The Association between Three Dimensions of E-Relationship Quality in Lodging Websites
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Abstract—This study aims to investigate the association between three dimensions of e-relationship quality in lodging websites. The objectives of this study are to investigate the relationship between determinants of e-relationship quality on loading websites. This research adopts the quantitative method (Correlational design) so the researcher gathered data through survey and used close coding to code the data as well as constant comparative methods to analyze them. In addition, based on the aim of this thesis, 150 respondents were randomly selected by using the convenience sampling method comprised of Malaysian adult male and female with age ranging from 25 to above 65 years old. This survey was conducted in Malaysian hotels which are located in Kelang Valley.

The findings revealed that the communicational function, followed by relational function and transactional function was the most important dimensions that would affect customer e-loyalty. Furthermore, the findings of this thesis indicated that there is a positive relationship among the three dimensions of e-relationship quality in Malaysian lodging websites.

Index Terms—communicational function, transactional function, relational function, e-relationship quality

I. INTRODUCTION

The commercialization of the Internet emerged in the early 1990’s due to the evolution of digital information technology that transmits information between two companies using the technology of the electronic data interchange (EDI). The electronic connectivity based on computer technology led to the emergence of the World Wide Web [8] that enabled electronic commerce in the market. Since then, lodging companies quickly adopted electronic commerce (e-commerce) for operations that have impacted the lodging industry enormously. Thus, e-commerce opened a new channel of distribution in the lodging market. A lodging website as a distribution channel serves two major functions that provide customers with information for their purchase decision-making online and facilitate their purchase activities [12].

Nowadays, more rooms are being sold directly to consumers via the direct online channel i.e. the hotel’s own website. Some consumers prefer to book hotel accommodations through third party online travel websites. Consumers tend to avoid the service fees of the third-party online intermediaries (TPIs) and enjoy the perception that hotels will offer better service. Thus, TPIs have created significant competition in the tourism industry over the past several years. This opportunity allows hotels to reduce costs with distribution and TPIs.

Therefore, through the use of websites, hotels envisage more profits to be generated from bookings. In addition, hotels can directly control pricing, brand identity, promises to guests, relationships with customers and profitability [38].

Hotel websites have concentrated more on customized travel options, website redesign, website optimization and e-CRM [27]. They added that these options provide useful information to help customers make purchase decisions efficiently, which may affect their satisfaction with online service and further develop loyalty toward hotel companies [27].

II. REVIEW OF THE LITERATURE

Determinants and Consequences of e-Relationship Quality in Hotel Websites

Relationship quality topics have been popular in marketing research and it is a high order concept composed of trust, satisfaction and commitment [28]. The relationship quality can influence customer loyalty. This thesis examines the determinants of e-relationship and explores the effects of e-relationship quality on e-loyalty [29].

Firstly, this thesis examined the determinants of e-relationship quality. In the financial service industry [6] and in the hotel industry [20], communication has been indicated to be a driver of trust and satisfaction. Consequently, this thesis suggests that the communication function is a determinant of e-relationship quality.

Secondly, based on offline context, relationship quality consists of trust [10], [6], [32], [22], [39], [7], [11] and satisfaction [14], [7], [11], which affect customer loyalty. This thesis proposes e-relationship quality as a structure comprised of e-trust and e-satisfaction, both of which affect e-loyalty.

Thirdly, the development of loyalty had been investigated by several researchers [26], [9], [34]. In addition, satisfaction has been determined as the critical element of loyalty [26]. A positive linkage among satisfaction and loyalty was discovered
by researcher and recommended that trust as a relational construct has positively influenced customer loyalty [31], [34]. Thus, marketing studies have found that satisfaction and trust have a positive relationship with loyalty.

The study of satisfaction and trust has enhanced the research of loyalty in the online environment [31], [27], [37]. A customer who is satisfied with a service provider is more probably to build a closer connection with that business, emphasizing the direct association among e-satisfaction on e-loyalty [2]. The significance of e-trust in establishing e-loyalty emphasized that when customers trust the online retailer, they are willing to give personal information [30].

Communication Function

Communication is “the human activity that creates and maintains relationships between the different parties involved” [23]. In 2000 some findings discovered that communication is the best way to exchange information among sellers and buyers throughout an e-commerce context [19]. The communication channel intermediaries as giving knowledge regarding to the accessibility and features of the seller’s products or services to buyers and prospective buyers [27].

“Communication function refers to the use of Internet as customer service tool to disseminate information and answer all inquiries from customers. Examples of this tool including email, chat rooms or bulletin board, and simply Frequently Asked Questions (FAQ)” [1]. Online responses such as e-mail are considered the dominant communication mediums to maintain customer relationships [1]. E-mail is one of communicational tools that may reduce waiting time and cost relationship for online customers. The successful use of e-mail communication can be one of company’s advantages.

Other communicational tools are help desks, chat rooms and FAQs. These methods are used on the webpage to connect companies and customers for more convenience and useful. Help desks provide technical support via e-mail. Chat rooms allow customers to connect with customer service directly. FAQs provide a place where customers discuss their problems with the concerned company.

In an offline setting, communication is a relationship marketing activity in the hotel industry [20], newsletters, direct mailings, telemarketing services, thank-you letters, and birthday cards have been used to measure the communication dimension and was treated as a determinant of relationship quality [20]. Therefore, this study extends the previous empirical support in the offline setting by proving that communication can be used to evaluate e-relationship quality in online activities.

In this thesis, communicational function is a tool to promote e-marketing service and to exchange online information between customers and company not only in reaction to a customer’s inquiry, but also to sustain customer relationships. The communicational function may involve the exchange of information through the website, e-marketing, complaint handling, customer support on the web and e-promotional activities such as e-newsletters, thank-you and birthday messages and special promotions.

Many studies have considered communication as a driver for relationship quality. The core of relationship marketing is communication and it is the foundation for understanding and developing customers in an off-line world [16]. Moreover, communication becomes even more influential in the “many-to-many environment” of the Internet. The impact of relationship marketing on repeat purchase and word of mouth found that communication resulted in higher relationship quality, which led to greater commitment, more repeat purchases, and positive word of mouth [20]. Therefore, the following hypothesis is suggested:

Hypothesis 1: Communication function is positively related to e-relationship quality.

Transactional Function

“Transactional function reflects the use of Internet technology as a platform to transact with companies such as place orders, check an order status, and view profile of previous activities” [1]. Most users of the Internet, for their travel planning are avoiding travel intermediate agents and turning their attention directly to the hotel websites [17]. Hence website service quality in hotel industry is becoming a more important issue than ever. In addition, [28] stated that website service quality and website security are important factors of transactional function which drives e-satisfaction and e-loyalty (2007). Moreover, website security [43] and website service quality [35], [36] have been studied as drivers for e-satisfaction and e-trust which persuade customer to use online transaction.

Website security, website privacy, website design, fulfillment/ reliability and customer service are defined as the important dimensions of website service quality [44]. [2] stated that website security is the feature through which online customers may build online trust; consumers who have this trust will eventually make additional online transactions [17]. He added that website service quality can anticipate more transactions between a customer and a company. Additionally, [21] endeavored to recognize the underlying features of web service quality and compared the importance of it among online travel suppliers and online travel agencies to measure customer satisfaction.

The online travel agencies verified five dimensions including structure and website convenience, branding and security, useful information content, responsiveness and personalization, and usefulness. Online travel suppliers on the one hand focus on just four dimensions which affect website quality such as useful information content, reputation and website security, structure and website convenience, and usefulness [21]. Consequently, online travel agencies discovered information content as the prominent dimension affecting customer satisfaction whereas structure and ease of use are as the major dimensions that are discussed by online
The customers’ information stored in the database allows hotel to customize or personalize services available on their websites [15], [24]. A customer returns to website and log in, would be identified by the customer database and the website can be considered as personalized [15]. In accordance with the customer preferences and purchase history stored in the system database, when a website can offer customized service, a customer feels confident with the website and is desired to return to the same website for the following purchases [42]. In order to evaluate customization/ personalization attributes, questions involve on whether a hotel website provides a customer with choices of preferences such as room types, proximity from the elevator, level of floor, crib, and wheelchair accessibility, and so on are being developed [15].

In this thesis, relational function is defined as a two-way communication that is featured in an e-CRM context that creates a personalized relationship between customer and an online company. Tools to facilitate this relationship may include customized products and services, personalized complaints, recommendations, and feedback surveys. Each customer receives a direct response to his/her online request or inquiry. In summary, the relational function keeps customer needs and preferences in a file for the customer’s future inquiries and information. Therefore, this thesis proposes customization as a driver of e-satisfaction, which is an important factor in the relational function.

Relational function was defined earlier in this thesis as a two-way communication feature that creates a personalized association among customer and online company. In the domain of e-service quality (e-SQ), customization and personalization are one of the key dimensions of SERVQUAL (service quality). [44] stated that this dimension of e-SQ seems to be more of a cognitive than an emotional evaluation when compared to general service quality. According to [3], a web master can combine on-site and external customization to manage customer relationships. Both types of customization are helpful in enhancing site loyalty. On-site customization is the design of the website “to appeal to users or enable the users themselves to customize the content” [3]. External customization is intended to draw users to a website. It may include banner advertisements, e-mails, affiliate sites or other communication media. According to [35], customization has an important effect on e-loyalty. Therefore, the next hypothesis is proposed:

Hypothesis 3: Relational function is positively related to e-relationship quality.

### III. METHODS & MATERIALS

The approach of this study was quantitative. Assessment of research instrument is a major factor in quantitative research due to its indication of the association among the data and observation [12]. As a result of these explanations, this study mainly focuses on quantitative approach through questionnaire and survey.
Correlational design was chosen in this thesis so that the questionnaire could be sent to a large number of informants, making the collection of great samples possible.

To gather data, a self-administered questionnaire has been distributed among one hundred and fifty Malaysian guests who stayed on Malaysian hotels to complete. These hotels are located in Klang Valley, the area comprising of Kuala Lumpur and its suburbs. It is ranked among the best hotels in Malaysia and more focus was centered on five star hotels websites. For the aim of this thesis just five hotels are randomly chosen namely, 1) Hilton, 2) One World, 3) Sunway, 4) Crown Plaza, and 5) Mine Wellness which all of them are located in Klang Valley, Malaysia.

The main part of research instrument (exclude the demographic profile) including communicational function, transactional function, relational function consisted of 26 items. The type of questionnaire that was employed in this thesis was the Likert scale, with five-point label, that had been applied with anchor from "1= Strongly Agree to 5= Strongly Disagree".

In this study, the data gathered were entered and coded into the computer for analysis. They were interpreted with the Statistical Package for Social Sciences (SPSS) version 16 for Windows Vista Home Premium. Moreover, these analyses included both descriptive statistics and inferential statistics.

IV. RESULTS AND DISCUSSIONS

Descriptive Statistics and Uni-dimensional Analysis

To evaluate the uni-dimensionality of all items, reliability and normality were applied. First of all, a reliability test was conducted to purify the measurement scale for each construct. All coefficient alphas of the five constructs revealed in the following table (Table 2.) surpassed .70 criteria for reliability acceptability. In this model, e-relationship quality was viewed as a higher-order construct which featured two dimensions: 1) e-Satisfaction and 2) e-Trust. Therefore, the reliability of the e-satisfaction and e-trust construct was tested, and then the reliability of e-relationship quality was tested again using each average value of satisfaction and e-trust. Secondly, the descriptive statistics and normality analysis were performed due to many statistical procedures such as 'ANOVA' and 'Pearson Correlation' that require group to come from normal population with the same variance. Therefore, before choosing a statistical tool for assessment, the hypotheses need to examine the normality of row data. Skewness and kurtosis are the common methods to find out the tilt in a distribution. The value of Skewness should be among the ±2 range; hence, if the value has been in this area, the data set are deemed as being distributed normally. So, positive skew right-leaning and negative skew is left-leaning.

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication CF</td>
<td>11.1</td>
<td>3.1</td>
<td>.174</td>
<td>-.470</td>
</tr>
<tr>
<td>CF1.</td>
<td>2.27</td>
<td>1.43</td>
<td>.619</td>
<td>-1.09</td>
</tr>
<tr>
<td>CF2.</td>
<td>2.27</td>
<td>1.51</td>
<td>.674</td>
<td>-1.08</td>
</tr>
<tr>
<td>CF3.</td>
<td>2.29</td>
<td>1.46</td>
<td>.654</td>
<td>-1.00</td>
</tr>
<tr>
<td>CF4.</td>
<td>2.00</td>
<td>1.26</td>
<td>.799</td>
<td>-0.99</td>
</tr>
<tr>
<td>CF5.</td>
<td>2.28</td>
<td>1.43</td>
<td>.617</td>
<td>-1.06</td>
</tr>
<tr>
<td>Transactional TF</td>
<td>10.65</td>
<td>2.92</td>
<td>4.00</td>
<td>.225</td>
</tr>
<tr>
<td>TF1.</td>
<td>2.33</td>
<td>1.48</td>
<td>.592</td>
<td>-1.17</td>
</tr>
<tr>
<td>TF2.</td>
<td>2.13</td>
<td>1.40</td>
<td>.780</td>
<td>-0.86</td>
</tr>
<tr>
<td>TF3.</td>
<td>2.05</td>
<td>1.33</td>
<td>.851</td>
<td>-0.69</td>
</tr>
<tr>
<td>TF4.</td>
<td>1.86</td>
<td>1.28</td>
<td>1.20</td>
<td>.047</td>
</tr>
<tr>
<td>TF5.</td>
<td>2.27</td>
<td>1.44</td>
<td>.667</td>
<td>-1.01</td>
</tr>
<tr>
<td>Relational RF</td>
<td>12.43</td>
<td>3.76</td>
<td>.490</td>
<td>.289</td>
</tr>
<tr>
<td>RF1.</td>
<td>2.27</td>
<td>1.45</td>
<td>.70</td>
<td>-.913</td>
</tr>
<tr>
<td>RF2.</td>
<td>2.34</td>
<td>1.43</td>
<td>.591</td>
<td>-1.02</td>
</tr>
<tr>
<td>RF3.</td>
<td>1.8</td>
<td>1.27</td>
<td>1.349</td>
<td>.440</td>
</tr>
<tr>
<td>RF4.</td>
<td>2.43</td>
<td>1.46</td>
<td>.508</td>
<td>-1.16</td>
</tr>
<tr>
<td>RF5.</td>
<td>1.8</td>
<td>1.31</td>
<td>1.41</td>
<td>.597</td>
</tr>
<tr>
<td>RF6.</td>
<td>1.79</td>
<td>1.21</td>
<td>1.27</td>
<td>.330</td>
</tr>
</tbody>
</table>

With reference to the results, all the participants have answered all questions in the questionnaire. Therefore, there is no missing value in this research. Table 2., shows the frequency data of the variables distributed in the survey and explains the distribution of data by descriptive statistics. Meanwhile, the responses for each measurement items ranged from "Strongly Agree" to "Strongly Disagree".

As seen in Table 2., the first aspects of e-relationship quality was named as communicational function (CF), which consists of four attributes; the mean and standard deviation of the CF variables were 11.11 and 3.11, respectively. The mean and standard deviation of transactional function (TF) were 10.65 and 2.92 respectively. Besides, another dimension of e-relationship quality determinant is relational function (RF). The overall mean and standard deviation for RF were 12.43 and 3.76, respectively.

As mention earlier, in this model, e-relationship quality was viewed as a higher-order construct composed of two dimensions: 1) e-Satisfaction and 2) e-Trust. Hence, the mean and standard deviation of e-Satisfaction (eS) were M=6.63, SD=2.33 respectively. In addition, the mean and standard deviation of e-Trust (eT) were M=9.15, SD=2.84 as well as the e-Loyalty (eL) mean and standard deviation's were M=6.12, SD=2.17.

Cronbach's Alpha is based on the internal consistency of a test and the average correlation of items was higher than .70 for all variables. [4] cited that in practice, the reliability coefficient should be more than 0.70, which indicated a reliable internal consistency of the measured items. The overall Skewness was lower than ±2.0. This reflected a normal distribution of the data [13].

The Communicational Function, Transactional Function and Relational Function on e-Relationship Quality

The three objectives of the papers are to measure the association between Communicational Function, Transactional Function and Relational Function on e-Relationship Quality
among the Malaysian lodging websites. The first research question is to examine the following directional alternative hypothesis: the communicational function is positively associated to the e-relationship quality at the 0.05 level of significant. Likewise, the second research question is to examine the following directional alternative hypothesis: the transactional function is positively associated to the e-relationship quality at the 0.05 level of significant as well as the third research question is to examine the following directional alternative hypothesis: the relational function is positively associated to the e-relationship quality at the 0.05 level of significant.

To answer the above hypotheses, a correlation analysis was computed on communicational function (CF), transactional function (TF) and relational function (RF) on e-relationship quality (eRQ). The Hypotheses (Ha1, Ha2, and Ha3) stated that there are positively relationships between communicational function (CF), transactional function (TF) and relational function (RF) on e-relationship quality (eRQ), respectively. The results are displayed in the Table 3.

<table>
<thead>
<tr>
<th>Variables</th>
<th>CF</th>
<th>TF</th>
<th>RF</th>
<th>eRQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicational Function(CF)</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transactional Function(TF)</td>
<td>.205*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relational Function(RF)</td>
<td>.338*</td>
<td>.262*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e-Relationship Quality(eRQ)</td>
<td>.174*</td>
<td>.254*</td>
<td>.286*</td>
<td>1.0</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (1-tailed).
** Correlation is significant at the 0.01 level (1-tailed).

The association between communicational function and e-relationship quality appeared to have the correlation ($r$=1.74, $p$<.05), which verified that there exist a positive association among communicational function and e-relationship quality. Therefore, the first hypothesis is supported. Moreover, the correlation between transactional function and e-relationship quality appeared as .254, indicating significant at the .01 level of significance. Based on this result, hence, there were also positive and significant relationships between transactional function and e-relationship quality ($r$=.254, $p$<.01) so this hypothesis is supported, as well. The correlation between relational function and e-relationship quality appeared to be only .286 ($p$<.01). Thus, an obvious positive association exists between relational function and e-relationship quality.

Consequently, the hypothesis 3 [the Relational function is positively related to the e-Relationship Quality] is supported ($r$=.286 $p$<.01).

As shown in Table 3., therefore, the conclusions supported the first three hypotheses of the current thesis. The findings of this thesis are in parallels with the majority of previous studies on the determinants of e-relationship quality which proposed that the determinants are combinations of traditional communicational function, transactional function and relational function and that there was a positive relationship between these factors [8], [5], [20].

V. CONCLUSION

The rising of online computing technology rates’ makes it an essential factor for businesses to seriously consider the Internet to prevent from losing this competitive advantage. A website gives direct links among the consumer and the organization [19]. Thus, many prior researches on the determinants of e-relationship quality have suggested that the e-relationship quality are combinations of technical functions like Internet security and traditional communicational function in marketing like mailing services [8], [5], [20]. In light of the first issue, the determinants of e-relationship quality were revealed to have three aspects: communicational function, transactional function, and relational function.

The results displayed that the communicational function, followed by relational function and transactional function were the most important dimension that would be affected customer e-loyalty. Firstly, the traditional communicational function concentrates on common interaction among a firm and customers in marketing. This function continues to perform a prominent role in the online context due to an online provider is in a better position to take advantage of the Internet for disseminating information as well as answering all inquiries from customers. Secondly, considering the relative influence of the transactional function, the dominant factor of transactional function was website service quality related to the useful website content, content website convenience, website accessibility, website security, and website design followed by transaction complexity. Thirdly, the relational function included customized service and personalized WebPages. Personalized hotel website is a prominent characteristic that can allow hotel guests to report personal needs, complaints and suggestions.

Therefore, in order to have a competitive advantage, a hotel provider should offer services/products via the website with active communicational interaction, low transaction complexity and high customization.

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REFERENCES


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