A READINESS FOR CHANGE MODEL FOR DUBAI

E-GOVERNMENT INITIATIVE

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ABSTRACT

An e-Government initiative is a long term process that necessitates significant changes to constantly adapt to new challenges. However, e-government initiatives are always at risk of failure if individuals do not accept or embrace the change. This presents a unique challenge for governments implementing e-Government initiatives to understand factors that may influence their readiness for change (RFC). In this work, the current status of the readiness of e-Government initiatives in Dubai, United Arab Emirates (UAE) is investigated. A model of RFC for e-Government is then proposed and applied on several UAE e-Government Initiatives. In doing so, this study builds on previous work of Armenakis and Harris (2002) theory of RFC. A discussion is then presented demonstrating future directions towards a RFC approach to e-Government Initiatives.

1. INTRODUCTION

Governments today need to be at the forefront of new technology for delivering much needed information to their citizens, businesses and public bodies. One way of raising awareness and information is electronic government (e-Government). Successful e-Government initiatives in general, should be able to provide citizens with knowledge that is transparent and sufficient, as well as to constantly allow for the emergence of new technologies to facilitate communication between its citizens (Tat-Kei Ho, 2002; Warkentin, et al., 2002). Above all, governments are under more pressure to modernize their business models and offer citizens improved quality of products and services which are equally present in the commercial world ('dot.coms').

An e-Government initiative is no different than any other change process. For most governments, the adoption of e-Government and the process of new technology practices include complex change. To implement successful e-government practices change must be recognized at all levels of analysis: 'organizational, individual and technology level'. Technology change not only facilitates desired or planned outcomes but also consists of unforeseen or unexpected outcomes (Scholl, 2003). Consequently, the organization and the individuals in it that must undergo a change, will ultimately impact on their readiness-for change (RFC) (Patel et al., 2010a; 2010b). Inevitably, the larger and more complex the change, the more problematic and necessary it is to identify factors that may inhibit or support RFC (Samara, 2013). Therefore, to be successful governments are required to assess the readiness of their citizens and those who are directly or indirectly (businesses and sub-governmental sectors) affected from change.

This paper addresses the problems faced by governments' RFC when embarking on an e-Government initiative. The paper further argues that while technology is an essential catalyst of an e-Government initiative, first and foremost RFC must be recognized and addressed for e-Governments initiatives to be realized successfully. There have been few attempts to study the concept of RFC in the area of e-Government and to date, there is little on how change at the individual level should be initiated practically (Judge, 1999; George & Jones 2001; Patel et al., 2010a; 2010b). This apparent knowledge gap is partly due to the fact that

concepts and theories from the organizational change field such as RFC are not explicitly utilised in the information systems literature to demonstrate the change processes that are inherently involved in the planning of e-Government initiatives.

To understand the various interpretations, meanings, and patterns of the different influential factors supporting or inhibiting RFC requires a review of the concepts underlying the RFC construct. Next, we cover current trends and issues on e-Government focusing on the current e-Government developments occurring in the UAE. After presenting a model of the RFC construct, this study will apply this model to the e-Government initiative that is taking place currently in the UAE. The emphasis is on explaining e-Government initiatives as a RFC process. A future, more comprehensive study is briefly discussed.

2. THE READINESS FOR CHANGE CONSTRUCT

There is a growing body of literature on RFC that takes as its premise that RFC is central to the effort of making organizational change (George & Jones 2001, Armenakis et al., 1993 Judge et al., 1999, Prochaska et al., 2001). The origin of RFC lies in Lewin's (1948) concept of 'unfreezing' moving and freezing behaviour' as three sequential factors to successful change. In Lewins' model, unfreezing is the initial stage in the change process. To change, an organization requires confronting the current situation and creating readiness by delivering planned behavioral changes toward the desired change. Lewin's component of readiness defines the process of change in the existing 'mind-set of individuals' that can lead members to become ready to participate in the change process.

Developing RFC has been proposed as a major solution for generating awareness to individuals during a change initiative (Armenakis et al., 2007; Jones et al., 2005; Lehman et al., 2002; Prochaska et al., 2001; Armenakis et al., 1993; Kotter, 1995; Lewin, 1948). The main premise underlying the concept of RFC is that organizational structure and planning is about change, and individuals who make up the organization have to become more actively involved and ready for behaviour to change (Holt et al., 2007; Armenakis & Harris, 2002). Beer (1980) highlighted that the failure to assess and deal with RFC 'can lead to abortive organization development efforts'. Similarly, it has been suggested that the failure of not dealing with readiness can result in attending to different forms of human barriers: mostly resistance (Armenakis & Bedeian, 1999); commitment, (Herscovitch & Meyer, 2002); adoption (Lehman et al., 2002); and willingness (Jones et al., 2005) for supporting change. The organizational change literature identifies a variety of factors that may influence a person's RFC, such as uncertainty (Eby et al., 2000); inertia to change (McNabb & Sepic, 1995); coping with change (Judge et al., 1999) and attitudes toward change (Lau & Woodman, 1995).

Few people can question the importance of the relationship that exists between information technology and organizational change (Marcus & Robey, 1988; Backer, 1991, 1995). The change literature have acknowledged that the reason so many information technology initiatives run into resistance or outright failure is often directly traceable to not providing an effective unfreezing or RFC process, before attempting to change (Backer, 1995). That is, when human dynamics are ignored, it often causes change efforts to fail or to have a reduced impact (Backer, 1991).

There is much support of the view that the tendency to resist change lies within the individuals who are experiencing the change (Oreg, 2006; Judge et al., 1999; Weick & Quinn, 1999). One of the most common factors for employees' lack of participation in implementing Information Communication and Technology based initiatives is their resistance to change (Riege, 2005). Developing readiness-for change has been proposed as a major solution for reducing resistance (Armenakis et al., 2007; Jones et al., 2005; Lehman et al., 2002; Prochaska et al., 2001; Armenakis et al., 1993; Kotter, 1995; Lewin, 1948).

There is also wide agreement that persuasive communication or openness toward change amongst key managers is likely to foster positive attitudes about the change initiative (Armenakis & Harris, 2002). Similarly, other studies find that developing motivational readiness in individuals can act as a supporting factor for the adoption of a change initiative (Lehman et al., 2002). For example, a large body of literature in the organizational change field denotes that factors such as self-competence, self-efficacy and self-confidence are characteristics that play a key role in an individual's attitude toward change (Armenakis et al., 2007; Diamond, 1996). Similarly, other studies find that developing motivational readiness in individuals can act as a supporting factor for the adoption of a change initiative (Lehman et al., 2002). Furthermore,

individual readiness-for change behaviours and outcomes depends on many macro-level factors such as the environmental influences on change behaviour, the nature of business and its organisational structure.

Armenakis et al., (1993) suggests that RFC consists of 'people's beliefs, attitudes and intentions' regarding the extent to which changes are needed can then lead to the individuals support for or resistance to the change initiative. The role of RFC at the individual and organizational level could be further explained using Armenakis and Harris (2002), change message framework as depicted in Figure 1. Armenakis and Harris (2002) introduced a model that integrates elements of both Lewin's (1948) work and Bandura's (1986) social cognitive learning theory. Their theory suggests that five main categories of change assist in understanding RFC: Discrepancy; Principal Support; Efficacy; Appropriateness; and Valence. This study suggests that such factors can inhibit or support an individual RFC and subsequently have an impact on the organisational level.
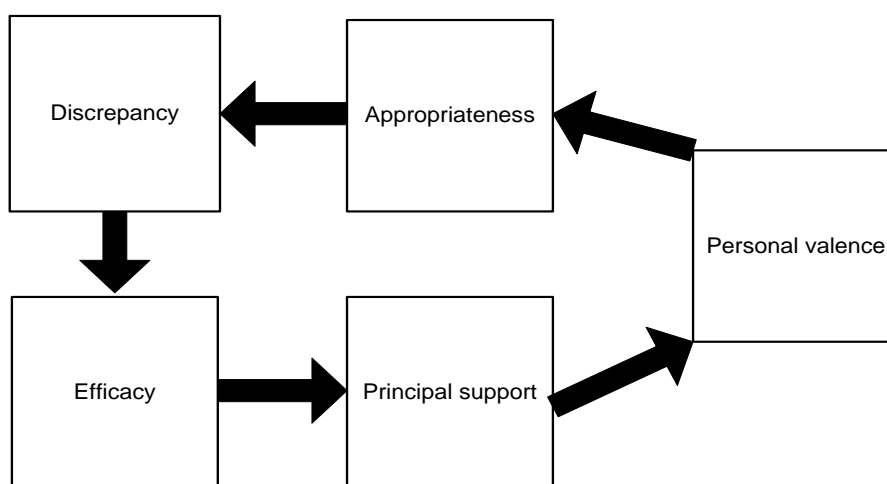

Figure 1. Change Message Framework adapted from Armenakis and Harris (2002)

Discrepancy is the aspect of the message that serves as a justification for why change is necessary. To understand that change is needed involves showing individuals how the current situation and practice differs from a desired end-state. In complex organizational change, there may be competing and diverse views that people can have regarding a change that must be taken on board. In these situations, explanations managers offer about a change may not be believed, heard, understood, or recalled. Armenakis and Harris (2002) suggest that in order for individuals to be motivated to change, they "need to see that something is wrong and something needs to change".

Principal Support refers to the belief that leaders must support the change effort. Managers who engage with their employees, and employees who feel that their opinions are always heard, are more likely to positively respond to their managers which can contribute to successful performance and help managers to be more effective (Armenakis & Bedeian, 1999, Luthans & Peterson, 2002). This success in turn builds the manager's self-efficacy (Bandura, 1982). The focus of principal support is on leadership strategies, directing actions, behaviours, and attitudes of organisational member's decision to participate in a change initiative (Kotter, 1995).

Efficacy refers to the confidence of one's ability to successfully implement the change. Efficacy has been found to consistently influence an individual's thought patterns, beliefs and actions about a change initiative. That is, individuals with higher-levels of self-efficacy are more likely to make behavioural changes in contrast to people with lower-levels of self-efficacy. The concept of efficacy is central to most motivational theories (Bandura, 1998, 1990, 1982). Self-efficacy can manifest itself in different forms, such as performance and choice of actions influenced by an individual's motivations (Bandura, 1977). According to Bandura, (1997) self-efficacy is defined as a "personal belief concerning ones capabilities to organise and execute courses of action required to produce given attainments".

Appropriateness is when an organisation declares that a new change initiative is required. During this stage, individuals may ask if the change being introduced is an appropriate one (Armenakis et al., 1993). As a result, employees may see a need for change (discrepancy), but disapprove on the appropriateness of the proposed change. If a change is an appropriate one, there should be some verification indicating as to why it is the correct one. Individuals must be persuaded that the change proposed is appropriate for the organisations context and not just a fad.

Personal Valence is the term used to describe the personal benefits (or personal loss) one may expect as a result of an organisational change. At this stage, individuals may ask: 'What is in it for me?' or 'What are the positive and negative outcomes?' A number of key authors Kotter (1995) Armenakis et al. (1993) and Prochaska et al. (2001) have argued, that individual members must be informed about the benefits of change and provided the opportunities to experience the advantages themselves, if not this can delay the implementation of a change initiative.

The RFC model (Figure.1) shows that each stage of the change messages influences or determines the others and impacts RFC. The model is intended to aid our theoretical understanding of RFC for e-Government initiatives. Thus, based upon the theoretical insights of RFC and of the model the question that is needed to be asked is, how well does this RFC model fit a broad organisation that is actively promoting and implementing rapid changes? While many of the elements described were designed primarily to be viewed at the individual level, specifically personal valence and change efficacy, at the organisational level a wider lens is required that can view these elements at a variety of depths from macro to micro levels. Therefore, our contention is that these RFC components exhibit important micro-level mechanisms or behaviors of readiness that can be used to predict and explain the impact of e-Government initiatives at the macro-level (Felin & Foss, 2005). After describing the rapid changes being implemented by the Dubai e-government initiative, we will view this initiative from the perspective of the model presented to see how the different elements fit on a variety of levels.

3. THE DUBAI E-GOVERNMENT INITIATIVE

One of seven Emirates that make up the UAE, Dubai is an example of a city and Emirate that has demonstrated a high level of RFC in the last few decades. In fact, according to a 2012 UN e-Government Readiness Survey, the UAE was ranked 28th place in e-government readiness among the 192 member states (GulfNews, 2012). Furthermore, the e-Government Index produced by DPEPA ranks several Arab countries including the UAE, in the category of high e-Government capacity (Al-Adawi, et al., 2005). Since the UAE formed in 1971, Dubai has undergone a huge transformation with immense growth funded largely by oil income. As a city, Dubai has evolved from a small subsistence level fishing and trading community next to a creek surrounded by sparse desert into a bustling metropolitan city that is now one of the largest business and tourist hubs in the Middle East (Raven, 2011). Dubai continues to strive for modernization recently being the first City in the Gulf region to introduce a driverless metro rail system, building islands in the Arabian Gulf in the shape of palm trees as well as the tallest building in the world and owns one of the fastest growing airlines. To achieve these goals Dubai has depended upon large numbers of migrant workers from other countries and at present approximately 85% of the population is still made up of expatriates who range from unskilled labourers to highly trained specialists such as doctors and engineers (UAE Yearbook 2010, p. 146).

In the information management field, the Dubai e-Government initiative is a specific example that exemplifies RFC. Currently Dubai has launched a campaign to become a "Smart City" intended to, as Sheik Mohammad Bin Rashid Al Maktoom the Ruler of Dubai, says "extend better services to children, youth, businesspersons and tourists to avail a new form of quality life to all, adding that the modern cities require new tools and innovations" (WAM, 2013). The project involves the implementation of latest technologies including a new fiber optic network and high speed wireless Internet that will support a variety of services divided into three phases: Smart Life, Smart Economy and Smart Tourism (Gulf News, 2013, p A11). Smart Life is designed to improve life for the City's residents providing them with updated online services including healthcare, transport, education. Smart Economy provides services to businesses and is designed to boost the economy. Smart Tourism is designed to improve the reputation of the Emirate to visitors by providing information and services regarding visas, hotels, restaurants and therefore boost numbers in this fast growing sector. The initiative is being promoted heavily by the

Dubai government based on preliminary studies that reveal the benefits to the city including the emergence of new sectors at "homes, hotels, offices and governmental institutions"(Gulf News, 2013, p A11).

However, in the effort towards providing problem services to its people, one of the ultimate challenges for the UAE government is to ensure that its nation is RFC. While several authors have written on the significance of e-Government developments and solutions, the importance of these studies are certainly not ignored, but very few has been written on the readiness of the citizens' who will ultimately need to use and adopt e-Government (Al-Adawi, et al., 2005). Furthermore, given that an e-Government is both a technology and a means through which individuals interact with the government, the readiness and adoption factors must be carefully assessed (Al-Adawi, et al., 2005)

Consequently, e-Government initiatives present a new type of challenge where a strong element of cooperation and reliance upon human behaviours to change is needed. As such, individuals' RFC factors appear to have strong, yet unexplored, implications for technology based initiatives. In particular, it is necessary to recognise that the influential factors that may inhibit or support an individual RFC represents a challenge to the government and if not managed properly at the micro or individual level as well as the macro level can have severe consequences or result in failure. In the following section a discussion is presented on the current status of the readiness of e-Government initiative in the UAE based on the proposed model of RFC.

4. DISCUSSIONS

The Dubai e-Government initiative is a clear instance of an organization that displays RFC at the macro level although it is important to point out that the initiative is more of an evolution than revolution as the government first started providing online services in 2001 (WAM, 2013). After conducting preliminary research and considering the potential economic and social benefits, the government is actively marketing the initiative. This reflects the *Principal Support* of the RFC model presented in this paper. At an individual or micro level, however, there has been no sign of research and there is some evidence that residents in the Emirate are not always ready for new technology based initiatives. The research finding suggests that success of technology based initiatives is not always effective when the approach is only intended to provide macro-level aims and objectives.

There is a practical and theoretical disregard to confuse individual change at the organizational level, rather than at the micro-foundational level (Worren et al., 1999; Felin & Foss, 2005). Over the past few years, for instance, the UAE has introduced a system of digital ID cards and there has been much resistance to this with the need for fines to induce people to apply for and collect the cards that are mandatory (Gulf News, 2011). This factor is an example of *Self-Efficacy* (Avey et al., 2008; Bandura, 1977; 1982; 1990) where the government needs to begin to establish a better awareness of the influential factors concerning changes including motivations and fear of coping with change among individuals to e-Government initiatives. In fact, it has been reported that "educating citizens about e-government and raising confidence about the quality of these services is a challenge that should be addressed seriously before designing and planning e-government services" (Badri & Alshare, 2008).

Now, as part of a wider UAE e-government initiative the Emirates ID may replace Driver's Licenses and Work Cards, but with the observed resistance this may take some time. This issue is an example of a lack of *Personal Valence* amongst residents as described in the model (Dada, 2006). Furthermore, studies show that people often question the need or desire to adopt other technology developments especially when private sector have a greater capacity to innovate. Therefore, for Dubai e-government, a much deeper assessment of the differences in perceptions of citizens who use government web sites may be necessary to justify the need for e-Government initiatives or to identify what the *discrepancy* are (Badri & Alshare, 2008). More specifically, those accountable for providing e-Government initiatives in Dubai should be first accustomed with best practice in the private sector (Warkentin, et al., 2002; Al-Adawi, et al., 2005; Badri & Alshare, 2008). This will inform the citizen's the prospects of electronic public services in Dubai. According to Badri & Alshare, (2008) further research should be conducted in examining e-citizens if a particular government has delivered what they were demanding, which would show the relationship between supply and demand for e-government. This concern is an example of the *Appropriateness* factor of an e-initiative as described in the RFC model (in Figure 1) that should be addressed prior to the development of an e-Government initiative.

Therefore, as e-Government becomes more significant in all aspects, the role of the UAE government will also need to change and accept the different values and assumptions that individuals hold about a change. If e-Governments initiatives fit with the individual's RFC needs and behaviours, the government will be able to identify more clearly what those inhibitors and supporting factors are, thus resulting in more successful change outcomes.

5. CONCLUSION

In this paper Armenakis and Harris (2002) readiness model was adapted for determining the readiness factor for the Dubai e-Government initiative. The model offers a comprehensive perspective that takes micro and macro level factors into account. The individual RFC model developed in this study fills an important gap in the e-Government literature where frameworks and models do not address the specific readiness behaviours of government and individuals (e.g. George & Jones 2001, Armenakis et al., 1993 Judge et al., 1999). The general consent among several authors is that most challenges in e-Government initiatives lie at the individual or micro-level (Layne, & Lee, 2001; Warkentin, et al., 2002; Dada, 2006). This was reflected in this paper applying the model to the Dubai e-government initiative. But even with the mounting pressure from theorists to go beyond the macro-level, little theory currently exists to describe the dynamic interplay which exists at the individual level (Patel, et al., 2010a; 2010b; Felin & Foss, 2006; Dada, 2006). Accordingly, an understanding of the level of individuals and their interactions may give way to fresh insights in organizational level phenomena (Felin & Foss, 2005).

An objective of the RFC model is to be a reference or a starting point for governments to use when dealing with issues of organizational or individual level RFC behaviours on e-Government initiatives. In this paper we have demonstrated how the model can identify problems associated with the transition between micro/macro and macro/micro levels when it comes to understanding readiness during e-initiatives. The model was applied on the UAE e-Government initiatives. The model highlighted key elements indicating that Dubai is ready for change and that e-Government has an important role to play in UAE current and future development. It can offer significant improvements to the productivity and effectiveness of government but at the same time must take into account micro level individual factors.

This study contributes towards the development of a RFC model that combines various inhibiting and supporting factors, such efficacy, and personal valence associated with individual and organizational RFC in e-Government. The proposed RFC model enables other researchers to extend even deeper on the phenomenon under study and may be applied and extended to other substantive areas related to "organizational technology based initiatives".

More research is needed to understand the consequences that can arise at the micro (foundation) level in e-Government initiatives. There is scope for e-Government related research to apply various methods and approaches for building a micro-macro level perspective as well as to advance better understanding of individual level factors that are prerequisites for successful e-Government initiatives.

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