

The Relationship between Portal Quality and Citizens' Acceptance: The Case of the Kuwaiti e-Government

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Abstract. This research-in-progress article tries to examine Kuwaiti citizens' perceptions of e-Government quality and its influence on their decision to use (or not to use) the official Kuwaiti portal. Specifically, it tries to examine an attitudinal model linking three groups of e-Government quality attributes and e-Government use as measured by number of visits and transactions. The statistical analyses of responses collected from a sample of Kuwaiti citizens highlight the importance of e-Government quality for inducing citizens' use.

Keywords: electronic government, quality, acceptance, use, Kuwait.

1 Introduction

In the past few years, electronic government (e-Government), or the use of advanced wire-based and wireless telecommunication technologies to strengthen the relationship with the public, has attracted much attention from many researchers across the globe. In particular, several researchers have called for putting more attention on examining the relationship between e-Government quality and acceptance [1-6]. This increased interest stems from the fact that the issue of quality has become a strategic imperative for many of today's technology initiatives [7] including e-Government websites. Unfortunately, only a handful studies focused on understanding e-Government quality issues in the Middle-east. This study tries to fill part of this gap in past research.

2 e-Governments in Kuwait

A decade ago, decision makers in the State of Kuwait noted that public workers as well as citizens should learn how to work together within a new milieu which is different than anything they have accustomed to interact within before. As a result, the Council of Ministers in Kuwait decided in the year 2000 to form a new technology committee to kick off the Kuwaiti e-Government efforts to assume responsibility of the e-Government development efforts.

Kuwaiti administrators selected an easy to remember URL address (www.e.gov.kw) to identify to the official e-Government portal. A year later, a

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decree was issued to establish the information technology agency, which has become responsible for all efforts related to the Kuwaiti e-Government project. Table 1 summarizes some of the basic content facts about the Kuwaiti e-Government portal.

An important issue facing the newly established Kuwaiti e-Government is the challenge of how to convince Kuwaiti citizens to accept this national initiative [8]. Previous research [9] has shown that the role of attitudes in an information technology context is rather complex issue that deserves close attention from technology researchers. As the success or failure of a given e-Government project is determined by the extent to which citizens' appreciate the quality of the portal [10], it becomes a reasonable choice for us to investigate Kuwaitis' evaluations of e-Government quality. Aladwani [11] found that website quality is an important driver of one's intention to accept an information technology application in Kuwait. However, there isn't much research studying Kuwaiti citizens' quality perceptions of e-Government services. Next, the author describes the results of an initial study focusing on this issue.

Table 1. e-Government in Kuwait (basic facts)

	e-Gov. Content	Overall Gov. Content
No. of Gov. bodies	36	64
No. of pages	~115,000	~622,000
No. of Arabic pages	~65,000	~420,000
No. of online services	49	419

Source: [8]

3 e-Government Quality and Acceptance

In the information systems field, the study of website quality has attracted some attention from researchers. For example, Aladwani and Palvia [12] developed an instrument to measure technical, content, and aesthetic website quality. Parasuraman et al. [13] developed an e-service quality instrument. Loiacono et al. [14] proposed the WebQual™ instrument based on Loiacono's dissertation work. Also, Barnes and Vidgen [15] proposed a multi-item website quality scale, and so did Palmer [16] and Aladwani [17], among others.

So far, most of the attention to analyzing the influence of website quality on certain organizational outcomes has been conducted in business settings. For example, Aladwani [18] studied the relationship between commercial websites' quality and acceptance. Therefore, several researchers have called for putting more attention on examining the relationship between e-Government quality and acceptance [1-6]. Still, the study of e-Government quality has thus far focused on content analyzing some of the portals, which are located mostly in developed countries [19]. Little, if any, studies have investigated the relationship between e-Government quality and acceptance in developing countries; rare exceptions are the studies by Aladwani [20, 21]. Pragmatically, users' perceptions of e-Government quality can help facilitating the achievement of many goals among which is e-Government acceptance.

Based on the above discussion, this investigation proposes the following question for possible answer: is there a relationship between Kuwaitis perception of e-Government quality and their acceptance of the same?

4 Methodology

A research instrument was borrowed from previous research for the purpose of this study. It consisted of two groups of items: demographics and likert-like perceptual items. The outcome variable, e-Government usage, which was borrowed from relevant research [22], was assessed using two items: visit frequency (anchored on a four-point scale: (1) at least once every few months, and (4) at least once a day) and number of transactions (anchored on a five-point range: (1) conducted no transactions, and (5) completed 7 or more transactions).

The predictor variable in this study, e-Government quality, was measured using a modified version of Aladwani & Palvia's [12] instrument, which consists of 20 items covering technical (security, ease of navigation, ease of accessing the site, search facilities, availability, valid links, speed of page loading, personalization, customization, and interactivity), content (usefulness, completeness, clarity, currency, conciseness, and accuracy), and aesthetic quality (attractiveness, organization, proper use of fonts, proper use of colors, and proper use of multimedia) attributes. The questions in the scales ranged from (1) not important to (7) very important.

The instrument was distributed to fifty-five Kuwaitis who have previous knowledge of the studied portal; and responses were received from all the participants. The mean age of the respondents in the sample is approximately thirty-two years (Standard Deviation = 5.05). Around 71 percent of the respondents are males. The mean Web experience score (on a 3 point scale where 1 = low, 2 = moderate, and 3 = high) is 2.05 (Standard Deviation = 0.68).

5 Data Analysis and Results

Table 2 summarizes respondents' importance perceptions of the different e-Government quality attributes. Overall, the table shows that the scores differ from one group of features to another. For example, technical quality features exhibit higher mean scores than aesthetic quality features. It is true that we cannot infer solid conclusions from this information but it can offer hint to the preferences of the participants in the study.

To test the proposed structural model and research hypotheses, the author used Partial Least Squares (PLS), an advanced multivariate technique for simultaneously assessing a series of regression equations in causal models. Figure 1 reports path estimates and squared multiple correlations of our structural model. Significance was calculated using the bootstrapping technique. A significance level of less than or equal to 0.05 was selected for examining the p-value, which is the probability that the resulting statistic in the investigation could have happened by pure coincidence.

Table 2. Perceived importance of e-Government quality

		Perceived Importance
Technical	Perceived security	5.55
	Ease of navigation	5.13
	Search facilities	5.20
	Availability	5.44
	Valid links	4.78
	Personalization	4.75
	Speed of page loading	5.07
	Interactivity	4.58
	Ease of accessing the site	4.71
Content	Usefulness	4.96
	Completeness	4.69
	Clarity	4.69
	Currency	4.40
	Conciseness	5.05
	Accuracy	4.51
Aesthetic	Attractiveness	4.38
	Organization	4.13
	Fonts	4.33
	Colors	4.09
	Multimedia	4.09

Source: [20]

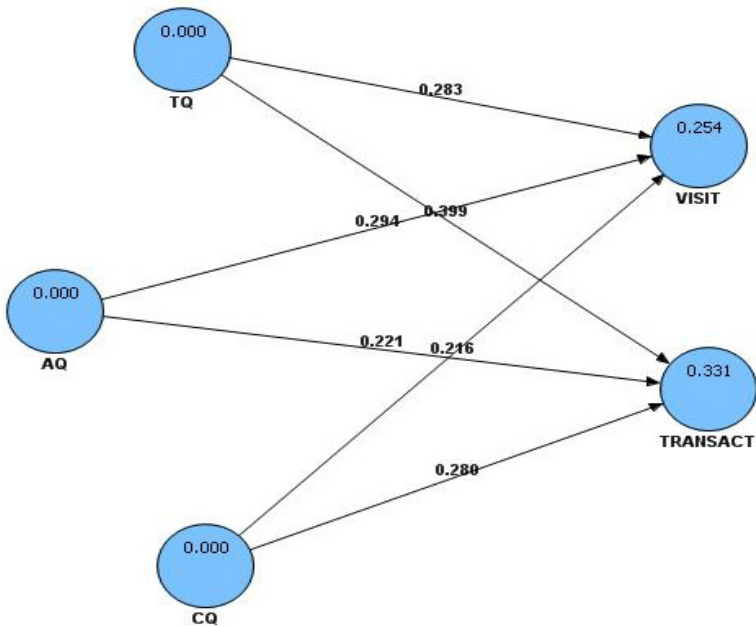


Fig. 1. Results of the PLS test

Overall, the results show that e-Government quality variables explained 25% and 33% of the visitation and transaction outcomes respectively. The findings also indicate that technical quality (TQ) has the strongest effect on number of transactions and aesthetic quality (AQ) has the strongest influence on visitation frequency.

6 Conclusions

The goal of this preliminary investigation was to explore Kuwaitis' perceptions of e-Government quality and its effect on e-Government acceptance. More specifically, it examined the relationship between technical, content, and aesthetic quality on e-Government visitation frequency and number of transactions. The paper was motivated by the fact that most of the attention to examining the influence of website quality on individuals' acceptance in Kuwait has been carried out in commercial settings.

Overall, the empirical study reveals that e-Government quality is strongly related to e-Government acceptance. More specifically, the results show that technical quality (security, ease of navigation, ease of accessing the site, search facilities, availability, valid links, speed of page loading, personalization, customization, and interactivity) has the highest impact on citizens' decision to transact with the e-Government portal. The results further show that aesthetic quality (attractiveness, organization, proper use of fonts, proper use of colors, and proper use of multimedia) is the main determinant of visits frequency. Finally, the findings indicate that content quality (content usefulness, completeness, clarity, currency, conciseness, and accuracy) affects transactional use more than visits frequency.

Future research may need to draw a larger sample size and retest the proposed relationships to get better understanding of e-Government acceptance in Kuwait.

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