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The Impact of Online Customer Experience (OCE) on Service Quality in Malaysia

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Abstract: Nowadays, online product communities have turned into an integral element of Web-based strategies of many corporations. This facility allows customers to be kept in touch with producer companies. Hence, these conditions raising the importance of customer experience in the online environment as well. This quantitative research aimed to develop a new framework to illustrate the determinants of service quality from customer experiences perspective in the online environment in Malaysia. To conduct this study, the four dimensions of customer experience, namely Pragmatic Experience, Sociability Experience, Usability Experience and Hedonic Experience, were at first identified from review of literature. Subsequently, gathering data from 148 respondents in Selangor (Malaysia) was done and the Multiple Regression Analysis was applied to check the associations between each variable and service quality. The developed model covered the 63.7% of variation and showed that service quality is affected by the four identified independent variables significantly.

Key words: Online Customer Experiences · OCE · Service Quality · Pragmatic Experience · Hedonic Experience · Usability experience · Malaysia

INTRODUCTION

Overview: Discussions about marketing and its components have a general tendency to propel towards customers and consumer perspectives and this has thus intrigued scholars to find out more about the characteristics of customers. In this regard, many concepts have been created, such as customer satisfaction, customer loyalty, customer devotion, customer experiences, customer buying behaviour, customer equity, etc.

It must be noted too that at the same time the increasing number of online users has caused companies to modify their structures so as to take into consideration online and virtual conditions. They have been attempting to pinpoint the essential factors (related to customer-based issues) which may have potential affects and benefits to their businesses. Both customers and companies believe that the use of the online infrastructure can facilitate the process of purchasing and selling of products. From this, thus arises the need for online services provided by companies to be of a certain quality in order to appropriately satisfy customers' needs and wants.

Today, online product communities have changed with the presence, support and competition created by corporations such as Sony, Microsoft, IBM and motorcycle manufacturer like Ducati [1]. Online facilities allow customers to make contact with companies and also interact among themselves. Prior researches conducted of the online behaviour of consumers have studied their experiences in the online space. This research, the most part, is about people's experiences in working with the Web in all forms of internet activities (e.g., web browsing, online searches, etc.).

There are numerous researchers who discussed about "Web Experiences" [2]. Other authors have researched into online shopping and retail behaviour of customers [3,4]. In these studies, how working with online websites could change and shape customers' preferences and their trends towards buying purposes were investigated. A great body of studies have shown that

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online product communities have such unique characteristics and facilities that we have in effect to go far beyond investigating into simple "Web surfing" activities and consider an all-inclusive concept which could redefine customer's online community experience [1].

The world of E-commerce has gained the attention of companies and in the past few years many companies have made their presence online felt and have made investments into electronic commerce. At the same time, advancements in information and communication technologies also enabled customers to use the internet wherever and whenever they want. All of these factors led to the rampant growth in e-commerce transactions in recent years and it is foreseen that the development will continue into the next year [5].

Customer Experience: The concept of "customer experience" comes from the book "Experience Economy" by Pine and Gilmore [32]. The writers explained experience as the chance of building new economy that comes after products, services and commodities. Customer experience is defined as the interactions of the users with products and companies, or of other segments of a company that stimulate some reactions [6, 7].

All assessments rely on the big difference shown between the stimuli and the expectation of users of what the company offers and its match to the contract. One method of measuring customer experience is by the level of consumption. An individual as a customer deals with a company or another individual or a firm [6].

The selling experienced and remembered by users provides them the linkage with the firm. Prahalad and Ramaswamy [8] suggested that the customers' experience is what makes the firm; the firm's background and goods offered direct users' experience [9,10].

Verhoef *et al*., [11] stated that the building of customer experience has some basic features, which include knowledge, emotional, affective and physical responses of users. All of these as a whole defined the users, theirs thoughts and values that reflect their lifestyles, behaviours and relationships. By modification of Schmitt's [12] work and adding in the dimension of pragmatic experience, Gentile *et al.,* (2007) [13] suggested the general experience with six basic elements and relational elements.

Service Quality: Service quality is the difference between performance and expectations. Lewis and Booms [14] stated that service quality is an assessment, which defines the abilities of a delivered service to meet the needs of the customers. In comparison with the body of research studying the quality of face-to-face services, investigations of online service quality remain in their infancy [15]. SERVQUAL is one of the more usual methods used to evaluate online services [16].

Factors that determine the quality of face-to-face services are different from that for online services, in terms of retail issues such as the amount of time needed, the effort involved and anticipated benefits from the transaction, for instance [17]. When companies offer beneficial online self-services such as payment and shopping, they changed the mode of the delivered service from face-to-face to one that is technology-based. This effectively decreased the amount of contact needed with customers. Many basic factors of face-to-face services changed, making irrelevant factors like reliability and tangibility.

According to Parasuraman *et al.,* [18], any attempt to develop face-to-face services into online services can impact on the validity of such a convergence. Diminished reliability, adequacy and efficacy or constrained predictive validity may result. There is a growing need to expand the measurements of online self-services. Many measurements evaluate the quality of websites [18-23].

This study aimed to identify the main dimensions of customer experience in online environment, which have an effect on service quality and measure the impacts of these main components including pragmatic, hedonic, sociability and usability experience on service quality.

Literature Review

Service Quality: In comparison with the body of research studying into face-to-face services quality, research of service quality online keeps their [15]. The usual method used expands SERVQUAL for evaluation of online services [16]. Nevertheless, it must be recognised that face-to-face services are different from online services in their basic quality factors. For instance retailing offers users a better ability to monitor their products thereby lowering their expectations.

Online services like payment and shopping also act to switch service delivery from face-to-face to that based on technology, which decreases the contact required between users and staff. Consequently, many basic factors for face-to-face service quality, like reliability and tangibility, have become less relevant.

Table 1: Online service quality scales in prior studies.

Article	Scale	Information related	System related	Service related
Zeithaml *et al*.,2000[22]	E-SQ		Access, ease of navigation, flexibility, reliability, price knowledge, aesthetics, efficiency, personalization, privacy,	Responsiveness, assurance
Yoo and Donthu,[20]	SITEQUAL		Ease of use, design, speed, security	
Francis and White,[24]	PIRQUAL	Product attribute	Functionality, ownership conditions, security	Delivery, customerservice
Loiacono *et al*.,[19]	WEBQUAL		(1) Informational fit to task, ease of understanding, completeness Appeal, response time, flow, image, operations, better than alternatives, innovativeness, interactivity, trust	
Barnes and Vidgen,[25]	WEBQUAL	(2) Information	Usability, design	Empathy, trust
Wolfinbarger and Gilly [23]	e-TailQ		Web site design, privacy	Fulfillment/reliability, customer service
Parasuraman *et al*., [18]	E-S-Qual		Efficiency, availability, privacy	Fulfillment
Parasuraman *et al*., [18]	E-Res-QUAL		Responsiveness	Compensation, contact
Bauer *et al*., [21]	eTransQual		Reliability, process, functionality/design	Responsiveness, enjoyment

According to Parasuraman *et al*., [18], expanding the concept of online service quality might result in questionable reliability, diminished adequacy and efficacy or constrained predictive validity. There is a growing need to improve on the means of evaluating the self-service online environment. Many evaluations only estimate the quality of web sites [18-22], or the e-retailing quality [23]. All of these measurements came from several improvement tasks in the past and they tend to emphasize on the vital behaviors of information systems; with little consideration on service factors of actual online services [26, 27].

As Table 1 shows, SITEQUAL emphasizes on the quality of system. In contrast, e-TailQ and E-S-Qual emphasize more on service and system quality.

Information technology have a tendency of cycling in continuation, so those who intend to improve their services with better web site designs might surpass their competitors easily with improvements in system functions and ability to take in users' suggestions. Thus, service experiences must be a vital consideration for they might be able to provide competitive advantages [28]. Hence, the features of online self-service in e-retailing must be sized up and suitable measurement which covers all the necessary attributes of performance of e-retail service must be used. In regards to online services, information quality generally contains complete events, albeit accurate ones, time lines and existence if deemed beneficial [26]. System quality of applications or systems encompasses basic aspects of information systems, like flexibility, accessibility, reliability and timeliness [27]. Representation of services suggests other vital elements of online service quality [23, 29]. In e-retailing, service quality of a general e-retailer might impact on the feeling of satisfaction of users, their goals, experiences or buying decision [30, 31].

Customer Experience: The concept of "Customer experience" comes from the book "Experience Economy" by Pine and Gilmore [32]. The writers have the definition of experience as the chance that appears after goods, services and commodities. Customer experience is considered the entire interaction among customers and products, companies, or other segment of a firm that derives a reaction [6, 7]. Its assessment relies on the difference between the expectation of users and the stimulation coming from the firm's relationship and what it offers which match the important and distinct elements of the association. Customers' experience is a regenerate method to delineate the famous consumption definition. It is a general view that sees an individual compared to a customer in a distinct way and each association is through an individual or a firm [6].

Value creation is not contributed merely to making users experience memorable but also to providing users the possibility of living their entire association with a firm in a wonderful way, even if they did not expect it. Prahalad and Ramaswamy [8] suggested that users be engaged with co-creating their own special experience with a firm. Firms providing goods with strong backgrounds that direct experiences might be appropriately used by users to create their own special experiences [9, 10]. This phenomenon (co-creation) is a vital feature in providing a prominent or complete experience for customers.

Adopting a co-creation attitude involves engaging customers in a discourse and association with those who covers through production, goods design, consumption and delivery. Gentile *et al.,* [13] assumes that users' experience is a new consideration that can provide value for, not only firms but also users and a good experience should generally engage an individual at different

degrees. The behavioural and psychological researches [12, 33, 34] identified three vital systems, cognition, affect and sensation; and each of these has its own function, principles and mutual associations. Verhoef *et al*., [11] stated that the experience of a user can be general in nature and covers affective, feeling and physical responses of users.

These above-mentioned researches consider a set of customer's actions, the system of values and beliefs (which reflect one's lifestyle and behaviours) and relationships. By modification of Schmitt's [12] work and adding pragmatic experience factors, Gentile *et al.*, [13] suggested the general experience of users model and the six basic elements of it: emotional component (feel); a sensorial component (sense); lifestyle component (act); cognitive component (think); pragmatic component; and relational component (relate). Customers comprehend each experience as a complex feeling and hardly can distinguish the components from one another; in fact, there would be the occasionally relevant overlapping areas and clear interrelations.

Pragmatic Dimension: Online product communities have a vital part to play in providing an environment for users in which an individual can venture out and find solutions to particular goods-related problems or to receive recommendations and advice on new goods. Therefore, a vital element of users' total online community experience is formed by the value of such communities in its entirety [1].

The factor of dimension is related to users' goal orientation behaviour [2] and would show if users have found the experience with the online team useful, worthy or valuable [35]. Thus, the pragmatic factor is connected to practical and utilitarian activities if we are considering the experience of users in a team.

Hedonic Dimension: This is regarded as the intrinsic value, which users perceive from the association in online goods groups. This factor indicates users' feelings of excitement presented in the place where their desired goals are a vital issue. Both brands and products and strong engagement association in line with the desired aims collectively provide users the context to gain the feeling of enjoyment and fun, which can be interpreted into a positive hedonic experience [36, 37]. Associations might become boring to users over time, so much so that it will decrease the rate of hedonic experience to a very low level [37, 38].

Sociability Dimension: The sociability dimension of OCE is considered the social experience which a member (customer) extracts from his/her association with the online goods community. These elements size up the knowledge of users based on their total friendliness, openness and politeness. As earlier mentioned, especially in the online goods community, the groups of peer users who build the atmosphere of sociability could deliver positive experiences of sociability, which could easily in turn develop into higher number of network ties and more linkages [39]. On the slip side, negative associations too reflect on the online group-as an example, flaming or rude and unsuitable postings will degrade the social experience of members [38].

Usability Dimension: This is explained as the experience of users in surfing and participation in the online environment [1]. Thus, this dimension reflects the aspects of technology in relations to its ease of use to the online goods team. Higher degree of usability experience can strengthen the capabilities of users to navigate their presence in the online atmosphere without barriers keeping them from their desired goals [39, 40, 41]. Likewise, a low degree of usability experience can be improved by applying technology and other kinds of navigational elements, which have an impact on users' association and the process of information acquisition [40, 42].

Customer Experience and Perceived Service Quality: In many corporations, especially firms with a technology background, online goods groups have become as their major service infrastructure. As an example, firms like Microsoft, Dell and IBM created their online goods team as after acquisition of a goods cover service. User's goods-related questions that are asked in online forms are replied by other users or by the firms themselves. Indeed, in these firms, users are directly guided to the online goods team from the firm's customer main web site, so much so that users often delegate online teams with similar positions as other user services such as users' service hotline.

With this in mind, customers may measure their online team's experience according to their service interactions. They then may form ideas or knowledge of a firm's service quality according to these associations. In particular, positive association experiences may indicate punctual and beneficial support for users; goods-related needs and refereed returns projects positive knowledge of the firms' total service quality. Conversely, negative experiences might be construed as weak service quality.

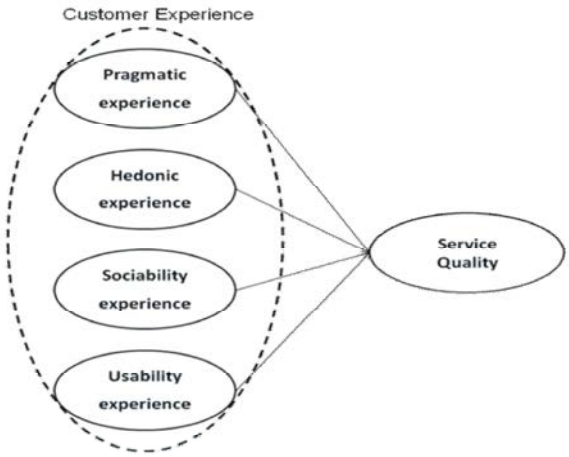

Fig. 1:

As a result, users online group experience dictate if a relationship is positive based on their understanding of the firm's quality of service.

Conceptual Framework: Based on previous researches, service quality may be affected by customer experiences. Linkages in the following framework (Figure 1) is supported by researches by [1,35-46].

The schematic diagram in Figure 1 defines the relationships of this study. With these relationships, hypotheses can be postulated and they can be helpful to improve general understanding of the phenomena. The framework encompasses four elements that are posited to exert influence of customer experience on the service quality of the online environment in Malaysia.

Pragmatic Experience: Online product communities in the Malaysian environment show a basic feature; they usually opt for good solutions to particular product-related problems and would take recommendations and advice on new goods. Nambisan and Watt [1] stated that one of the vital elements of online customers experience is formed by the pragmatic value of such a community. Pragmatic elements are believed to based on the aim-oriented behaviour of customers [2] and stimulation if users find the online experience useful, worthy and valuable [35]. Based on the Malaysian lifestyle and the structure of its online market, it can be posited that their behaviour, relevant to the using of these services, has potential affect on service quality in the online environment.

H_1: There is a positive association between Pragmatic Experience and Service Quality in online environment.

Hedonic Experience: The hedonic dimension of OCE is regarded as the intrinsic value that customers gain from the online goods interactions. This element stimulates user's feeling of enjoyment when they pursue their desired goals of brands and goods. Strong associations relevant to the customers desired aims will provide them the context to project good feelings, happiness and derive fun; and this ultimately converts into positive hedonic experience [36, 37]. However, sometimes the interaction might be a boring one for users, so accordingly the rate of hedonic experience will decrease [37, 38].

Since the hedonic dimension is based on intrinsic values, it may therefore be related to cultural beliefs. Malaysia is a multi-cultural nation consisting of the Malays, Chinese, Indians, Indonesians, Iranians and a few other minority races, so it may be possible that cultural differences may affect intrinsic values. All these stated reasons trigger the consideration of the hedonic dimension as an independent variable which may influence service quality.

H_2: There is a positive association between Hedonic Experience and Service Quality in online environment.

Sociability Experience: The sociability dimension of OCE is considered the social experience which members (customers) extract from his/her interactions in the online product community. This element focuses on the intention and understanding of customers based on their total politeness and openness. As mentioned earlier, OPC (those who make up the social environment) can convey a positive social experience, which causes for easier construction of the network linkage [39]. As it pertains to the definition of sociability experience, investigating the effect of this dimension on service quality in Malaysia is justified.

H_3: There is a positive association between Sociability Experience and Service Quality in online environment.

Usability Experience: The usability dimension of OCE is defined as the customers' experience in surfing and using the online community environment [1]. Thus, this dimension clearly reflects an aspect of technology. A higher degree of usability experience can mean navigation of the online atmosphere with less problems or drawbacks or help needed in achieving the desired objectives [39, 40, 41].

This dimension considers Malaysian customers of different age groups and levels of education as they would naturally have different experiences. Moreover, this dimension can be relevant to and informs on technology acceptance of Malaysian customers when seen in contrast to companies' plans. Thus, measuring the impact of usability experiences on service quality will clarify the role of this type of experience.

H_4: There is a positive association between Usability Experience and Service Quality in online environment.

Methodology: A five-point Likert-scale questionnaire based on a review of the existing literature was developed. The pilot study for validity content among prominent academicians in Malaysian universities, who have research interest in this field, was done and necessary modifications were applied accordingly. In principle, the final questionnaire consisted of three parts. The first part was to seek general profile of respondents, such as; respondents' gender, age, highest qualification and job positions, etc. The second part comprised four constructs measuring customer experience in online environment, while the third part comprised the measures of service quality.

The questionnaires were fulfilled by users in various locations in Selangor, Malaysia. This particular group of people may or may not have the habit of using online services. They were chosen as respondents due to their easy availability and access in order to help in saving cost, time and other human resources.

Sample Size: Due to time and cost constraints built into the research, the chance to connect with a large sample was low; therefore, the chosen sample size was determined to be at 150 participants. This is assumed enough as a representative of the entire population. Caokes and Steed [47] asserted that the minimum requirement in terms of the number of respondents in the context of multiple regressions should at least be five times or more than the IVs (Independent Variables). For the regression model in this study, the total number of IVs has 150 pieces of data. Therefore, this requirement is satisfactory.

It was decided to use a personal administered questionnaire as the data collection instrument. This method of data collection is valid in this type of research, as it is inexpensive and produces quick results, as well as highest flexibility in data collection [48]. Any doubts and uncertainties in the questions could be clarified on the spot. The response rate for this gathering of data was close to 100%.

Table 2: Measure of Reliability for 25 Pieces of Data

Variables	No. of Items	Cronbach's Alpha
Service Quality (SQ)	5	0.888
Pragmatic Experience (PE)	5	0.852
Hedonic Experience (HE)	5	0.738
Sociability Experience (SE)	5	0.822
Usability Experience (UE)	5	0.813

Sampling Method: The simple random sampling technique was used in this research. It is chosen as each factor of the population has been figured out. It is most likely that the pattern of desired characteristics in the population is shared in the chosen sample. This technique of sampling allows for cost and time savings and is particularly helpful when the size of the population is huge and the budget and time are restricted. Thus, it was a simple choice and required only one stage of sample selection.

Reliability of the Scale: The next step is to evaluate whether the scales of measurement are reliable and valid. Reliability assesses the degree of consistency among multiple measurements of a variable [49]. Reliability is established by testing for consistency and stability using Cronbach's a coefficient, which is calculated in terms of the average intercorrelations among the items measuring the concept [50].

Table 2 presents the results of the Cronbach's a coefficients for this study. The closer the coefficient is to one, the higher the internal consistency and reliability of the study. As it can be seen, all the constructs have a values higher than (0.7). Therefore, it can be concluded that the internal consistency and the reliability of the survey are fairly maintained [51].

In table 2 the inter-item consistency reliability or the Cronbach's Alpha reliability coefficients of the four independent variables and one dependent variable of this research have been obtained.

RESULT AND DATA ANALYSIS

Profile of Respondent Firms: The number of valid received questionnaires was 148. Respondents were from different age groups, ethnicity and genders with different job positions. Out of the 148 respondents, 72 respondents were male, while 76 respondents were female representing 48.6% and 51.4% of the sample, respectively.

Table 3: Rotated Factor loading of OCE

	Factors			
Item (sig.)	Pragmatic Exp.	Usability Exp.	Hedonic Exp.	Sociability Exp.
Pragmatic Exp.(0.8601)				
Using online services is productive	.861			
Using online services is worthwhile	.812			
Using online services is valuable	.810			
Using online services is informative	.777			
Using online services is useful	.723			
Using online service is pleasant	.591			
The interface of online service motivates me to continue	.537			
Usability Exp.(0.8351)				
It is easy to use online services		.822		
It is not confusing to use online services		.811		
It is not tiring to use online services		.788		
It is simple to use online services		.779		
It is not stressful to use online services		.740		
Hedonic Exp.(0.8712)				
I am happy with using online services			.820	
I am pleased with online services			.771	
I am excited by the services provided by the online environment			.703	
The entertainment provided by the online services can adjust my mood				.627
I am captivated by the online services I am using			.622	
Sociability Exp.(0.8427)				
Online services are friendly				.887
The interface of online services is polite				.872
The interface of online services is personal				.628

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

With N = 148, $\chi 2$ = 51.82 (p = 0.000), df = 19, $\chi 2$/df = 2.72, CFI = 0.921, GFI = 0.931, RMSEA = 0.059.

Table 4: The effect of OCE dimensions on service quality

Construct	Calculated F	Sig.	R	R^2
Pragmatic Exp.	9.453	0.0044	0.839	0.699
Usability Exp.	11.736	0.0001	0.734	0.537
Hedonic Exp.	9.889	0.0002	0.781	0.615
Sociability Exp.	12.051	0.0019	0.802	0.642
All OCE dimensions	10.772	0.0001	0.783	0.637

In terms of the respondents education, 21.3% of the respondents had bachelor and above certificates and rest had diploma and below degree.

Factor Analysis: This step was to measure construct validity, which was performed using factor loading as given in table 3. First the KMO result was checked, it was 0.753, which is considered satisfactory. Subsequently, four factors were identified; representing the 4 customer experience dimensions. Loading to these factors was obtained using factor loading with varimax rotation. Table 3 shows that each set of the dimensions loads are as follows: pragmatic experience on factor 1; usability experience on factor 2; hedonic experience on factor 3 and sociability experience on factor 4. Therefore, we can confirm that the construct validity is maintained for this study.

Confirmatory Factor Analysis (CFA): In order to confirm the developed model, subsequent to exploratory factor analysis, confirmatory factor analysis (CFA) was done. CFA was used to test unidimensionality and determine whether the four indicators of OCE model measured the construct sufficiently as they were assigned.

According to table 3, the overall fit of the model was reasonable because the ratio of the $\chi 2$ value to degrees of freedom is less than the critical cut-off point of 3, while the $\chi 2$ statistic is significant.

Additionally, the goodness-of-fit index (GFI) and comparative fit index (CFI) are more than the recommended value of 0.9 for a good model. The root-mean-square error of approximation (RMSEA) is 0.059, which is less than 0.08 for a good model. Additionally, Cronbach's Alfa was used to evaluate construct reliability. As table 3 indicates, all constructs show high internal reliability ($\alpha > 0.80$).

Hypotheses Testing: This study aimed to find out whether OCE dimensions explains the variation in firm performance. Therefore, the hypotheses stated that there is a positive association between Pragmatic, Usability, Hedonic and Sociability Experience and Service Quality in online environment. Multiple regression was used to test four hypotheses. Table 4 summarizes the results of regression used to test these hypotheses. From the value of (R^2) it can be concluded that (63.7%) of the variation in service quality among respondents, is due to these four dimensions of OCE. In addition, Pearson correlation coefficients (R) were found to be positive between the independent and dependent variables and ranged between (0.734) and (0.839) which supports the proposition that OCE dimensions lead to better service quality in online environment. As mentioned in the literature review section, there are few studies (if any) on OCE dimensions and service quality and they are mostly based on case studies or are descriptive or prescriptive. Our results are consistent with their study; also the results indicate that all OCE dimensions contribute substantially to the overall service quality in online environment.

DISCUSSION AND CONCLUSION

Summary and Conclusion: The main goal of this study was to examine the association between online customer experience and service quality in online environment in Malaysia. This country as an Asian country has already been engaging the virtual space in its transactions and because of new technologies, most Malaysian people also actively use online services.

The increasing numbers of online users have caused companies to adapt their structure based on online and virtual conditions. They try to find the essential factors, which may potentially affect their benefits based on customer-focussed issues. Both customers and companies believe that using online services can facilitate purchasing and selling of any products. Thus, any online service provided by companies needs to be of an appropriate quality in order to satisfy customers' needs and wants.

Therefore, the Internet has turned into the basic elements for any process involving websites for many corporations [1]. This facility allows customers to make contact with companies. In the prior research conducted on the online behaviour of consumers, their experiences in the online space were studied. Nevertheless, the most part of this research are about people's experiences in working with the Web in all forms of internet activities (e.g., web browsing, online searching, etc.). For more information read "Web Experiences" [2]. Other authors have investigated into online shopping and retail behaviour of customers [3, 4]. It was investigated in these studies how working with online web-sites could change and shape customers' preferences and their trends towards buying purposes. A great body of studies have shown that online product communities have such unique characteristics and facilities that we have to go far beyond simple "Web surfing" activity and consider an inclusive concept which could redefine customer's online community experience [1].

Consequently, this paper had an empirical attempt to analyze the associations between Online Customer Experience (OCE) dimensions and service quality in online environments in Malaysia.

Pragmatic Experience: One of the objectives of this study was to investigate the association between the pragmatic dimension and the service quality. The positive correlation and significance of 0.0044 in table 4, supports the first hypothesis. The pragmatic element is based on goal orientation [2] of the users and highlights if the user found the online experience groups valuable, useful and worthwhile [35].

Thus, experience of users is connected to these activities in practice. Hence, the companies should plan and try to increase service quality by improving this dimension. Customers should feel that using the online service is useful, informative, productive and valuable. For this purpose, companies need to obtain customers' feedbacks and also advice from experts in web design services.

Hedonic Experience: Another objective of this study was concentrated on measuring the association between hedonic experience and service quality.

In this regard, respondents were asked to share their opinions in term of their happiness level or the entertainment value of using online services. As shown in Table 4, this study supports the related hypothesis. The hedonic dimension of OCE is regarded as the intrinsic value which users obtained from online goods interaction.

This element postulates the enjoyment of users where their goals are the basic emphasis of both goods and brands. Strong engagement and interactions based on the desired goals provide users with the feeling of excitement and might covert into positive hedonic experiences [36, 37].

Following this discussion, companies should consider making their online services more pleasant for their customers. Sometimes it can happen by just minimizing service taking time through facilitating processes.

Sociability Experience: The third objective of this study was to examine the association between sociability experience and service quality. For this purpose, after the Pearson correlation analysis, the Regression analysis measured the association of sociability experience and service quality. Table 4 shows the related results. Thus, the third hypothesis is accepted. The sociability dimension of OCE is considered the social experience which member (customer) extracts his/her interactions from in the online product community. This element also took on the perception politeness, openness and friendliness. Hence, companies can improve service quality by panning on this type of experience.

Usability Experience: The last objective of this research was about the measuring of the association between usability experience and service quality. Table 4 shows the p-value of usability experiences equals to 0.0019 which is less than 0.05 and is significant. Thus, the fourth hypothesis is accepted.

The usability dimension of OCE is defined as the customers' experience in surfing and using the online community environment [1].

Thus, this dimension is so that it reflects the convenient application of technology onto the online environment. Higher levels of use may enable the users to better navigate online groups without any problems, which may hinder them from their goals [39, 40, 41]. Hence, companies should try to design online services that are easy for the different levels of customers in the move to improve service quality.

Limitations: The biggest limitation of this study is in the choosing of respondents. Based on Customer experiences' components, respondents need to have some experience in using online services as it is very popular in Malaysia. Although many people have used IT products, they could not answer the questionnaire because of information inadequacy.

On the other hand, one of the most important strengths also refers to respondents since finding customers who have experiences is not difficult. Nowadays, most Malaysians are engaged in using online services, so online services are familiar to a majority of the people. Besides, distribution of questionnaires to the different levels of customers showed that the all questions were easy to understand although the concepts of pragmatic, hedonic and sociability themselves seemed very difficult.

Furthermore, customer experience as an appropriate concept in marketing (or e-commerce) and is one of the more challenging issues that many researchers and scholars have tried to tackle in the recent years. So, there were many updated sources and references for supporting this study that contributed to make this study more valuable.

Based on obtained results it seems that the Malaysian companies (local/foreigner) should be concentrating on the main components of customer experiences in improving service quality. Since Malaysia is a multinational country with various ethnicities such as Malays, Chinese, Indians, Indonesians and Iranians and many more minority races, more attention should be paid to culture. Adaptation to suit the different tastes is important, as is consideration of the different aspects such as the aesthetics of the web design, usage of specific colours (e.g. Chinese like the red colour), etc. Moreover, the structure of business is being propelled to online services that needs more security, so companies have to make their facilities secure in terms of transacting over the online services. Confidence can be built and things will be happen if information security professionals are employed.

Future Studies: Future studies could be conducted of a similar research on specific industries (narrowing down) to highlight the importance of each dimension based on relevant industries. In addition, using this framework in other countries is also suggested and it is important the next scope of study should be selected on the role of internet and online services within this.

Another topic for future study can be to investigate the relationship between customer experiences and service quality for mobile phones or digital products (not for the online environment).

The last suggestion for future study is the testing of the following framework that focuses on Customer Experience, Service Quality and Attitude towards companies and products.

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