The Effects of Customer Relationship Management on Customer Services and Customer Loyalty: An Empirical Study of Shopping Malls in Turkey

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Abstract: *In recent years, marketing to consumers has become increasingly challenging as the number of available products and services across businesses has grown up significantly, while at the same time marketing strategies and consumer touch points have proliferated. It is vital for the existence of any organization to have loyal customers as the complexity and the effectiveness in the market place concerns to what companies need to do and how they do it, meeting with the needs of the customer. The current rapid growth of the mobile phone market has made mobile marketing one of the most important advertising tools and contact points existing to companies today. Mobile marketing can increase customer loyalty by provided that customers it timely and helpful information. The aim of this of research to explore mobile marketing and how it can contribute to consumer loyalty. The study was conducted to identify the main systems of mobile marketing used by firms, to identify how much contact is pushed on customers by companies, regulate the perceptions of mobile marketing and overall control how mobile marketing contributes to customer loyalty and establish how businesses can improve the application of mobile marketing. Secondary research gives a brief indication of customer relationship marketing (CRM) which draws in with mobile marketing where theories and technology complement each other.*

I. Introduction

In this research we will pay more attention to such element of CRM as E-CRM. After the coming on of internet and new technology, CRM has been changed to E-CRM. E-CRM is a combination of hardware, software, process applications and organization commitment to improve customer service, retain customer, and provide analytical capabilities. Mobile phones are the most universal personal item in the world. Over the years the mobile phone has become more and more attractive product, with added features and functions. While the main function of a mobile phone is to enable users to contact to each other, the popularity of other mobile phone facilities, such as short messaging services (SMS), have grown-up very fast (Jayawardhenaet al. 2009).

Today, the mobile phone is central to the lives of most customers, including the lives of young teens. It is a device many customers cannot seem to do without; they constantly have it on and check it almost everywhere they go. For these customers, the mobile phone is not only a private device used to stay connected with friends and family, but also an extension of their personality and uniqueness (Grant &O'Donohoe, 2007).

Paradoxically, while customers adopt mobile phones to enhance their private and public lives, marketers see mobile phones as a marketing tool. These two very different views imply that marketers must confirm that their mobile phone marketing tactics are not intrusive. Simply because mobile marketing is a comparatively easy and inexpensive way to reach customers does not mean that customers want to get marketing messages and offers on their phones. Therefore, a thorough accepting of why and how customers may want to participate in mobile marketing could help in increasing successful mobile marketing strategies (Persaud &Azhar, 2012).

Mobile marketing is still in its early phases, and mobile marketing practices will likely go through fundamental changes as the technology continues to evolve. Research on mobile marketing is also in its early stages, but the literature is growing (Karjaluotoet al., 2003). So the main aim of this research is to show effect of CRM on customer's loyalty. For this will be used E-CRM tools as mobile phones and their service.

II. Material and Methods

Sampling method

Positivist research needs wise disposals of sampling after thorough observations of research objectives. Surveys are a common part of modern life. Bryman (1989) suggested that they need to collect the data in a

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number of units and usually at a crucial moment of time, with a view to collecting systematically a body of quantifiable data in respect of a number of variables that are checked to observe patterns or behaviours of association.(Bryman, 1989)Clearly it is not possible to survey the total population (as Ghauri& Prasad ,1995) and so sampling provides the answer. Saunders, M., Lewis, P and Thornhill, A. (2007). explain that sampling saves work by examining the sample instead of the whole population. In short, a sample is a portion of the population, selected so as to represent the whole population. The sampling method used in this research will be the non- probability (purposive) sampling. According to Sekaran (2000) the key characteristic of non-probability sampling is that items chosen for a sample are not chosen randomly but purposively. The popular form of purposive sampling is quota sampling. The advantage of using a quota sampling method is that the costs involved are moderately low, and it requires no lists of population. However, the possibility of introducing bias by the researcher would be the drawbacks of this method (Sekaran, 2000).

Quota sampling is entirely non- random and is normally used for interview surveys. It assumes that the sample would represent the population, as the variety in your sample for various quota variables is the same as that in the population. Therefore, quota sampling is a type of stratified sample in which selection of cases within strata is entirely non- random (Barnett, 1991).

In this study, firstly the population is divided into five specific groups according to the locations, the quota for each group is set based on the. Next, the number of cases is calculated for each quota. After the data collecting, the full samples can be provided.

Quota sampling is often used for a large population. Decisions on sample size are governed by the need for adequate responses in each quota, so that statistical analyses should be undertaken (Saunders et al., 2007).
In order to find all the possible targets, the city of was selected and clustered for data collection. The reason for the choice of central cities is that it has the highest level of commercial activities including his. Quota sampling was carried out by clusters of geographical area in the Taiwan, for the administration of questionnaires.
Quota sampling has a number of advantages over the probability's techniques. Especially, it can be set up very quickly and to save the investigated cost. In addition, due to the unavailability of sampling techniques in this study, quota sampling is used that does not require a sampling frame (Saunders et al., 2007).

Sample Size

In the sampling stage, convenient sampling was implemented for selecting respondents. The answers of the questionnaire have been collected from individuals in Turkey, Istanbul. Participants were selected on a convenience basis; however, people who are familiar with mobile marketing services were tried to be targeted. Participants use both mobile phones and smartphones were targeted in order to see the differences and also, both students from different universities in İstanbul and working professionals who actively use smartphones as a part of daily life due to the job necessities were invited to the survey.

This research is quantitative in nature, therefore questionnaires were used to collect the data to test the research hypotheses, systematic sampling technique was used in this study, based on the management of five (5) malls in Istanbul city were chosen for this research there are 178,617 customers were visited these males continuously, using the below formula of Robert Mason we need minimum 383 responders of our research, a total of 622 questionnaire were disrupted only 463 were return back with a response rate 74% , out of 52 were not valid for analysis because of missing data only 411 was available for our research.

$$n = \frac{M}{\left[\left(S^2 \times (M-1)\right) \div pq\right] + 1}$$

Figure 1 Robert Mason Formula

Study design

A study design refers to the overall measures taken in conducting a research. It basically states the approaches and strategies that were used in the study (Cresswell, 2006). In particular, (also known as quantitative approach) this was informed by the fact that this study was objective and tested the stated hypothesis based on obtained data. In this regard, conclusions were arrived at after thorough. Matthews & Ross, (2010) also states that a quantitative research involves deductive approach where quantitative data are collected through instruments like questionnaires. The basis behind using quantitative method was the philosophical position of positivism employed.
On the other hand, the survey research strategy was adopted since it is normally suitable for a deductive or quantitative approach. According to Saunders et al., (2012), survey strategy has various benefits which informed the rationale of this study. For instance, surveys enable a large number of individuals to be studied in a cost-effective way. People also consider surveys to be trustworthy and can be understood and explained very easily. Another importance of a survey strategy is that the investigator can easily collect data and code them

numerically in surveys since the questionnaire is the research instrument that is commonly used in most surveys (Yin, 2009; Urdan, 2005).

Data Collection and Procedure

The researcher has conducted of research using quantitative method. The research is quantitative in nature so data was collected through questionnaire. The data and study was in English language following (Perrewe et al., 2002) opinion.

There are two types of data that are will use in current research: primary data and secondary data. Primary data will collect for a particular search, especially in response to a specific problem, for the first time. Primary data collected through questionnaires. While the secondary data will collect through a literature review by using a lot of resources that are available for the research such as articles, books.

Primary data refers to gathering new data mainly for a certain purpose (Patton, 2002; Saunders et al., 2012). Consequently, the study used primary data to gain specific and more original data to address the study problem. There are different methods of gathering primary data such as interviews and questionnaire surveys. In essence, interviews normally involve qualitative methods whereas quantitative methods often involve survey questionnaires (Belk, 2006; Cohen & Manion, 2000). In particular, primary data was mainly obtained using questionnaires administered to the sampled respondents within the compound or facilities of the shopping malls. In this research secondary data will be used all research about E-CRM system and relevant subjects as customer loyalty and effect of E-CRM on loyalty through customer services will be collected from distributed questionnaires.Questionnaires were distributed to the respondents in winter 2016 to customers of shopping malls in city Istanbul. Participation was on voluntary basis, with participants being very free to withdraw their participation at any stage of the study without loss benefits. This aims at ensuring that they participated voluntarily and gave information at their free will. Participants were instructed not to write anything that could identify them. That is after completion of forms, participants can seal their responses in the envelope prior submission, so as to make their responses anonymous. This is use in most empirical work to diminish the threat of common method bias (Podsakoff et al., 2003, 2012).

Utilized Measures

Customer Relation Management is the first depended variable includes 5 dimensions (response time was measured with system quality, information quality, user satisfaction, service quality) the total is 1 items scales adopted from (Neuman, 2006; Matthews & Ross, 2010).

System Quality is the firstpredictor variable in the model, the variable was measured with five (5) items adapted from (Liedtka, 1998; Pisaria et al., 2011). Scale option is from 1=disagree strongly to 5=agree strongly. Higher scores indicate higher perception of system perspective by customers to E-CRM. Sample item include: "E-CRM is characterized in high reliability."

Information Quality is the secondpredictor variable in the model, the variable was measured with five (5) items adapted from (Liedtka, 1998; Pisaria et al., 2011). Scale option is from 1=disagree strongly to 5=agree strongly. Higher scores indicate higher perception of system perspective by customers to E-CRM. Sample item include: "Characterized information provided by the E-CRM in clarity."

User satisfaction is the thirdpredictor variable in the model, the variable was measured with four (4) items adapted from (Liedtka, 1998; Pisaria et al., 2011). Scale option is from 1=disagree strongly to 5=agree strongly. Higher scores indicate higher perception of system perspective by customers to E-CRM. Sample item include: "Characterized information provided by the E-CRM in clarity."

Service quality is the forth secondpredictor variable in the model, the variable was measured with four (4) items adapted from (Liedtka, 1998; Pisaria et al., 2011). Scale option is from 1=disagree strongly to 5=agree strongly. Higher scores indicate higher perception of system perspective by customers to E-CRM. Sample item include: "Conducting transactions correctly and rapidly is very common with this bank."

Customer services is the second depended variable includes 5 dimensions (Response time, Product variety, Product availability, Customer experience, Time to market) the total is 1 items scale adopted from (Neuman, 2006; Matthews &Ross, 2010).

Customer loyalty is the third depended variable in this research was measured with 18 scales items adopted from (Demo, 2013).

Demographic information that deem important in this study entails gender, work experience position and education. These demographic data are thought to play significant role and act as indicators for specific customers' outcomes, their effect as control variables will be gauged. This will be enabling the researcher assess demographic influence assets any impact on either all or part of the proposed model.

Suggested Moderator Variables of the Relationship between Satisfaction and Loyalty

According to the review of the literature related to individual determinants of buying behavior, five personal characteristics were supposed to have a moderating impact on the relation between customer satisfaction and loyalty. Three demographic factors were selected, in order to determinewhether there were differences in their explanatory power. Each of these factors had been found to be relevant in the context of customer satisfaction and loyalty in previous studies. A brief discussion of each of the five possible moderators follows. (Homburg & Annette,2001) In this study, the demographic and lifestyle variables utilized were:

Gender. Some research had interested in the impact of gender on buying behavior (e.g., Slama&Tashhan, 1985; Zeithaml, 1985). Slama&Tashlian found that women's purchasing behavior influenced by their assessment of personal interaction processes. Contrasted to men, women are more involved in purchasing activities (Slama&Tashlian, 1985), and they would pay more attention to the suggestions from sales representative (Gilbert & Warren, 1995). According to these arguments, guide to the suggestion that gender might moderate the relationship between the satisfaction and loyalty. For example, one might predict that the loyalty effect of satisfaction with the sales process is stronger for women than for men, whereas the impact of product satisfaction on loyalty might be stronger than men. (Homburg & Annette,2001) In this study, gender was recorded as male or female. The data is analyzed in terms of a scale from 0 to 1.

Age. Age is another demographic characteristic that had attracted a great deal of researchattention. Research compared young and old customers to focus on different information-processing abilities which needed to evaluate a product (Smith &Baltes, 1990; Walsh, 1982). Most of these studies deduce that information processing declines with age (Gilly & Zeithaml, 1985). Older people have restricted information-processing capabilities; so, their reactions to satisfaction might also change. Therefore, age was suggested to be a moderator of the relation between satisfaction and loyalty. In this study, age was reported in five categories from under 18, to 55 and older, and not reported. The data is analyzed in terms of a scale from 0 to 4.

Education. Morris and Steers (1980) found that educational levels negatively relate tocommitment. Thus, we would put education levels into the survey to investigate what the relation between different levers of education. Besides, within the context of the financial services industry education level or professional qualifications are a legal requirement for all advisors. In this study, education level was categorized into four groups from secondary or below to master or higher, and the data is analyzed in terms of a scale from 0 to 3. (Homburg & Annette,2001)

The limitations of the study

As with any questionnaire-based study, this research has some limitations. These limitations serve as indicators for future research study on the same topic. Some of these limitations relate to the nature of the questionnaire and others related to the data collection process.
The following are some of the main limitations of the research:

First, the researcher was unable to check the accuracy of collected data where it assumed that respondents were providing accurate data.

Second, the researcher was unable to evaluate the effect of possible non-response bias.

Third, the fact that English only used might have excluded a particular segment of the employees and customers of the banks (non-English speakers) whose responses might have changed the results.

Fourth, the researcher did not have full control over the questionnaire distribution especially within the offices that received the questionnaire and fill it later.

Finally, the researcher collected the data by him-self, so the researcher was dependent on the cooperation of the respondents.

Treatment of Missing Data

In social science research, most of data collections are incomplete, so the researcher expected some data to be missing from the received questionnaires because of some the respondents, failure to answer some questions or respond to some statements on the questionnaire. To deal with this problem, the researcher decided to exclude missing data items when performing the analysis.

III. Results

Exploratory Factor Analysis

After the data preparation phase which involves the cleaning of the data by ensuring the absence of missing data, identifying and eliminating unengaged response and ensuring the normal distribution of the data collected, the first stage in the structural equation modeling process is the conduct of an exploratory factor analysis (EFA) to preliminarily identify the underlying factor structure of the item contained in the measurement instrument. The pattern matrix obtained is shown in the Table no 1 below:

Table no 1: PatternMatrix[a]

	Factor		
	1	2	3
E_SysQual2		.654	
E_SysQual3		.686	
E_SysQual4		.639	
E_SysQual5		.546	
E_InfQual1		.515	
E_InfQual3		.529	
E_InfQual4		.635	
E_InfQual5		.523	
CS_ProdVar1			.559
CS_ProdVar2			.800
CS_ProdVar3			.694
CS_ProdVar4			.537
CS_ProdAva1			.531
CS_ProdAva2			.557
CS_ProdAva3			
CL2	.513		
CL3	.518		
CL6	.528		
CL8	.506		
CL9	.527		
CL10	.566		
CL11	.562		
CL12	.637		
CL13	.520		
CL14	.672		
CL15	.539		
CL17	.509		
CL18	.578		

Extraction Method: Maximum Likelihood.
Rotation Method: Promax with Kaiser Normalization.[a]
a. Rotation converged in 5 iterations.

An exploratory factor analysis was conducted to examine the factorial structure of the items contained within the instrument used in measuring the constructs of interest to this study. The EFA was conducted using the maximum likelihood method recommended by Gaskin, (2016). The pattern matrix below reveals that as expected, three factors corresponding to the three primary constructs under study were obtained with each item loading highly (above .50) to their factor. Next, we introduce the clean pattern matrix obtained from the exploratory factor analysis into AMOS and conduct a confirmatory factor analysis, to confirm the obtained factor structure. The following section details the process and outcome of the CFA.

Confirmatory Factor Analysis (CFA)

Having obtained a decent EFA model, it is pertinent to then conduct a confirmatory factor analysis (CFA) to confirm themeasurement model and its underlying structure according to Gaskin, (2016). Using the pattern matrix builder developed by Gaskin, (2016) the confirmatory factor analysis shown overleaf was obtained. However according to Hair et al (2010), before we can examine the factor structure or confirm that the items load well unto their corresponding factors, it is first of all pertinent to conduct a global test. In other words, it is important to ascertain how fit the measurement model is and where necessary go through a series of model modifications to arrive at a decently fit model upon which the second phase of structural analysis will be based. In testing model fit, a variety of school of thoughts exists with propositions on what an acceptable model fit should be. However, all of them are in agreement that a minimum of three model fit indices must be reported to establish the goodness of fit of a given model. Hence in the following section, a table showing model fit indices and their acceptable levels (according to Gaskin, 2016) is presented. This will serve as a benchmark for all corresponding model fit analysis conducted in this study.

Table no 2: Global Tests (Model Fit Indices and Acceptable Ranges)

Fit Indices	Cut-off for acceptance	Associated *p*-values
Chi-square degree of freedom (cmin/df)	Less than 3 Less than 5 (lenient)	Greater than .05
Global Fit Index (GFI)	.95 and above	
Comparative Fit Index (CFI)	.95 and above (great) .90 and above (normal) .80 and above (lenient)	
Root Mean Square Error of	Less than .05 (good)	PCLOSE greater than .05

Approximation (RMSEA)	Between .05 & .10 (OK) More than .10 (bad)	
Standardized Root Mean Square Residual (SRMR)	Less than .09	

Adapted from Gaskin, (2016); Hair et al, (2010); Hu and Bentler (1999)
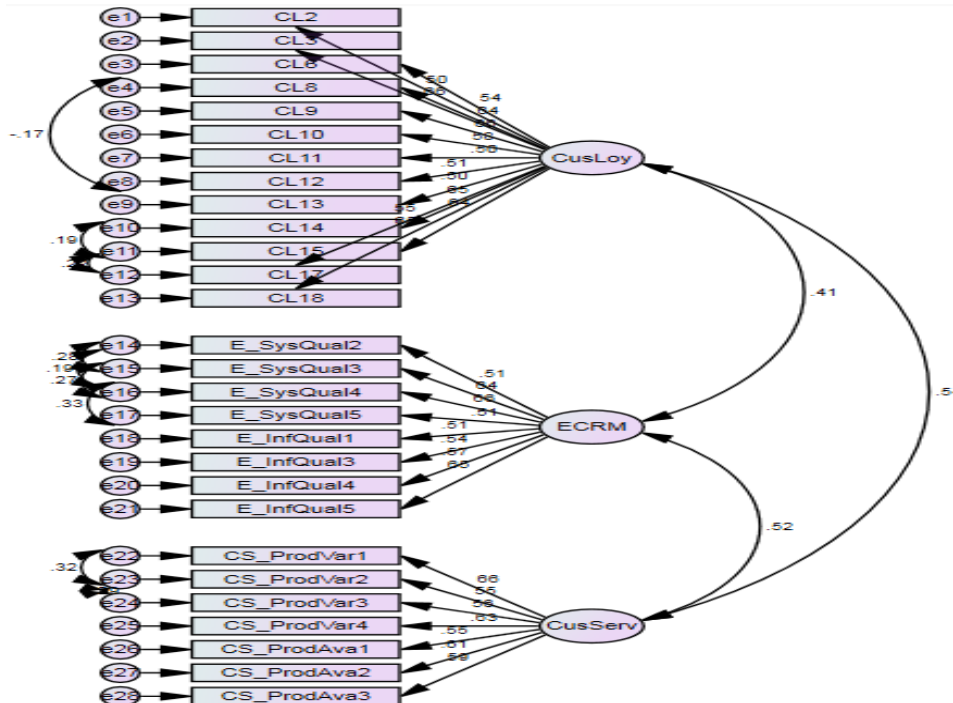

Figure no 2: Confirmatory Factor Analysis

Since the recommendation by Hair et al (2010) is that a minimum of three model fit indices are required to establish model fit, this study chose to report a minimum of five model fit indices to establish the fitness of the model. The five model-fit indices reported included cmin/df, RMSEA, GFI, SRMR and CFI. Upon the first iteration, model fit indices which were not within the acceptable cut-off mark were obtained. Depending on the modification indices recommended by AMOS, we co-varied the error terms of items CL8 and CL12, CL14 and CL15, CL15 and CL17; E_Sysqual 2, 3, 4 and 5 and CS_Prodvar1,2,3 and 4. After modifying the model, we arrived at the following model fit indices:

Table no 3: CFA Model Fit Indices (Global Tests)

Model Fit Indices	Values	Associated *p*-values	Verdict
Cmin/df	1.729	0.00 (<.05)	*Good*
GFI	.950		*Good*
CFI	.956		*Great*
RMSEA	0.42	PCLOSE: .921	*Good*
SRMR	.0480		*Good*

The above 5 new model fit indices obtained for the CFA after modification, thus establishes that we have a measurement model which is adequately fit to explain and confirm how each item loads unto the corresponding factor structure. Next, we then examine the diagram to observe the individual item-factor loading. Once examined, we find that each of the item loads at a level above .50 to their corresponding factor, thus establishing their correlations. However, before we can accept the measurement model as truly confirmed, it is important to check the validity and reliability of the constructs as recommended by Gaskin, (2016) and Hair et al., (2010).

Reliability and Validity

The reliability of the CFA was examined by observing the Criterion Reliability (CR) values for each factor examined. Secondly, the validity of the model was examined by evaluating the convergent validity and discriminant validity of each factor isolated in the CFA solution. These were examined using the average

variance explained (AVE), square root of AVE and a correlation matrix between factors. Results of the validity and reliability tests are presented below:

Table no 4: CFA Model's Reliability and Validity

	CR	AVE	MSV	MaxR(H)	CusLoy	ECRM	CusServ
CusLoy	0.852	0.619	0.366	0.710	**0.786**		
ECRM	0.820	0.600	0.310	0.894	0.537	**0.774**	
CusServ	0.750	0.740	0.330	0.930	0.436	0.552	**0.860**

The Table no 4 show that we obtained AVE values above the recommended threshold of .50, CR values above the recommended threshold of .70 and square root of AVE values above the factorial correlations as recommended by Hair et al. 2010; Gaskin, 2016. Therefore the measurement model was observed to have met the criteria for reliability, convergent and discriminant validity. We thus can proceed to examine the structural model, using the measurement model obtained at the CFA level.

Common Method Bias

Before proceeding to examine the structural model however, it is important to examine the possibility that bias will be introduced into the study not as a result of the researcher's or respondent's actions or attitudes during data imputation, but systematically as a result of the nature of the research instrument or the method by which data was collected (Podsakoff et al. 2003). While there are several techniques for conducting a common method bias test, his study uses Harman's single factor test of common method bias. After obtaining a reliable and valid measurement model, the confirmed items were factor analysed in such a manner that they were force to load into one factor using an un-rotated solution, after which the total variance explained (cumulative) was examined and results showed that the total variance explained was 19% implying that a one factor solution explained only 19% of the variance among items. This shows that our items have no common method bias related problems because Podsakoff et al. (2003) stated that if after constraining items to one factor, the underlying factor explained more than 50% of the total variance among the items, there is common method bias. Thus, since our findings find a total variance explained of 19% we confirm the absence of common method bias in our measurement model.

After ensuring the reliability, validity and absence of common method bias in the measurement model, we proceeded to imputing the latent construct, generating composite variable with which we used to examine the structural model.

Examining the Structural Model (Direct & Indirect Effects)

The third and final stage of a structural equation model is an examination of structural constructs. This is the stage where the hypothesized direct and indirect effects are examined to see if they hold true within our sample population. Thus a logical first step is the re-statement of the hypotheses posed at the beginning of the study.

H0: There is no significant relationship between electronic customer relationship management (ECRM) and customer service.

H1: There is a significant relationship between electronic customer relationship management (ECRM) and customer service.

H0: There is no significant relationship between electronic customer relationship management (ECRM) and customer loyalty.

H2: There is a significant relationship between electronic customer relationship management (ECRM) and customer loyalty.

H0: There is no significant relationship between customer service and customer loyalty.

H3: There is a significant relationship between customer service and customer loyalty.

H0: Customer service does not mediate the relationship between electronic customer relationship management (ECRM) and customer loyalty

H4: Customer service mediates the relationship between electronic customer relationship management (ECRM) and customer loyalty

H0: There is no moderating difference in findings among demographic groups (Gender, job description, qualification).

H5: There is a moderating difference in findings among demographic groups (Gender, job description, qualification).

The above hypotheses earlier stated are then tested by specifying a structural model in AMOS as shown in the figure next page. However as with the measurement model, before we begin examining the standardized coefficients which imply the observed effects, it is important first of all to conduct global tests to examine how fit the entire structural model is (Hair et al., 2010). In other words, we try to determine if the

specified structural model is the appropriate model for examining the relationships among the latent constructs in the structural model.

To do this we first of all examine the model fit indices produced for the structural equation in AMOS statistical package.

Table no 5: Structural Model's Fit Indices (Global Test)

Model Fit Indices	Values	Associated *p*-values	Verdict
Cmin/df	1.626	0.00 (<.05)	*Good* (sample size sensitive)
GFI	0.949		*Good*
CFI	0.962		*Great*
RMSEA	0.40	PCLOSE: .591	*Good*
SRMR	0.027		*Good*

Again, although a minimum of three model-fit indices are required to be reported (Hair et al., 2010) to establish the goodness of fit of any model (measurement or structural) we report five model fit-indices in our case. As seen in the table above, the five reported fit indices were all within the acceptable cut-off range: cmin/df <3; GFI >.95; CFI >.95, RMSEA <.6; SRMR <.09. However, the p-value associated with cmin/df was significant (it is required to be non-significant). Despite this the value is seen to still be within range because cmin/df is a chi-square test which is normally sensitive to sample sizes and with large sample sizes such as that used in this study a significant p value is usually obtained (Hair et al 2010; Gaskin, 2016). Thus, we conclude that the structural model specified to examine the hypothesized effects fits the data and hence an examination of the individual paths can now proceed.

The Direct Effects
The hypothesized direct effects are the following:
H0: There is no significant relationship between electronic customer relationship management (ECRM) and customer service.
H1: There is a significant relationship between electronic customer relationship management (ECRM) and customer service.
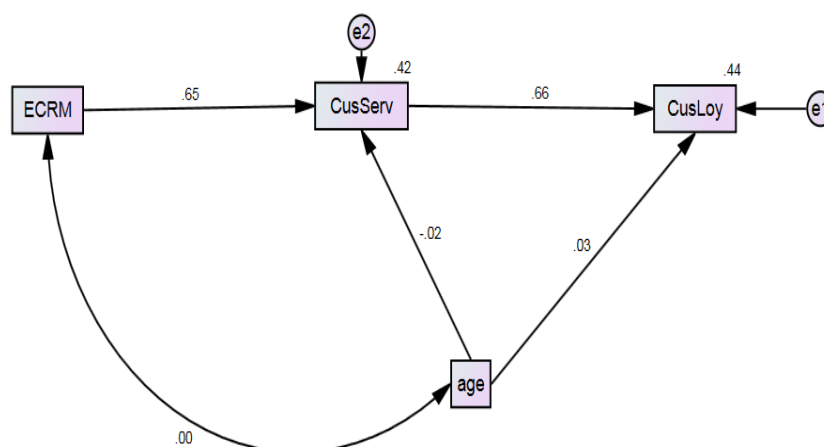H0: There is no significant relationship between electronic customer relationship management (ECRM) and customer loyalty.
H2: There is a significant relationship between electronic customer relationship management (ECRM) and customer loyalty.
H0: There is no significant relationship between customer service and customer loyalty.
H3: There is a significant relationship between customer service and customer loyalty.

From the structural model in the figure next page we see that there is a strong relationship between electronic customer relationship (E-CRM) and customer service; and an equally strong relationship between customer services and customer loyalty

Figure no 3: Relationship between electronic customer relationship (E-CRM) and customer service

However, to test the significance of these observed effects, we examine the following Table no 6:

Table no 6: Direct Effects: Standardized Estimates and P – Values

			Est.	S.E
CusServ	<---	ECRM	0.65	0.05
CusLoy	<---	ECRM	0.41	0.046
CusLoy	<---	CusServ	0.66	0.081

The Table no 6 reveals that all three direct effects were significant, thus **we reject the null hypotheses** for hypotheses 1, 2 and 3. Next we examine the hypothesized indirect effects to observe the mediating effect of customer service on the ECRM-Customer Loyalty relationship.

Mediation Effect (Indirect Effects)
The hypothesized indirect effect contained in the conceptual model is the hypothesis 4 below:
H0: Customer service does not mediate the relationship between electronic customer relationship management (ECRM) and customer loyalty
H4: Customer service mediates the relationship between electronic customer relationship management (ECRM) and customer loyalty
To examine support for the hypothesized mediating effect, we use the indirect effects estimands developed by Gaskin, (2016) and observe that the indirect effect of customer service on the electronic customer relationship management relationship (E-CRM) is (α = .31, p<.05). This implies that customer service has a moderate but significant mediating effect on the E-CRM-Customer Loyalty relationship. Hence for hypothesis

4, **we reject the null hypothesis.**
Next to test hypothesis 5 in which we set out to examine the moderating effect of demographic variables on the observed primary relationships, we conduct multi-group analyses by gender and educational level to see if the effects are higher or lower for each of the groups involved.
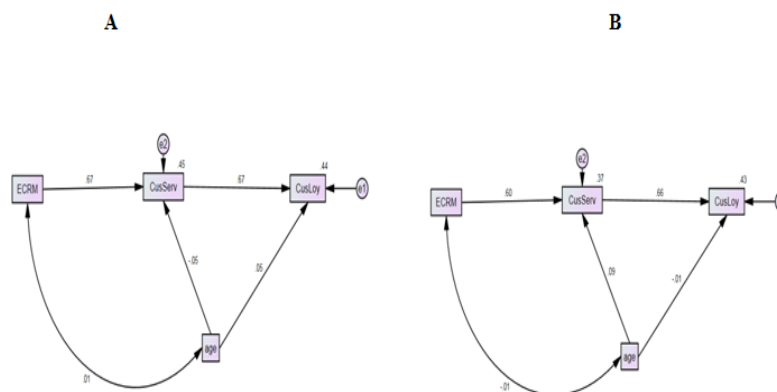
Figure no 4: Moderating Effects [Gender- Male-(A) Versus Female-(B)]

Hypothesis 5:
H0: There is no moderating difference in findings among demographic groups (Gender, job description, qualification).
H5: There is a moderating difference in findings among demographic groups (Gender, job description, qualification).
From the diagram above we observe that the direct effects were stronger for males than they were for females. In other words, male respondents perceived electronic customer relationship to impact customer service at a level higher than the perception of females. The same applies to their perception of the effect of customer service on customer loyalty as well. All in all, this confirms that gender differences exist in the perception of the respondents.

With regard to differences in response based on the educational level of the respondents, we observe that with regard to the ECRM-Customer service relationship, respondents holding a diploma perceived a higher effect than those who hold a bachelor's degree, a doctorate degree and a master's degree respectively in that order. On the other hand, with regard to the Customer Service-Customer loyalty relationship, we observe that holders of a bachelor's degree perceived the highest effect, followed by those who hold a master's degree, a PhD and a diploma in that order. These can be observed in the figures below.

The presence of these moderating differences thus leads to the conclusion that there are moderating differences in the perception of the hypothesized direct effects by gender and educational level.
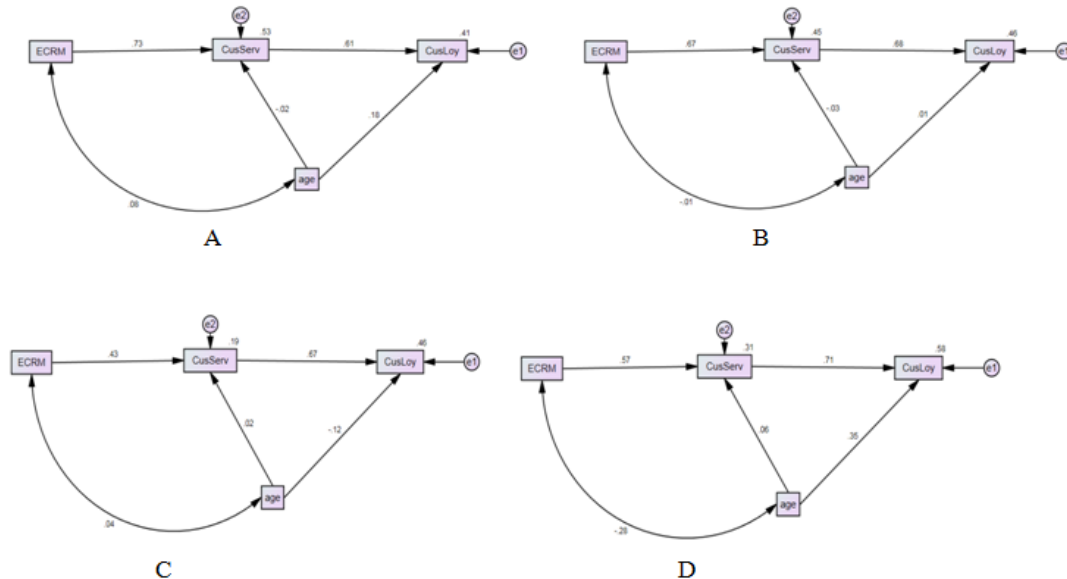

Figure no 5: Moderating Effects [Educational Level- Diploma(A), Bachelor's (B), Master's (C), PhD (D)]

Summary of Findings

This study set out to examine the direct effect of electronic customer relationship management (ECRM) on Customer Loyalty as well as the mediating indirect effect of Customer service on the ECRM-Customer Loyalty relationship. It further examined the difference in responses by gender and educational level of the respondents. Using structural equation modelling, it made a couple of interesting findings. The stated hypotheses and the corresponding findings are summarized in the Table no 7 below:

Table no 7: Research findings

Stated Hypotheses		Estimate	S.E	C.R	P	Support
H1	There is a significant relationship between electronic customer relationship management (ECRM) and customer service.	.65	.050	3.308	.025	Reject the null hypotheses
H2	There is a significant relationship between electronic customer relationship management (ECRM) and customer loyalty.	.41	.046	3.107	***	Reject the null hypotheses
H3	There is a significant relationship between customer service and customer loyalty.	.66	.081	8.302	***	Reject the null hypotheses
H4	Customer service mediates the relationship between electronic customer relationship management (ECRM) and customer loyalty	.31	.043	5.401	***	Reject the null hypotheses
H5	There is a moderating difference in findings among demographic groups (Gender, job description, qualification).	See results of multi-group analyses				Reject the null hypotheses

*** = P<.001

IV. Discussion

It is evident from both exploratory and descriptive research that mobile marketing is an immense part of companies marketing campaigns.

It seems that the mobile marketing campaigns employed by the companies interviewed are poorly researched and planned. Practices such as the time of day to send out messages seem to be based on the perception of the marketer rather than information gained from customers' feedback. As a result, text messaging campaigns may not be working to their full potential. Companies must set goals and targets with each mobile marketing campaign in order to measure the success of the campaign and address issues that may arise. It is important also that Companies introduce new mobile marketing methods, in order not to fall behind in the latest mobile marketing tools. Companies must also remember to educate their customers on actions required to uncover the messages.

It was shown from the survey results that there is a high level of information being pushed on customers, which may be reflecting the number of people who are unwilling to provide their mobile numbers to companies. Making customers aware that they are signing up to a text messaging service and providing them with a procedure to follow in order to opt out from the service may result in a higher percentage of people willing to provide their numbers, providing the customers with a level of control. Carefully selecting a convenient time and day of the week to contact customers may lower the perception of 'pushed' contact from companies, as information may not feel as intrusive if it is received at a convenient time in order to avoid aggravating customers, consent should be gotten from customers before adding their mobile numbers to databases, thus companies messages being sent will be well received, leading to customers acting upon the message, resulting in customer loyalty and respectability for the company. Perceptions of mobile marketing will always have both positive and negative images, and it is up to the individual companies to select and use mobile marketing tools to change customers' minds and to enhance their perception of mobile marketing. Mobile phones are a very personal device, creating a big opportunity for companies to create awareness of their products and services while building a base of loyal customers.

Customer Loyalty is achieved through contact with the customer and providing them with discounts and offers through a personalized medium. This will make the customer feel that they are individually valued by the company and will in turn increase their loyalty. The different mobile marketing tools available are an ideal way for companies to offer these discounts and offers to the correct customers at the appropriate time, and as such these mobile marketing tools will build customer loyalty. This loyalty will help to persuade customers to purchase from the company rather than from a competitor.

V. Conclusion

All in all, we find that electronic customer relation management has a moderately strong direct effect on customer loyalty. More importantly we see that it has very strong effect on the perception of the company's customer services which in turn has a strong effect on customer loyalty. We also find that for there to be an effect of ECRM on customer loyalty, the quality of customer services must be high as well. We also find that the perception of the effect of the ECRM-loyalty relationship differs according to the gender of the respondents and their educational levels.

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