The Impact of National Culture on E-Government Implementation: A Comparison Case Study

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ABSTRACT

Over the past decade there has been increasing interest in the IS research literature on the impact of cultural differences on the development and use of information and communications technologies (Ives & Jarvenpaa, 1991; Shore & Venkatachalam, 1995; Tractinsky & Jarvenpaa, 1995, Myers and Tan, 2002, Ali and Brooks, 2008). In this paper the authors explore the influence of national culture on eGov implementation. The authors have conducted a comparative case study in two different countries the UK as a developed country and Sari Lanka as a developing country. The research findings highlight the potential influence of cultural differences on eGov implementation.

Keywords (Required)

E-Government, National Culture, Developed Country, Developing Country, Case Study, UK, Sari Lanka.

INTRODUCTION

With the advancement of Information and Communication Technologies (ICT), electronic government (e-government) has emerged as an effective means of delivering government services to citizens. While e-government has already established itself as the primary enabler for transforming the way government services are offered to citizens in developed countries, it is now beginning to show promising results in many developing countries. Many countries have now transformed their traditional government processes into an e-enabled state where key services are delivered online using the ICT facilities offered by the Internet. E-government can be broadly viewed as the adoption of ICT in government organisations to improve public services. Implementation efforts in most countries have now evolved from basic information provisioning to more integrated service offerings.

Many studies have also captured strategic and organisational level influences that have impacted upon e-government efforts including reluctance to embrace change (Irani *et al*., 2008; Mansar, 2006; Beynon-Davies and Martin, 2004), bureaucratic organisational structures (Hu *et al.,* 2006; Altameem *et al.,* 2006; Fang, 2006; Kraemer and King, 2005), and the lack of leadership in change efforts (Irani *et al*., 2008; Beynon-Davies and Martin, 2004; O'Donnell *et al.,* 2003). In addition to the strategic level and organisational level influences, the next most prominent research theme has to be social, cultural and political aspects of e-government. Much has been written about the various social level benefits of e-government (Irani *et al*., 2008; Al-Shafi and Weerakkody, 2008; Raffat, 2003; Hazlett and Hill., 2003; Silcock, 2001), whilst on the contrary cultural and political level issues have been discussed in a more negative light as they have often been seen as barriers to e-government (Irani *et al*., 2008; 2007; Ramaswamy and Selian, 2007; Beynon-Davies and Martin, 2004; O'Donnell *et al.,* 2003).

Various studies of ICT adoption confirmed that apart from infrastructure (Hargittai, 1999) and socio-economic factors (Robinson and Crenshaw, 1999), cultural values contributed to the explanation of differences in Internet diffusion between countries (Maitland & Bauer, 2001). According to Kovačić (2005) there is a significant positive relationship between e-

Proceedings of the Fifteenth Americas Conference on Information Systems, San Francisco, California August 6th-9th 2009

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government readiness and democracy in a country. The practical relevance of researching cultural issues, and especially comparing phenomena across cultures, was questioned by Ferraro (1990). However, the importance of cultural issues is becoming increasingly evident in many applied disciplines; these include the management of information technology (IT) (Davison and Martinsons, 2003).

There is general acceptance that the value-based framework for measuring cultures has been helpful in deciphering cultures (Leung et al., 2002; Smith et al., 2002; Leung et al., 2005). Although the construct is inherently complex, it is possible to label many different aspects or dimensions of it. A summary of the cultural dimensions which have been cited within the IS discipline has been developed by Ali and Brooks (2008). Ali and Brooks (2008) have provided a summary of the different cultural dimensions developed by Kluckhohn and Strodbeck, (1961); (Newman et al., 1977); Hofstede, (1980, 1983, 1991, 1994); Fiske, (1992); (Trompenaars, 1993); Schwartz (1994); Hampden-Turner and Trompenaars, (1994), (Triandis, 1995) and Fukuyama (1995) among others.

Although the UK and Sri Lanka show cultural dissimilarity, they share administrative and technological similarities. Despite the UK e-enabling many of its services, its government has encountered several barriers to e-government adoption (Al-Sebie & Irani 2005; Irani *et al*., 2007; 2008; Weerakkody & Dhillon, 2008). A study by Gilbert *et al.* (2004) indicates that citizens' potential usage of e-government services in the UK is extremely low. According to the United Nations the UK experienced the biggest decrease in ranking on the e-participation index; the country fell from number 1 in 2005 to number 25 in 2008 (UNPAN, 2008).

In Sri Lanka, the national e-government efforts have progressed favourably compared to its South Asian neighbours. According to the United Nations Sri Lanka is ranked second to Maldives in terms of e-government readiness and is ahead of larger neighbours such as India and Pakistan. Yet, South Asia is far below the world average and is the lowest ranking region in Asia for e-government readiness (UNPAN, 2008). As outlined later in this paper, Sri Lanka has faced a number of challenges and actual implementation of e-government services has been laggard compared to neighbouring countries such as India. Moreover, in terms of adoption and diffusion Sri Lanka faces a huge challenge given that as a proportion of monthly income, Internet access in Sri Lanka is 50 times more expensive than in the United States (UNPAN, 2008).

Given the aforementioned context, the motivations for this research is drawn from the aspiration to answer the research question: *what is the influence of national culture on e-government implementation and diffusion between two administratively similar, but economically and culturally dissimilar countries*. To answer this research question, the authors use a qualitative, case study based research approach to investigate e-government implementation and factors affecting progress that can be delineated as influenced by national culture.

The paper is structured as follows. First, the paper offers a context to e-government implementation in the UK and Sri Lanka in the next section. This is followed by a conceptual background to culture in section three. An outline of the research approach used for the study is offered in the next section followed by a brief discussion of the empirical (case study) finding in section five. The paper then goes on to offer a discussion analysing the key empirical findings against the conceptual literature on culture and concludes by offering some implications to theory and practice.

RESEARCH CONTEXT: E-GOVERNMENT IN THE UK A SRI LANKA

While many developed countries including the UK have identified successful strategies and overcome obstacles to pioneer the e-government concept (Irani et al., 2008; 2009), developing countries such as Sri Lanka have much to learn in this context. Like most developing countries, Sri Lanka has devised plans to implement e-government on a full scale; from a practical and critical viewpoint though these plans can be viewed as rather ambitious. For this reason, examining two countries (the UK, a developed country and Sri Lanka, an economically developing country) and their strategy for e-government implementation are therefore timely. There have been few studies that have examined implementation efforts from a cross-cultural context, particularly in culturally and economically dissimilar countries.

We have selected a study conducted in a large West London Borough in the UK (referred as X) to understand the implementation strategy, challenges and the impact of national culture on e-government. To do the same in an economically developing country, a parallel study was conducted in Colombo, the capital of Sri Lanka. There are several reasons for selecting the London Borough of X (referred as LBX) for this study. First, both Colombo and the LBX officially began their e-government initiatives in 2001. Second, although the population of LBX is not comparable with that of Colombo, X has a large proportion of ethnic minorities including South Asians (including Sri Lankans) who share similar languages and cultural and social beliefs. In other words, the recipients of the e-services are largely non-English speaking residents who use

different languages (other than English) for accessing public services. Third, LBX is at the heart of a developed country while Colombo is the capital of Sri Lanka (which is at a heart of a developing country). Fourth, the geographical extent and population in both locations are comparatively similar. Fifth, the government service structure in the UK and Sri Lanka are very similar in many respects with the Sri Lankan public administrative structure which was being modelled based upon the UK (post independent in 1948).

E-GOVERNMENT IMPLEMENTATION AND CULTURE

Cultural issues are a strong influence on any organisational change related initiative (Avgerou, 1993; Walsham, 1988) and e-government initiatives are no difference than any. Cultural, demographic, political, and economical influences are all behind the fact that there is no universal model of e-government implementation. Heeks (2003) reported that major reason behind e-government projects failure in most if not all developing countries are the gap experienced between the design and reality of information systems implementation. The fact that such countries rely on external experts from outside to setup e-government initiatives, leads to little consideration of specific national context of the county itself in terms of the cultural issues including organisational culture, geography, literacy, gender segregation, and religion, in addition to other social issues. And this, will stir an additional clash of culture and values.

In Addition, the adoption and diffusion of the Internet do vary significantly among countries. This difference lays in how far these countries went and how fast have adopted new information and communication technology (Maitland & Bauer, 2001). Various factors influencing Internet adoption have been considered in several studies. It was confirmed that telecommunication infrastructure (Hargittai, 1999), socio-economic factors (Robinson & Crenshaw, 1999) and cultural values (Maitland & Bauer, 2001) have a significant influence on ICT adoption among countries. Cultural differences between countries in general and particularly in relation to information technology adoption has been numerously discussed. Bagchi, *et al* (2003), Johns, *et al* (2003), Maitland & Bauer (2001) and Sørnes, *et al* (2004) identified cultural values as one of influential factors on adoption of ICT. These authors came to a quite common conclusion that the cultural environment influences and shapes the values shared by the members of the society. Hence, the unique cultural and historical environment of a certain region must be taken into account as part of a national ICT policy to truly gauge the country's e-government initiatives and their readiness for the future (Bridges.org, 2001).

In the following sections the authors discuss the key concepts of cultural studies in IS (Ali and Brooks, 2008). These include definitions of culture, culture characteristics and culture levels. That is followed by a taxonomy of different national cultural dimensions that this paper will focus on to study the influence of national culture on eGov implementation in developed (the UK) and developing countries (Sari Lanka).

Culture Definition

A first challenge in conducting research involving culture is arriving at an understanding of what culture is, given the myriad of definitions, conceptualizations, and dimensions used to describe this concept (Straub et al. 2002). Leung et al. (2005) define culture as values, beliefs, norms, and behavioural patterns of a group – people in a society for national culture, staff of an organization for organizational culture, specific profession for professional culture, etc. Hall, (1976) has asserted that beliefs and values dictate the way people think, behave, solve problems, make decisions, plan and lay out their homes and cities, and even organize their economic, political, and transportation systems. Also, Hofstede, (1991, p.5) defines national culture as "the collective programming of the mind which distinguishes the members of one group or category of people from another". He suggests that people share a collective national character that represents their cultural mental programming. This mental programming shapes values, beliefs, assumptions, expectations, perceptions and behaviour (Myers and Tan, 2002). According to Hofstede, (1980) culture is equivalent to the collective mental programming of a group, tribe, minority, or a nation. It is the aggregate of individual personality traits.

National Cultural Values Dimensions

Schein (1985) argues that values are more easily studied than basic assumptions, which are invisible and preconscious and therefore not easily identified, as well as cultural artefacts (technology, art, visible and audible behaviours) that, while being more visible, are not easily decipherable.

It is not surprising, then, that the vast majority of theories that conceptualize culture do so in terms of reference group value orientations (Jackson, 1995) such as value dimensions of national culture (Hofstede, 1980).

There is general acceptance that the value-based framework for measuring cultures has been helpful in deciphering cultures (Leung et al., 2002; Smith et al., 2002; Leung et al., 2005). Although the construct is inherently complex, it is possible to label many different aspects or dimensions of it. A framework of the cultural dimensions which is the focus of this paper in investigating the influence of culture on eGov implementation is presented in Table 1 (adapted from Ali and Brooks, 2008). The authors of this paper argue that such dimensions have a significant effect on stakeholders. This is due to the fact that such dimensions do explain the behaviour with respect to how social groups (citizens) interact with eGov in such context. In addition, the authors categorized and grouped some of these cultural values dimensions together since they have the same meanings.

Culture Dimension	Definition
Power Politics Power Distance (Hofstede, 1980, 1983, 1991) Hierarchy vs. Egalitarian (Schwartz, 1994) Authority Ranking Relationships (Fiske, 1992) Equality – Hierarchy (Hampden-Turner and Trompenaar 1994)	Degree of inequality among people, which the populatio of a country considers as normal: from relatively equal extremely unequal.
Risk Perception Uncertainty Avoidance (Hofstede, 1980, 1983, 1991) Free Will vs. Determinism (Kluckhohn and Strodbeck, 1961 High Trust vs. Low Trust (Fukuyama, 1995)	Degree to which people in a country prefer structured ov unstructured situations: from relatively flexible extremely rigid. Also, this refers to the degree that peop in a society bear risk, from risk averse to risk taker. Als the degree that people in a society trust and feelin comfortable with dealing with the unknown.
Individualism/Collectivism (Hofstede, 1980 1983, 1991) Individualism/Communitarianism (Trompenaars, 1993) Wide sharing vs. Non sharing (Newman et al., 1977) Communal Sharing Relationships (Fiske, 1992) Idiocentric – Allocentric (Triandis, 1995)	Degree to which people in a country have learned to act individuals rather than as members of cohesive group from collectivist to individualist.
Masculinity/femininity (Hofstede, 1980, 1983, 1991)	Degree to which "masculine" values like assertivenes performance, success and competition prevail ov "feminine" values like the quality of life, maintaining war personal relationships, service, caring, and solidarity: fro tender to tough.

Table 1: A Framework of cultural dimensions influence on eGov implementation in the UK and Sari Lanka (adapted from Ali and Brooks, 2008)

RESEARCH DESIGN

To explore the arguments set out before in a meaningful manner, a case study approach was considered suitable for data collection (Yin, 1994; Walsham, 1993; Pettigrew, 1990) which began at a large local authority/council in the UK. A semi-structured interviews (Yin, 1994) lasting between one to two hours were initially conducted with eight members of staff at LBX. These people represented cross sections of the organisation as well as the e-government initiative at LBX and included the e-government project manager, the IT manager, a systems analyst, two middle managers and three operational level staff who worked in the customer services area. This process helped to eliminate any bias from forming in the data collected (Saunders *et al.*, 2000; Yin, 1994; Denzin, 1978). Brief notes were taken in a log book during the interviews as the participants did not wish the interviews to be recorded. Thereafter, follow-up structured interviews were conducted with the same staff in order to confirm the results and clarify any unclear information (Yin, 1994; Tesch, 1990; Creswell, 2003).

In parallel to LBX, a similar study was undertaken by one of the authors in Sri Lanka and involved interviews with two senior level employees involved in e-government implementation, Head of Reengineering and Director Human Resources at ICTA in Colombo. Interviews with both these people lasted around two hours and the questions were semi-structured in nature (Yin, 1994). The interviews were complimented with several email communications and telephone conversations before and after the interview. The researchers were also given access to several other sources of information such as newsletters, project plans and working papers. A similar protocol was followed in Sri Lanka as with LBX; however, personal relationship with the interviewees has led to a more informal approach to questioning them.

Finally, the data analysis was done by comparing the findings against each other, forming the initial themes, which were later merged/divided and categorized into appropriate headings.

EXPLORING THE IMPACT OF CULTURE ON E-GOVERNMENT: A CASE STUDY OF IMPLEMENTATION IN THE UK AND SRI LANKA

In order to reach the e-government vision in the UK, the government has developed a cohesive strategy with a clearly articulated action plan that leverages the resources of the private sector. This is backed by a strong leadership structure to ensure communication to citizens and benchmarks for measuring progress (Weerakkody *et al.*, 2006; Accenture, 2003). The UK has always been conscious that e-government is a means to help drive the local policy objectives of mainstream services, release efficiency gains and achieve tangible improvements in terms of shared priorities agreed between central and local government (ODPM, 2005). Likewise, since early 2000, successive Sri Lankan governments have recognized the power of ICTs for effective delivery of government services to the general public. E-Government implementation efforts in Sri Lanka commenced in 2001 backed by the World Bank and funding from donor agencies (Karunananda and Weerakkody, 2006).

E-Government in the London Borough of X

The London Borough of X (LBX) where the empirical study for this research took place in the UK is located in West London and has a population of 250,000 people from diverse backgrounds and ethnic minorities. LBX began its e-government programme in 2001 and the first phase of implementation focused largely on improving customer relationship management (CRM) processes. In 2004, LBX moved into its second phase of e-government implementation which focused on process improvement work. Currently LBX is reengineering its back office processes and implementing new ICT systems to comply with central government guidelines for improved service delivery. While overall e-government has improved the quality of service and information provided to the citizens at LBX, there are still a number of challenges that the borough needs to address before they are able to deliver fully functional, integrated electronic services to citizens. Here, we will be examining some of these challenges from a cultural perspective using the theoretical framework developed in this paper which based on Hofstede's studies on national culture (Hofstede, 1980, 1983, 1991, 1994, Ali and Brooks, 2008). Interviews with government officials and project managers in LBX council revealed a number of factors (positive and negative) that were influencing the implementation of e-government in the borough.

E-Government Enablers

First, the enabling factors that are encouraging e-government in the borough are summarized below.

Technological Advancements: Addressing the technological advancements required to convert from manual operations to an e-business environment, LBX has taken a number of steps towards digital-connectivity. The council has already linked and integrated their outlying offices in a wide area network (WAN) configuration resulting for the first time in 300 home working and mobile connections, video conferencing and electronic learning facilities. LBX's e-government programme manager pointed out that a number of security features such as the use of firewalls, load balancing software, single directory structures and passwords are being implemented to compliment the above. Subsequently there is an encouragement towards digital media, which according to LBX's IT manager is helping to convert many manual and tedious tasks currently performed in the borough offices.

Improved Services: In keeping with the overall philosophy of e-government, the borough has focused on providing a number of key services that are likely to have a positive impact on its citizens. These include free Internet access through public terminals and kiosks, free access to information through digital television, e-payments, e-billing and e-voting. Moreover, the borough is working hard to link up with other boroughs (local governments) and local businesses in an effort to offer local government to local government (LG2LG) and local government to local business (LG2LB) services. This is highly encouraging when viewed in the context of for example Layne and Lee's (2001) work on e-government implementation stages, and indicate that the council has a well-defined e-government implementation strategy.

E-Government Implementation Challenges

However, there were many challenges that were impeding the deployment of e-government and related services in LBX. The e-government programme manager in particular was quick to point out a number of challenges that were faced by the council in their efforts to implement e-government. These can be summarised as follows:

Political and Financial Constraints: In the context of management and strategy, although senior and middle management level members of the LBX local authority offices embrace e-government and are largely committed to the initiative, various political factors influence the level and speed of progress made in the various projects. Many senior managers were frustrated with the lack of funding for e-government initiatives at local authority level. LBX's efforts were constrained due to insufficient funding and the fact that government funding comes in packages for each financial year. This method of funding is hindering senior management plans for a long-term e-government strategic plan for the borough.

Technology Constraints: From a technical perspective, as pointed out by the IT manager at LBX council, the process of tendering and procuring the technology and e-business application software needed for e-government is quite a complex task considering that LBX has limited experience of e-business. The program manager added, "there are lots of presentations given by reputed companies, which makes the task of selecting the format of the electronic forms and screens, for instance quite difficult." This however is not surprising given the lack of experience in the subject of procuring and using e-business type applications in the government sector.

Paradigm Shift: Not surprisingly, from an organizational perspective, some staff was resisting the change in roles and responsibilities and was exhibiting a reluctance to switch to the new way of working. While the majority of the staffs are residents in the borough, the e-government program manager disappointingly stated, "it seems like ICT training has had little impact so far in increasing their motivation".

Accessibility of e-Services: From a social context, it was revealed that LBX has an ageing population who are more comfortable with face-to-face meetings with a borough employee than using online services. Furthermore, financial constraints prevent many citizens from owning a PC. More importantly the cost of broadband services (averaging around £15/$22 per month in the UK) and Internet access prevent the less privileged from using e-services. Research carried out by the council during 2006/07 indicate that around 70% of the residents believe that the telephone is the easiest mode of access to information, and many thought that there was limited demand for online services.

Language Barriers: Language is another social obstacle that is preventing citizens from using the e-services offered by the council according to a senior manager. It was suggested that some of LBX's ethnic minorities did not communicate in English and were therefore unable to use e-services. These categories of people prefer information in hard (paper) format in their own languages. This senior source pondered, "perhaps, this issue will be ultimately resolved with time when web pages are published in different languages to cater to some of the other main languages spoken by the citizens of the borough".

Data Protection and Security Constraints: UK data protection laws, cyber crime and credit card fraud was identified by many interviewees as proving to be a obstacle for e-government diffusion, since people are less confident of disclosing their personal information on the Internet. As suggested by the e-government program manager, this is to be expected given that LBX's population is made up of diverse ethnic and social backgrounds and many citizens were nearer or pass the age of retirement making them less confident of using technology.

E-Government Implementation in Colombo (Sri Lanka)

The first official level e-government push in Sri Lanka came through the Ministry of Higher Education and Information Technology Development in Colombo in early 2001 (Karunananda and Weerakkody, 2006). One of the main aims of this e-government initiative was to setup an island wide network (National Education Information Network) linking all educational institutions and related services (ibid). This project was funded by a loan from the World Bank. In 2002 the Sri Lankan Government officially launched a large scale project called e-Sri Lanka aimed at exploiting the power of ICT for national development covering all government services. With this initiative, the Information and Communication Technology Agency (ICTA) was also formed as the apex body of the Government of Sri Lanka for implementing the e-Sri Lanka project. The main donor of the e-Sri Lanka project is also the World Bank, while there are many other donor agencies including Japan Social Development Fund (JSDF), Swedish International Development Agency (SIDA), Canadian International Development Agency (CIDA) and the Korean Government.

The ICTA has identified more than 20 e-services to be implemented under the e-government initiative in Sri Lanka. It has also identified some priority e-services such as e-motoring e-foreign-employment, e-pension, etc. and a number of ongoing smaller projects. However, it appears that although the e-Sri Lanka initiative started in 2002, many projects were not

launched until recently and progress is below expectations due to various reasons. There is also little information formally documented and published on the ICTA website. The key empirical findings in Sri Lanka are discussed under the same broad headings of e-government enablers and challenges as with LBX in the UK.

E-Government Enablers

Technology Advancements: The establishment of an information infrastructure backbone to connect the various government and other overseas agencies involved in e-government implementation is the key enabler of the e-Sri Lanka project. This forms the basis for a National Network Architecture and application platform. The National Network Architecture ensures network topology, means of transmission and standard protocol requirements for electronic service delivery.

Improved Services: As said before, there are 20 prioritized e-services identified among which e-motoring, e-foreign employment, e-pension, e-DS (Divisional secretariats) and e-HRM are selected for implementation in phase 1 of the e-Sri Lanka project (Re-Gov, 2005). All these projects are expected to integrate many services. Implementation of a national level population registry is yet another e-service coming under the first phase of the e-government project in Sri Lanka. Furthermore, there are also several initiatives in place such as the development of Sinhala Unicode by ICTA for the use of local languages and e-library, which is funded by South Korean government. The country portal www.gov.lk was started in August 2004 and is to be completed in December 2008.

E-government Implementation Challenges

Secondary and interview research in Sri Lanka revealed that the e-Government projects mentioned above face a number of challenges. These issues can be manifold including technical, social and management of e-services projects and their implementation. Our research has identified the following as key issues pertaining to implementation of e-government in Sri Lanka. We notice that these issues are very much interconnected and difficult to identify as individual units in some cases.

Political Constraints: Some government officials have a fear that the use of ICT will lead to loss of status and power. As a result various e-government (e-service) projects have been faced with undue delays and various interruptions in Colombo in comparison to London (LBX).

Government Support: It was found that lack of adequate support from the government is a key issue for launching e-government initiatives. This issue is interrelated with various other issues. For example, we found that lack of awareness about the power of ICT by some government officials who are at the decision making level in Sri Lanka is one key reason impacting many other issues. Financial constraints are also another reason why the government is not readily supporting the implementation of e-government initiatives.

Technology Constraints: Lack of a powerful, island-wide telecommunication infrastructure has also been an issue impeding the introduction of many e-services in Sri Lanka. Dial up Internet facilities for accessing e-services cannot guarantee a cost effective communication/solution for citizens. On the other hand, the cost of telecommunication services is relatively high in Sri Lanka when compared with other countries in the region or the UK.

Paradigm Shift: Our research indicates that both government officials and the general public have shown a resistance to change and are reluctant to accept e-government as an alternative method of service delivery / receipt. This is evident when examining the newly introduced e-services mentioned before as citizens have shown little interest in making use of the available services.

Lack of Coordination: It was also evident from this research that various e-government initiatives are scattered around different ministries and government agencies in Colombo without a cohesive overall plan. For example, ICTA has no clear link with the first e-government project launched by the ministry of higher education in Sri Lanka. There are also various projects that have been launched on using local languages, yet they are not associated with the relevant components of the e-Sri Lanka project. It is sad to note that negative attitudes and lack of team work has resulted in some projects reinventing the wheel.

Low ICT literacy rate: It was also revealed that the ICT literacy rate in Sri Lanka is not adequate for bringing e-services to the majority of Sri Lankan population. This is particularly pertinent when considering populations in rural areas where computer literacy and command of the English language are sparse. Some government officials were using the same reason for making political interruptions to decelerate the introduction of e-government in Sri Lanka.

Language problems: A majority of new and innovative ICT solutions are available only in English which can be a major barrier for those who wish to access e-service using their mother tongue. The majority of Sri Lankans use either Sinhalese or

Tamil as their mother tongue and the usage of English is still limited to a small section of society, in particular Colombo and other urban cities in Sri Lanka.

CULTURAL INFLENCE ON EGOV IMPLEMENTATION: UK VS. SARI LANKA CASE STUDIES

Here the authors present a comparison of e-government issues between the London Borough of LBX and ICTA in Colombo, Sri Lanka. As mentioned earlier, the rationale behind this study is to identify comparative challenges of e-government implementation between a developed and developing country from a cross-cultural perspective. In table 2 we map the afore-discussed empirical issues against the framework developed earlier based on Ali and Brooks (2008) which summarized the cultural dimensions that the authors focus on in this study. The authors developed a classification of National culture showing that many of the issues impacting e-government in practice are deeply rooted in, and influenced by national culture.

E-Government Challenges identified in LBX, UK	E-Government Challenges identified in ICTA in Colombo, Sri Lanka
Power Politics	**Power Politics**
Political Context: *high level of central government support and the provision of a cohesive strategy and guidelines for local government*	Political Context: *no cohesive e-government strategy; lack of ICT awareness among government officials; negative attitude to e-government*
Government Support: *high level of commitment and support for e-government from the prime minister; office of the deputy prime minister directly oversees all e-government projects*	Government Support: *limited funding for e-government; negative attitudes of government officials and agencies involved in the e-Sri Lanka initiative*
Financial Constraints: *the way funding is allocated (packaged) for local councils (local e-government implementation) is slowing down the pace of implementation*	Financial Constraints: *the Sri Lankan government is highly dependent on donor funding (such as the world bank) and private sector contributions*
Risk Perception	**Risk Perception**
Technology Constraints: *difficulties encountered in the decisions making process when selecting ICT services and vendors (service providers) due to lack of experience in the public sector*	Technology Constraints: *need to improve the telecommunications infrastructure; high cost of accessing the Internet / e-services; lack of access to personal computers*
Paradigm Shift: while *some government / council employees were resisting change; citizens are largely neutral and their attitudes are neither for or against e-government*	Paradigm Shift: *government officials' and citizens' attitude to change; citizens and government officials reluctant to change*
Data Protection and Security Constraints: negative *citizens' attitude towards security and trust in relation to exposing personal information on the web*	
COLLECTIVISM Vs. INDIVIDUALISM	**COLLECTIVISM Vs. INDIVIDUALISM**
Project Management: *centralised e-government strategy which outlines a framework and guidelines for local e-service implementation; however, lack of flexibility may limit local government innovation*	Project Management: *overall lack of coordination; various e-government projects operating in isolation from each other; lack of team working between the ICTA, central government and private sector*

MUSCULINITY Vs FAMININITY	MUSCULINITY Vs FAMININITY
Language Problems: *some ethnic minority and elderly citizens preferred face to face or telephone contact to web based services; some also indicated a need for hard copy based information in different languages*	Language Problems: *English used only as a second language; many rural citizens have no knowledge of English making the delivery and receiving of e-services in English unrealistic*
ICT Literacy Rate: *ICT literacy is relatively high among UK citizens, however most elderly and retired people lack ICT knowledge; elderly and the disabled citizens find it difficult to use e-government web sites*	ICT literacy rate: *limited access to ICT for citizens in rural areas; English language related constraints; need for improved and accelerated ICT training programmes* Lack of Awareness: *citizens' lack of awareness of e-services; citizens uninterested in e-government*

Table 2: Cultural Influence on E-Government Implementation in the UK and Sri Lanka

As outlined in Table 2, lack of strategy and high level guidance was seen as weaknesses in Sri Lanka. It was the opposite in the UK where high level support and clear strategy were evident. Moreover, lack of government support has been identified as a key issue impeding the progress in Sri Lanka. This is suggesting that, the UK's culture defined as a long term orientation while Sri Lanka is described as short term orientation culture (Hofstede, 1994).

In the context of financial issues, the Sri Lankan e-government initiative depended heavily on external funding. Although this issue does not directly correspond with issues identified at LBX, the challenges posed by the issue of financial constraints and allocation of funding at LBX is nevertheless an indirect influence on e-government decision making at LBX. This is suggesting that Sri Lanka is a masculine country where resources are limited which influence decisions making in organizations (Hofstede, 1980, 1983, 1991).

In the context of technology, the ICTA viewpoint about lack of infrastructure for e-government is more of a wider technical challenge while LBX issues are more associated with procedural issues such as calling tenders and buying the appropriate technology. Unfortunately, infrastructure issues pertaining to e-government in Sri Lanka are very much influenced by limitations of the telecommunication system in Sri Lanka. This is a very costly exercise unless foreign donor agencies wish to support further expansion. On the contrary, private sector collaboration can be requested for resolving this issue. In the UK though it was the opposite where the high level of technology advancements meant that most local authorities had little experience when making decisions on the choice of technology that is most appropriate to them. This is suggesting that Sri Lanka is a masculine country where resources including technological infrastructure are limited which influence the welfare of the society and organizations (Hofstede, 1980, 1983, 1991).

The issue of paradigm shift or reluctance to change is a challenge that both LBX and the e-government initiative in Colombo face. While this applies to both citizens as well as government officials in Sri Lanka, in the UK citizens were more neutral towards e-government. Government officials in Sri Lanka do not want to change their way of life in public office; the cause of this issue is generally the fear associated with how power will be distributed after introducing e-government, as many government officials are of the view that e-services will offer more opportunity for those who are more ICT aware. This is suggesting that Sari Lanka's culture is towards being risk averse, while the UK's culture showed a low risk averse (Hofstede, 1980, 1983).Also, this is suggesting that the Sari Lanka's culture is described with high power distance while the UK's show low power distance (Hofstede, 1980, 1983).

The lack of coordination among various e-government related projects was identified as a key challenge that needs to be addressed in Sri Lanka. In the UK, a centralised e-government strategy driven by the labour government provides the necessary framework and guidelines for local councils such as LBX. For this reason, Colombo can learn from this approach where a well structured master plan and established coordination among relevant authorities can resolve many of the project implementation challenges. This is suggesting that Sari Lanka's culture is more towards individualism while the UK is more towards collectivism (Hofstede, 1980, 1983).

Language problem has also been identified as a common issue for introducing e-government in both LBX and Sri Lanka. This issue is more crucial in Sri Lanka since the majority of population and government officials operate mainly in Sinhalese or Tamil (the national languages). Also, it was revealed that citizens at LBX are more used to face to face or telephone

contact with their council rather than using web based e-services. Low ICT literacy rate has been identified as another issue impeding the introduction of the e-government initiative in Sri Lanka. Although it is easy to assume that citizens at LBX are adequately literate in ICT, many elderly citizens of LBX were also lacking in this respect. Therefore, it is fair to suggest that this is a key challenge not only for Sri Lanka, but also for the UK. This is suggesting that Sari Lanka's culture and UK's culture are more towards masculinity but in different levels(Hofstede, 1980, 1983).

Furthermore, LBX has identified data protection and security as important issues, which were unique to the UK context. Although, this has not been found in Sri Lanka, we believe that this is an issue that needs to be addressed in the future in Sri Lanka. For this reason, we wish to point out that Technology, Architecture, Standards, Security and Policy (TASS) of the e-government initiative in Sri Lanka has to play a key role in addressing possible issues related to this dimension.

CONCLUSION

The authors in this paper have highlighted the importance of culture as influential parameter in the process of eGov implementation. The authors have conducted two case studies, one in a developed country (the UK) and one in developing country (Sari Lanka). The authors have compared between the implementation of eGov in the two different countries and highlighted the differences. The authors have identified the cultural differences within eGov implementation in the UK and Sari Lanka. The findings suggest that there is cultural influence on eGov implementation and there is differences between the UK and Sari Lanka on the four different cultural dimensions studied.

For the future research the authors aim to conduct more case studies on eGov implementation in different countries, and according to the findings the authors are planning to develop a framework for cultural influence on eGov implementation.

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