THE ROLE OF E-MARKETING FRONT END APPLICATIONS ON CUSTOMER RETENTION: EVIDENCE FROM JORDAN

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ABSTRACT

E-marketing front-end applications have become an important consideration for bolstering customer relationship management, customer satisfaction, and customer loyalty. Even though front-end applications are important models examining how these variables contribute to customer retention has not been widely reported in the literature. Based on this assessment the current investigation seeks to fill this gap, examining the role of seller portal personalization, electronic catalogues, shopping cart, search engine, and payment gateway in customer retention in the Jordanian telecommunications sector. The results indicate that the seller portal independently contributes to customer retention with electronic catalogues, shopping cart, search engine, and payment gateway providing support for the e-marketing front-end applications needed to support customer retention.

Keywords: *E-Marketing, Customer Retention, Seller Portal Personalization, Electronic Catalogues, Shopping Cart, Search Engine, And Payment Gateway*.

1. INTRODUCTION

The mass proliferation of the internet appears to continue unabated with more than 2.1 billion users or 30.2 % of the world's population [1]. This represents an increase of about 1.5 % each year, making the internet one of the largest places for conducting business globally [1]. Given the number of global internet users it is not surprising to find that interest in electronic marketing (e-marketing) has exploded in recent years. E-marketing represents a modern business practice and philosophy that encompasses all of the activities needed to help consumers buy and sell goods on the internet [2].

From a seller's perspective, the development of customer retention and loyalty is a strategic objective [3]. New customer acquisition alone will not guarantee long-term success unless it balanced with customer retention [4]. According to [3]the advent of electronic commerce has formed a new market that makes it possible for customers and companies to conduct business transactions directly and virtually without time and even place barriers. Buyers would be able to purchase any kind of products (goods and services) from any location globally. However, companies can reach customers anywhere in the world without any kind of the limitations which minimize traditional ways of doing business. Hence, in an increasingly competitive business environment, securing customers through long-term customer retention is a key driver for organization success.

Customer retention is mainly about repeating business with existing customers, in which help to retain and build up a core relationship with an existing one [5]. E-marketing can reduce the costs of attracting new customers. Hence, traditional marketing costs five to six times more to retain customers. In addition, customer retention helps to solicit customer feedback to improve business operations [6]. Moreover, E-marketing to be implemented successfully, customer's attitudes and behaviours should be recognized. Therefore, this investigation will focus on the role of E-marketing components in building and maintain customer retention.

2. LITERATURE REVIEW

A review of what has been noted regarding the formal definition of e-marketing indicates that e-marketing encompasses a wide range of practices making it difficult to succinctly define the term. [7] provide one of the most encompassing definitions of the term, noting that e-marketing

involves "using the internet and other interactive technologies to create and mediate dialogue between the firm and identified customers" (p. 182). [8] goes on to argue that e-marketing can be defined in terms of its overall objectives which can include: reaching target markets, finding new customers, branding, direct sales, advertising, building relationships with customers, and customer service (p. 35). For the purposes of this investigation e-marketing front-end activities are reviewed in the context of the issue of customer retention.

The impact of e-marketing activities on customer retention has become a more prominent issue for investigation, especially in light of the popularity of other online tools including e-commerce and social media. In particular, [9] note efforts to examine various internet tools for customer relationship management or CRM. As noted by these authors use of tools such as e-marketing has been shown to positively influence customer relationship management. [10], however, indicates that the development of customer retention in online business requires the development of specific factors such as "cyber security, trust, on-time delivery, reasonable prices, product performance, and follow-up service and support" (p. 150). What this effectively suggests is that the relationship between e-marketing and customer retention may not be linear with the business required to establish certain foundations for customer retention.[11] further contribute to understanding the role of e-marketing in customer retention by noting the unique environment created by the internet. Specifically, these authors contend that the internet creates a situation in which searching for alternatives are made easier. This can impact the willingness and ability of customers to remain loyal to or engaged with the organization [11]. E-marketing in this context may thus serve as a vital role in building the relationship with the customer to reduce switching activities [11]. Even though e-marketing may mediate the online relationship with the consumer many of the challenges associated with traditional marketing may also have implications for the outcomes that can be achieved through the use of technology for building customer relationships [12].

The relationship of e-marketing with traditional marketing activities has been extensively investigated in the literature. [13] maintain that the evolution of e-marketing is directly predicated upon its integration with traditional marketing tools. Similar observations have been made by [14] who contends that e-marketing has simply applied traditional marketing areas to create analogous outcomes. In short, e-marketing has not revolutionized the process of customer relationship management or customer retention. Clearly, the literature on e-marketing presents a mixed picture regarding outcomes. With these issues in mind, it is imperative to understand the complex environment of e-marketing to discern the specific front-end activities in e-marketing which provide a foundation for effective customer relationship management and customer retention.

3. CONCEPTUAL FRAMEWORK OF THE STUDY

The understanding of e-marketing impact on customer retention is facilitated by a review of customer relationship management and traditional marketing activities. Using this research as a foundation for investigation, the conceptual framework for the study, which is shown diagrammatically in Figure 1, was built on the identification of five e-marketing front-end applications to shape customer retention. These include: seller's portal personalization, electronic catalogues, shopping cart, search engine, and payment gateway. Because of the complex nature of e-marketing we argued that these five elements are needed to positively influence customer retention. Thus, the relationships between e-marketing and customer retention are hypothesized as:

H1: E-Marketing Front End Application Positively Influences Customer Retention.

Figure 1: Conceptual Model
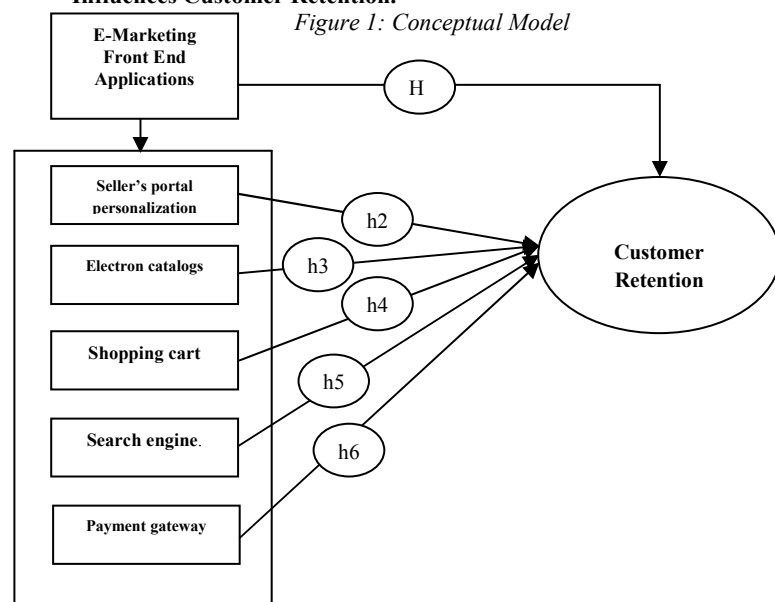
3.1 Relationship Between Seller's Portal Personalization And Customer Retention

The relationship between the seller portal personalization and customer relation in the context of e-marketing has been evaluated in a number of different ways in the current literature. For instance, [15] argue that the seller portal personalization influences the experience of the customer leading to either an increase or decrease customer loyalty. Positive experiences with the portal lead to an increase in loyalty with the inverse relationship also supported [16].

Consumers are becoming increasingly proactive and more likely to ask for more involvement in aspects of design and production of the products or services and to take an increasing role in the fulfillment process [17]. [18] proposed that if customers are involved in the actual design and production process, switching costs are increased. [3] found the seller's portal personalization to be a key factor for establishing electronic commerce loyalty. If personalized service elements are integrated into the seller portal the end result should be the creation of a positive relationship with the buyer [19]and the ability of the organization to build customer loyalty [16]; [41] [17], leading to customer retention over the long-term.

Succinctly, strong evidence exists that personalization improves consumer retention. Yet there is a little empirical research telling how consumers react to it, or the role of portal personalization in enhancing customer retention, whereas a great deal of time and money are being spent on personalization. Thus, the following hypothesized relationships between personalization and customer retention will be investigated:

H2: Seller's Portal Personalization Positively Influence Customers Retention

3.2 Relationships between Electronic Catalogues and Customer Retention

The relationship between electronic catalogues and customer retention is not succinctly reviewed in the literature. However, there is ample evidence which suggests that these types of catalogues do indeed influence customer satisfaction and loyalty. For instance, [20]argue that electronic catalogues are typically recommended in e-commerce as a way to attract customers and build relationships. Further, [21] argue that electronic catalogues can provide a means for companies to effectively reach out to consumers to build their understanding of the products offered. [22] maintain that electronic catalogues can be paired with other types of technology (data mining and transaction data) to provide a tailored and customized shopping experience. This can improve the relationship with the customer and build satisfaction [22].

The success of companies in building customer relationships with catalogues is detailed by [23]who consider the case of Fingerhut and its migration to electronic catalogues. Although the organization experienced notable challenges in moving its mail order business to an electronic format, the authors note that the company's catalogue has been instrumental in establishing and maintaining a customer base. The loyalty of Fingerhut customers, while shaped by a number of factors, would not be possible without the electronic catalogues offered by the company [23]. Thus, there is evidence which suggests that the electronic catalogue will have implications for customer retention. Accordingly, the relationship between electronic catalogue and customer retention is hypothesized as:

H3: Electron Catalogues Positively Influence Customers Retention.

3.3 Relationship between Shopping Cart and Customer Retention

As noted by [24]the shopping cart and checkout experiences are one of the most important features in building relationships with customers. As noted by these authors in a study of customer satisfaction and loyalty check out factors, including the shopping cart and after delivery service accounted for 68 % of the variance in outcomes for the customer. [25] further identify the shopping cart as an integral component of the e-loyalty framework which includes all aspects of the website and its technology to facilitate building a relationship with the customer. The functionality and ease of use for shopping carts are essential for securing customer purchase as [26]argue problems with the shopping cart are often the reason for the abandonment of the cart just before purchase. [27] argue that the online shopping cart represents a unique addition to e-commerce, warranting additional consideration. While shopping carts are typically viewed as tools for purchase, [27] argue that in an online

environment, these carts may serve more as a means for organizing merchandise for purchase at a later time. Features, which allow customers to save shopping carts my enhance user experience leading to increase sales, improved customer relations, and loyalty over the long-term. These findings suggest the following hypothesis:

H4: Shopping Cart Positively Influences Customer Retention.

3.4 Relationship between Search Engine and Customer Retention

Search engines used in the development of e-marketing have also been shown to have some influence on customer relationship development including loyalty and retention. In particular, research regarding this variable has focused on the importance of search engines for the development of e-marketing and company brands [28]. [29] notes the use of search engine optimization strategies to help organizations build their online presence and brand image. These strategies help to ensure that companies organically rate on the top results for search engines [30]. Optimization of websites to make the search friendly is viewed as an important foundation for imprinting on the customer, facilitating the development of a positive relationship and building loyalty [31]. This motivates the hypothesis relating Search engine to Customer retention.

H5: Search Engine Positively Influences Customer Retention.

3.5 Relationship between Payment Gateway and Customer Retention

Payment gateways have also been noted as an important component of building customer relationships and satisfaction in the context of online marketing. [32] contend that effective e-payment portals consider the needs of both the customer and the merchant. [33] further assert that payment gateways can provide a foundation for building trust with the customer. Security embedded into these gateways is a critical issue of concern in shaping consumer perceptions and satisfaction [33]. As noted by [34] payment gateways are an integrated component of effective e-commerce and marketing to build customer relationship management. [35] supports this assertion by noting that the payment systems are part of a comprehensive customer relationship management program which concludes the customer's experience on the website. Thus, if the payment gateway is not

functional or effective this can leave a lasting impression on the customer impacting the relationship between the customer and the company [35]. Accordingly, the relationship between payment gateway and Customer retention is hypothesized as:

H6: Payment Gateway Positively Influences Customer Retention.

4. MATERIALS AND METHODS

4.1 Data Collection

The study was carried out with the online customers of three major Jordanian telecommunications companies. A sample size of 290 respondents was taken from the population of Amman - the capital and most populous city of Jordan- between February and March 2015. Customer names and addresses were obtained from marketing information collected by a marketing company. The respondents were invited to participate in the survey and they were then given a copy of the questionnaire (either electronically or in hardcopy) and were asked to complete the questions as instructed at a time convenient to them. Participants were informed that their participation in the study was strictly voluntary. Completion of the study indicated informed consent for participation. Confidentiality was maintained by collecting only demographic information about the respondent (age, gender, etc.) and no personal identifying information. Among the 290 questionnaires sent out, we received back 250 of them for a response rate of 86 %. Of those returned, only 230 could be utilized for data analysis. This sample size of 230 surveys produces a confidence interval of 3 at the 95 % confidence level for a study population with an unknown size. Based on these calculations, it is reasonable to argue that the sample size is adequate for the hypothesis testing in the current research.

4.2 Instruments

The structured survey questionnaire used in this investigation was developed based on a review of the literature regarding e-marketing and variables influencing customer retention. Specifically, the survey consisted of five sections which included: Seller's portal customization

measured by using three items adapted from [4], electronic catalogue is measured by three items adapted from [36], a shopping cart is measured by three items adapted [27], search engine is measured by three items adapted from [28], payment gateway is measured by three items adapted from [37], and customer retention is measured by five items adapted from [5]. All the measurement items were measured on a five-point Likert-type scales that was anchored by 1= strongly disagree to 5= strongly agree to express the degree of agreement. Higher scores for each of the items indicated most positive views toward the statement. Respondents were asked to evaluate each of the statements on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. Higher scores for each of the items indicated most positive views toward the statement.

Because the survey instrument was developed specifically for this investigation, peer review of the content was undertaken. This process helped to ensure that the responses of the participants were aligned with the focus of the question. Three peer reviewers were provided with a list of the statements along with the intent of the question. Peer reviewers were asked to provide feedback with regard to how effective or ineffective the statement was for acquiring the intended insight. Suggestions for change and modification to the language of the statements were incorporated into the final survey before being sent to managers. Table 1 presents the research constructs and related survey items used for measurement of each of these constructs.

5. RESULTS AND DISCUSSION

5.1 Factor Analysis

For the purposes of this investigation, exploratory factor analysis (EFA) was utilized to establish the validity of the study following peer review. An examination of exploratory factor analysis indicates that the approach has been widely validated in the literature and typically utilized to "explore the psychometric properties of an instrument or scale" [38]. EFA provides a foundation for determining the shared variance across the variables used for measurement while retaining unique and error variance within the model [38]. Because of the complexity of the variables identified in the research, exploratory factor analysis was viewed as the most effective means for ensuring that a comprehensive

understanding of each variable could be accurately measured.

In most analysis of data loading factors of 0.5 and above are considered to provide adequate support for the inclusion of variables [38]; [39]. Loading factors were calculated for each of the statements utilized in the survey. The results are presented below in Table 1 and indicate that all of the loading factors were above the 0.5 threshold. In most instances loading factors were above 0.8 indicating that all of the statements should be included in the survey.

Table 1: Factor Analysis of the research constructs and related survey items

Dimension and items	Factor loading	Source
Seller's portal customisation		[4]
I am able to customize the seller portal.	.86 9	
The portal is always updated in response to user feedback.	.86 1	
I believe that this portal is customized to my needs	.87 1	
Electronic catalogues		[36]
I like to have online trial of the product(s) that I will be buying	.87 8	
It is easy for me to get appropriate information from the electronic catalogues	.93 2	
Electronic catalogues have the touch-and-see, feel of the products	.82 5	
Shopping cart		[27]
I use the shopping cart to "bookmark" the items I like for a possible purchase in the future	.87 8	
I use the shopping cart as a form of information gathering	.90 2	
I use the shopping cart as a shopping research tool	.92 9	
I find placing items in the shopping cart enjoyable		
Search engine		[28]
I consider myself knowledgeable about good search engine use techniques.	.92 6	
Compared to other things that I do on the web (e.g., email, chat, etc.), I'm very skillful at using Internet search engines	.94 2	
I know how to find what I am looking for using Internet search engines.	.87 5	
Payment gateway		[37]
Payment services are always available at any time in a day	.84 1	
The payment amount or transaction data displayed on Payment gateway are always accurate.	.89 5	
My personal information, such as contact details or payment details, has never been stolen because of using Payment gateway.	.77 2	
Customer Retention		[5]

I would encourage friends and relatives to use this company	.730
I intend to continue doing business with the present company	.840
I would point out positive messages about the company on certain message boards on the internet	.887
I recommend the company to those who seek my advice on such topics	.842
I would say positive things about the company to other people	.900

5.2 Reliability Analysis

Reliability analysis was conducted utilizing Cronbach's alpha. This statistical test is used to evaluate the psychometric properties of an instrument [40]. More precisely, Cronbach's alpha is used to determine if a correlation between variables measures the same construct [39].Given that each of the variables identified in the research (seller's portal personalization, electronic catalogue, shopping cart, search engine, and payment gateway) involved multiple statements for assessment in relation to customer retention, Cronbach's alpha was viewed as the most salient means for evaluating the reliability of the data.

The results of the reliability analysis in terms of the alpha coefficient are provided in Table 2 below. All of the values exceed the 0.70 threshold indicating that there is a strong correlation between the statements included in the survey and specific variable being measured [39]; [40].Of the variables measured, payment gateway (0.786) was shown to have the lowest alpha coefficient with search engine having the highest (0.901). All of the results do indicate that the constructs measured are reliable for use and inclusion in the current investigation.

Table 2: Reliability analysis

Contract	Number of items	Alpha coefficient
Seller's portal personalization.	3	.833
Electron catalogues.	3	.852
Shopping cart.	3	.886
Search engine.	3	.901
Payment gateway	3	.786
Customer Retention	3	.827

5.3 Demographic Profile of Respondents

Demographic data for all respondents was also collected to provide a general overview of the sample. Demographic surveys were included with the questionnaires and requested basic information about the respondents that did not include any personal identifying information. The results were tabulated utilizing descriptive statistics and are included in Table 3. The results indicate that of those returning surveys that were included in the study, 37.8 % were female and 62.2 % were male. Most of the respondents were under the age of 31 (62.2 %) with the second largest group for the 40 to 49-year-old cluster (21.7 %).

Most of the sample (97 %) was under the age of 49. A large majority of the respondents had attained at least a Bachelor's Degree (70 %) and most utilized a computer regularly or on a daily basis, 46.1 and 38.3 % respectively. The profile indicates that the sample is highly educated and generally familiar with computer applications and the internet.

Table 3: demographic characteristics of respondents (N = 230)

Variables	Percentages	Cumulative (%)
Gender		
Male	62.2	62.2
Female	37.8	100
Age		
‹ 31	62.2	62.2
31- 39	13.0	75.2
40 – 49	21.7	97.0
50 – 59	3.0	100
Education level		
High school	19.6	19.6
Diploma	8.7	28.3
Bachelor	70	98.3
Postgraduate	1.7	100
Computer usage		
On a regular basis	46.1	46.1
Daily	38.3	84.4
Weekly	11.6	96
Monthly	4	100

5.4 Hypothesis Testing

Hypothesis testing for this investigation involved the use of both multiple regression analysis and simple regression analysis. Multiple regression analysis was utilized to confirm the first hypothesis of the study, namely that the five e-marketing front-end applications (seller's

portal personalization, electronic catalogues, shopping cart, search engine, and payment gateway) all contribute to the development of customer retention.

The results of the multiple regression analysis are provided below in Table 4 and provide a unique understanding of the data with regard to the way in which the variables impact customer retention in e-marketing front-end applications. Using a significance value of $p < 0.05$ the results in Table 4 indicate that all of the variables are significant with the exception of seller portal personalization which had a significance of 0.640 significantly above the 0.05 threshold. Because multiple regression analysis provides insight into the independent variables which contribute to the dependent variable (customer retention) it becomes evident from this analysis that the shopping cart is not significant to the model.

With respect to the four variables that are relevant to the model (Seller's portal personalization, electronic catalogues, search engine, and payment gateway) a review of the β coefficients further supports a positive relationship between these independent variable variables and the dependent of customer retention. In particular, the β coefficients for the variables are all positive, indicating that these variables have a positive impact on the development of customer retention. Examination of the t-values further indicates that search engine (5.433) had the most significant effect on customer retention while payment gateway (4.178) has the second highest influence. Seller's portal (2.466) and Electronic catalogues (2.418) had a similar influence on the development of customer retention. The R^2 value of 0.64 further indicates that the model accounts for 64 % of the total variance in customer retention. These results provide data for accepting the first hypothesis of the study suggesting that e-marketing front-end applications do indeed have an influence on customer retention.

Table 4: Results of Multiple Regression Analysis

Model	Standardized Coefficient (β)	T-value	Sig.
Constant	-	5.111	.000
Seller's portal personalization	.365	5.433	.000
Electronic catalogues	.171	2.418	.016
Search engine	.160	2.466	.014
Shopping cart	.029	.468	.640
Payment gateway	.211	4.178	.000
R^2=.640; Adjusted R^2= .632; F-value = 79.1; Significance= 0.00			

Evaluation of hypotheses two through six was made utilizing simple linear regression to understand the direct or linear relationship between a specific independent variable involved in e-marketing frontend applications and customer retention. Simple linear regression is similar in nature to the principals involved in correlation. Specifically, simple linear regression is focused on determining if there is indeed a linear relationship between two variables. Simple linear regression helps to predict the value of the dependent variable, providing a definitive distinction between the independent and dependent variable. Correlation does not provide this differentiation among variables.

Hypothesis two proposed that seller's portal positively influenced customer retention. Using a significance level of $p < 0.05$ the results of the simple regression indicate that there is indeed a relationship between these two variables. The significance level for the liner regression was 0.00 indicating that there is significant data to reject the null hypothesis and to accept the research hypothesis. Further, the β coefficient was noted to be positive indicating that there is a positive relationship between the seller's portal personalization and customer retention. The R^2 vale of .354 indicates that the seller's portal personalization contributes to 35.4 % of the variance in customer retention.

Table 5: Results of Simple Regression analysis Seller's Portal personalization on Customer retention

Model	Standardized Coefficient (β)	T-value	Sig.
Constant	-	11.961	.000
Seller's portal personalization	.595	11.167	.000
R^2=.354; Adjusted R^2= .351; F-value = 124.705; Significance= 0.00			

Hypothesis three for the study postulates that there would be a positive relationship between electronic catalogs and customer retention. Simple linear regression was also utilized to evaluate the direct relationship between these two variables. The results provided in this

investigation do indicate that the relationship is significant (p = 0.000). This finding is not surprising given the results of the multiple regression analysis. The data provided here allows for the rejection of the null hypothesis and acceptance of the research hypothesis. Further, the β coefficient in this simple linear regression indicates a positive value, suggesting that the relationship is indeed positive. R^2 for the regression analysis was 0.681 indicating that 68.1 % of the variance in customer retention can be attributed to electronic catalogues.

Table 6: Results of Simple Regression analysis, electronic catalogues on Customer retention

Model	Standardized Coefficient (β)	T-value	Sig.
Constant	-	10.576	.000
Electron catalogues	.681	14.036	.000
R^2=. 681; Adjusted R^2=. 461; F-value = 196.997; Significance= 0.00			

The fourth hypothesis for the study proposed that there would be a positive relationship between the shopping cart and customer retention. A review of the data from the simple linear regression specifies that the p value (0.000) meets the threshold for statistical significance (0.05) indicating the need to reject the null hypothesis and to accept the research hypothesis. Again, this finding is not surprising when reviewing the results of the multiple regression analysis, which did indicate that the shopping cart did contribute to customer retention in the context of e-marketing front-end applications. The β coefficient for this linear regression demonstrates a positive value also indicating that the relationship between the variables is positive. The R^2 value of .462 suggests that shopping cart contributes to 46.2 % of the variance for customer retention in this research. What is perhaps most interesting about this finding is that the simple regression indicates a significant relationship between a shopping cart and customer retention that is independent of the model which includes (Seller's portal, electronic catalogues, search engine, and payment gateway). This finding is important to note as it indicates that shopping cart does have some significance for influencing customer retention despite the fact that this independent variable is not supported in the larger e-marketing front-end application model.

Table 7: Results of Simple Regression analysis, electronic catalogues on Customer retention

Model	Standardized Coefficient (β)	T-value	Sig.
Constant	-	17.545	.000
Shopping cart	.680	13.998	.000
R^2=. 462; Adjusted R2=. 460; F-value = 195.941; Significance= 0.00			

Simple linear regression was also utilized to evaluate hypothesis five which proposed that search engine would positively influence the development of customer retention. The significance level calculated for this regression indicates a p-value of 0.000 meeting the level of significance of this research. Based on these findings, it is possible to reject the null hypothesis and accept the research hypothesis for this variable. The β coefficient again demonstrates a positive value, suggesting that search engine has a positive relationship with customer retention. The R^2 value calculated was 0.547 indicating that search engine accounted for 54.7 % of the variance in customer retention.

Table 8: Results of Simple Regression analysis Search engine on Customer retention

Model	Standardized Coefficient (β)	T-value	Sig.
Constant	-	14.566	.000
Search engine	.740	16.588	.000
R^2=. 547; Adjusted R^2=. 545; F-value = 275.169.			

The final hypothesis proposed for this investigation focused on the relationship between payment gateway and customer retention. Again the use of a simple regression analysis indicates that the significance level (p = 0.000) warrants the rejection of the null hypothesis and acceptance of the research hypothesis demonstrating a definitive relationship between these two variables. Here again, the β coefficient is positive, suggesting that the relationship between payment gateway and customer retention is positive. The R^2 value of 0.362 further suggests that payment gateway contributes to 36.2 % of the variance in customer retention. These results are commensurate with

the data collected through the multiple regression analysis.

Table 9: Results Of Simple Regression Analysis Search Engine On Customer Retention

Model	Standardized Coefficient (β)	T-value	Sig.
Constant	-	5.636	.000
Search engine	.602	11.383	.000
R^2=. 362; Adjusted R^2=. 360;F-value=129.577			

6. DISCUSSION

This research sought to evaluate the relationships between e-marketing front-end applications in the development of customer retention. Table 10 below provides a summary of the findings of the statistical evaluation of each of the hypotheses.

Table 10: Summary Of The Findings In Relation To Hypotheses

No.	Hypothesis	Finding
H1	E-Marketing front-end application positively influences Customer retention.	Supported
H2	Seller's portal personalization positively influences customer retention.	Supported
H3	Electronic catalogues positively influence customer retention.	Supported
H4	Shopping cart positively influences customer retention.	Supported
H5	Search engine positively influences customer retention.	Supported
H6	Payment gateway positively influences customer retention.	Supported

The results of this investigation appear to support what [8].notes retarding the objectives of e-marketing tools. In particular, this author argues that e-marketing can and should be used as a foundation for the development of positive customer relationships. Clearly, e-marketing tools including electronic catalogues, seller's portal personalization, search engine, and payment gateway are similar to traditional marketing tools in building the relationships with customers to create brand identity as well as the development of loyalty between the company and the customer. Based on this data there is ample support for augmenting e-marketing front

end applications to help facilitate customer relationship management to enhance loyalty and retention of the customer over the long-term.

Although the results of this investigation do indicate that there is a direct, linear, and independent relationship between the shopping cart and customer retention, this variable was not supported in the context of the multiple regression analysis. A review of the literature regarding the shopping cart did indicate that this variable had considerable influence on the development of customer retention [16]. Given this finding in the literature, it is surprising that the shopping cart is not supported in the context of the model. It is possible that the other four elements of the model (electronic catalogue, seller's portal personalization, search engine, and payment gateway) had such a significant impact on customer retention that shopping cart was not significant within the model. However, there is evidence to support the development of the shopping cart as an important component of the e-marketing front-end applications needed to facilitate customer retention.

When all of the variables reviewed are taken collectively it is evident that companies should focus on electronic catalogues, seller's portal personalization, search engine, and payment gateway when building a foundation for customer retention. For organizations seeking to develop e-marketing applications quickly and effectively this research provides insight into the areas which should be emphasized in order to provide the most support for achieving customer retention goals. While shopping cart is important this front-end element does not need to be the focal point for initiating e-marketing front-end activities.

7. CONCLUSION

Although the research for this investigation is limited to a small sample of online customers of three major Jordanian telecommunications companies it does provide insight into what is important in the context of e-marketing front-end applications. Specifically, the research not only demonstrates the importance of each of the five variables included, but also the research indicates that four of the five dependent variables (electronic catalogue, seller's portal personalization, search engine, and payment gateway) should be considered as the most important foundations for building e-marketing, especially in the telecommunications sector. As

research regarding the elements of successful e-marketing front-end application development and use expands it will be possible to identify useful models for creating successful e-marketing programs that facilitate the ability of companies to build and manage successful long-term relationships with customers to achieve retention. Because customer retention is such an important issue of concern for all businesses finding effective methods to achieve retention on the internet is imperative for success.

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