E GOVERNMENT SYSTEMS AND ITS IMPACT ON QUALITY OF SERVICE AT PUBLIC HOSPITALS IN AMMAN (FILED STUDY)

Alaa Tawfiq AL-Zyadat
MIS, Amman University College/Al-Balqa Applied University, Amman, Jordan.

ABSTRACT
Aim: find the impact of e-governement systems on Quality of service at private Hospitals in Amman (Filed Study)

Factors: independent factors: e- government systems (e–participation, m- government –open data) and dependent factor (quality of service)

Method and Sampling: the sample was private hospitals in Amman which are 20 beds above capacity, 300 questioners distributed for employees worked in private hospitals in Amman .243 were valid and analyzed

Finding: there is an impact of each of e- government systems (e–participation, m- government open data) on the quality of service

Future work: Building a data warehouse to make a strong integration data and information for patients among all these hospitals and increasing the budget to overcome the finical barriers that affect e-government system

Key words: E –government systems, Quality of service, public hospitals, e -participation, m-government, open data


1. INTRODUCTION

Information and Communication Technology (ICT) is one of the most important characteristics of our age and every new development changes our lives to some extent. Its evolution has dramatically changed how citizens interact with their government, creating an important development in their expectations (Dodd, 2000). Following e-commerce’s evolution in the private sector, electronic government (e-government) seems to be the next generation of the development in the public sector. More and more governments around the world are introducing e-government as a means of reducing costs, improving services for
citizens and increasing effectiveness and efficiency at national, regional and local levels of the public sector. 179 out of 192 UN members reported that they developed strategies to implement e-government systems and therefore e-government has been identified as one of the top priorities for governments across the world (UN, 2008).

The main concepts of e-government will be discussed in following sections.

E-government is a generic term for web-based services from agencies of local, state and federal governments. In e-government, the government uses information technology and particularly the Internet to support government operations, engage citizens, and provide government services. The interaction may be in the form of obtaining information, filings, or making payments and a host of other activities via the World Wide Web (Sharma & Gupta, 2003, Sharma, 2004, Sharma 2006) Therefore this research is attempt to study e-government system and its impact on Quality of service at public Hospitals in Amman

2. LITERATURE REVIEW

World Bank (www.worldbank.org) definition (AOEMA report): “E-Government refers to the use by government agencies of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth, and/or cost reductions.” United Nations (www.unpan.org) definition (AOEMA report): “E-government is defined as utilizing the Internet and the world-wide-web for delivering government information and services to citizens.”

E-government is in the early stages of development. Most governments have already taken or are taking initiatives offering government services online. However, for the true potential of e-government to be realized, government needs to restructure and transform its long entrenched business processes. According to Gartner, e-government involves the use of ICTs to support government operations and provide government services (Fraga, 2002). However, e-government goes even further and aims to fundamentally transform the production processes in which public services are generated and delivered, thereby transforming the entire range of relationships of public bodies with citizens, businesses and other governments (Leitner, 2003).

3. STUDY HYPOTHESES AND MODEL

The study hypotheses have therefore been developed as:

- There is no significant statistical effect of e-participation on the quality of service at level of (α≤0.05)
- There is no significant statistical effect of m-government on the quality of service at level of (α≤0.05)
- There is no significant statistical effect of open data on the quality of service at level of (α≤0.05)

Figure 1 shows the study model, with the four variables proposed to affect quality of service in e-government systems (e-participation, m-government, and open data)
4. MATERIALS AND METHODS

4.1. Study Population and Sample
The population of the study consisted of employees from all levels of managerial in public hospitals in Amman have different sizes (hospitals sizes are measured by the number of beds in Amman which have more than 20 beds and there were three main hospitals). The sample chosen for this study represent a large number of the population., a total of 300 questioners have been disrupted, 243 back and was valid to analyze.

4.2. Study Tools and Data Collection
Since there have been no previous studies on the field of study, there was no suitable survey instrument. We therefore developed our own, based on the factors emerging from the literature. This survey was designed to explore the perceptions of employee about their e-government systems and its quality of service, using Likert-type scales.

A total of 20 questions in an initial survey were piloted in the field of study out of the full sample. The piloting aimed to identify any questions where answers were not equally distributed, or which were consistently not completed by respondents, and any other aspects which could reduce the response rate. The responses were assessed for validity and reliability.

5. DATA ANALYSIS
Percentage, frequency, mean and standard deviation were used to describe the sample and basic responses. Simple linear regression analysis with (F) test was used. SPSS (v20) was used to analyze all the data. Relative importance of individual factors was assigned using: Class interval = (maximum class – minimum class) / number of levels = (5 – 1)/3 = 4/3 = 1.33 A low degree of importance was less than 2.33, median was 2.33–3.66 and high was 3.67 and above.
6. RESULTS AND DISCUSSION

6.1. Survey Development
There were no missing data from the pilot study, suggesting that the respondents found all the questions comprehensible. The responses from the pilot study were grouped into factors. Although the pilot sample size was small, the results suggest that the variables within each factor showed a correlation of over 60%. Cronbach’s alpha for the overall pilot study was, .88 showing good reliability. No evidence of multi-collinearity was found in the pilot study.

Table 1. Cronbach’s Alpha (α) to Test Reliability.

<table>
<thead>
<tr>
<th>Variables’</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-participation</td>
<td>.98</td>
</tr>
<tr>
<td>m-government</td>
<td>.72</td>
</tr>
<tr>
<td>Open data</td>
<td>.79</td>
</tr>
<tr>
<td>Over all</td>
<td>.83</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variables’</th>
<th>T-test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H₀₁: E-participation, Quality of service</td>
<td>2.783</td>
<td>Refused</td>
</tr>
<tr>
<td>H₀₂: m-government, Quality of service</td>
<td>2.652</td>
<td>Refused</td>
</tr>
<tr>
<td>H₀₃: Open data, Quality of service</td>
<td>2.636</td>
<td>Refused</td>
</tr>
</tbody>
</table>

By looking at table (2) we can see that the absolute value of T calculated in every factor more than F tabulated at level (α ≤ 0.05). This indicates that all hypotheses are valid. Therefore, the null sub-hypotheses were refused and the alternative accepted.

7. CONCLUSION AND RECOMMENDATIONS
The results are
- There is significant statistical effect of e-participation on quality of service in public hospital in Amman
- There is significant statistical effect of m-government on quality of service in public hospital in Amman
- There is significant statistical effect of open data on quality of service in public hospital in Amman

Based on previous results and conclusions, the following recommendations might help in enhancing e-government systems and its quality of service
- Building a data warehouse to make a strong integration data and information for patients among all these hospitals.
E Government Systems and its Impact on Quality of Service at Public Hospitals in Amman (Filed Study)

- Increasing the budget to overcome the financial barriers that affect e-government systems
- Running and maintaining e-government systems to deal with any error
- Training courses for managers and employees to increase their knowledge about the quality of service for the adoption of e-government systems
- Investigate the use of e-government systems through mobile applications in order to fully utilize the benefits of cloud computing in health sector
- Incentives to use the e-government systems to improve consumer health and health care costs.

REFERENCES


[8] United Nations publication, United Nations, 2005. About the Authors Shailendra C. Palvia is a Professor of MIS at the C.W. Post campus
