The Impact of E-CRM on the Customer Loyalty of Airline Companies
(Field Study in Jordan Market)

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Abstract:
Customer relationship management (CRM) has been increasingly adopted because of its benefits of greater customer satisfaction and loyalty, which in turn, leads to enhanced financial and competitive performance. This paper reports on a study that examines the relationship between e-CRM and customer loyalty. This study contributes to the limited literature on e-CRM strategy since little is known about the impact of CRM on loyalty in the Airline industry in Jordan. Data were collected through a questionnaire survey of Airline companies in Jordan. Hierarchical regression analyses on a sample of (513 passengers) Airlines companies, The study found that there is a strong relation indicates that the communication function through the company's website have an important and effective role in creating the customer's loyalty to the airline company. and the interactive function is very important in creating the customer 's loyalty to the airline company since it is necessary that the company's website be easy to navigate through, and indicates that security is also an important element for interaction and creating loyalty , there are no Differences in Impact of (E-CRM) on the customer's Loyalty due to sample Age. but there are differences in Impact of (E-CRM) on the customer's Loyalty due to sample education level and customer Experience , Came to (Under Graduate and More than Ten times) favor

Keywords: Customer relationship management, customer loyalty, Airlines company.

1. Introduction
The airline industry is one of the most affected sectors from the economical changes, the effects of the worldwide economic crisis and the consequences of September 11th at tacks have severely impacted airline industry. While the U.S. and certain European markets were most severely impacted, airlines worldwide are striving to both regality and improve profitability. Many have focused on operational improvements to reduce costs, but the customer cannot be ignored. Customer relationships (Boland, D et al 2002) must be fostered for airlines to maintain competitive advantage and profitability in the long term.

The airline industry globally is going through an exciting phase of growth and change. Airline fleet grew by 7% worldwide in 2005 and the five-year forecast from IATA shows rapid growth in Asia Pacific and Central Europe, with the global industry looking at an average growth rate of 5.6% across all international routes. Industry experts expect that by 2025 passenger numbers will grow from 2 billion to nearly 6 billion and cargo from 23 million tonnes to 72 million tonnes.

2. Problem of the study:
The intense competition in the aviation industry by international airlines makes it increasingly difficult to market such as the industry and the use of modern technologies in relationship management customer makes the airline is able to get close to more customers, which makes the marketing of its services easier and more efficient to produce in the end clients to them and loyalty to the company Air certain traveling in all their travels, the problem of the study to answer the following questions:
1 - To what extent can the customer relationship management in electronic form to create loyal customers for a particular airline
2 - to what extent the functions (communication, interactive and relational) role in the creation of loyalty to a particular airline miles.
3 - What are the problems faced by airlines in the Administration client relationship in electronic form.

3. Objectives of the study:
The objectives of the study to identify the following:
1 - identify the reality of relationship management in electronic form in airlines operating in Jordan.
2 - Identify the role and functions of the customer relationship management in electronic form in the creation of the loyalty of the passengers aboard the flights of these companies.
3 - identify the problems faced by airlines in the Administration client relationships in electronic form.
4. Importance of the study

The importance of the study are as follows:
1 - the growing importance of e-marketing and its role in the creation of ongoing relationships with customers and a document because of its ability to identify consumer needs and desires are the most accurate, and spread wider than any type of traditional marketing.
2 - contribute to the knowledge of the capacity of airlines to contact and interact and create relationships with customers and the actual to be able to own their loyalty to it.
3 - contribute to the development of recommendations for domestic airlines, so you can compete with other airlines to stay in the market for the growing aviation industry in the growth and expansion, in order to gain the largest market share as possible.

5. Form of study

Figure 1 represents a model study exemplified the independent and dependent variables

6. Study Hypotheses

6.1 Main Hypothesis:

First Hypothesis
H1 : There is a positive relation of statistical indication between the elements of customer's electronic relations management together and his loyalty to the company.
A number of branch hypotheses emerge from this main hypothesis :
H1a : There is a positive relation of statistical significance between the communication function and customer's loyalty to the company.
H1b : There is a positive relation of statistical significance between the Interactive function and customer's loyalty to the company.
H1c : There is a positive relation of statistical significance between the relational function and customer's loyalty to the company.

Second Hypothesis
H2: There are a differences in the impact of elements of customer's electronic relations management together (E-CRM) on the customer's Loyalty due to sample characteristics variables (gender, age, education level, and Customer Experience).
H2a: There Are Differences in Impact of customer's electronic relations management together (E-CRM) on the customer's Loyalty due to sample Age.
H2b: There Are Differences in Impact of customer's electronic relations management together (E-CRM) on the customer's Loyalty due to sample Education.
H2c: There Are Differences in Impact of customer's electronic relations management together (E-CRM) on the customer's Loyalty due to sample Experience.
7. LITERATURE REVIEW

7.1 CRM

Customer relationship management (CRM) is a topic that has been discussed in research for the past five decades, but its implementation has become a hot topic only recently. CRM can be described as the discipline of identifying, attracting and retaining a company’s most valuable customers. According to (Curry et al, 2000) the true business of every company is to make customers, keep customers and maximize customer profitability. CRM is based on the idea that not all customers are of the same value to a company. Following the Pareto principle, the top 20% of the customers normally deliver 80% of revenues. It is therefore necessary for a company to target its marketing efforts towards retaining the top 20% of existing customers rather than spending it on communicating with non-customers who are likely to be unprofitable. (Curry et al, 2000)

The key for success is to focus on measuring and managing customers with the intention to create loyal and profitable customers is to build lasting relationships with customers through identifying, understanding and meeting their needs. Identifying the most profitable customers has been a difficult task, but the development of analytical techniques such as data mining, Data Warehousing and web technology has enabled companies to start pursuing this goal with a whole new level of intensity (Abu-Kasim, N.A et al, 2009). While it is not reasonable to ignore the technical aspect when discussing CRM, one should remember that technology only provides tactical tools for implementing a company’s customer relationship strategy. (Greenberg, 2001)

While the objectives of CRM remain the same. The development of information and communication technology allows for a significant increase in the scale and scope of customer service. Thus e-CRM is defined as the application of information and communication technology to increase the scale and scope of customer service.

7.2 The evolution from CRM to e-CRM

In recent years CRM has gone through a period of technological transformation. In his overview of the concept, Bull (2003) has shown that while CRM is a business process that is based on the effective management of customer relationships, another very important view of CRM is its technological orientation. Similarly, Chen and Popovich (2003) state that CRM is an integrated approach of managing customer relationships through the combination of three important components:

(1) People;
(2) Process; and
(3) Technology.

Thus, technological developments that have flourished in recent years have significant impact on this business process and its organisational outcomes. Chen mentions that Data warehouse technology is a tool commonly used in CRM.

7.3 Customer loyalty

According to the Customer Loyalty Research Centre, loyalty can be defined as “the extent to which your customers continue with key loyalty behavior when competitors offer more attractive prices, products, and/or services.” Peppers and Rogers (Peppers & Rogers Group, 2002) define it as “the degree to which customers are predisposed to stay with your company and resist competitive offers.” Wile relationships are a central part of loyalty, they alone are not enough to make a customer loyal; this what our research is trying to answer. The process of building customer loyalty is often described using a loyalty ladder with five ascending steps: suspect, prospect, customer, client and advocate.

The purpose of relationship marketing activities is to move the customer through a series of steps that culminate in the customer being an advocate for the company’s product (Roberts & Berger, 2003)  

Reichheld’s basic premise is that some companies enjoy a loyalty premium over competitors: they have more loyal customers, more loyal employees, and more loyal shareholders.

Reichheld demonstrated the economics of loyalty through examples from various lines of business, all of which showed a clear correlation between customer retention and company profitability. He argued that while most managers understand the linkage which both customer and employee loyalty has on revenues and costs, they are blinded by short-term financial indicators which drive them towards maximizing shareholder value instead of value to the customer. (Reichheld, 2001)

Drawing comparison between the concept of loyalty and commitment in the context of the development process of a relationship, (Dwyer et al, 1987) suggest that commitment should be measured by three criteria: inputs, durability and consistency. The first criterion of commitment is that the parties in a relationship provide relatively high levels of inputs to the association. This can mean important exchange of economic, communication, and/or emotional resources. Second, there should be some durability of association over time. The parties need to have a common belief in the effectiveness of future exchange, which will enable them to bond and encourage the continued investment in the relation. The third aspect of commitment is the consistency with which the inputs are made to the association. Inconsistency in input levels reflects low commitment and leads to a reduced reliance by the other party on the outcomes of the exchange. Social bonds tend to weaken and dissolve over time unless actively maintained. (Dwyer et al, 1987).
7.4 E-CRM in Airlines industry

For the airlines implementing CRM, it becomes possible to determine customers who are profitable, gaining an understanding of their preferences to improve retention and increase the volumes sold. These valuable customers can become advocates for the airline and its products. Finally, CRM helps an airline to build loyalty. Because it is a marketing truism that it costs five times more to generate new customers than it does to retain existing ones, that is a compelling argument. With e-CRM, airlines can increase sales and customer loyalty. This strategy can improve sales effectiveness, bring higher value to all of airline's key business relationships, help airline to understand what each client relationship is truly worth, develop and reinforce a consistent experience for customers, improve management effectiveness, improve tactical and strategic planning, respond faster to competitive challenges, use critical resources more efficiently, and reduce administrative burdens and overall cost. Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2002).

7.5 Communicational function

Communication is “the human activity that creates and maintains relationships between the different parties involved” (Lages, Lages, & Lages, 2005.). In an ecommerce context, communication is the exchange of information between sellers and buyers (Kiang, Raghu, & Shang, 2000). Peterson, (Balasubramanian, and Bronnenberg 1997) described communication channel intermediaries as giving information about the availability and features of the seller’s products or services to buyers and prospective buyers. Communicational function refers to the use of Internet as customer service tool to disseminate information and answer to all enquiries from customers. Examples of this tool include email, chat rooms or bulletin board, and simply Frequently Asked Questions (FAQ)” (Ab Hamid, 2005). E-mail and automated response are considered the dominant communication mediums to maintain customer relationships (Ab Hamid, 2005) E-mail is a communicational tool for online consumers as it may reduce customer waiting time for after-sales service responses. (Ab Hamid ,2005) concluded that the successful use of e-mail communication can give an advantage to a company. Help desks, chat rooms, and FAQs are the common communicational methods available on the web to link customers and companies. Help desks give technical support by e-mail. Chat rooms allow customers to communicate with customer service. FAQs provide answers to common questions customers may have. In an offline setting, communication is a relationship marketing activity in the Airlines Service (Kim et al., 2001); newsletters, direct mailings, telemarketing services, thank-you letters, and birthday cards have been used to measure the communication dimension. In Kim et al.’s (2001) study, communication was treated as an antecedent of relationship quality. Therefore, this study extends the previous empirical support in the offline setting by proving that communication can be used to measure e-relationship quality in online activities. In this study, communicational function is a tool to provide e-marketing service and to exchange information between buyers and sellers not only in response to a customer’s inquiry, but also to maintain customer relationships. The communicational function may involve the exchange of information through the website, e-marketing, complaint handling, customer support on the web, and e-promotional activities such as thank-you and birthday messages, and special promotions.

7.6 Transactional function

Transactional function reflects the use of Internet technology as a platform to transact with companies such as place orders, check an order status, and view profile of previous activities” (Ab Hamid, 2005, p. 54). Website design and website security are the primary features that encourage transactions between customer and company. Security is the feature through which online customers may build online trust; consumers who become trusting eventually make additional online transactions. Website designs can expect more transactions between a customer and a company. Website design Website design is a key factor in the transactional function. Srinivasan et al .(2002) focused on the character of websites, which they defined as the overall image or personality that an e-retailer projects to consumers through the use of inputs such as text, style, graphics, colors, logos, and slogans or themes on the website. Other researchers have discussed website characteristics as a driver of online trust. Devaraj, Fan, and Kohli (2006) examined the determinants of consumer satisfaction and preference of the online channel. They defined website design as important in customer satisfaction. Moreover, website design must be informative and enable consumers to locate the information they need to make their purchase decisions. Information from the website affects the quality of consumer decisions and consumer satisfaction with the online channel.

7.7 Relational function

Several studies have discussed the relational function. Ab Hamid (2005) stated that relational tools include value-adding features such as personalized recommendations, personalized webpages, and customized service. “Personalization is a unique feature of the Internet that requires substantial integration between the front end servers, database applications and intelligent agents” (Ab Hamid, 2005, p. 56). Personalization is the ultimate form of customization and is the final result of understanding and meeting the unique needs of a customer (Holland & Baker, 2001). According to Devaraj et al. (2006), personalization is a key service dimension in customer satisfaction. In the e-retailing environment, (Srinivasan et
al. (2002) defined customization as the ability of an e-retailer to tailor products, services, and the transactional environment to individual customers. Customization can be explained as the extent to which an e-retailer’s website can recognize a customer and tailor the choice of products, services, and shopping experiences for that customer. In this study, relational function is defined as a two-way communication feature in an e-CRM context that creates a personalized relationship between customer and an online company. Tools to facilitate this relationship may include customized products and services, personalized complaints, recommendations, and feedback surveys. Each customer receives a direct response to his/her online request or inquiry. The relational function keeps customer needs and preferences on file for the customer’s future inquiries and information.

8. Hypotheses Testing and Discussion:
Main Hypothesis:
H1 : There is a positive relation of statistical significance between the elements of customer's electronic relations management together and his loyalty to the company.

<table>
<thead>
<tr>
<th>Table (1) Correlation coefficient of the elements of customer's electronic relations management as for customer's loyalty</th>
<th>Customer's Loyalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>elements of customer's electronic relations management</td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>0.603</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.000 (**)</td>
</tr>
<tr>
<td>N</td>
<td>513</td>
</tr>
</tbody>
</table>

(* ) Statistically significant on significance level (0.05)
(**) Statistically significant on significance level (0.01)

Table (1) shows that there is a relation of statistical significance at level of (α ≤ 0.05), this means that there is a relation of statistical significance between the independent variable (elements of customer's electronic relations management) and the dependent variable (customer's loyalty). The table also indicates that the correlation coefficient is (0.603), which means the existence of a strong relation between the two variables. So, we accept the hypothesis stating that there is a positive relation between the elements of customer's electronic relations management and customer's loyalty to the company.

First Sub-Hypothesis:
H1a : There is a positive relation of statistical significance between the communication function and customer's loyalty to the company.

<table>
<thead>
<tr>
<th>Table (2) Pearson Correlation Coefficient – communication function and customer's loyalty</th>
<th>Customer's Loyalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Function</td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>0.433 (**)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
</tr>
<tr>
<td>N</td>
<td>513</td>
</tr>
</tbody>
</table>

(* ) Statistically significant on significance level (0.05)
(**) Statistically significant on significance level (0.01)

Table (2) shows that there is a relation of statistical significance at level of (α ≤ 0.05). This means that there is a relation between the independent variable (communication function) and the dependent variable (customer's loyalty). The table also indicates that the correlation coefficient is (0.433), which means the existence of a strong relation between the two variables from passengers point of view. So, the alternative hypothesis is accepted and the null hypothesis is rejected. The strong relation indicates that the communication function through the company's website have an important and effective role in creating the customer's loyalty to the airline company.

Second Sub-Hypothesis:
H1b : There is a positive relation of statistical significance between the Interactive function and customer's loyalty to the company.

<table>
<thead>
<tr>
<th>Table (3) Pearson Correlation Coefficient – interactive function and customer's loyalty</th>
<th>Customer's Loyalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interactive Function</td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>0.526</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.000 (**)</td>
</tr>
<tr>
<td>N</td>
<td>513</td>
</tr>
</tbody>
</table>

(* ) Statistically significant on significance level (0.05)
(**) Statistically significant on significance level (0.01)

Table (3) shows that there is a relation of statistical significance at level of (α ≤ 0.05). This means that there is a relation between the independent variable (interactive function) and the dependent variable (customer's loyalty). The table also indicates that the correlation coefficient is (0.526), which means the existence of a strong relation.
between the two variables from managers point of view. So, the alternative hypothesis is accepted and the null hypothesis is rejected. This indicates that the interactive function is very important in creating the customer's loyalty to the airline company since it is necessary that the company's website be easy to navigate through, and indicates that security is also an important element for interaction and creating loyalty.

**Third Sub-Hypothesis**

H1c : There is a positive relation of statistical significance between the relational function and customer's loyalty to the company.

**Table (4)**

| Pearson Correlation Coefficient – relational function and customer's loyalty. |
|---------------------------------|-----------------|
| Relational Function | Customer's Loyalty |
| Pearson Correlation | 0.426 |
| Sig. (2-tailed) | 0.000 (**) |
| N | 513 |

(*) Statistically significant on significance level (0.05)
(**) Statistically significant on significance level (0.01)

Table (4) shows that there is a relation of statistical significance at level of (α ≤ 0.05). This means that there is a relation between the independent variable (relational function) and the dependent variable (customer's loyalty). The table also indicates that the correlation coefficient is (0.426), which means the existence of a strong relation between the two variables from passengers point of view. So, the alternative hypothesis is accepted and the null hypothesis is rejected.

**Second Hypothesis**

H2|: There are No differences in the impact of elements of customer's electronic relations management together (E-CRM) on the customer's Loyalty due to sample characteristics variables (age, education level, and Customer Experience ).

**Test of First Sub Hypothesis**

H2a: There Are Differences in Impact of customer's electronic relations management together (E-CRM) on the customer's Loyalty due to sample Age.

**Table (5)**

<table>
<thead>
<tr>
<th>(Age) Test of Second Main Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>F Calculated</td>
</tr>
<tr>
<td>customer's Loyalty</td>
</tr>
</tbody>
</table>

One ways ANOVA was used to test this hypothesis. Table (5) indicated that there are differences in a Differences in Impact of customer's electronic relations management together (E-CRM) on the customer's Loyalty due to sample Age, since calculated (f) is less than tabulated (f). Therefore, null hypothesis is accepted. This means that there are no Differences in Impact of customer's electronic relations management together (E-CRM) on the customer's Loyalty due to sample Age.

**Test of Second Sub Hypothesis**

H2/b: There Are Differences in Impact of customer's electronic relations management together (E-CRM) on the customer's Loyalty due to sample Education.

**Table (6)**

<table>
<thead>
<tr>
<th>(Education) Test of Second Main Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>F Calculated</td>
</tr>
<tr>
<td>customer's Loyalty</td>
</tr>
</tbody>
</table>

One ways ANOVA was used to test this hypothesis. Table (6) indicated that there are differences in Impact of customer's electronic relations management together (E-CRM) on the customer's Loyalty due to sample education level, this association is statistically significant upon (α=0.05) since calculated (f) is more than, tabulated (f). Therefore the null hypothesis is rejected and alternative one is accepted. This means that there are differences in Impact of customer's electronic relations management together (E-CRM) on the customer's Loyalty due to sample education level , " Scheffe' Test” was used To find the differences, Table (7) express that the differences were in the educational level (Under Graduate)

**Table(7) Scheffe' Test**

<table>
<thead>
<tr>
<th>educational level</th>
<th>No</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than Bachelor</td>
<td>148</td>
<td>3.69</td>
<td></td>
</tr>
<tr>
<td>Under Graduate</td>
<td>270</td>
<td>3.85</td>
<td></td>
</tr>
<tr>
<td>Graduate</td>
<td>95</td>
<td>3.77</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>513</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Test of third Sub Hypothesis

**H2/c:** There Are Differences in Impact of customer's electronic relations management together (E-CRM) on the customer's Loyalty due to sample Experience.

### Table (8)

<table>
<thead>
<tr>
<th>(Monthly Income)</th>
<th>Test of Second Main Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F Calculated</td>
</tr>
<tr>
<td>customer's Loyalty</td>
<td>29.778</td>
</tr>
</tbody>
</table>

One way ANOVA was used to test this hypothesis. Table (8) indicated that Differences in Impact of customer's electronic relations management together (E-CRM) on the customer's Loyalty due to sample Experience, this association is statistically significant upon ($\alpha=0.05$) since calculated (f) is more than, tabulated (f). Therefore the null hypothesis is rejected and the alternative one is accepted. This means that there are **Differences in Impact of customer's electronic relations management together (E-CRM) on the customer's Loyalty due to sample Experience**.

Scheffe' Test was used to find the differences, Table (9) express that the differences were in the Passengers Experience (More than Ten times).

### Table (9) Scheffe' Test

<table>
<thead>
<tr>
<th>educational level</th>
<th>No</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than Five times</td>
<td>102</td>
<td>3.19</td>
<td></td>
</tr>
<tr>
<td>Five- Ten times</td>
<td>183</td>
<td>3.64</td>
<td></td>
</tr>
<tr>
<td>More than Ten times</td>
<td>228</td>
<td>3.91</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>513</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. Results

- The strong relation indicates that the communication function through the company's website have an important and effective role in creating the customer's loyalty to the airline company.
- The interactive function is very important in creating the customer's loyalty to the airline company since it is necessary that the company's website be easy to navigate through, and indicates that security is also an important element for interaction and creating loyalty.
- The interactive function is very important in creating the customer's loyalty to the airline company since it is necessary that the company's website be easy to navigate through, and indicates that security is also an important element for interaction and creating loyalty.
- This means that there is a relation between the independent variable (relational function) and the dependent variable (customer's loyalty).
- There are no Differences in Impact of customer's electronic relations management together (E-CRM) on the customer's Loyalty due to sample Age.
- There are differences in Impact of customer's electronic relations management together (E-CRM) on the customer's Loyalty due to sample education level, Came to (Under Graduate) favor
- There are Differences in Impact of customer's electronic relations management together (E-CRM) on the customer's Loyalty due to sample Experience, Came to (More than Ten times) favor

10. References