Cognitive beliefs about and the positive psychological tendency towards e-Government quality

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Abstract

The goal of this study was to examine the relationship between citizens’ cognitive beliefs about e-government quality and their positive psychological tendency towards the same. The study used data collected via a field study and tested this link between the two variables via a structural equation modelling technique. It has been found that there is a strong positive connection between the two. The results are expected to inform relevant discussions on the topic.

Keywords: Attitudes; Cognitive Beliefs; Psychological Tendency; e-Government.

1. Introduction

Attitudes can be defined as a psychological tendency to evaluate an object in a favorable or unfavorable manner (Eagly & Chaiken, 1993). It may entail cognitive as well as affective components. Both cognitive beliefs and affective feelings can, as suggested by theory (Fishbein & Ajzen, 1975), determine an individual’s behavior. In an e-government context, citizens may act in response to e-government websites in an evaluative manner. Their responses represent judgments about the e-government portal that determine citizens’ feelings toward the same. This study tries to examine this particular premise.

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One type of citizens’ cognitive beliefs centers on the quality of the e-government portal. Lack of a quality e-government website negatively affects citizens’ beliefs and feelings and this has negative consequences on the use of e-government. Citizens’ favorable cognitive beliefs about e-government, on the other hand, are expected to motivate their positive psychological tendency towards e-government that ultimately will entice their behavior (website use).

The evaluations of the citizens represent the empirical data that will be analyzed, understood and reported as suggestions for improving the website.

More and more, citizens are judging that there is a need for further information-responsive government services with higher levels of quality; and this trend has been in the rise since the start of the last decade. At the same time, as governments have started to affect citizens’ beliefs by improving the quantity of services and quality of interactions with citizens, building a quality e-government (electronic government) portal that encompasses all these services has become essential for many these authorities. Additionally, to influence citizens’ beliefs and feelings, e-government is expected to allow for the citizens to have quick and easy access to services via a website (portal) on the internet. However, so far little is known about e-government quality attributes as cognitive beliefs and the relationship of these with attitudes of citizens toward e-government.

Thus, the goal of this study was to examine the relationship between citizens’ cognitive beliefs about the Kuwaiti e-government and their positive psychological tendency towards the same. Kuwait is a small Arab state located at the very Northwestern part of the Arabian Gulf. The state is surrounded by three large Middle Eastern countries: Iraq from the north, Iran from the east, and Saudi Arabia from the west and south. Its unique geographical location has given Kuwait an important trade role in the area for many decades. With the discovery of oil in the country in the middle of the past century, Kuwait became an important oil producer and exporter. Trade and oil revenues have given Kuwait the chance to modernize its public infrastructure and services at all levels including the public sector. The e-Government website is currently the main public grid in the country and has become an important platform for services within and across the government agencies. Hopefully, this manuscript will come up with several practical insights for public administrators and suggest avenues for future research in the area.

2. Literature Review

An attitude is a complex object (Thurstone, 1928). It is not by any mean a simple like dislike orientation. An attitude is a multi-component construct (Zanna & Rempel, 1988). Allport (1935) defined attitudes as "a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual’s response to all objects and situations with which it is related." (p. 810; italics in original). It is a psychological tendency to evaluate an object in a favorable or unfavorable manner (Eagly & Chaiken, 1993). Aside from its behavioral part, an attitude entails two major aspects: beliefs and feelings. Beliefs are judgments about the possibility that an object is associated with a given element (Fishbein & Ajzen, 1975). Feelings may reflect one’s experience with a particular object or event (Berkowitz, 2000). Social psychology theories like the theory of reasoned action (Fishbein & Ajzen, 1975) and the theory of planned behavior (Ajzen, 1985) contend that cognitive beliefs influence affective feelings and that the joint effect of the two will determine an individual’s behavior.

In the e-government context, because website quality evaluation in the governmental sector is concerned with analyzing citizen-perceived quality features of the e-government portal, it is considered a cognitive belief. It involves specifying quantitatively how successful the website is designed to meet citizens’ expectations, which usually influence their attitudes towards the website. Lack of quality an e-government portal can shape citizens’ cognitive beliefs about the portal in a negative manner and this has negative consequences on citizens’ feelings toward and use of the website. Stated differently, citizens’ favorable cognitive beliefs about e-government are expected to motivate their positive psychological tendency towards e-government that ultimately will entice their behavior (website use).

An e-government can be defined as a website that provides internet-based collections of governmental services to its stakeholders including citizens. Based on this straightforward definition, it can be seen that e-governments can offer many advantages over traditional non-digital governments. For example, an e-government portal allows a citizen to track his or her information easily and quickly. With the prevalence of information technologies in many modern organizations, the attention to quality issues have become an imperative (Aladwani, 1999) including
government organizations. One of these key technologies is websites, a collection of pages (holding content: text, numbers, pictures, videos, and/or sound clips) with a unified address (domain name) located on the World Wide Web (the internet) that is owned by a person or an organization. In recent years there has been an increased interest in the quality of these websites. Some research has started to come in but different views emerged (Wang, Reddy, & Kon, 1995).

However, absence of these features from an e-government portal can negatively influence citizens’ cognitive beliefs about the performance of the website. Therefore, there is a need to capture these evaluations of the quality of these websites, i.e., objects. Website quality issues have evolved from focusing on disjointed quality views to more integrated quality views. Aladwani & Palvia (2002) describe the state of research in this domain as follows: “Web quality is a vastly undefined concept. For the most part, existing scientific research discusses the meaning of some aspects of web quality in a descriptive manner without delineating its major dimensions or providing tested scales to measure it.” (p. 468). According to the two authors (Aladwani & Palvia, 2002), an integrated website quality model (user perceived website quality) consists of four major dimensions (the list below shows them with a few minor modifications): technical quality, content quality, visual quality, and service quality.

In the above described view, website quality is less targeted towards the supply side and is more targeted towards the demand side. The main goal of website quality evaluation is to comprehend the relationship between the user of the website and the website itself. It is, thus, a manifestation of performance. Website quality as such is considered as a cognitive belief rather than being considered as affection towards the website. Although in theory a researcher can develop an instrument to measure satisfaction with the quality of the website. In an e-government context, website quality involves analyzing, designing, and implementing a website that is closely attached to citizens’ expectations. Thus, website quality attributes represent cues based on which citizens’ evaluate the performance of the website. According to this developed cognitive belief, the interacting citizen will act/react. The outcome of the cognitive evaluation could be a positive or negative attitude and could be a decision whether to use or not to use the portal. This view can be translated into the following omnibus question: is there a relationship between cognitive beliefs about e-government quality and the positive psychological tendency towards the same?

3. Methodology

The author of this study collected data about cognitive beliefs of citizens about e-government quality and affective feelings toward e-government through a questionnaire instrument. The cognitive beliefs construct was measured using a twenty five item scale that was developed by Aladwani & Palvia (2002). The dimensions of the instrument are as follows:

1. Technical quality (security, ease of navigation, search facilities, site availability, valid links, personalization, speed of page loading, interactivity, and ease of accessing the site).
2. Content quality (useful, complete, clear, current, concise, and accurate).
3. Visual quality (attractiveness, organization, proper use of fonts, proper use of colors, and proper use of multimedia).
4. Service quality (products/services details, policies, support, contact information, and organizational details).

The responses to this instrument were anchored around (1) "strongly disagree" and (5) "strongly agree". A five-item scale measured feelings toward e-government. The instrument taps overall or general satisfaction with e-government. The response options were anchored around: (1) "strongly disagree" and (5) "strongly agree". The cognitive beliefs and feelings scales were administered to one-hundred and thirty nine undergraduate students enrolled in multiple sections of an introductory MIS course at Kuwait University. The students were instructed to browse the studied e-government website for fifteen minutes and then answer the questions. No missing data were found in the returned questionnaires. Approximately two-thirds or sixty-nine percent of the respondents are females and close to fifty-nine percent of them say that they have average internet experience.
4. Data Analysis and Results

Factor analysis results of cognitive beliefs of citizens about e-government quality reveal that the measures loaded highly on their designated components with no cross-loadings. The items loadings for cognitive beliefs of citizens about e-government technical quality ranged from .63 to .87, for cognitive beliefs of citizens about e-government content quality ranged from .77 to .91, for cognitive beliefs of citizens about e-government visual quality ranged from .79 to .89, and for cognitive beliefs of citizens about e-government service quality ranged from .71 to .83. Together, these findings indicate adequate convergent and discriminant validities. To test the proposed research hypothesis, the author used structural equation modeling with data imputation. Overall, the results show that cognitive beliefs of citizens about e-government quality explained 23% of affective feelings toward e-government. The standardized regression weights for cognitive beliefs of citizens about e-government service quality, technical quality, content quality, and visual quality on overall cognitive beliefs of citizens about e-government quality are .88, .63, .68, and .68, respectively. The fit indexes for the model came as follows: CMIN/DF = 1.01, GFI = .95, CFI = .99. The results indicate adequate fit between the model and the data.

5. Conclusions

This investigation tried to verify the premises of positivist attitudes theories (Allport, 1935; Eagly & Chaiken, 1993; Fishbein & Ajzen, 1975) by examining the connection between cognitive beliefs of citizens about e-government and their psychological tendency towards the same. More specifically, it examined the relationship between cognitive beliefs of citizens about e-government technical, content, visual and service quality and affective feelings toward e-government. The article was motivated by the fact that there is a lack of the attention by past research to examining the connection between the two constructs in a similar setting. Generally speaking, the empirical results reveal that beliefs about e-government quality are strongly related to positive feelings toward e-government. Citizens’ favorable cognitive beliefs about e-government motivate their positive psychological tendency towards e-government. This result agrees with the premise of the theory (Eagly & Chaiken, 1993; Fishbein & Ajzen, 1975) and confirms the findings of past studies that were conducted in non-governmental settings and supported the advantages of digital environments (Kim, Jin, & Swinney, 2009). From a practical point of view, the results imply that interested public administrators need to give special attention to cognitive beliefs of citizens about e-government quality in order to achieve these advantages. From a research point of view, given that past research (Aladwani, 2003a) has shown that personality characteristics could determine how individuals interact with an information technology, future research may need to consider the influence of these variables on the relationship proposed in the current study. Additionally, it would be interesting to see how cultural e-government quality (Aladwani, 2003b) would influence citizens’ feelings toward e-government.

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