

A study on employee empowerment through e-government – A meta analysis on public sector of Sri Lanka

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Abstract— *This paper explains specific factors which effect on the use of E-Government within Sri Lanka. Among numerous empirical research done on E-Government of Sri Lanka this paper highlights few pervious research done and the common findings of them which clearly show some of the factors which need to have high attention on the way forward to implement E-Government solutions within the public sector.*

Keyword— **e-Governance, Public Sector Services, Employee Empowerment , Public Governance.**

I. INTRODUCTION

E-Government is a method of transformation in the way Governments work, such as, sharing information, engaging citizens and delivering services to external and internal clients for the benefit of both the government and the customers that they serve. E-Government improves delivery of services to citizens, businesses and employees; engages citizens in the process of governance through interaction; empowers citizens and public sector employees through admittance to knowledge and information and make the working of the government more efficient and effective.

E-Government is intended to convert government from hierarchical, less customer oriented and inefficient bureaucratic entity to a more efficient, customer-centric, system driven and more productive entity. As a consequence, E-Government could be perceived as a dynamic force that leads to an exemplary transfer in public management and governance. E-Government brings about change in two main aspects of government. In the first, E-Government improves the internal aspect of government by growing administrative efficiency and rationalization of decision making. Secondly, it impacts on the external aspect of government by improving relations between the government and the citizen and businesses largely through the stipulation of on-line administrative services and information.

Information Communication Technology Agency of Sri Lanka (ICTA) has indicated in E-Government Policy in 2010, the objectives of e-Government are, Provide more expedient and better services to citizens, Improve

participation of clients, Use of social media to ensure better service provision ,Develop better relationships with clients, Enhance good governance. But still there are no considerable employee empowerment programs adopted in the public sector of Sri Lanka as a way to improve organizational performance. Empowered employees may improve the performance largely by finding inventive ways of governing and correcting errors in service delivery and redesigning or reengineering work processes. Failure to persuade innovation can fatally weaken the effectiveness of employee performance and employee motivation.

II. TYPES OF E-GOVERNMENT

There are different types of E-government dependent on the nature of interactions in E-government including government-to-citizens (G2C), government-to-government (G2G), government-to-business (G2B), and government-to-civil community (G2CS) (Tan, Pan, & Lim, 2005; Evans & Yen, 2006; Kaaya, 2009; Gupta et al., 2008; Wang & Liao, 2008). The G2C e-government involves in facilitating the communication between the government and citizens electronically in an efficient manner (Evans & Yen, 2006).

This includes not only the delivery of public services, but also citizens' participation in the decision-making process in government (Kaaya, 2009). One common example of G2C e-government is the facility to submit applications online that previously could only be done by physically visiting public organizations and waiting in long queues. Another example of G2C e-government is the facility for citizens to express their opinions on public policies using online tools.

The G2B e-government focuses on improving the efficiency and effectiveness of the delivery of services to businesses and reducing the burden on businesses (Evans & Yen, 2006; Lu, Shambour, Xu, Lin, & Zhang, 2010). G2B e-government involves in the provision of information, and facilitating the government to conduct business specific transactions such as provision of tax returns to businesses, paying for the goods and services procured for public organisations, and facilitating businesses in their dealings with the government (United Nations, 2003; Evans & Yen, 2006; Esteves & Joseph, 2008). There are many examples for G2B e-government

worldwide. The electronic procurement system of Malaysia facilitates the ministries and businesses to transact in an efficient and effective manner (Sambasivan, Wemyss & Rose, 2010). The Australian Government Business Portal (2010) facilitates businesses to register online to obtain an Australian business number which is essential to claim goods and services tax credits, and obtain tax returns for businesses.

G2G e-government involves building the backbone of e-government by developing the ICT infrastructure at the organizational level (Ray, Gulla, Dash, & Gupta, 2011). Improving the ICT infrastructure facilitates the creation of a connected government to share data and conduct electronic transactions between and among public organizations (United Nations, 2003; Evans & Yen, 2006; Beynon-Davies, 2007; Al Nagi & Hamdan, 2009). This involves in inter-governmental information exchanges and intra-governmental information exchanges at the national, provincial and local levels (United Nations, 2003; Siau & Long, 2005; Kaaya, 2009). This leads to greater coordination and communication among public organizations, avoidance of duplication, simplification of bureaucratic procedures, and greater efficiency for public organizations (United Nations, 2008). A common example of G2G e-government is the collaboration of the Federal Bureau of Investigation of the United States with the relevant law enforcement agencies and the federal government to prevent terrorist attacks, cybercrime-based attacks and high technology crimes, and to protect civil rights (Reddick, 2004; FBI, 2010).

G2CS e-government facilitates the development of the knowledge-based society (United Nations, 2003; Basu, 2004; Yildiz, 2007; Heeks, 2008b; Esteves & Joseph, 2008; Nagi & Hamdan, 2009). It aims to develop civil societies, improve the quality of life of rural communities, and deliver specific services for satisfying the needs of the most vulnerable groups including the rural children, women, displaced persons, persons with disabilities, other minorities in a society (Hanna, 2007; Al Nagi & Hamdan, 2009). The 'ShilpaSayura' project of Sri Lanka is an example of G2CS e-government where the government provides e-learning content for rural children to support their education (Karunasena & Deng, 2012).

III. E-GOVERNMENT WITHIN SRI LANKAN CONTEXT

The provision of citizen-centered services is a systematic process, which cover several stages. E-government is not just a tool to automate old practices of existing government. However it rather increases effectiveness, efficiency and overall productivity of government sector by offering citizen based services. According to Centre for Democracy & Technology and Info Dev there are three phases of E-government: Phase One: Publish-Using ICT to expand access to Government Information, Phase Two: Interact-Broadening civic participation in

Government, Phase Three: Transact Making Government Services available online. Dissemination of information to general public is the first phase in e-Government. Generally government in a country generate huge amount of information. In a country like us it is always a challenge to make sure people get the correct piece of information. Making information readily available to general public

Is a way of minimizing inefficient bureaucracy and corruption according to the Centre for Democracy & Technology and Info Dev. Published government web sites would disseminate essential information for the public as broad as possible for 24 hours for a day, 7 days per week and 365 days for a year without having to travel to government offices. As far as Sri Lanka is concerned some innovative public sector institutions went online within the last few years. A Vast majority of them are still at typical entry level efforts in the second phase of E-government. In Initial stages this would limit to an e-mail form to citizen for contact information. And that could be further enhanced to a feedback from citizen to comment on legislative or policy proposals. In recent years vast development in telecommunication industry is a major advantage for interactive electronic government. According to Central Bank Report 2003, the subscriber base of fixed access telephones increased by seven per cent to 940,000 approximately, while mobile cellular phone connections rose by 460,000 or fifty per cent. As far as possibilities for mobile computing is concerned this is a dramatic improvement. The advantages of mobile phones are wide spread coverage, affordable prices and easy to use. Especially with 3rd and 4th generation mobile phones it is not a difficult task to take e-Government to remote villages in the country. In the third phase it is related with making government services available online.

That means facilitate citizen to conduct transactions online. Not only countries like Singapore, Korea, Australia and New Zealand to offer much of their government services based on Internet but also developing countries like India especially Andhra Pradesh, Karnataka, and other regional governments provide more and more online service to general public. According to Centre for Democracy & Technology and InfoDev, "innovation such as citizen service kiosks located in shopping centres in Brazil or portable government computers that can be carried into rural pockets of India bring e-government directly to the citizens of developing nations". The advantages of facilitating online transactions would gain cost savings, accountability and productivity. This is because e-Government process will streamline.

IV. RESEARCH METHODOLOGY

The high level research questions set for the research were:

- Do public sector employees really motivated and authorized to provide e-Government services to the public?
- Whether there are processes to educate their empowerment through e-Government

In order to finding the facts to the research questions “Meta Analysis” was chosen because Meta-analysis is a statistical technique for amalgamating, summarizing, and reviewing previous quantitative studies. Meta-analysis is a method of data analysis applied to summarizing research findings, both quantitative and qualitative summaries of individual studies. Rooted in the fundamental values of the scientific enterprise of replicability, causal and correlation analysis, it is useful for answering three general questions: What is the central tendency or typical study outcome? How much variability exists among study outcomes? What is the explanation of the variability?

V. RESEARCH DESIGN

Both Quantitative and Qualitative reasoning methods have used to amalgamate the previously done research. This research has used Quantitative reasoning in a wide manner to generalize the common concerns of all selected studies used for the meta analysis. In the light of quantitative results numerous qualitative aspects have been aroused which turns on discussions with regard to the redesigning of e-Government services and training.

VI. PUBLIC SECTOR IMPORTANCE ON E-GOVERNMENT

To sufficiently answer the research questions formulated above, secondary data on e-government development in Sri Lanka are used. The study uses the data from several national surveys including ‘government ICT usage survey’ (ICTA2008a), ‘government organizations visitors survey’ (ICTA 2008b), and other statistics by respective government agencies such as Statistical Survey Department (DCS-SL 2009) and Telecommunication Regulatory Commission of Sri Lanka (TRCSL 2009). Approximately 344 public offices are selected for the government ICT usage survey with public officers given structured questionnaires for gathering data on how ICT is used at what degree (ICTA 2008a). In the government visitors’ survey, interview is used with a population of about 593 visitors who visited public organizations with respect to a structured questionnaire (ICTA 2008b). Approximately 70 Nenasala centres are considered in this research. Informal interviews with government officials and Nenasala operators are conducted to further verify the findings of these surveys. Delivery of Public Services. The quality of e-government information and service delivery is examined through three sub-drivers, namely, availability of information and services, choice, and uptake as shown in Figure 1. In Sri Lanka 65% central government ministries and 78% departments provide static information through their websites (ICTA 2008a). A majority of these websites provide some general information about their organizations. A few organizations provide

interactive information such as train timetables, daily crop prices, etc which cannot be accessed without visiting the respective public organizations. The information provided through e-services in Sri Lanka is insignificant. Although many e-services are promised through the e-Sri Lanka program, these initiatives, however, are still at the initial stage of development. As a consequence, citizens have not yet had the opportunity of enjoying the full benefits of e-services. The fact that a majority of government agencies do not have a web presence (56%) and the delay in implementing major e-services implies that the full potential of e-government has not fully materialised in Sri Lanka. Examining the implemented e-government initiatives show that the choices to citizens in Sri Lanka are confined to websites (35% of agencies have websites), call-centre, counter services and a few mobile applications. Empirical dataset (ICTA 2008b) reveals, the most used channel is the website (47.6% users) and it is followed by the call centre services (46.6% users). The government has already established approximately 600 Nenasala centres in rural areas to provide resources to access e-government information and services. The take-up of e-government services in Sri Lanka is very low. Only 22.3% citizens are aware of available e-government services. Among them 47.3% of citizens obtain information from websites, 46.6% of citizens use call centre services, 7.5% of citizens make inquiry via emails (ICTA 2008b). To examine the user orientation of e-government, citizens’ satisfaction about the e-government services is examined. In Sri Lanka, the level of citizens’ satisfaction on the available e-government services is very high. Although the availability of e-services and level of information provided to the citizens are inadequate, nearly 70% citizens are satisfied with services offered (ICTA 2008b).

- Limited research done to study the efficiency of public sector employee involvement in e-Government in Sri Lanka.
- After a thorough meta analysed investigation, six studies been selected for the Analysis. The selected studies are,
- The Measurement of e-Government Readiness in Sri Lanka: Survey Perspectives , *DJ Punchihewa*
- e-Sri Lanka: An Integrated Approach to e Government Case Study , *Shoban Rainford*
- Survey on ICT Usage in the Government Sector, *ICTA*
- Survey Journal 2012 ,*Survey Department of Sri Lanka*
- Government Organizations Employees Survey (Goes), *ICTA*
- Factors affecting successful implementation of E-government projects in Sri Lanka,

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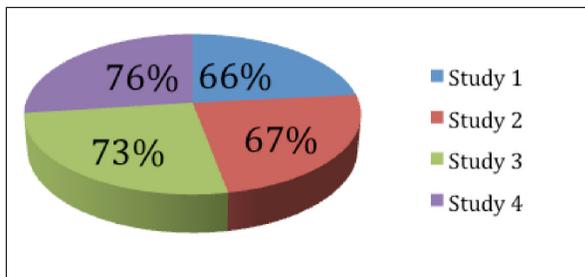
VII. KEY SIGNIFICANT COMMON POINTS IDENTIFIED FROM THE META ANALYSIS AND FINDINGS

Careful analysis of the six subjects reflected that there are few common features where all the studies have been abstractedly discussed in their research. The key points are,

- Public Sector Employee motivation
- ICT Qualifications of Public Sector Employees
- General Use of ICT in Government Institutions
- Influence on Attitudes
- Extend of awareness on objectives of e-Government Services

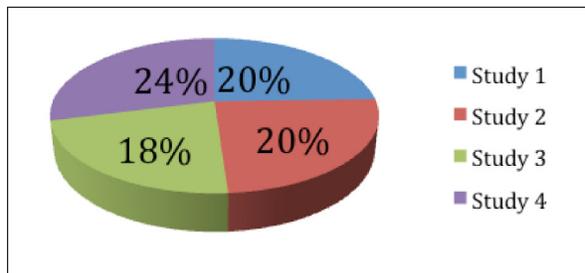
A. Public Sector Employee motivation

Majority of study depicts this factor has a direct affiliation with attitude. Out of six, four studies has conducted a Questionnaire survey to figure out the feedback. Majority has stated there is enough motivation to prompt use of e-Government services. When considering all 4 studies overall 70% of Employees responded positively.



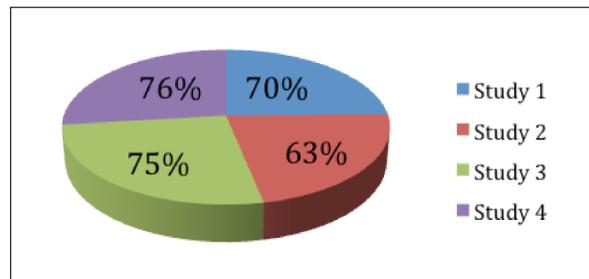
B. ICT Qualifications of Public Sector Employees

Overall 21% of public sector employee's posses ICT qualifications they are varied by Gender. As per the studies Male response is high than female response. These figures depicts that majority does not have ICT qualification. When separated to executive and non executive employees, non executives are higher than executives for not having an ICT background



C. General Use of ICT in Government Institutions

Majority of Ministries/Departments /Statutory Bodies use ICT.Overall 71% of Government institutions are using ICT for day to day operations at a considerable level. As per many of studies including the studies which was not accountable to the meta analysis majority of organizations has a web site and some web services on the public operations.



D. Influence on Attitudes

Another interesting phenomenon identified was all studies have stressed upon the attitude towards the use of e-Government tools .At a high level, based on the benefits the attitudes are inspired by e-Gov tools but due to inconvenience or ambiguity on technology, attitudes may negatively controlled. That means when a technical problem comes and when public sector employees does not have a proper mechanism to overcome the problem rapidly they may lose the enthusiasm on using the ICT services.

E. Extent of awareness on objectives of e-Government Services

All six studies emphasizes that ICTA conducts e-Government training programs and around 60% of public sector employees attends such training programs .But surveys done by Four studies highlights that public sector employees lack the awareness of actual objective of e-Government services. This may be due to the too much focus on the technical use and training towards throughout the training program.

VIII. CORE OF FINDINGS

At a high level the abstracted findings may summarize as Public Sector Employees are motivated to use e-Gov tools but majority of them does not have an ICT background. Even though majority of Government Institutions use ICT for Day to Day work. The positive attitude that public sector employees have on E-Government services may disperse by technological ambiguity. Even they are motivated public sector employees are not aware about the real objective of e-Gov services or Tools.

IX. CONCLUSION ON FINDINGS

Formal training on ICT as well as computer literacy acquired through informal means was significantly high among employees of the selected government organizations. Further, relatively high numbers of executives and non-executives have access to facilities of ICT and internet either through individually allocated or commonly used facilities. The study was also keen to indicate that in general, government employees have a positive attitude on ICT and e-government. Among the public sector employees there is no prominent e-service that is widely used by all or many users. In general, participant satisfaction and rate of completion of ICTA training programs are at a high level indicating the success of human resource

development activities of the initiative. Despite this positive interest on training, a fact for serious concern is that in general willingness of government employees for adopting ICT based facilities in their organizations is not very encouraging. Further, willingness to use ICT is comparatively low in regional offices than in Colombo offices. But Training Programs fully focusing the functional use of the e-Gov service/Tool may not be effective enough; it must consider the underlying purpose of the E-Government service too. Even with little ICT background they are motivated to use e-Gov tools, but due to lack of knowledge on their empowerment, negative attitudes may arise.

X. RECOMMENDATIONS

It is vital to incur the moral aspects of e-Government along with the functional aspects in e-Gov training programs.

Rather than educating just how to use, it is best to educate on What, When, Why Where Who and How to use (5W+H) of e-Government tools. The e-Government awareness programs must reengineer to empower the public sector employees at a maximum level. If the training programs provide a better understanding regarding their authority and the empowerment of the use of E-Government services it will definitely increase the effective use of E-Government services within Sri Lankan Public Sector.

As important recommendations, conducting awareness campaigns among government employees on specific e-government activities, carrying out motivation and mobilization programs to improve the willingness of staff to adopt ICT based tasks, evaluation of E-Government training programs with the objective of further improvement and assessing the strength of the current web-based services and developing action plans to promote them can be shown.

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