Internet Technology, Crm and Customer Loyalty: Customer Retention and Satisfaction Perspective

[1]Seyed Rajab Nikhashemi, [1]Laily Paim, [2]Ahasanul Haque,
[3]Ali Khatibi and [3]Arun Kumar Tarofder

[1]Department of Resource Management and Consumer Studies,
University of Putra Malaysia
[2]Faculty of Economics and Management Sciences,
International Islamic University Malaysia
[3]Faculty of Business Management Professional Studies,
Management and Science University, Malaysia

Abstract: The purpose of this study is to investigate the effect of internet technology on customer loyalty. Besides, further discussion of the relationships among internet technology, customer satisfaction, customer retention and loyalty are presented. This study has also given more insight into the application of various Internet technologies that can be utilized in Customer Relationship Management (CRM) in order to build a profitable customer-centric business model. A survey instrument was used to examine the relationships in the proposed model. The collected primary surveys (n = 288) are conducted to test the relationships among the four dimensions expressed in the proposed structural model; therefore, regression analysis as well as correlation were run to analyze the data. The results demonstrate that Internet technology does not only improve the customer service, but more importantly, it can deliver value to the customers through which retention rate and customer loyalty will be enhanced. Moreover, Customer satisfaction has strong relationship with customer retention, but poor relationship with customer loyalty. On the other hand, customer retention has significant relationship with customer loyalty. The obtained results indicate that customer satisfaction strongly influences customer retention, whereas customer retention can affect customer loyalty.

Key words: Internet technology & CRM · Customer Loyalty · Customer satisfaction and retention

INTRODUCTION

The increasing interest in business forums as the result of the importance of loyalty in the online commerce and also growing studies in the academic community, has assisted us to understand how customer loyalty is formed in greater detail [1]. Probably some of the most important factors to explain the building of Internet loyalty are usability and satisfaction. Consumer familiarity may also play a significant role on consumer behavior. Moreover, by increasing the role of globalization in the world of economics, many opportunities for marketers as well as intensified competition among businesses have been provided; so that many companies are looking towards unconventional forms of marketing. Marketing through the internet is such an unconventional form of marketing that attracted many companies interests [2].

With the evolving world of technology, we are witnessing dramatic growth in the number of companies using the internet as a connecting gate to the world of business. The internet has been welcomed by many companies where it has brought undeniable opportunities in business and marketing in order to enhance customer loyalty [3]. In such rapid growing rate in using the internet as the tool of communication and marketing, Malaysia has been introduced as one of the greatest users of the internet in South East Asia. Since early age of commerce, meeting consumer satisfaction has been the main focus

Corresponding Author: Seyed Rajab Nikhashemi, Department of Resource Management and Consumer Studies, University of Putra Malaysia.

for many businesses in order to become profitable. Many studies proposed various factors that can result in consumer satisfaction. In fact, the online environment offers more opportunities for interactive and personalized marketing which may affect customer satisfaction. Hence, this makes a well-implemented customer relationship management (CRM) to become the key differentiator for businesses [4]. It should be noted that customer satisfaction can contribute to retaining our customers and the cost of customer retention would be lower than creating new customer. Consequently, companies can increase their profitability through their customers.

Review of the Literature: Several studies have been conducted to examine the factors which affect consumer behavior and attitude to be credited as loyal customer. Having an extensive review of literature, three most important factors, namely; usage of internet in enhancing CRM, customer satisfaction and customer retention were chosen.

Usage of Internet in Enhancing CRM: The rate of technological change in the marketing environment is significant factors that influence relationship-marketing success [5]. The Internet especially has been changing so rapidly and has been providing so many advanced technologies for doing businesses to manage customer relationships in an organized and right way. Since relationships can be obtain through customer services which provide one-to one marketing and ongoing interactions, it is critical for any company to pay close attention on delivering excellent customer service by influential communication tools at any time and continuously improve their customer support to ensure long-lasting relationships with their existing customers. Therefore in this area of Internet, Internet technology plays an significant role in increasing customer service levels by providing new sort of service delivery, strengthen customer intimacy, responding faster to customers' needs and affording customers the opportunity to help themselves. Some Internet technologies that contribute in enhancing CRM are mostly communication tools which is using in providing customer service, which includes intelligent email System, voice through Internet Protocol (VoIP), voice recognition equipped interactive voice response (IVR), IP-based call centers and other web capabilities like web chat, web callback and video conferencing and some other tools which are coming day by day. There are also other

non-communication tools like order tracking system, personalized web pages and web forms that gives to the customer good experience.

Satisfaction: Customer Satisfaction has been a critical term in B2B and B2C that has received extensive attention among researchers and practitioners. Customer Satisfaction has gained centrality in marketing literature because of its importance as a key component of business strategy and an aim for business activities, especially in today's competitive market. However majority of companies are more interested to use internet as a business approach, which results to customer satisfaction. Consequently some of the focal factors which have attributed to customer satisfaction are mentioned as follow:

Security: We can call the electronic security is any kind of electronic tool, technique, or process which has designed to protect a system's information assets, or is a risk management, or risk-mitigation tool [6], Stated that security deals with - how a web site ensures that hacker and others cannot access customer's information or their credit card numbers. For all the businesses transacted online, internet security has become a main concern. Information security has been one of the significant factors for ensuring wide participation in the society [2]. The concept of website security is touchy, at the same time; it is considered as one of the significant factors for customers who purchase products and services through online channels. [7]. Today, security is one of the most challenging terms facing the internet and business. It is undoubtedly the most well-known topic in electronic commerce and has frequently been written about by such researchers such as, [8, 9].

Ease of Use: Perceived ease-of-use is defined as "the degree to which a person believes that using a particular system would be free from effort [10]. The perceive ease-of-use has an influential impact on a person's online shopping channel preference and satisfaction [11], Because of many online user like to enjoy convenience and more control through online transaction plenty of companies have added many feature to their websites to make it easy to use for their customers [12].

Service Quality: Quality has defined as fitness for use, or to what extent it can meet up the consumer satisfaction or serves the purposes of consumers [13]. Customer service

is one of the key factors of organizational processes which companies perform seeing the growing competition and for attracting entrepreneurial opportunities for boosting profitability and better access to the market and increasing the customer satisfaction and loyalty level [14]. According to [15] customer service is one of the most factors in now a days because it contributes to increasing product quality, achieving competitive advantage, obtaining profitable opportunities and as a result increasing sales and income and these days consumers are more sensitive about the service which is given by the companies to them and good service gives them good experience and once customers experiment good experience they will be satisfy and it can switch them to loyal customers [16]. Information quality is referring to the amount of accuracy and the form of information about the products and services which is going to offer on a web site [17]. The services which are available on the Internet composed of customer support before, after and during any online transactions or activities. Satisfaction with the quality of these services which is provided by the company can be measured by considering some characteristics. One of the significant attribute is the performance of the services itself, which relates to how good the services are provided to the customer. [18] include transaction efficiency and delivery fulfillment as components of the performance dimension. Speedy transmission that reduces time and cost will obviously contribute to customer satisfaction.

Retention or Loyalty: Companies tend to approach satisfaction as the only viable strategy in the long run. However, customer satisfaction does not have a significant impact on bottom line results. According to [19], boosting bottom line results is in making the customers much more than just satisfied. In fact, outsell [20] claims that it is loyalty that picks up where customer satisfaction leaves off. This is why focusing on customer loyalty is becoming the name of the game [21]. Consumers will decide to settle down with a particular online business only when they sense an intimate relationship between them and perceive value from it. There are many definitions of loyalty in the literatures. Some researchers define it as behavioral and others refer it as emotional concept. [22, 23], define loyalty as repeat purchasing of products and services [24]. Suggest that loyalty is evidenced by more favorable attitude towards a brand as compared to other alternatives. These definitions refers entirely to behavioral terms like how frequent the customers make purchases, how many times they come

back for visits, how much their total spending and how many years of being customer. However, [25] disagrees with these narrow and misleading views of customer loyalty. In contrast to [26] who simply consider loyalty as another term for customer retention, [19] argues that customers who are successfully retained by a company do not necessarily count themselves as loyal customers. In fact [25] claims that retention is a behavioral concept, but loyalty is not. [25, 27] relate loyalty to emotional components including affection, fidelity and deeply held commitment toward a particular company. For a better understanding of loyalty, it is better to view loyalty differently for different attitudinal phases. [27], builds a four-stage loyalty model, which classifies four different category of loyalty for different phases of attitude development. These four stages examine the relationship between service quality, customer satisfaction and store loyalty. In the first loyalty phase, namely the cognitive loyalty, customers have preference towards a particular company or brand over other alternatives in the delivery of service quality. Once they are satisfied, affection will come into play where the customers will enter into the affective loyalty phase. In this second phase, customers develop liking and positive attitude towards the company or brand due to satisfying experience with it. After continuous positive affect, the customers shall enter the conative loyalty phase where they have intention and commitment to repurchase. This intention is converted into readiness to act as a result of the confluence of the previous three stages. This stage is called the action loyalty phase where the customers have deep commitment to repurchase from a preferred company or brand consistently, accompanied with desire to overcome obstacles that might prevent the act. Adding to these actions, [22, 28] categorize four types of characteristics that make up loyal customer. According to them, loyal customers will not only make repeat purchases, but also committed in purchasing across product and services lines, giving active referrals and demonstrating immunity to the pull of the competition.

Customer Retention: Much research has been done in the field of consumer satisfaction and some claim that if the consumer be satisfied they are loyalty as well. [2, 9] identified that consumer satisfaction with e-service support and satisfaction with the core service will both helps to the creation of desired behavioral intentions, in the form of loyalty. [29, 30] argue that the relationship between satisfaction and loyalty is positive; if consumers be more satisfied they will be more loyal. However, these

claims are not often true because a satisfied consumer does not necessarily become a loyal consumer [31, 32] claim that relationship between customer satisfaction and loyalty is not significant as a result, satisfaction does not actually lead to loyalty, but on in another hand, it leads to customer retention.

Rewards Contribution to Customer Retention: Actually reward program is a kind of strategy which we are using to retain our customer retention also depends on the regular rewards programs that we are applying to retain our customer [33]. Rewards programs allow customers to collect points for every purchase or visits to websites, which are redeemable for free gifts and cash rebates. [22] Agreed that point system help the companies to retain their customers.

Customization: Another factor which is contributing to customer retention is customization. Customization can be defined as a new perspective in competition to fulfill each customer's needs without sacrificing efficiency or cost. [34]. the main peruse of customization is to provide for any customer with products and services to meet up his satisfaction and needs. Customization creates a business' better competitive advantages as competitors cannot easily duplicate, imitate or substitute its offerings. This involves having easy access to customer information to more precisely target market segments and identify customer buying behaviors within the segments. However, an organization's success with customization hinges on its ability to integrate its customers' feedback into its production processes [35]. But still, customization comes at cost in the flexibility and speed [36], especially since the purpose is to reach a one-to-one marketing level with products and services that take into account personal differences and perfectly meet a customer's needs. Customization grabs the attention of customers to come back regularly. Apart from higher repeat-purchase rate, Levi's Stores that provide customization for their customers also get lower return rates and much higher number of purchases per store visit [37, 38] Stated that personalization should be done based on the requirement of customers, personalization through customization, therefore, we can personalize the customer's' requirements based on their needs and wants.

Online Community: Another critical factor that can help companies in retaining their customers is by push them to make up their own online community. [39], online community is one e-group where the members receive the messages or emails posted and replied by other members in the group. By this community, customers are able to make relationships with the company and other customers who are in touch with the company, therefore having their online chat buddies. [39] Also argued that creating community for non-commercial purposes may provide solutions to intractable social problems. Providing customers with experience interacting with online community and interest group membership encourage them to return to the site [40]. In fact, according to [33], online community can build an environment that makes it more difficult to leave their online chat buddies or so called "family". This can be considered as one switching barriers for customers.

Online and Offline Integration Channel: Finally, another possible driver of customer retention is the integration between offline and online channels. In the early age, customer-centered companies have been focusing on the traditional channels in providing front office customer support via telephone, fax and snail mails. Even online businesses at that time use the offline channels to provide customer service. As time passes by, more companies are recognizing the power of Internet and started to utilize the Internet as a medium to deliver customer services. However, most companies, especially the bricks-and-clicks company are ignoring the integration both online and offline channels in their business strategies. Most companies are having two channels that are managed separately and do not complement each other. In fact, the management teams of the two channels are competing instead of cooperating with each other. Sales from both channels are not integrated, operating systems are not in sync and results are not being tracked [41]. However competition in the company probably seems healthy, it can put off the company from focusing on the customers' wellbeing and needs. The absence of integration in hybrid retail strategies shall result in incoherent and unsatisfactory customer experience that will not make any kind of business to be successful [42]. [43], Barnes & Noble has sacrificed more than it obtained by divorcing its online business from its established traditional stores [41], "The union of online and offline channels incorporates the best of both worlds". By integration of both channel, online and offline we can deliver and provide superior experience for the customers.

Customer Loyalty
Relationships: [44] Defined customer loyalty as a "deeply commitment that the customer have to re-purchase a preferred product/service consistently in the future, as a result it would cause repetitive same brand set

purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior" [45]. As we know these days, it is so clear that customer relationship is becoming the major focus for the most businesses. These businesses implement the Customer Relationship Management (CRM) or sometimes referred as relationship marketing in order to make better environment for managing customer relationships. CRM is a unique marketing strategy that incorporated integration between technology, process and all business activities which are around the customers and they are dealing with [9]. Many of studies have carried out to determine the elements that add to customer loyalty [46], claim that some factors which influencing a lot on loyalty of the customer are; ease of gaining information, frequency of use and prior experience. [47], saying that trust and transaction cost are significant variables to appreciate customer loyalty. However, this research which we have done has a more focus on customer relationship as foundation building block of loyalty, because Loyalty is all about relationship.

Trust: In e-commerce, trust refers to the online consumers' beliefs and expectations about trust- related characteristics of the online sellers [2]. Trust has viewed as one of the significant factors in carrying out of successful relationships whether it is business to-business or business-to-consumer. Various studies have advocated the relationship between trust and customer loyalty [45]. [32], back up that trust will contributes to reduce uncertainty in consumers if they reach to the pint of certainty of their trusted brand. [48], added that "human trust in an automated or computerized system depends on three critical factors: (1) The perceived technical competence of the system; (2) The perceived performance level of the system; and (3) The human operators understanding of the underlying characteristics and processes governing the system's behavior. These factors relate to the perceived ability of the Internet to perform the task expected of it as well as the speed, reliability and availability of the system. A plethora of studies have stressed the importance of trust for e- commerce to take place in the internet's medium. Customers' perceptions of a company's service quality affect the customers trust in online shopping. It is the most important factor affecting trust relations plus, it is figures prominently in establishing and sustaining customer relationships. Website quality too plays a significant role on consumers' perception of trust in e-shopping, according to [49].

Emotional Benefit: Another important key driver of loyalty is emotional benefit or let say good experience perceived by customers based on their prior experiences. According to [50], emotional component of satisfaction serves as a good predictor of loyalty. [31], address this emotional benefit as functional quality that can do its magic in winning customer loyalty. These emotional benefits include positive emotions like happy, gratified and sense of caring, empathy, mannerism and responsiveness of the customer service personnel. Customers that perceive positive emotions in their experiences with the particular company shall be glad to share the experience with others. Customers who are happy and positively surprised with the services delivered to them shall recommend the particular company to others. This positive word of mouth is very effective to encourage the others to start making business with the company. Customers that are consistently welcomed and greeted by name every time they visit the company are more likely to come back to the company to fulfill their needs. Customers also are willing to pay more so long as they receive these functional qualities in their experience dealing with the company. These are the behavior of customers who are emotionally loyal towards a particular company or brand.

Value Added Service: Other possible factors of loyalty is the value added service like allowing valued customers to take advantage of the company's system and gain benefit from it. Industry standard setters such as Dell and Cisco allow their valued customers to tap into their dedicated systems. By doing so, customers can access relevant historical data pertaining to accounts information and run analysis in order to understand their own spending patterns or product performance. These transparent companies shall be willingly to share its resources for benefits of the customers and itself. With this openness policy provided to the customers, the relationships between the company and their valuable customers can be further enhanced, thus increasing the customer loyalty. However, no literature on this issue is found and shall be investigated further in this research.

Research Methodology
Methods of Data Collection: To gather sufficient data to test the hypothesis, a face-to-face survey was conducted. Respondents were requested to assess their perception of numerous items of different constructs, including factors viewed as antecedents of Customer Loyalty. Valuation was based on a five point Likert scale. The time period of conducting this study was 1 years i.e. from October 2011 to July September 2012.
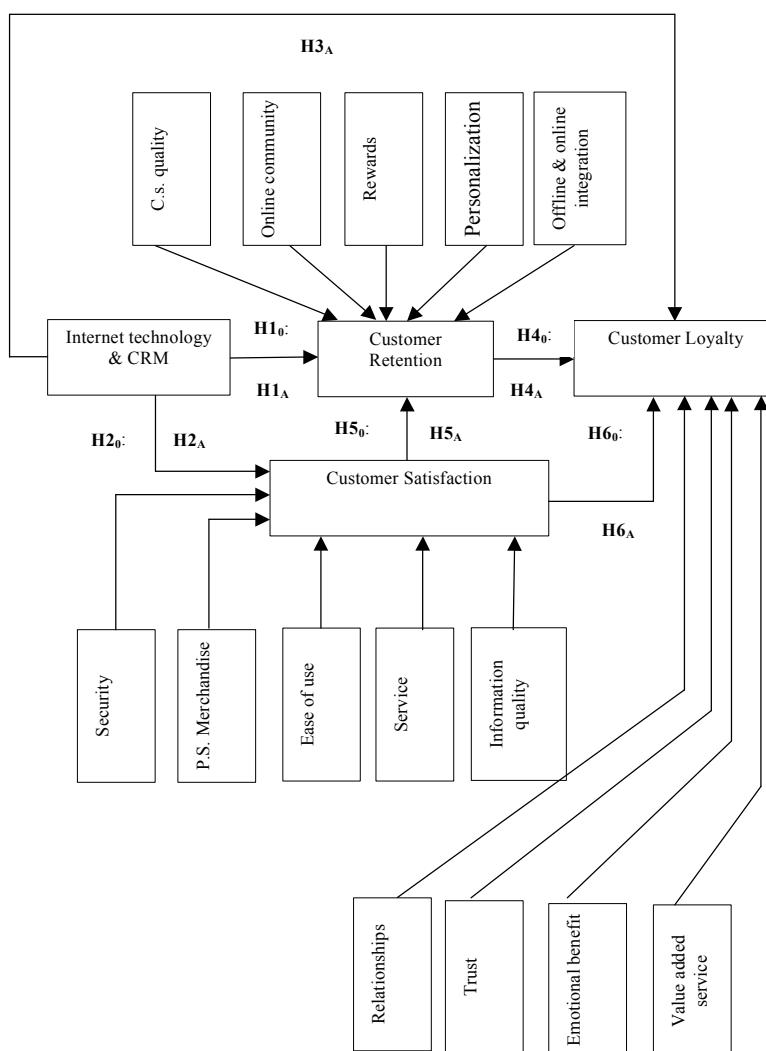
Fig. 1: Research framework

Sample Design and Sample Size: To examine the hypothesis a survey was conducted after a pilot study had identified and refined measurement items used in this study. Primary data have been collected from customer's different telecom users in Kuala Lumpur and Serdang area from Maxis and DiGi outlets, Systematic random sampling was used to select roughly equal no of customers from each type of telecom provider. The sampling has done taking into consideration the type of telecom provider. The final sample consist of 288 individuals whose declare that they were customers of one of the above-mentioned online service provider. Data was collected using the "Individual contact" after approaching the respondents personally and explaining in detail regarding the survey purposes of the study. Questionnaires were distributed to the customers and have been requested to contact the researcher whenever they come across to any trouble in

answering to the questionnaire. A total of 365-customer of 8 online service provider have been approached, from whom 288 correctly ended questionnaires have been achieved.

Statistical Techniques Which Has Applied: To reach at certain conclusions concerning the hypothesis advanced in the present research, the following statistical tools for the analysis of data were used., Reliability Test, Factor Analysis, Correlation, Multiple Regression Multicollinearity: Statistical calculations have been made, making extensive use SPSS(19) Software Packages on the computer.

Research Framework of Study: Figure 1 shows the research framework of this study. It can be seen that the dependent variable is customer loyalty. Whereas, the

independent variable could be usage of internet in CRM and we have got two intervening variable namely are customer retention and customer satisfaction.

Hypothesis of the Study: A hypothesis is a logically conjectured relationship between two or more variables expressed in a form of a testable statement. Based on the theoretical framework constructed above, six hypotheses are formulated for this study. This study predicted six dimensions that contribute to customer retention in the Internet environment. Five of the six dimensions suggested by previous studies that influence the degree of customer retention include customization, personalization, customer service quality, reward program and online community, [33], [22, 40]. Another retention dimension suggested from this study is the level of integration between online and offline channels in practiced by the company. In order to retain a greater number of customers on the Internet, Internet technology is utilized in Customer Relationship Management (CRM) to positively contribute to each retention dimension. Hence, this study suggests the following:

$H1_0$: There is no significant positive relationship between Internet technology in Customer Relationship Management (CRM) and customer retention.

$H1_A$: There is a significant positive relationship between Internet technology in Customer Relationship Management (CRM) and customer retention.

In this study, below dimensions are predicted to influence on the customer satisfaction in the Internet environment. In line with previous satisfaction studies, these dimensions include information quality, ease of use, customer service quality, security (Cho and Park, 2001; Kim and Lim, 2001). In order to achieve high customer satisfaction on the Internet, Internet technology is adopted in Customer Relationship Management, (CRM) to positively contribute to each satisfaction dimension. Previous research suggests that electronic CRM is related to customer satisfaction (Feinberg and Kadam, 2002). Therefore, this study suggests the following:

$H2_0$: There is no significant positive relationship between Internet technology in Customer Relationship Management (CRM) and customer satisfaction.

$H2_A$: There is a significant positive relationship between Internet technology in Customer Relationship Management (CRM) and customer satisfaction.

In this study, four dimensions are predicted to influence the customer loyalty in the Internet environment. Three out of the four dimensions, as suggested by previous studies, include trust, relationship and emotional benefits. [50, 51]. In order to provide a highly effective CRM, Internet technology need to be implemented in CRM for positive contribution to each loyalty dimension. Therefore, this study suggests the following:

$H3_0$: There is no significant positive relationship between Internet technology in Customer Relationship Management (CRM) and customer loyalty

$H3_A$: There is a significant positive relationship between Internet technology in Customer Relationship Management (CRM) and customer loyalty.

This study differentiates customer retention and customer loyalty as two different variables. This is in line with previous studies that interpret retention as behavioral concept and loyalty as emotional concept [25, 26]. Since retention is regarded as one of the behavioral characteristic of loyalty [22, 44], this study proposes that customer retention leads to customer loyalty as stated below:

$H4_0$: There is no significant positive relationship between customer retention and customer loyalty.

$H4_A$: There is a significant positive relationship between customer retention and customer loyalty.

This study predicts that customer satisfaction leads to customer retention. Previous studies suggest that prior satisfaction influences the repurchasing or revisiting behavior [27, 29]. This re-patronage behavior is referred as customer retention [25], hence indicating that customer satisfaction is related to retention. Thus, this study proposes the following:

$H5_0$: There is no significant positive relationship between customer satisfaction and customer retention.

$H5_A$: There is a significant positive relationship between customer satisfaction and customer retention.

This study predicts that customer satisfaction is not related to customer loyalty directly. In line with previous studies, satisfied customer does not necessarily become a loyal customer [32]. However, previous studies that interpret retention as another similar term for loyalty tend to argue that customer satisfaction leads to loyalty [5]. Thus, this study shall test the following hypotheses:

H6$_0$: There is no significant positive relationship between customer satisfaction and customer loyalty

H6$_A$: There is a significant positive relationship between customer satisfaction and customer loyalty

RESULT AND DISCUSSION

Reliability Test: Cronbach's alpha (α) analysis was employed to test the Reliability coefficient. Since, Cronbach alpha is commonly used method to measure the reliability for a set of two or more construct where alpha coefficient values range between 0 and 1. Higher values indicate higher reliability among the indicators. Hence, 1 is the highest value that can be achieved (Table 1). According to the results of Cronbach's alpha test total scale of reliability for this study varied from .841 to .942. This result indicated an overall higher reliability factor. As a result, reliability of this study is substantial, as the highest reliability value that can be achieved is 1.0.

Factor Analysis: Factor analysis has been employed to explore the underlying factors associated with 28 items by using Principal Component Analysis (PCA). Bartlett's Test of Sphericity was applied to the constructs validity. Then again the Kaiser–Mayer–Olkin measure of sampling adequacy employed to analyze the strength of association among variables. The Kaiser–Mayer–Olkin measures of sampling adequacy (KMO) were first computed to determine the suitability of using factor analysis to predict whether data are suitable to perform factor analysis or not. Generally KMO is used to assess which variables need to drop from the model due to multi collinearity. The value of KMO varies from 0 to 1 and KMO overall should be .60 or higher to perform factor analysis. If not then it is necessary to drop the variables with lowest anti image value until KMO overall rise above .60. Result for the Bartlett's Test of Sphericity and the KMO reveal that both were highly significant and concluded that this variable was suitable for the factor analysis. They also suggested that variables with loading greater than 0.30 are considered significant, loading greater than 0.40 more important and loading 0.50 or greater are very significant. In this study, the general criteria were accepted items with loading of 0.60 or greater. Not a single factor had been dropped out under this circumstance. The higher loading (factor) indicates the stronger affiliation of an item to a specific factor.in our study Factor analysis has successfully reduced the variables influencing customer satisfaction, retention and loyalty on the Internet into smaller number of components respectively These components are renamed suitably to represent the items belonging to the respective groups.

Table 1: Reliability Test

Scale	No. of items	Alpha	Mean	Standard deviation
Internet tech & CRM	16	0.841	74.97	9.94
Customer satisfaction	26	0.954	102.8	18.2
Customer retention	19	0.943	97.15	17.0
Customer loyalty	18	0.942	66.36	10.9

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.922
Bartlett's Test of Sphericity	Approx. Chi-Square	6032.212
	df	378
	Sig.	.000

Factor Analysis for Customer Satisfactions: Based on below result, five factors are extracted using the Oblimin rotation method that converges after 14 iterations. The factors are found to significantly explain the pattern of correlations within its set of variables since it have Kaiser-Meyer-Olkin (KMO- Table 2) value of 0.922, as a measure of sampling adequacy which is above 0.7 with Bartlett's test of Sphericity value of zero. The finding of customer satisfaction analysis indicated that each of 5 dimensions (security, product and service, ease of use, product and service quality and information quality) was homogenously loaded in different factor, which means each of them contributes with customer satisfaction and related to customer satisfaction. (Table 3).

Customer Retention Factor Analysis: Next, factor analysis is carried out on the variables that are found to influence the customer retention on the Internet. Table 6 represents the results of factor analysis on variables contributing to online customer retention: Initially, six components are extracted from the factor analysis on the variables contributing to customer retention on the Internet. However, the sixth component is found to have only two variables loading on it. Thus, in order to get a more optimal solution, the analysis is set to extract only five factors. Based on results, the five factors are extracted using the Oblimin rotation method that converges after 11 iterations. The factors are found to significantly explain the pattern of correlations within its set of variables since it have Kaiser-Meyer-Olkin (KMO- Table 5) value of 0.916, as a measure of sampling adequacy which is above 0.7 with Bartlett's test of Sphericity value of zero. The finding of customer satisfaction analysis indicated that each of 5 dimensions (service quality, online community, rewards program, personalization and offline and online integration channel) was homogenously loaded in different factor, which means each of them contributes with customer satisfaction and related to customer retention. (Table 6).

Table 3: Factor analysis on the Customer satisfaction questioner

Dimensions and items	Factor loading
Security *(Alpha 0.830)*	
Safeguarded private information….	0.862
Clear privacy policy…..	0.835
Well protected data transaction…	0.792
P.S. Merchandise (0.764)	
Low price product/service…	0.885
Up-to-date product/service…	0.835
Discounts/Promotions…	0.715
Varieties of product/service…	0.710
Low delivery charges…	0.678
Ease of use *(0.761)*	
Few clicks to get information	0.818
Easy registration to website	0.810
Website always accessible	0.785
Provide options for various types of credit card	0.762
Webpage loads quickly	0.761
Links clearly displayed	0.749
Website use easy to understand Language	0.643
P. Service quality:(0.753)	
Efficient complaints handling	0.815
Quick respond to enquiry	0.768
Friendly in dealing enquiry	0.769
Delivery within promised time	0.739
Receive goods in good condition	0.711
High quality product or service	0.698
Information Quality:(0.785)	
Updated information…	0.867
In-depth information	0.785
Easy to understand information	0.749
Accurate and trustworthy information	0.739

Table 4: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.916
Bartlett's Test of Sphericity	Approx. Chi-Square	6463.327
	Df	378
	Sig.	.000

Table 5: Factor analysis on the Customer retention questioner

Dimensions and items	Factor loading
Service quality: Alpha 0.814	
Personnel have wide knowledge of product/service	0.853
Personnel kept updated with users' transaction record	0.824
Professional in handling customers' complaints	0.816
Professional in answering enquiry	0.783
Online community (0.899)	
Obtain information about product/service from online members	0.952
Obtain information about the company from online members	0.934
Allow to share information with online members	0.923
Allow to trade goods with online members	0.79
Rewards *(0.852)*	
Receive coupons for any purchase	0.934
Receive gifts for any purchase	0.886
Receive cash rebates for any purchase	0.881
Receive points redemption	0.843
Receive rewards for coming back	0.717
Personalization :(0.792)	
Receive personalized recommendation on products or services	0.895
Receive personalized catalogue	0.878
Products can be custom- made	0.749
Receive personalized email on promotions of customers' interest	0.754
Receive online advertisement of customers' interest	0.686
Offline and online integration:(0.836)	
Allow checking order bought from web through other channels	0.895
Pick up product ordered via web at physical store	0.837
Provide promotions in both online and offline store	0.759
Exchange/return product bought from web in physical store	0.718

Table 6: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.918
Bartlett's Test of Sphericity	Approx. Chi-Square	3825.481
	Df	153
	Sig.	.000

Customer Loyalty Factor Analysis: Another factor analysis is carried out on the variables that are found to effect on the customer loyalty on the Internet. Table 8. demonstrates the results of factor analysis on variables contributing to online customer loyalty: Based on results, four factors are extracted using the Oblimin rotation method that converges after 11 iterations. The factors are found to significantly explain the pattern of correlations within its set of variables since it have Kaiser-Meyer-Olkin (KMO-Table 7) value of 0.918, as a measure of sampling adequacy which is above 0.7 with Bartlett's test of sphericity value of zero. The finding of customer loyalty analysis indicated that each of 4 dimensions (relationships, Trust, Emotional benefits and perceived value) was homogenously loaded in different factor, which means each of them contributes with customer loyalty and related to customer loyalty. (Table 8).

Correlation Analysis: This section presents the result for correlation analyses that are carried out for four variables, which are Internet technology in CRM, customer satisfaction, retention and loyalty on the Internet. Prior to the analysis, overall score of the scales of each variable are computed by adding up the scores from the items that make up each scale. New variables are created and are used to represent the variables in the correlation analyses. Spearman's Rank Order Correlation (rho) is used in this analysis to describe the strength and direction of the association between the variables. Table 9 below summarizes the results of the correlation analyses between the variables. Table 9 demonstrates that all the variables are positively correlated since there are no negative signs present for each correlation coefficient. All correlations are statistically significant as all the significance values

Table 7: Factor analysis on the Customer Loyalty questioner

Dimensions and items	Factor loading
Relationships: Alpha 0.849	
Company exceeds customers' expectation	0.866
Company knows customer's preferences	0.849
Company understands customers' needs	0.834
Company keeps track of customers' transactions	0.834
Trust: 0.874	
Provide third party verification for website authenticity	0.988
Provide third party verification to endorse strict security standard	0.964
Practice high security standard over transactions data	0.897
Impose strict privacy policy	0.878
Provide reliable customer service	0.777
Deliver what it promises	0.731
Emotional benefit:0.824	
Feel highly appreciated	0.882
Feel welcomed	0,876
Feel contented with the experience	0.714
Perceived value:0.808	
Gain better image	0.886
Provide "My Account" profile for own use	0.842
Customers' specific needs are fulfilled	0.817
Allow customers to easily make changes to orders	0.779
Give customer access to track orders	0.761

for each correlation are equal to zero. This indicates that relationships between the independent and dependent variables exist.

Regression Analysis: This section addresses the results for regression analyses of the four variables examined in this study. This analysis enables the hypotheses testing process whereby the results achieved shall be used to decide which hypothesis to be accepted or rejected And one other extra analysis which we have done in this study is regression analysis separately for each of our variables (Customer loyalty, customer satisfaction and customer retention) and base on the regression analysis we have proven that whatever factors underlying for each dependent variables have strong contribution with their independent variables as their p-Value all are below <0.05 and the results have return in Table 12 (Customer loyalty), 13 (customer Satisfaction)and 14 (customer retention) Table 11 in following page summarizes the results of the regression analyses between the variables: Based on the results, it shows that each independent variable is making a statistically significant unique contribution to the dependent variables since all the significant value is zero. With beta coefficient of 0.655, Internet technology in CRM is found to provide strong contribution in explaining 42.8 percent of the variance in customer satisfaction on the Internet. Internet technology in CRM provides even a stronger contribution to the prediction to customer retention on the Internet with beta value of 0.731 where it explains 53.5 percent of the variance in the dependent

Table 8: Correlation Analyses between Independent and Dependent Variables

Independent Variables		Dependent Variables		
		Customer satisfaction	Customer retention	Customer loyalty
Internet technology in CRM	Correlation Coefficient	0.657	0.737	0.709
	Sig. (2-tailed)	0.00	0.00	0.00
Customer satisfaction	Correlation Coefficient		0.704	0.614
	Sig. (2-tailed)		0.00	0.00
Customer retention	Correlation Coefficient		0.707	
	Sig. (2-tailed)		0.00	

Table 9: Simple regression Analysis

Independent Variables		Dependent Variables		
		Customer satisfaction	Customer retention	Customer loyalty
Internet technology in CRM	Beta	0.655	0.731	0.698
	R Square	0.428	0.535	0.487
	Significance Level	0.00	0.00	0.00
Customer satisfaction	Beta		0.701	0.630
	R Square		0.492	0.397
	Significance Level		0.00	0.00
Customer retention	Beta		0.704	
	R Square		0.496	
	Significance Level		0.00	

Table 10: Result of multiple regressions output for customer loyalty

Model	Standardized Coefficient (β)	t-Value	Sig
Dependent variable: Customer loyalty			
Constant		2.291	0.649
Relationship	0.305	1.761	0.002
Trust	0.310	1.724	0.001
Emotional benefit	0.222	1.240	0.001
Perceived value	0.135	4.040	0.000
$R^2 = 0.812$	Adjusted R^2 = 0.808		Singnificance = 0.000

Table 11: Result of multiple regressions output for customer satisfaction

Model	Standardized Coefficient (β)	t-Value	Sig
Dependent variable: Customer satisfaction			
Constant		2.341	0.844
Security	0.497	3.642	0.000
Product service	0.239	1.528	0.004
Ease of use	0.361	2.278	0.002
Service quality	0.104	1.749	0.001
Information quality	0.165	2.211	0.000
$R^2 = 0.640$	Adjusted R^2 = 0.614		Singnificance = 0.000

Table 12: Result of multiple regressions output for customer retention

Model	Standardized Coefficient (β)	t-Value	Sig
Dependent variable: Customer retention			
Constant		7.356	0.434
Online community	0.305	5.322	0.002
Quality of service	0.310	1.724	0.004
Offline & online integration	0.222	1.240	0.000
Rewards	0.135	1.749	0.001
personalized	0.198	2.151	0.003
$R^2 = 0.680$	Adjusted R^2 = 0.671		Singnificance = 0.000

Table 13: Summary of result in relation to the research hypothesis

No. Hypothesis		Finding
H1$_A$	There is a significant positive relationship between Internet technology in Customer Relationship Management (CRM) and customer retention	Supported
H2$_A$	There is a significant positive relationship between Internet technology in Customer Relationship Management (CRM) and customer satisfaction.	supported
H3$_A$	There is a significant positive relationship between Internet technology in Customer Relationship Management (CRM) and customer loyalty.	supported
H4$_A$	There is a significant positive relationship between customer retention and customer loyalty.	supported
H5$_A$	There is a significant positive relationship between customer satisfaction and customer retention	supported
H6$_A$	There is a significant positive relationship between customer satisfaction and customer loyalty.	supported

variable. Internet technology in CRM is also found to provide high contribution to the prediction of customer loyalty on the Internet where its beta coefficient is 0.698. This indicates that Internet technology in CRM has large impact on customer loyalty on the Internet where 48.7 percent of variation in dependent variable is explained by the independent variable. Customer satisfaction on the Internet has strong significant impact on customer retention on the Internet with high beta coefficient of 0.701 where it explains 49.2 percent of the variance in the dependent variable. However, although the relationship between customer satisfaction and loyalty on the

Internet is significant, satisfaction has less contribution to the prediction of loyalty since only 39.7 percent of the variance in the dependent variable can be explained by the independent variable. This indicates that customer satisfaction on the Internet predicts customer retention better than it can predict customer loyalty. Finally, based on the result, customer retention on the Internet explains 49.6 percent of the variance in customer loyalty on the Internet with beta value of 0.704. This indicates that customer retention on the Internet is a better predictor for customer loyalty as compared to customer satisfaction.

Hypothesis Testing Summery: From the analysis, it is proved that the all item which have used in the questionnaire are reliable. We can conclude that all the null hypotheses need to be rejected. This is because the independent variable in each hypothesis is found to have positive significant relationship with the respective dependent variable. However, the strength of the relationship varies for every hypothesis. Internet technology in CRM has strong significant relationship with customer satisfaction and even stronger relationship with customer retention on the Internet and customer loyalty on the Internet as a result, it can be concluded that utilization of Internet technology in CRM can contribute on customer retention and loyalty. Customer satisfaction on the Internet also has strong relationship with customer retention on the Internet, but poor relationship with customer loyalty on the Internet. On the other hand, customer retention has strong significant relationship with customer loyalty on the Internet. This indicates that customer satisfaction on the Internet strongly influences customer retention, whereas customer retention can affect customer loyalty on the Internet. Table 15 illustrates the summary of research hypothesis.

CONCLUSION

As a conclusion, this study has proven that Internet technology can play a very significant role in managing customer relations. This study has presented various Internet technologies that can be utilized in Customer Relationship Management (CRM) in order to build a profitable customer-centric business model. Internet technology does not only improve the customer service but more importantly it can deliver value to the customers that will boost customer retention rate and customer loyalty on the Internet. Internet technology also increases the level of customer satisfaction on the Internet, which finally contributes to customer retention rate. This study also figure out that customer satisfaction does not necessarily contribute to customer loyalty, but customer retention absolutely will lead to customer loyalty on the Internet.

REFERENCES

1. LuisCasalo´, CarlosFlavia´ n and Miguel, 2008. Guinal´ýu. The role of perceived usability, reputation, satisfaction and consumer familiarity on the website loyalty formation process. Journal in Human behavior, 24: 325-345.

2. Seyed Rajab Nikhashemi, Farzana Yasmin, Ahasanul Haque and Ali Khatibi, 2011. Study on consumer Perception toward e- Ticketing, empirical study in Malaysia. Indian Journal of commerce and Management studies, 2(6): 3-13.

3. Hsin Hsin Chang and Su Wen Chen, 2008. The impact of customer interface quality, satisfaction and switching costs on e-loyalty: Internet experience as a moderator, Journal of Computers in Human Behavior, 24(6): 2927-2944.

4. Reichheld, F.F. and W.E. Sasser, 1990. Zero defections: quality comes to services, Harvard Business Review, 68: 105-11.

5. Zineldin, M., 2000. Beyond Relationship Marketing: Technological ship Marketing, Journal of Marketing Intelligence & Planning, 18(1): 9-23.

6. Thomas Glaessner, Kellermann Tom and McNevin Valerie, 2002., Electronic Security: Risk Mitigation. In Financial Transactions, Public Policy Issues, The World Bank.

7. Suh, B. and I. Han, 2003. The Impact of Customer Trust and Perception of Security Control on the Acceptance of Electronic Commerce, International Journal of Electronic Commerce, 7(3): 135-161.

8. Szymanski, D. and R. Hise, 2000. E-Satisfaction: An Initial Examination, Journal of Retailing, 3(76): 309-322.

9. Seyed Rajab Nikhashemi, Farzana Yasmin, Ahasanul Haque and Ali Khatibi, 2012. Internet Technology imperative in enhancing customer relationship International Conference on Economics, Business and Marketing Management. IPED, 29: 216-224.

10. Davis, F.D., 1986. A technology acceptance model for empirically testing new end-user information systems: Theory and results. Unpublished doctoral dissertation, MIT Sloan School of Management, Cambridge.

11. Devaraj, S., M. Fan and R. Kohli, 2000. Antecedents of B2C Channel Satisfaction and Preference: Validating e-Commerce Metrics, Journal of Information Systems Research, 13(3): 316-333.

12. Dong Jin Kim, Woo Gon Kim and Jin Soo Han, 2007. A perceptual mapping of online travel agencies and preference attributes. Journal of truism management, 28(2): 591-603.

13. Beverly, K.K., Diane M. Strong and Y.W. Richard, 2002. Information Quality Benchmarks: Product and Service Performance. Communications of the ACM, 1(4): 184-192.

14. California Department of Health Services, 1987. Toxic Substances Control Division, Alternative Technology Section, pp: 131-142.

15. Goffin, K. and D. Price, 1996. Service Documentation and the Biomedical Engineer: Results of a Survey. Biomedical Instrumentation and Technology, 30(3): 223-230.

16. Asghar AfsharJahanshahi, Mohammad Ali Hajizadeh Gashti, Seyed Abbas Mirdamadi, Khaled Nawaser and Seyed Mohammad Sadeq Khaksar; 2011. Study the Effects of Customer Service and Product Quality on Customer Satisfaction and Loyalty International Journal of Humanities and Social Science, 1(7): 253-260.

17. Nusair, K. and J. Kandampully, 2008. The antecedents of customer satisfaction with online travel services: a conceptual model. European Business Review, 20(1): 4-19.

18. Janda, S., P.J. Trocchia and K. Gwinner, 2002. Consumer perceptions of Internet Retail Service Quality, International Journal of Service Industry Management, 13(3): 412-431.

19. Gould, G., 1995. Why It Is Customer Loyalty That Counts (And How to Measure It), Journal of Managing Service Quality, 5(1): 15-19.

20. Outsell, Inc, 2002. How to Understand and Strengthen Customer Loyalty, available at: http://www.outsellinc.com/docs/collateral/OSSatLo yaltySpecShe et

21. Galbreath, J. and T. Rogers, 1999. Customer Relationship Leadership: A Leadership and Motivation Model for Twenty- First Century Business, The TQM Magazine, 11(3): 161-171.

22. Stum, D.L. and A. Thiry, 1991. Building Customer Loyalty, Journal of Training and Development, 45(4): 34-36.

23. Selnes, F., 1993. An Examination of the Effect of Product Performance on Brand Reputation, Satisfaction and Loyalty, European Journal of Marketing, 27(9): 19-35.

24. Dick, A.S. and K. Basu, 1994. Customer Loyalty: Toward an Integrated Conceptual Framework, Journal of the Academy of Marketing Science, 22(2): 99-113.

25. Barnes, J., 2002. From the Customer's Perspective: Defining Loyalty, available at: http:// www.crmguru.com/ features/2002a/0214jb.html.

26. Buttle, F. and J. Burton, 2001. Does Service Failure Influence Customer Loyalty?, Journal of Consumer Behavior, 1(3): 217-227.

27. O'Malley, L., 1998. Can Loyalty Schemes Really Build Loyalty? Journal of Marketing Intelligence & Planning, 16(1): 47-55.

28. Pugh, L., 1991. Customer Satisfaction Guarantees Customer Loyalty, Do-It-Yourself Retailing, 161(6): 80.

29. Bolton, R.N. and J.H. Drew, 1991. A Multistage Model of Customers Assessments of Service Quality and Value, Journal of Consumer Research, 17: 375-384.

30. Roland T. Rust, Katherine N. Lemon and Valarie A. Zeithaml, 2004. Return on Marketing: Using Customer Equity to Focus Marketing Strategy, Journal of Marketing, 68(1): 109-127.

31. Mittal, B. and W.M. Lassar, 1998. Why Do Customers Switch? The Dynamics of Satisfaction Versus Loyalty, Journal of Service Marketing, 12(3): 177-194.

32. Khatibi, A.A., H. Ismail and V. Thyagarajan, 2002. What Drives Customer Loyalty: An Analysis from the Telecommunications Industry, Journal of Targeting, Measurement and Analysis for Marketing, 11(1): 34-44.

33. Winer, R.S., 2001. Customer Relationship Management: A Framework, Research Directions and the Future, Haas School of Business, University of California, Berkeley.

34. Ki-Chan Kim, 2002. The Effects of Electronic Supply Chain Design (e-SCD) on Coordination and Knowledge Sharing: An Empirical Investigation, Proceedings of the 35th Hawaii International Conference on System Sciences.

35. Pitta, D.A., 1998. Marketing one-to-one and its dependence on knowledge discovery in databases, Journal of Consumer Marketing, 15(5): 468-480.

36. Dewan, R., B. Jing and Seidmann, 2002. A. Adoption of internet based product customization and pricing strategies. Journal of Management Information Systems, 17(2): 9-28.

37. Moon, Y., 2000. Interactive Technologies and Relationship Marketing Strategies, Harvard Business Review, 12(3): 1-12.

38. Yang, Z., R.T. Peterson and S. Cai, 2003. Services Quality Dimensions of Internet Retailing: An Exploratory Analysis, Journal of Services Marketing, 17(7): 685-700.

39. Sands, M., 2003. Integrating the Web and E-Mil into a Pull- Push Strategy, International Journal of Qualitative Market Research, 6(1): 27-37.

40. Singh, M., 2002. E-services and Their Role in B2C Ecommerce, Journal of Managing Service Quality, 12(6): 434-446.

41. Fitzpatrick, M., 2000. Integrating Online and Offline Marketing Successfully, Marketing Strategies Magazine.

42. Bradshaw, D. and C. Brash, 2001. Managing Customer Relationships in the E-Business World: How to Personalize Computer Relationships for Increased Profitability, International Journal of Retail & Distribution and Management, 29(12): 520-529.

43. Gulati, R. and J. Garino, 2000. Get the Right Mix of Bricks & Clicks, Harvard Business Review, 78(3): 107-114.

44. Oliver, R.L., 1999. Whence consumer loyalty?, Journal of Marketing, 63(4): 33-44.

45. Kwek Choon Ling, Yeong Wai Mun and Hiew Mee Ling, 2011. Exploring factors that influence customer loyalty among Generation Y for the fast food industry in Malaysia, African Journal of Business Management, 5(12): 4813-4823.

46. Shankar, V., A. Rangaswamy and M. Pusateri, 2001. The online medium and price sensitivity (Working Paper). College Park, MD: University of Maryland.

47. Kim, J., J. Lee and J.Y. Moon, 2000. What Makes Internet Users Visit Cyber Stores Again? Key Design Factors for Customer Loyalty", available at: http://www.hci.yonsei.ac.kr/non/e02/00-CHIWhat_ makes_Internet_User_Visit_Cyber_Stores_Again.

48. Patrick MacCole, Elaine Ramsey and John Williams, 2010. Trust consideration on Attitudes toward online Purchasing: the moderating effect on Privacy and Security concern, Journal of business research, 63(10): 18-1024.

49. Euijin Kim and Suresh Tadisina, 2010. A Model of e-Customers, Initial Trust in Unknown Online Retailers: An Empirical Study, International Journal of Business Information Systems, 6(4): 419-443.

50. Yu, Y.T. and A. Dean, 2001. The Contribution of Emotional Satisfaction To Customer Loyalty, International Journal of Service Industry Management, 12(3): 234-250.

51. Turban, E., J. Lee, D. King and H.M. Chung, 2001. Electronic Commerce: A Managerial Perspective (International Edition), New Jersey: Prentice-Hall, Inc.