit to the data.
Table-3: Comparison of model fit indices

<table>
<thead>
<tr>
<th>Index</th>
<th>Model (47 items)</th>
<th>Model (40 items)</th>
<th>Indication of fit for model (40 items)</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>X²/df</td>
<td>2.972</td>
<td>2.769</td>
<td>Good</td>
<td>Carmines and McIver, 1981</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.062</td>
<td>0.059</td>
<td>Good</td>
<td>Browne and Cudeck, 1993</td>
</tr>
<tr>
<td>RMR</td>
<td>0.059</td>
<td>0.050</td>
<td>Good</td>
<td>Hair et al., 2005</td>
</tr>
<tr>
<td>GFI</td>
<td>0.809</td>
<td>0.840</td>
<td>Improved</td>
<td>Joreskog and Sorbom, 1984</td>
</tr>
<tr>
<td>IFI</td>
<td>0.896</td>
<td>0.919</td>
<td>Good</td>
<td>Bentler and Bonett, 1980</td>
</tr>
<tr>
<td>TLI</td>
<td>0.889</td>
<td>0.913</td>
<td>Good</td>
<td></td>
</tr>
<tr>
<td>CFI</td>
<td>0.895</td>
<td>0.919</td>
<td>Good</td>
<td></td>
</tr>
<tr>
<td>PNFI</td>
<td>0.801</td>
<td>0.817</td>
<td>Acceptable</td>
<td>James et al., 1982</td>
</tr>
</tbody>
</table>

Reliability estimates for Model (40 items) indicated that the coefficient alphas ranged from 0.899 to 0.946 for six domains. The six constructs all achieved the admissible alpha-level of .70 (Nunnally, 1988).

Table-4: Discriminant validity analysis results

<table>
<thead>
<tr>
<th></th>
<th>CR</th>
<th>AVE</th>
<th>MSV</th>
<th>MaxR(H)</th>
<th>CE</th>
<th>SQ</th>
<th>IV</th>
<th>BI</th>
<th>CL</th>
<th>PV</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE</td>
<td>0.947</td>
<td>0.597</td>
<td>0.198</td>
<td>0.949</td>
<td>0.773</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SQ</td>
<td>0.920</td>
<td>0.591</td>
<td>0.031</td>
<td>0.926</td>
<td>0.175***</td>
<td>0.769</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV</td>
<td>0.942</td>
<td>0.699</td>
<td>0.001</td>
<td>0.959</td>
<td>0.001</td>
<td>-0.010</td>
<td>0.836</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BI</td>
<td>0.903</td>
<td>0.651</td>
<td>0.047</td>
<td>0.922</td>
<td>0.204***</td>
<td>0.082†</td>
<td></td>
<td>0.001</td>
<td>0.807</td>
<td></td>
</tr>
<tr>
<td>CL</td>
<td>0.924</td>
<td>0.754</td>
<td>0.201</td>
<td>0.996</td>
<td>0.440***</td>
<td>0.088†</td>
<td></td>
<td>0.012</td>
<td>0.216***</td>
<td>0.868</td>
</tr>
<tr>
<td>PV</td>
<td>0.894</td>
<td>0.681</td>
<td>0.201</td>
<td>0.909</td>
<td>0.444***</td>
<td>0.149**</td>
<td>0.035</td>
<td>0.092†</td>
<td>0.449***</td>
<td>0.825</td>
</tr>
</tbody>
</table>

Significance of Correlations: † p<0.100; * p<0.050; ** p<0.010; *** p<0.001

The results of assessment of the constructs in term of convergent discriminant and validity validity (Hair et al., 2005; Lline, 2005) are show in table 4.

The composite reliability ranged from 0.894 to 0.947 across the six domains, which exceed the admissible level of .70 (Fornell &Larker 1981), which gives evidence that the constructs have an overall good reliability. The AVE ranged from 0.591 to 0.754 across the six domains, also exceeding the acceptable AVE-level of .50 (Fornell &Larker 1981) which indicate a great overall amount of variance in the obvious variables calculated by the latent construct. Therefore, the convergent validity findings verify that the measures in the study model attain a good consistency reliability. Moreover, the discriminant validity is favored for the measurement model.

4.3 Structural model analysis

StructuralEquation Modeling (SEM) was employed testing the proposed framework. The results shown that

Table-5Path Analysis Results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path</th>
<th>Estimate</th>
<th>C.R.</th>
<th>p</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H₁</td>
<td>SQ -&gt; CE</td>
<td>0.066</td>
<td>1.875</td>
<td>*</td>
<td>Supported</td>
</tr>
<tr>
<td>H₂</td>
<td>IV -&gt; CE</td>
<td>-0.021</td>
<td>-0.607</td>
<td>0.54</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H₃</td>
<td>PV -&gt; CE</td>
<td>0.442</td>
<td>9.410</td>
<td>***</td>
<td>Supported</td>
</tr>
<tr>
<td>H₄</td>
<td>CE -&gt; CL</td>
<td>0.981</td>
<td>8.557</td>
<td>***</td>
<td>Supported</td>
</tr>
</tbody>
</table>

When the satisfactory model fit were obtained, the form of a null hypothesis H₄ will be used to test the hypothesis where no relationship remain or is estimated to be zero. The results illustrate that all hypothetical imperative except from the pairs from service quality, perceived value to CE were positively significant. Service quality and perceived value were significant related to CE (β=0.066, p<0.1 and β=0.442, p<0.01, respectively).
hypotheses H₁, and H₃ were supported. As expected, customer engagement was also significantly related to customer loyalty ($\beta=0.981$, $p<0.01$), hypotheses H₂ was supported. Finally, in contrast to the proposed hypothesis, the result indicates that the hypothesis H₄ ($\beta=-0.607$, $p=0.54$) was detected to be not insignificant, that means customer involvement did not influence on CE. This demonstrates that all the hypotheses (without H₂) were supported. The findings also reveal that there are strong direct influences from perceived value and service quality on CE which leads to customer loyalty.

Moderation effects

Moderation is an indirect influence that can be employed testing concepts that interpret the relation between two constructs. According to Hair et al. (2013), moderating effect takes place when the relation between two latent variables is influenced by another variable and this variable moderates the bond. Brand image, in this study, was used as a moderator. The result showed that the interaction between brand image and customer engagement was significant ($p<0.05$) to interpret the variance in customer loyalty. The result revealed that different levels of brand image could considerable moderate the relationship between CE in consumption process, and the ultimate behavior intention return to buy and mouth marketing. And the coefficient B of -0.547 showed that the direction was negative, confirming a weakening effect.

The evaluation of customers’ income level as a moderator was implemented by comparing the lower-paid customer group “income group 1” which composed of customers who received salary less than 8 million VND with the higher-paid customer group “income group 2” which composed of customers who received salary more than 8 million VND.

To find out the various between groups and identify the considerable different pair, it is necessary to test the critical ratio for groups’ pairwise comparisons that displayed in regression weight. The result is illustrated in the table-6 below.

<table>
<thead>
<tr>
<th>Causal Path</th>
<th>Coefficients</th>
<th>Critical Ratios for differences between parameters</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQ -&gt; CE</td>
<td>Group 1 (lower-paid)</td>
<td>0.103</td>
<td>-0.709</td>
</tr>
<tr>
<td></td>
<td>Group 2 (higher-paid)</td>
<td>0.041</td>
<td></td>
</tr>
<tr>
<td>IV -&gt; CE</td>
<td>Group 1 (lower-paid)</td>
<td>0.022</td>
<td>-1.786*</td>
</tr>
<tr>
<td></td>
<td>Group 2 (higher-paid)</td>
<td>-0.101</td>
<td></td>
</tr>
<tr>
<td>PV -&gt; CE</td>
<td>Group 1 (lower-paid)</td>
<td>0.408</td>
<td>0.532</td>
</tr>
<tr>
<td></td>
<td>Group 2 (higher-paid)</td>
<td>0.465</td>
<td></td>
</tr>
<tr>
<td>CE -&gt; CL</td>
<td>Group 1 (lower-paid)</td>
<td>0.980</td>
<td>1.698*</td>
</tr>
<tr>
<td></td>
<td>Group 2 (higher-paid)</td>
<td>0.152</td>
<td></td>
</tr>
</tbody>
</table>

* $p<0.1$

There are 2 out of 4 hypotheses being influenced by income due to the fact that the absolute value of $z$-score is higher than the critical of 1.65 (Bollen, 1988). For the relationship between customer involvement and customer engagement where lower-paid customers yielded higher coefficients ($\beta=0.022$) than the higher-paid customers ($\beta=-0.101$), the difference is significant ($z$-score=-1.786$±1.65$, $p<0.1$) which reveals that the lower-paid customers’ involvement factor accounts for more influence than the higher-paid customer on the level of customer engagement. In addition, for the relationship between customer engagement and customer loyalty where lower-paid customers yielded higher coefficients ($\beta=0.980$) than the higher-paid customers ($\beta=0.152$), the difference is significant ($z$-score=1.698$±1.65$, $p<0.1$) which demonstrates that the higher-paid customers’ engagement accounts for less influence than the lower-paid customer on the level of customer loyalty. There is no significant difference elicited for the rest of the relations between two customer groups, lower-paid and higher-paid customers.

In this study model customer’s age and occupation was observed as control variables. Age and occupation of customers didn’t have considerable impact on CE; both displayed non-significant paths. Likewise, the results reveal that occupation had no impact on customer loyalty. Alternatively the path between age and customer loyalty was found to be significant ($\beta=0.138$, $p<0.01$).

5. DISCUSSION

This research highlights the importance of the CE concept in customer loyalty creation. Moreover, understanding what marketing constructs such as service quality, perceived value drive customers to engage with a specific brand or corporation and what value they perceive obtaining in this competitive environment can help managers assessing their customers’ engagement.

The direct influences of perceived value and service quality on CE were comparable. The findings also revealed that the influence of perceived value on CE was the highest, brand image weaken the relationship between CE and customer loyalty.

In addition, the assessment of the customer’s income level, as a moderating variable, shows the different effects of income levels on the relationship between customer engagement and related constructs. The results indicate that in food services, customer emotion is an important factor in assessing the relationship between quality of service and CE. One of the reason for this, recentlyears , the problem of Dirty Dozen in Vietnam is becoming a big disaster, such as seafood marinated with chemical fertilizers. This is rather serious problem for exclusivemanagement and also the huge fear of the
people. Indeed that is one of the important reasons for this research in which service quality is an important antecedent driving customer engagement. Moreover, literature review has shown that emotion is an important aspect of CE. Thus, after customers enjoy the service at restaurants, they often evaluate the results of their feelings. These emotions can be positive or negative depending on each customer’s expectations. Positive emotions are often expressed in the form of feelings of success, affiliations, happiness and pride (Oliver, 2010). That means service quality is a crucial factor influencing CE.

In the restaurant service sector, although the service provided is relative similarity, the perceived value of each customer is different. This may be due to different consumption experiences and different emotions on the customer. Different emotions between customers about the services that lead to the feeling about level of benefit are also different. Hence, the higher customer engagement leads to the higher their perceived value for the brand. That means, for firms, it is necessary to enhance customer perceived value.

This study not only assessed the direct effect of higher-order structures, but also recognized the brand image as a moderating variable. Although, the moderating effect of brand image has been examined in some researches as mentioned in the literature review but has not been studied in the context of restaurant service in Vietnam. As the finding revealed, CE in the process of serving food at restaurants is negatively moderated by brand image. Meanwhile, according to Keller (1993), brand image is the cognition of a product that reflects memory of customer for a specific product. Therefore, people with remembered brand image feel less annoyed by ambiguous and uncertain situations. As the finding shows, the role of CE toward customer loyalty varies under various levels of remembered brand image. High brand image will weaken the relationship between CE on customer loyalty.

To assess whether income has a moderating influence on the relationship between CE and customer loyalty also between CE and these higher-order constructs, moderating roles of income was tested using SEM multi-group analysis. As expected, the result shows that income significantly moderates the causal relationship between CE and customer loyalty also between involvement and CE.

In addition to its contribution to marketing literature, the study has several limitations.

Firstly, the study was conducted only by investigating in the Vung Tau region and for a restaurant service as a research context without any comparison, which led to the results of the study being not comprehension. Thus, the future studies may extend this study by comparing services and service areas to understand nature of customer engagement.

Secondly, this research only concentrates on the moderating role of brand image and judging the role of only demographic characteristic (income). However, considering Social Role Theory by Eagly et al. (2000), males and females reacted distinctly to particular situation. Therefore, further research might examine the moderator influences of gender and other demographic characteristics on the relationship between CE and related constructs.

Finally, limitation should be noted that the study was conducted with Vietnamese customers. By translating English items into Vietnamese, it is feasible that the meaning of some manifestations may have been unintentionally transformed. It is also achievable that there are the differences interpreting terms from one language in another language. Additional study is needed with diverse customer groups.

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