E-GOVERNMENT AND CRM IN JORDAN: CURRENT STATE AND MAIN CHALLENGIES

Alaa Al-Jelani, Ruba Abdel-Razeq, Seham Al-Najjar, Omar Al-Hujran
Princess Summya University for Technology, Jordan
o.hujran@psut.edu.jo

ABSTRACT
Since 2001, Jordan has endorsed serious development of its e-government program. However, the e-government program still has had a limited impact on their citizens. Understanding customer needs and preferences enables government to develop good customer relationship management (CRM) applications. This study examines citizen interaction with e-government and aims to clarify the role of CRM in fostering citizen-centric approach. More advanced authorities are planning to use CRM to help governments understand their citizens better. This exploratory study used a series of semi-structured interviews, to investigate the potential benefits and challenges within the current state of Jordanian e-government while implementing CRM applications. As a result, this study found that some CRM applications are implemented by the government such as e-government portal, SMS portal etc. but was not effectively used.

Keywords: e-government, customer relationship management, CRM, Jordan

1 INTRODUCTION
The importance of the information communication technology (ICT) and, in particular, the World Wide Web is the opportunity to build better relationships with customers than has been previously possible in the offline world. The pervasive use of ICT now is changing how governments can provide information and services to citizens, businesses and internal government entities. E-government can be broadly defined as a government’s use of ICT, particularly Web-based Internet applications and mobile computing to enhance the access and the delivery of government information and service to citizens [13].

Upon this paradigmatic shift introduced by the emergence of e-government, there was a widely held agreement that states a new model of e-government which viewed citizens as customers rather than “subjects” of the state’s authority. However, the perception that citizens are customers and civil servants are exactly that – servants to the public – has taken hold and continues to expand into all branches of government [8]. In fact, citizens and governments themselves are looking for increased transparency, accountability and performance efficiency. Reaching this goal requires a new provision of e-government services [15]. Interestingly, the emergence of e-government went hand in hand with the adoption of Customer Relationship Management (CRM) as the primary mode of negotiating the relationships between government agencies and citizens. The underlying assumption of CRM is that forging intimate connections with customers enables government to understand customer needs, preferences and spending potential.

Since 2001, Jordan has witnessed a significant development of its e-government program. In 2006, Jordan was ranked in position 51 out of 199 countries by the United Nations (UN). Unfortunately, Jordan downgraded into the position 98 in 2012. However, regardless of some successes, the e-government program still has had a limited impact on Jordanian citizens [2]. There are numerous challenges and obstacles delaying Jordan’s e-government transformation [15]; one of these challenges is related to the narrow definition and poor understanding of CRM concept from government prospective.

This study is built upon assessing the current state and strategies of CRM implementations within Jordanian e-government program by determining the extent to which governments have taken serious steps to integrate the concept of CRM in its e-services. The key concepts that constitute an integrated approach to CRM in e-services enable government agencies to create an integrated view of their customers and use this information to design and coordinate the delivery of e-services across multiple channels. CRM can thus be described as
providing governments with a set of tools and techniques that enable intelligent interactions [9]. Significantly, the absence of implementing CRM can affect citizens' result of communication and satisfaction [21].

This rest of this paper is organized as follows. Next, we provide a theoretical background and analyze the relevant literature and the concepts of cloud computing and list a set of achievements within this context. Section 3 describes the research design and methodology applied in this study. In Section 4, we present the results of the study and offers justified interpretations and discussions in regards to the results. Finally, the paper concludes in Section 5.

2 THEORITICAL BACKGROUND AND LITRETURE REVIEW

2.1 E-government in Jordan

His Majesty King Abdullah II was the first to emphasize the importance of e-government program in 2001 announcing the Initiative and assigned the Ministry of Communications and information technology [15] implementation. This program works to strengthen the provision of services electronically by using the means of communication with various technologies as a focal point to coordinate the efforts of various ministries and institutions [15]. The goal of this program is to enhance the performance of government in terms of accountability, transparency, anticorruption, e-democracy, service provision, time and cost effectiveness, citizen satisfaction, loyalty, participation, retention and cross-governmental integration [3].

E-government in Jordan is dedicated to delivering services to people across society, irrespective of location, economic status, education or ICT ability. The e-government program supports delivering government services through the access channels and by using ICT tools. Jordan is pursuing a national e-government strategy that aims to deliver high-quality services to consumers, businesses and organizations; improve government performance and efficiency; ensure public sector transparency and accountability; reduce cost and increase ease of interacting with government [14].

From previous studies we can conclude that Jordan has been investing heavily in using Internet as a favorable channel to deliver e-government services to its consumers: either citizens (termed as “customers”) or businesses [5]. E-services that will be provided as part of e-government in Jordan are essentially of four types:

- Vertical e-services are services provided end-to-end by one government entity.
- Cross-organizational e-services are services that require the involvement of several government entities to be delivered.
- Shared Services are “enablers” providing technology-based functionality that are central to the provision of vertical and cross-organizational services. Their ultimate ownership belongs to the e-government Program as part of the federated architecture framework.
- Composite services are essentially bundles services that flow across multiple government entities and contribute to e-government overall objectives.

However, its solid structures and processes established to identify, prioritize and coordinate the implementation of e-services was not enough for assessing a successful e-government program. E-government faces challenges that do not only arise from infrastructure issues [17]; e-government requires a major shift in public sector perspectives. Public entities must see citizens, businesses and other government entities as their customers and focus on their needs. In other words, they must become more customer-centric; therefore, the cultural and operational practices of government require fundamental transformation [15]. "Successful citizen-centric e-government programs emphasize the indispensable nature of information while balancing its often limited shelf-life and considerable inflationary component” [20], Odat & Khazaaleh [16] stated that the application of e-government will grow and prosper if it has achieved the requirements of users, also the services are provided through e-government must be consistent with the needs of citizens. If the citizens achieve their needs, the level of satisfaction for e-government will increase. Eventually, e-government commitment to a customer-centric approach will transform government and contribute to the Kingdom’s economic and social development [2]. Yet, despite the irrefutable relevance of customer relations in influencing the adoption of e-government in Jordan, there has not been a corresponding rise in the study of CRM practices.

2.2 E-government and CRM

Customer Relationship Management (CRM) has long been perceived as an important component of strategic management in various industries of the private sector. CRM is commonly seen as the practice of forming meaningful relationships with
customers for the purpose of gaining insights into the needs and preferences of customers and identifying the potential of specific market segments [11]. “CRM is a technology that allows organizations to track and leverage every customer interaction to maximize revenue opportunities and improve customer loyalty” [14]. With regard to the public sector, CRM has emerged as an important paradigm only within the last decade. The public sector provides essential services to citizens and is often not subject to competition prevalent in all industries of the private sector. For a long time, this has led to the assumption that customer needs and preferences played a secondary role in public administration and governance. Odat & Khazaaleh [16] stated that the application of e-government will grow and prosper if it has achieved the requirements of users, also the services are provided through e-government must be consistent with the needs of citizens. If the citizens achieve their needs, the level of satisfaction for e-government will increase.

However, the emergence of e-government necessitated a change in this perception. Eventually, e-government commitment to a customer-centric approach will transform government and contribute to the Kingdom’s economic and social development [3]. Yet, despite the irrefutable relevance of customer relations in influencing the adoption of e-government in Jordan, there has not been a corresponding rise in the study of CRM practices.

3 RESEARCH DESIGN AND METHODOLOGY

In order to treat a problem properly, researchers have to employ an appropriate research methodology. Accordingly, six direct face-to-face semi-structured interviews have been conducted through formal. Face-to-face interviewing may be appropriate where depth of meaning is important and where a research is primarily focused on gaining insight and understanding [10]. A set of research questions were formulated in an attempt to meet the main objectives of this research. Questions were compiled from validated instruments in the literature to represent each construct and wording was modified to fit the e-government context. Major questions directed to interviewees were related to the concept and role of CRM and its impacts on the evolution of e-government in Jordan. The interviews were recorded, transcribed, edited and qualitatively analyzed. Data was consolidated through brainstorming sessions, informal conversations, discussions and field notes of daily observations. Upon this basis, a picture of the current situation can be formed. To emphasize this point further, this study reports in-depth qualitative findings based upon direct comments from several government agencies and organizations to investigate upon the adaptation and implementation of CRM strategies to support modernization and integration of e-government services in Jordan.

Six direct face-to-face interviews have been conducted with several views such as the Ministry of Communications and Information Technology, National Information Centre, National Centre for Security and Crisis Management and CrystelCall in an attempt to meet the main objectives of this research. The interviewees were selected based on their work and expertise in the field of CRM and e-government. Table 1 demonstrates the different positions of each targeted interviewee.

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Field of the institution</th>
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<tbody>
<tr>
<td>1 Director of Electronic services</td>
<td>National Information Technology Centre National Center for Security and Crisis Management</td>
</tr>
<tr>
<td>2 Chief Technology Officer</td>
<td>National Information Technology Ministry of Communications and Information Technology</td>
</tr>
<tr>
<td>3 Investment manager and Director of strategic agreements</td>
<td>Ministry of Communications and Information Technology</td>
</tr>
<tr>
<td>4 Head of Quality, Risk and Communication</td>
<td>Ministry of Communications and Information Technology- CrystelCall</td>
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<tr>
<td>5 Head of Operations</td>
<td>Macroeconomic consultancy</td>
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<tr>
<td>6 Chief Executive Officer</td>
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The length of each interview was approximately 45 minutes. Participants were freely expressing their opinions, seeking answers and suggesting solutions. On the other hand, other sources of secondary data such as brainstorming sessions, informal conversations, and reports have been also combined altogether to supplement data. The compelling reason for using an interview as the main methodology was completely based on the qualitative nature of the theories and their complexity related to represent the suitable research analysis. The interview questions count to 19 questions as a net total count. Nevertheless, the 19 questions were distributed in a maneuver that accommodates for covering almost all the ideas concerning the research’s main objectives. The
covered concepts and design distribution of these questions are as follows; 6 questions to examine the state of e-government and its’ services; 4 questions to discuss the main challenges and critical success factors; 3 questions to understand the main concepts and strategies of implementing CRM. Among these classifications, the most important idea to get covered has 8 questions to generally assess the success of integrating CRM strategies in e-government. Assessing the accuracy of qualitative findings is not easy, in an attempt to conquer reliable and informative data out of the interviews, each single interview was recorded, transcribed, edited, and qualitatively analyzed to enable sustain fertility of data.

Eventually, we started by summarizing the different interviews to more comprehensible data. Interviews were then recreated into a written text. Next, we focused on finding connections between the interviewees’ answers and creating categories to make the analysis of the data more lucid. Interpretation of these findings will be handled in the next section.

4 FINDINGS AND DISCUSSION

This section covers the extracted themes that were derived from the analyses of data.

4.1 Government agencies are mainly focusing on the provision of infrastructure of e-government and are struggling to reap the expected benefits of CRM.

E-government faces challenges that do not arise from infrastructure issues [17]; it requires a major shift in public sector perspectives. Governments are focusing on the provision of infrastructure and technology, while forgetting about citizen’s satisfaction had led to a recognized failure in the Jordanian e-government. The strategy of CRM is considered, but not implemented in the government as part of its technology. Most of the employees working on this program are technicians; they primarily tend to develop a strong infrastructure as a base of their work, while they should be concerned about prioritizing the needs according to the requirements of the majority.

No enhancement has been seen through the past 6 years, this makes us understand the reason behind the degradation in the online services of the Jordanian e-government. In 2006, Jordan was ranked in position 51 out of 199 countries by the United Nations (UN). The world financial crises Jordan had faced as well in 2008 enforced the government to cut the budget aimed to enhance and improve the program. Consequently, Jordan downgraded into the position 98 in 2012.

E-government in Jordan fails to understand the needs of its citizens by introducing services they crave to perceive such as end-to-end transactions, which are considered part of the CRM, these services lead to an intense relationship between the citizens also called customers and the government as mentioned by interviewee two. Apparently, understanding the various channels of communication that citizens prefer to receive their services through can contribute to the wide-spread adoption of e-government.

4.2 Lack of citizens’ awareness about the benefits of e-government services and interactions

As mentioned in the literature review, Jordanian citizens lack the awareness of how easy and cost saving it would be if they could finish their transactions online without the need to wake up early, get stuck in traffic and wait in line to get their turn, in order to renew expired passport for example. “Computer literacy is not considered as a barrier for the e-government services, because 50% of our community is using technology” said by interviewee three, on contrary interviewee two stated that “The Jordanian environment discourages people to use technology as a tool to ease their life, for that reason face-to-face transactions are preferred by the society.” This might be considered as a cultural issue. Culture is an important factor when it comes to change and cultural readiness such as the adopting and implementing of e-government services [12]. E-government is a fundamental change and therefore, resistant to change from some stakeholders is highly possible [4]. Previous literature reported that traditional face-to-face remains the most popular way to get government services. More than 87% of the Jordanians contacted the government in face-to-face manner [1].

The absence of counseling offices in the Kingdom to guide citizens and instruct them how to perform their online transactions could play a critical role in the lack of society awareness.

4.3 Impediments to e-government and CRM adoption

The adoption of e-government typically faces a number of challenges due to its complex nature. One common issue is focusing on the infrastructure and technology while ignoring the CRM concept, which brings out the weakness of social and business strategies that government implements. Authorities
are developing services from their own perspective while forgetting about citizens' needs and priorities; therefore, no CRM strategy will be a winner. The concept of CRM is mostly dominated by the private sectors, Schedler and Sommermatter [19] have argued that the concept of CRM commonly used in the private sector and cannot be transferred to the public sector one-to-one because the private and the public sector operate under vastly different assumptions and objectives. The Jordanian government works for non-profit purposes, which uses surplus revenues to achieve its goals rather than distributing them as profit or dividends. Consequently, interviewee three stated that "due to the competition between the public and private sectors, there is a high one way transfer of qualified personnel".

Collaboration and information sharing between government entities are major success factors. Though, the mistrust between the Jordanian ministries made them insist on working under centralized management, which made it harder on citizens to use a single portal to finish their transactions. Among the issues revealed by interviewees is the continual change of the chief ministers, this situation portrays poor single vision, which made it harder on employees to focus on implementing an efficient e-government program. A program of this nature needs a long time to reach completion; consequently the constant change of chief ministries can thus contribute to a program incompletion. As mentioned earlier in the literature review, the success of e-governance initiatives depends on careful planning and implementation. e-governance initiatives include sufficient attention to change management, policy and process changes necessitated by the adoption of e-governance, structural changes in government agencies and changes in laws and regulations [18]. Inadequate financial planning was a persistent challenge to the development of e-government program, with few exceptions funding e-government is tied directly to the level of commitment on the part of the political leadership.

4.4 Current marketing efforts are neither targeted nor value driven

Without any effective and creative marketing efforts, offered services would be worthless. Indoor and outdoor banners are a perfect way to be recognized and to expose your services to your target market. Interviewee two stated that: “No segmentation studies have been done on the society to help in marketing”. According to interview four: “insufficient budget allocated for marketing since target market usually response faster to advertising banners is introduced”. This explains the reason behind the inefficiency of the program.

Effective marketing is an important step for implementing an e-government platform. However, government authorities should work on trying to convince people to use the e-government services. Marketing efforts should focus on creating brand awareness of the online presence. As interviewee three declared that “few numbers of people who use credit cards in Jordan, therefore, our promotion department will encourage people through banners and smart promotion campaigns to use credit card in order to promote the usage of e-government services”.

It is worth noting that regardless of the efforts made by the government, what mattered most as a convincing information channel with the majority of people is the ‘word of mouth’. Some people are much more convinced when they hear about the service from someone who has tried it. However, once citizens start adopting e-government services, they would definitely prefer them over the traditional ones. Also interviewee three stated that “e-government can be expected to engender significant savings and/or cost reduction through the use of it’s e-services, ex: Gasoline savings and crowd problems”.

4.5 The role of trust and risk in e-government adoption

Citizen confidence in the ability of government to provide online services is imperative for the widespread adoption of e-government program. Before endorsing e-government initiatives, citizens must believe that government agencies are possessing technical resources necessary to implement and secure these systems. Bélanger and Carter [6] have highlighted an even bigger threat to the success of e-governance is lack of user acceptance. Lack of trust in online security, dislike of the impersonal nature of e-governance, and fear of identity theft are the most common.

Jordanian government has implemented the Public Key infrastructure (PKI) which is an essential security component for e-government services designed for authentications and digital signature. PKI is vital for the delivery of secure end-to-end services.

Interaction with e-government service providers will enhance citizen's trust and acceptance of e-government services. On the contrary, unfulfilled promises and dishonesty from government officials and employees will decrease trust and increase opposition to these initiatives. E-government can have the potential to improve government transparency, responsiveness and accountability, but
however, e-services will only be adopted if citizens deem them trustworthy.

4.6 Approaches to current CRM delivery in e-government

In this research we found great willingness to embrace some of the government terminology of CRM in e-government. The e-government program has already embarked on the delivery of several shared services in order to promote fast implementation of standards and specifications.

4.6.1 Call Center

The e-government call center will support the transformation of government into a customer-centric approach and change the way public sector operates. It will provide business and technical services to support the interactions of government entities with their customers; thus facilitating the uptake of e-government services. Effective citizen interaction is generated only as a part of an integrated CRM platform. Centralized contact information gives the government a comprehensive view of the mixture of services that citizens can receive.

CRM enables government agencies to centralize government call centers. Under this approach, a citizen can call one number rather than having to hunt through a phone book for the correct government agency or to be transferred from one government agency to another until the needed request is found. Often, trained customer service agents using a centralized knowledge base can satisfy an inquiry on initial contact. This dramatically reduces the cost to serve the public, as well as increases the satisfaction of the caller [7].

4.6.2 The National Call Center of e-government in Jordan – CrysTelCall

CrysTelCall was established in 2007 to provide real tangible improvements in customer service through the call center outsourcing. The Ministry of ICT in Jordan has partnered with CrysTelCall to operate the National Call Center under the Jordanian e-government program. CrysTelCall has proven to be a reliable outsourcing partner by designing a world-class solution to obtain the highest levels of quality and performance standards. CrysTelCall remarkably handled the relationship between the Ministry of ICT and the involved entities to ensure the success of e-government. National call center works under several guidelines and standards.

4.6.3 E-government portal

Jordan has officially launched a formal government portal "www.jordan.gov.jo", which offers scant information about e-government program. The website acts as a single access point and a comprehensive link for all users of different backgrounds to facilitate their access to public data of their interest. E-government websites links a number of several government departments together. Progressive governments are upgrading their sites regularly; expanding the types and quality of their online services and improving their content daily in an effort to achieve the highest measure of user satisfaction, administrative efficiency and cost effectiveness.

However, findings of our study indicate that there was a lack of transactional and end-to-end services offered by the e-government program. Only one ministry offers e-payment transactional capability which is The Ministry of Justice. The Ministry of Justice offers issuing certificates of non-criminal record service that indicates if its holder has not committed any offenses or crimes involving moral turpitude.

4.6.4 Mail Hosting Services

This service enables the Jordanian citizen to communicate with the ministries and institutions, through the link-mail available on the home page of the portal where they can get responses to their inquiries in its various forms.

4.6.5 E-Complain

This portal ensures for customers to voice their opinions and submit their comments in order to improve services and enhance practices. Complaints from customers are considered essential to simplify procedures, develop and enhance performance. Thus, the government is keen to open communication channels with its customers and to recognize their needs.

4.6.6 SMS Portal

E-government program continuously seeks to innovative solutions to provide e-services to the Jordanian citizens by benefiting from the vast prevalence of the mobile communications in Jordan. E-government program is currently using the Short Message Service (SMS) portal to serve as a tool to inquire and provide feedback on government services. This service has been selected as the most prevalent communicating tool with all segments of the Jordanian community. SMS portal is divided into two types:

- **Push Messages**

These messages are usually sent by governmental institutions and departments without
being requested by the citizens, and include reminders, awareness campaigns… etc.

- **Pull Messages**
  These messages are sent by citizens as an inquiry, which are replied by the relevant governmental department. Citizens have the right to inquire for once, or to subscribe in the SMS service to receive regular short messages from the pertinent departments. In order for Jordanian citizens to benefit from the SMS gateway, they can send an empty message to the number 94444, upon which an instant message containing a list of the available e-services will be submitted. The person subscribing to service has only to follow the instructions sent to receive the feedback required from the related public organization. Inquires sent and subscriptions to the SMS gateway are totally optional, can be received on periodical basis and are allowed for subscribers to all mobile service providers in Jordan.

5 **CONCLUSIONS**

Overall, this study tends to assess the readiness, current state and best practices of CRM implementations through an in-depth analysis of e-government opportunities and challenges in adopting pragmatic methods. The efforts made are worthy of recognition while experience gained from this research is of considerable importance not only for Jordan’s further advances in this area but also for all other developing countries as an example and guidance to solving similar problems. However, improvements must be permanent part of the process if a country wants to achieve the stated goals within its strategic framework. Although e-government in Jordan is still at its early stages, this study has revealed that some of government agencies were taking serious steps to improve their CRM capabilities (e.g. call centers, SMS portal) and investing significantly in initiatives to improve e-government services. The findings of this study also indicate that a well prepared and fully aware society regarding the deployment of public services in Jordan are crucial factors to the success of such services. Providing adequate awareness-raising programs and campaigns that cover the different sectors of the Jordanian society can be of great benefit in achieving the desired success. Some of the impediments that are identified and directly associated with realizing e-government and CRM initiatives in Jordan include trust, costs barriers, lack of citizen awareness about such systems, focusing on the infrastructure and technology while ignoring managerial and organizational issues.

6 **REFERENCES**


