# Future of e-Government in Pakistan: A Case Study Approach

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# Abstract

The progress towards realising the full potential of e-Government using digital technologies to improve public services delivery and government-citizen engagements has been slower and less effective in the developing countries. Pakistan, over the past several years, has experienced similar lethargic e-Government growth rate due to economic and political instability, poor governance and deteriorating government institutions. This paper aims to contribute by exploring the future of e-Government in Pakistan and the use of Information and Communication Technologies (ICT) by providing a snapshot of various e-Government projects in Balochistan. This 'snapshot' includes both perceptions of e-Government and the status of a number of diverse initiatives. The paper uses a case study based approach to collect and analyse data at provincial and district level in Balochistan province, Pakistan. The empirical findings indicate that government officials in Pakistan are willing to use ICT for their day-to-day operations and to enhance their performance. Nevertheless, lack of Information Technology (IT) skills, scarce resources, cultural issues and lack of capacity building are some of the impediments that make it difficult for government officials to use ICT effectively.

Keyword: Pakistan, Balochistan, e-Government, Citizens, ICT, Public Sector, Developing Region.

# **1. INTRODUCTION**

E-Government is defined as the use of ICT in public sector to deliver high-quality services to citizens, businesses or government employees (OECD, 2009). Improved access to ICT is essential to narrow the digital divide, promote effective governance and advance sustainable development (IDeA, 2005; UNCTAD, 2009). E-Government initiatives have produced favorable impacts on delivery of public services; however, in developing countries like Pakistan its overall impact has remained limited, due to a plethora of constraints and slow pace of its implementation (Kamal & Hackney, 2012). Citizens demand public services to be effective and they should have seamless access to correct and often detailed information (Bigdeli *et al.*, 2013). Governments still remain the single largest collector, user, holder and producer of information (Heeks, 1999). Due to rapid changes in society and economies, governments need to reform and should employ information technology to facilitate the process of change. However, e-Services that government agencies have provided over the last few years have fallen short of being citizencentric (Soufi & Maguire, 2007; van Velsen *et al.*, 2009) due to lack of user involvement in the design of processes of public services (Følstad, Jørgensen, & Krogstie, 2004).

There are many reasons why government organisations are insensitive to citizen concerns. For example, the budget of government organisations is not dependent on citizen satisfaction. Whenever a commercial concern displeases its customers, it results in sales decline and profits plummet. Ciborra (2003) explains that customers buy products, client buy services but citizens enjoy rights *"that go far beyond those of customers or even clients"*. In their role as citizens not only enjoy rights, but also have duties: to pay taxes, to be drafted in their countries army and to respect the laws of the country. On the other hand,

when a government organisation fails to deliver good services, it does not appear to affect its responsiveness to citizen because it appears that the actual objective of government organisations are not to satisfy the needs of its citizens, but to please the bureaucracy and its bosses. There is no apparent incentive to satisfy its citizens. Thus, categorising the relationship of business to its customers (i.e. of Business-to-Citizens [B2C]) cannot be considered to be equal to that of Government to its Citizens (i.e. of Government-to-Citizens [G2C]).

In the last eleven years, a number of e-Government projects have been initiated by the government of Pakistan (both dictatorship and the current democratic government). These projects are undertaken to improve public's seamless accessibility to information and citizens' satisfaction. However, most of the government initiatives have not been able to deliver the pledged benefits and outcomes due to deficiency of IT skilled manpower and infrastructure (Kamal & Hackney, 2012; Rehman *et al.*, 2012). Public sector innovation through e-Government implementation has recently started to gain momentum in the developing countries, especially in Pakistan. It deals with governance, technology and cultural issues which are very difficult to resolve. In this paper, the authors aim to highlight the e-Government experiences of the Balochistan province – the largest of the four provinces in Pakistan. The remaining paper is structured as follows: Section 2 offers insights to the views gained from the literature review. Moving onto Section 3, the authors discuss on the research methodology adopted in this research study. Section 4 provides the overall empirical findings of this research. Thereafter, we have Section 5 discussing on the research findings with Section 6 summarising the conclusions.

### 2. LITERATURE REVIEW

### 2.1 The e-Government Concept

E-Government is described as the use of ICT to enhance access to, and delivery of, government services to benefit citizens, businesses and government employees (Gronlund and Horan, 2005; Gupta *et al.*, 2008). E-Government undoubtedly has the potential to eradicate (if not) then lessen administrative and development dilemmas (Schuppan, 2009). E-Government implementation provides significant benefits, including among others such as:

- Improved efficiencies, greater access to services, greater accountability, transparency and citizen empowerment (Tung and Rieck, 2005),
- Lowered costs and time for services (Gilbert *et al.*, 2004), and
- Strategic advantages e.g. improved decision-making through streamlining of information, enhanced knowledge sharing and organisational learning, improved interactions with citizens, and greater ability to effect organisational change (Zhang *et al.*, 2005).

There is a wide gap in the rate of growth among economically developed and developing countries (Gupta et al., 2008). E-Government projects absorb an increasing proportion of public sector budget to fulfill promises to provide solutions to many public sector problems. While many governments have recognised and taken initiatives to implement e-Government projects and applications in the respective domain, evidence has shown that most e-Government projects fail that can be classified into total failures, in which the system is never implemented or is implemented but is completely abandoned, and partial failure, in which major objectives are not attained 'or' there are significant undesirable outcomes (Heeks, 2006). The target group of e-Government services is highly heterogeneous, as it comprises the entire population of a country, while e-commerce usually focuses on single target group. Government agencies must take all the members of a population into account, which should result in a system design that caters to different cultures (Sandberg & Pan, 2007), languages and skills (Wang et al., 2005), political opinions (Oostveen & Van de Besselaar, 2004). Hodgkinson (2002) and Davidson et al., (2005) suggest that governments need to develop e-Government capability by maturing through a learning curve that resembles repeated Scurves, through integration between local and provincial government departments at the back-end. At the front-end, a single portal is required to facilitate the citizens. In the end, mature e-Government is characterised by high level of capability and performance of multiple dimensions. Capabilities include the ability to share data and information across different government departments by reducing the process time through re-engineering the system and ability to capture and share the knowledge of government employees at the highest level.

#### 2.2 E-Government in Developing Countries

Most of the time, developing countries are trapped in spending resources to push major reforms like e-Government on the basis of models, which may not work in contexts that are significantly different from the advanced ones (Heeks, 2002). In developing countries, the topic of e-Government is emerging one and research in this area is focused upon government related issues and usability of e-Government websites however little attention has been given to citizen's perspective (Choudrie *et al.*, 2004; Mosse and Whitley, 2004). E-Services offered by government are much more than simple automation and it improve civic involvement in policy making process (Dwivedi *et al.*, 2005). However, e-Government is not e-business, so government cannot simply transplant private sector ideas into the public sector. Thus, at the same time as the government may trigger development of a new technology, its regulations can end up holding back the natural diffusion of technological innovations (Gonzalez *et al.*, 2007).

It is, therefore, suggested that the design of new e-services need to consider users' needs, as well as laws and regulations set by various governmental bodies. Davison *et al.*, (2005) argue that citizens are normally developed loyalty to those e-Government portals that are citizen-centric and address their needs. In some developing countries, e-Government portals are not available in national and local languages, implying that e-Government is aimed at only an educated minority. Kertesz (2003) puts forward a possible reason for the limited success of e-Government, arguing that "*e-Government initiatives in developing countries are not always based on economic soundness – instead they are fueled by lobby groups, pride or international pressure*". He further argues that "benefits are overstated, risks and problems are disregarded" and suggests that performing needs assessment of these investments is crucial. Such analysis must be based on local needs, and resources. When discussing vested interests and resistance by government officials, Jain (2004) critiques bureaucracy for its control over employees, and making public organisations self-serving instead of serving society. He further argues that ICT can be used to reform bureaucracy, but e-Government failure can be a consequence of bureaucracy.

#### 2.3 Policy and e-Government

E-Government is much more than just the application of technology, since it seeks to improve both internal operations and the external interface of government. Thus, it is directly linked to the main dimensions of "good governance", such as policy making, both on the horizontal and vertical level, networking in policy implementation phase and improving productivity of public sector (Leitner, 2003). The Center for Democracy and Technology – CDT (2002) argues that in order to implement a successful e-Government program, policy makers need to develop specific and reasonably attainable goals and understand what resources are available to achieve those goals. CDT also indicates that all countries implementing e-Government have struggled to develop a basic infrastructure to take advantage of new technologies and communications tools but many developing countries, even if possessing the will, do not have the infrastructure necessary to immediately deploy e-Government services throughout their territory.

In e-Government projects, besides general objectives, two critical social phenomena, the urbanisation of rural population, and the low quality of basic education and health services, are considered of priority area of intervention. Batini *et al.*, (2009) emphasize the integration of back office processes for improving the quality of services, and say that a one stop shop should be available for the citizens in case of residency change, updating of new address on a driving license and in health services. E-Government can help build trust by enabling citizen engagement in the policy processes, promoting open and accountable government and helping to prevent corruption (Kamal *et al.*, 2013). Policy makers cannot stand aloof from these trends, as they are forced to implement innovations as well as to explore new opportunities. New possibilities offered by ICT give government chances to rethink ways of working and providing services for citizens and businesses (Bekkers & Homburg, 2007; Verdegem & Verleye, 2009).

#### 2.4 *E*-Government Challenges in Developing Countries

Schuppan (2008) explains that developing countries have been initiating e-Government projects with support from donor organisations. Under the label "Information and Communication Technologies for

Development" (ICT4D), these organisations are emphasizing the relevance of ICT in general, and e-Government in particular, as a way to promote development and reduce poverty; expectations are high. One could argue that e-Government can, in general, contribute to solving administrative problems, however e-Government and its related organisational concepts were developed in industrialised countries; it should not be assumed that this concept is automatically appropriate for developing countries like concept of e-Commerce is not necessarily work in e-Government domain. Thus, need to study local culture, organisation norms and people e-Readiness before applying these concepts in developing countries. Access to this technological infrastructure must be considered with supporting infrastructure, such as roads and reliable electricity etc. These among other constraints such as the lack of training and education of both citizens and staff, contribute to the digital divide (Reffat, 2006), which is itself a major constraint to realising the goal of e-Government. The digital divide is a barrier to e-Government in that people who do not have access to the internet will be unable to benefit from online services (OECD, 2002; 2003).

#### 2.5 National e-Government Initiatives

It has long been noticed that the public of Pakistan have various complaints regarding the existing system of public services which are cumbersome and outdated. There is widespread inefficiency and malpractice, thereby causing public frustration and dissatisfaction. In the period from 1976–97, Pakistan Public Administration Research Center formulated and submitted more than 200 recommendations to the committee for improving the quality of public services and work at the administration level in public sector organisations. Out of those, 106 recommendations were approved which covered 53% of the total recommendations. Despite these developments, it has been realised that the existing system is still cumbersome, and out of step with the requirements of modern administrations. This has given rise to wide malpractice, inefficiency and corruption.



Figure 1. United Nations e-Government Development Index for Pakistan<sup>1</sup>

During the last decade, governments around the world have launched e-Government projects aimed at providing electronic services to citizens (Horst *et al.*, 2007). In Pakistan, priority was shifted due to e-Government initiatives public policy making became transparent. This included placing policy drafts on the ministry's websites and allowing all the stakeholders to review and openly debate the policy before it was finalised (Gao & Rafiq, 2009). According to the United Nations e-Government Survey, measured for 192 countries, Pakistan's ranking was 137 in 2003, which improved to 136 in 2005 and to 131 in 2008. However, in 2010 its ranking dropped drastically by 15 ranks to 146. In same way, in 2012 its ranking further dropped by 10 ranks to 156. The majority of the high scorers in the 2010 e-Government development index are South Korea, United States and Canada, all high-income countries, who have the financial resources to expand and rollout advanced e-Governance initiatives, as well as to create a favorable environment for citizen engagement and empowerment. Meanwhile emerging economies such as China and India rank 72 and 119 respectively while even Bangladesh has a 12 point lead over Pakistan. However, Pakistan can improve its ranking by focusing on and by finding out ways to improve citizen participation.

<sup>&</sup>lt;sup>1</sup> Source: United Nations e-Government Readiness Knowledge Base, <u>http://www.unpan.org/egovkb</u>

#### 2.6 E-Government Policy Analysis

Government of Pakistan formulated its e-Government Policy in 2000. During secondary data analysis, a statement appears in paragraph 3.21.1.2 of the e-Government Policy that says:

'The e-Government model for Pakistan is a gigantic task. It may take 5-7 years because of financial constraints as well as inadequate professional know-how to undertake system reengineering of different government organisations and use of ICT so that use of paper is minimised. Therefore, a modular approach will be adopted to achieve the goal of e-Government'.

Although the general problem is identified, the specific problems are not, and neither is there an evaluation of how to solve the problem. To make the situation even more complicated, the actions under e-Government Policy strategies infrastructure development # 3.7.2 appear very ambitious. For example, IT parks and incubators were to be established. There was no evidence that a study has been conducted on the capability of Pakistan to embark on these strategies. It is important how realistic the projects were and how Pakistan can compete with other established software parks such as Multimedia Super Corridor (MSC) in Malaysia. Were these actions simply put to make the content of the e-Government Policy trendy and in line with the global trends? Only few government organisations had better experiences in IT prior to e-Governance. Most of them are only now requesting PCs. Even this is said to be difficult process and only approved on project based. If there is a project that needs a PC, only then PC request will approve. Otherwise, PCs are not forthcoming for all the staff in the government organisations. From here, one can see the poor IT capability in terms of usage, expertise and culture in Pakistan.

#### 2.7 Case Background – A Vision of e-Government in Balochistan

In Balochistan, implementation of e-Government projects is seen as a very important way to curb inefficiency, low productivity and poor quality of work. In order to make the government truly "citizencentered", government departments will have to work together to consolidate similar functions around the basic requirements of citizens. Most governments implement e-Government from their own point of view, while a few of them understand their citizens' real need (United Nations, 2008). Therefore, citizens are not interested in the web-based services. Expectations that e-Government would reduce the cost of service delivery have not materialised due to the early stage of most online government services in Balochistan. Public satisfaction should be the core objective of Government of Balochistan (GoB) which is the outcome of number of initiatives e.g. people can be more satisfied with service provision of public sector organisations, if government departments use ICT to simplify the procedures for the purpose of bringing transparency, visibility and quick accessibility to the general public.

# 3. Research Methodology

A case study was carried out as a part of need assessment exercise conducted on behalf of the UNDP. According to Chidley (2004) and Featherman *et al.*, (2006), it is essential to make need assessments of users' needs and other aspects affecting the design of new e-Government services. The need to learn about such aspects indicates that some users may feel uncomfortable when traditional services are digitalised. Also, a reason to obtain viewpoints from users and other stakeholders is that it facilitates the definition of the new e-Government concept. Exploratory work was conducted to get the data and perception of the public sector officials. A need assessment can be considered as foresight activity that brings together key agents of change, it can be viewed as an involvement process to let them not only learn more about future e-Government plans, but most importantly, to feel that they have had a voice in the outcome as well. However, e-Government is still considered as a new and emerging concept in developing countries like Pakistan. There are many challenges, barriers and obstacles such as deficient finances, lack of IT skilled manpower, organisational and cultural issues to its implementation. At the same time, if there is lack of will and the employees are reluctant, it becomes more difficult to successfully execute the e-Government programs. As a result, the matter of choosing a proper approach to deploy e-Government becomes vital.

#### 3.1 Interviews

In order to gather data, interviews with 25 public sector officials were carried out at provincial and district level in Balochistan. The authors visited provincial government departments such as IT, Health, Education, Social Welfare, Local Government and Livestock. After completion of interviews, the authors visited capitals of other provinces; Karachi and Peshawar to study their success stories, and with a view to replicating it in Balochistan as well. The Table 1 illustrate the list of all public sector organisations and individuals that have been approached and the data collected during the fieldwork.

Provincial & District Departments	Interviews	
1. IT Department	Newly Appointed IT Secretary	Deputy Secretary
	Outgoing IT Secretary	<ul> <li>System Analyst</li> </ul>
2. Livestock Department	Secretary	
3. Board of Revenue	Secretary (Admin)	
4. Health Department	Deputy Secretary	Additional Secretary
5. Public Health Engineering Depart.	Deputy Secretary	
6. Agriculture & Cooperative Depart.	Deputy Secretary	
7. Local Government & Rural Development	Additional Secretary	
8. Irrigation and Power Department	Additional Secretary	
9. Education Department	Additional Secretary	
10. Social Welfare & Women Development	Additional Secretary	Private Secretary
Department	Section Officer	
11. Communication & Works Department	Additional Secretary	
12. Planning & Development Department	System Analyst	
13. Finance Department	System Analyst	
14. Rural Development Academy	• Director	• Instructor
15. Quetta District Office	District Officer (IT)	
16. Gawadar District Office	Deputy Director, Gawadar Development Authority	
17. Ziarat DPO Office	Senior Superintendent of Police	
18. Loralai District Office	District Officer (IT)	
Total: 18 Departments	25 individuals	

### Table 1. Exploratory Work (Balochistan Public Sector)

### 4. FINDINGS

### 4.1 Findings from Interviews

The table 2 highlights the major themes from the interviews. These findings provide a detailed snapshot of e-Government initiatives and highlight the challenges/issues faced by government departments for implementing e-Government in Balochistan.

- **Lack of Capacity Building:** Balochistan Public Service Commission announced 12 vacant positions for District Officers (IT) Basic Pay Scale (BPS-18) but was able to hire only 4 people at that level. Now the commission wants to relax the criteria to hire the IT officials at BPS-17<sup>2</sup> junior-level-bureaucrats.
- Lack of IT Skills: In Balochistan, about 1500 computers were distributed in 95 schools, approximately 10 15 computers in each lab of each school; it is observed that headmasters of most of the schools kept the computers locked in the lab because of the non-availability of a computer instructor coupled with fear that students will wrongly handle the computers and spoil them. The computers became obsolete and useless as they remained unused by the students

<sup>&</sup>lt;sup>2</sup> Basic Pay Scale 17 is the start of gazette officers who are authorised to attest the document.

during the last four years. Thus the purpose of provision of computers was not achieved. About 450 government officials have received IT training, out of them only 250 was able to pass the exam in the IT Institute of Quetta.

Major Theme	Government of Balochistan	Current Situation	Findings/Remarks
Lack of Capacity Building	Balochistan Public Service Commission	• Created 12 vacancies for district IT officers but able to hire only 4 people.	<ul> <li>Deficiency of skilled human resources</li> <li>Need to relax the criteria for hiring of officials</li> <li>Need to offer incentives</li> </ul>
Lack of Infrastructure	Agriculture Department	• Agriculture Policy and water management system is not yet online.	• Website must be developed to highlight its three essential components: Research; Agriculture engineering; and facilities extended by the agriculture secretariat.
Lack of Finance	Education Department	• Balochistan Education Management Information System (BEMIS) established in 1990. Its data is used by decision makers and planners. They used to collect data from 11895 schools annually.	<ul> <li>They were required to collect data twice a year in the month of April and October but they have only been collecting in the month of October because of financial constraints.</li> <li>Education department was interested to update the BEMIS and put the data online to make it available for public.</li> </ul>
Lack of Capacity Building	Finance Department	<ul> <li>New account model, aided programme, offered one week training that was not sufficient.</li> <li>The budget preparing process starts in the month of March and takes four months to its announcement.</li> </ul>	<ul> <li>Government policy must be made available on website.</li> <li>There is contradiction in the figures given in files and net that must be the same.</li> <li>After announcement the policy changed within next 15 days which shows inefficiency of preparing budget process.</li> </ul>
Lack of IT Skills	Educational Institutions	<ul> <li>In Balochistan, about 1500 computers were distributed in 95 schools, approximately 10 – 15 computers in each lab of every school.</li> <li>The computers became obsolete and useless as it remained unused by the students during the last four years.</li> </ul>	<ul> <li>It is observed that headmasters of most of the schools kept the computers locked in the lab because of non-availability of computer instructor and fear that students will wrongly handle the computers and spoil them. The purpose of provision of computers was not achieved.</li> <li>Letters being sent to remote areas which take more than a week to reach its destination.</li> </ul>
Terrorism	Higher Educational Institutions	• In the University 'X', data computer lab was established with the expenditure of about Rupees 25 million provided by the Higher Education Commission.	• That was shown to be burnt out within few months without any apparent evidence of fire. If this incident is proved to be true, one may conclude that some segment of society may not welcome advancements in IT

			literacy or have some vested interest in such negative actions.
Lack of IT Skills	IT Institute Quetta	• About 450 government officials got IT training, out of them only 250 was able to pass the exam from the IT Institute of Quetta.	<ul> <li>Deficiency of IT skilled manpower</li> <li>No interest to learn IT skills.</li> </ul>
Lack of Resources	Rural Development Authority	• The local training program is not functioning properly because of limited promotion chances for training instructor, to some extent computers, networking and DSL connections may be provided.	• Facing financial constraints; the staff was never provided facility for foreign training to enhance their capability for use in the department, moreover, training equipment is not available to meet the requirement.
Lack of Capacity Building	District Quetta, capital of Balochistan	• IT department furnished data based forms to the 9700 government employees to fill and return to the department for statistical analysis.	• Only 2000 employees responded to return the forms in a year which show unsatisfactory response.
Lack Of Coordination with other Districts	District Lasbela	• 10 IT centers exist to provide training to students. In addition for Tehsil High Schools, IT training labs have been established.	• The online exam software has been developed and being used successfully including development of IT vision 2010.

#### **Table 2. Summary of Interview Findings**

- Lack of Finance: The BEMIS Balochistan Education Management Information System was established in 1990. BEMIS data is use by decision makers and planners. Normally, they were required to collect data twice a year in the month of April and October but they have been collecting in the month of October only because of financial constraints. They used to collect data from 11895 schools annually. The Education department was interested in updating BEMIS and putting the data online to make it available for the public, but was unable to do so because of financial constraints. A donor aided program for a new accounting system was not successful. The government policy must be made available on website, was not available; letters being sent to remote areas were taking more than a week to reach their destination; there was a contradiction between the figures given in manual files and the system. The budget preparation process starts in the month of March and takes four months, but was delayed due to the new system.
- Lack of Resources: The Rural Development Authority is facing financial constraints; the faculty staff were not provided facilities for overseas training to enhance their capability for use in the department; the local training program is not functioning properly because of limited promotion chances for training instructor, moreover, training equipment is not available; to meet the requirement, to some extent computers, networking and DSL connections may be provided.

### **5.** Discussion

This paper has attempted to give a snapshot of the perceptions of e-Government in Balochistan, and also some of the challenges. Interviews of government officials highlighted the challenges and issues such as lack of IT skills, and training. Moreover, several themes emerged from the interviews: lack of IT skills, lack of infrastructure, lack of resources and lack of capacity building can be considered main obstacles. Due to these constraints, it is not easy to determine the future of e-Government in the context of Balochistan province. However, some respondents showed optimism, and willing to work in paperless environment. Simply providing computers cannot help them unless processes are simplified and the culture is changed. IT training is also essential. Electricity is not available in all districts, e-Government directly depends on electricity and trained/skilled persons because without these two essential requirements, will not solve the problems and expected results would not be achieved. According to Adam & Urquhart (2009), lack of IT skills and human capital remain significant obstacles for the developing countries, so they emphasize training courses together with consideration of knowledge creation, transfer, social and human capital. They also argue that training is critical factor in building human IT capacity and three conditions are essential for effective capacity building:

- Enabling environment with appropriate methods, tools, policy and legal framework,
- Institutional development that supports community participative development efforts, and
- Human resources development through training and education.

From the findings in this paper, we can see that, in all probability, all three aspects are lacking, and the respondents emphasize human resource development. Most of the time, developing countries are trapped to purchasing computers, connecting it but not able to achieve the desired results in development and implementation of software. Our findings underline such difficulties. In developing countries, an important criticism is that electronic public services still lack a user centric approach (e.g. Bertot & Jaeger, 2006; Van Dijk et al., 2008; Verdegem & Verleye, 2009), and again, some of our findings show that there is little consideration for the end user. Almost all provinces and districts in Pakistan have similar characteristics, so we may be able to assume that there would be similar results in other provinces and districts. In urban areas, a growing number of people have access to the internet, whereas in rural areas situation is totally different. In rural areas, even government offices do not have access to internet. More and more public departments are trying to move towards electronic processes. The e-Government initiatives in Balochistan are mostly driven by technology and little focus given to citizens. There was no evidence of organisational restructuring and innovation in policy to meet the demands and consequences of implementing e-Government in the public sector. A majority of Balochistan government programs seem to be currently trapped at the 'publishing stage'. It is necessary to consider all available resources, such as level of knowledge, IT skills, and other cultural and security issues, otherwise to get the desired results are impossible.

The government reports, however, identified critical gaps such as the need to have more IT manpower, skills, knowledge and competency for the success of e-Government. If these have been identified as the constraints, why did the content of the IT Policy not reflect the reality of ICT innovation capability in Balochistan? In last five years to achieve all the goals was almost impossible when the infrastructure and human resources were not yet in place. The policy style here seems to be making grand plans at a political level; but not following through with planning and implementation. Thus, the role of policy in Balochistan e-Government has so far been very limited (Arfeen et al., 2009). For example, during the early stages of infrastructure development, there was no policy on technology standards such as email policies being outlined. This led to confusion in the government departments and delays in implementation. There was no policy that all government buildings (including in the plan of those under construction) must have the minimum network infrastructure according to the required standards. A range of issues from policy, infrastructure, partnership with the private sector, structural barriers, and change of management show the challenges to be dealt with e-Government. It is not a simple process of buying a new technology, installing it and the users will definitely use it. There are 'hard' and 'soft' success factors that are critical to the success of e-Government. Overall, we would suggest that there are many factors that may influence e-Government initiatives in Balochistan and in Pakistan as a whole.

When the policy makers are actively involved, they can offer political *leadership* that is capable of creating a sense of importance and common understanding of the general goals and the direction that e-Governance is to develop in. In Pakistan, the policy makers are involved at the frame-setting level and many of them do not have any ideas what e-Government is and how e-Government should be utilised and arranged. Based on the analysis of policy making process for adoption of e-Government in Pakistan, it is crucial for this study to highlight the general view of policy making in the government organisations of Pakistan. Among the key points that interviewees had pointed out were:

- There is no central policy making body to deal with 'common policies' resulting in a wide diversity in objectives and practices. This is due to the problem of policy coordination and inconsistency resulting in duplication of programmes and wastage of resources.
- Although policy development is dominated by the top level, implementation is mainly done by the lower level. There is limited openness and consultation in policy making process, resulted in different level of commitment to policy implementation.
- Policy information is not always disseminated by policy makers down the hierarchy and across different governmental levels; the ministries and its departments tend to focus their effort on pursuing their own goals and agenda.
- Key stakeholders are not always well denoted in the avenue for making policy decisions. Thus, several potential implementation constraints cannot be realistically identified.

The scenario in e-Government is not unique but has been common symptom in other major policy implementation in the public sector of Pakistan. The institutional context of the policy making has not changed even during the e-Government era.

# 6. Conclusion

There is a huge difference between e-Government projects of developed countries, and developing countries. The best practices and e-Government projects cannot be implemented in same way in developing countries. Most of the time attention is given to technology as well as the governments' tendency to start all too often from existing ways of working (Van Deursen et al., 2006; Ebbers et al., 2008). E-Government portals that are not available in the national and local languages (speaking by significant majority groups) are not going to be used by a critical mass of citizens: one can only assume that much, or even the vast majority of the population may be unable to comprehend the information and services provided (Davison et al., 2005). Indeed there is also evidence that e-Government is for the educated minority in developing countries like Pakistan. This would be truly unfortunate situation, since it is often the less educated that have most to gain from online initiatives that empower them to make decision based on what is in their best interest, and would stand in stark contrast to the presumably universal principle of government: serving all citizens. This is typical for Pakistan where major projects always grabbed the headlines with their fancy title such as Pakistan software Park, Pakistan single portal service, year of IT and year of tourism. Most of the projects failed to achieve the objectives due to lack of detail planning and strategies. Nevertheless, it is a sincere hope that in the future, the new Balochistan government will be able to improve allocation of resources and responsibilities to promote delivery of services to public sector organisations. This paper represents an optimistic, yet realistic, picture of e-Government initiatives in Pakistan.

### 6.1 Limitation of the study

This study has some limitations. The empirical findings focused only on one province of Pakistan. The e-Government analyses could not look into the more advanced service delivery stage due to slow nature of e-Government implementation in Balochistan, Pakistan. Nevertheless, this study provides the ground realities of e-Government initiatives in Balochistan.

### 6.2 Implications to Research and Practice

Donor agencies, public and private sector organisations can take benefit from this research for future initiatives intended to implement e-Government in the public sector organisations. Indeed, the practical implications can immediately be applied to e-Government initiative in the public sector organisations of developing countries.

# 7. References

Adam, M., & Urquhart, C. (2009). No Man is an Island: Social and Human Capital in IT Capacity Building in the Maldives. *Information and Organization*, *19*(1), 1–21.

- Arfeen, M. I. (2008), *Government of Balochistan: Provincial and District Level e-Governance Need Assessment Report,* AGRP-B, UNDP, Islamabad.
- Arfeen, M. I., & Khan, N. (2009). Public Sector Innovation: Case Study of e-Government Projects in Pakistan. *The Pakistan Development Review*, *48*(4), 439–457.
- Bashir, T., Khan, K., & Malik, K. (2010). The innovation landscape of Pakistan's North West Frontier Province. *Science and Public Policy*, *37*(3), 181–191.
- Batini, C. G., & Viscusi, et al. (2009). GovQual: A quality driven methodology for e-Government project planning. *Government Information Quarterly*, *26*(1), 106–117.
- Bekkers, V., & Homburg, V. (2007). The myths of e-Government: Looking beyond the assumptions of a new and better government. *The Information Society*, 23(5), 373–382.
- Bertot, J. C., & Jaeger, P. T. (2008). The e-Government paradox: Better customer service doesn't necessarily cost less. *Government Information Quarterly*, 25(2), 149–154.
- Bigdeli, A. Z., Kamal, M. M. & de Cesare, S. (2013). Electronic information sharing in local government authorities: Factors influencing the decision-making process, *International Journal of Information Management*, *33*(5), 816-830.
- CDT (2002). The e-Government Handbook for Developing Countries: A project of infodev and the center for Democracy & technology, The World Bank Group. Retrieved: September 7, 2009 from <u>http://www.cdt.org/egov/handbook/2002-11-14egovhandbook.pdf</u>
- Chidley, J. (2004). The take up of e-services–A behavioral model. *Database Marketing and Customer Strategy Management*, 12(2), 120–132.
- Choudrie, J., Papazafeiropoulou, A., & Light, B. (2004). E-Government policies for broadband adoption: the case of the UK Government. *Proceeding of the Americas Conference on Information Systems*, New York, August 6–8, USA.
- Ciborra, C. U. (2003). Unveiling e-Government and development: governing at a distance in the new war. Working Paper 126, London School of Economics and Political Science, London.
- Davison, R. M., Wagner, C., & Ma, L. C. K. (2005). From government to e-Government: a transition model. *Journal of Information Technology & People*, *18*(3), 280–299.
- Dwivedi, Y. K., Papazafeiropoulou, A., Gharavi, H. and Khoumbati, K. (2006). Examining the Socioeconomic Determinants of Adoption of an E-Government Initiative 'Government Gateway, *Electronic Government - An International Journal*, *3*(4), 404–419.
- Ebbers, W. E., Pieterson, W. J., & Noordman, H. N. (2008). Electronic government: Rethinking channel management strategies. *Government Information Quarterly*, *25*(2), 181–201.
- EGD, IT & Telecom Division Government of Pakistan (2005), "e-Government Strategy and Five Year Plan of Federal Government of Pakistan 2005" Government of Pakistan, Islamabad.
- Featherman, M.S., Valacich, J.S., & Wells, J.D. (2006). Is that authentic or artificial? Understanding consumer perception of risk in e-service encounters. *Information Systems Journal*, 16(2), 107–134.
- Følstad, A., Jørgensen, H. D., & Krogstie, J. (2004). User involvement in e-Government development projects. Paper presented at NordCHI 2004, Tampere, Finland.
- Gao, P., & Rafiq, A. (2009). The transformation of the mobile telecommunications industry in Pakistan: A developing country perspective. *Telecommunications Policy*, *33*, 309–323.
- Gilbert, D., Balestrini, P., & Littleboy, D. (2004). Barriers and benefits in the adoption of eGovernment. *The International Journal of Public Sector Management*, *17*(4/5), 286–301.
- Gonzalez, R., Gasco, J., & Llopis, J. (2007). E-Government success: Some principles from a Spanish case study. *Industrial Management and Data Systems*, 107(6), 845–861.
- Siddiqi, K., (2008). Information Technology Policy. UNDP and Government of Balochistan, Quetta.
- Grindle, M. S. (2004). Good enough governance: Poverty reduction and reform in developing countries. *Governance-an International Journal of Policy and Administration*, *17*(4), 525-548.
- Gronlund, A., & Horan, T. A., (2005). Developing a generic framework for e-Government. *Communications of the Association for Information Systems*, *15*, 713–729.
- Gupta, B. S., & Dasgupta, et al. (2008). Adoption of ICT in a government organization in a developing country: An empirical study. *The Journal of Strategic Information Systems*, 17(2), 140–154.
- Heeks, R. B. (1999). Reinventing the Government in the Information Age: International Practice in ITenabled Public Sector Reform. London: Routledge, pp. 9-21.
- Heeks, R. B. (2002). Information Systems and Developing Countries: Failure, Success, and Local Improvisations. *The Information Society: International Journal*, *18*(2), 101–112.
- Heeks, R. B. (2006). *Implementing and managing e-Government: An International Text*. London: Sage Publications.

- Hodgkinson, S. (2002). Managing an e-Government transformation program. Paper presented at the Working towards Whole-of-Government Online Conference, Canberra, September.
- Horst, M., Kuttschreuter, M., & Gutteling, J. M. (2007). Perceived usefulness, personal experiences, risk perception and trust as determinants of adoption of e-Government services in the Netherlands. *Computers in Human Behavior*, *23*, 1838–1852.
- IDeA Knwledge. (2005), Innovation in Public Services: Literature Review. Retrieved: October 20, 2009 from <u>http://www.idea.gov.uk/idk/aio/1118552</u>
- IT & Telecom Division (2000) *"National e-Government Policy and Action Plan 2000"* Government of Pakistan, Islamabad.
- Jain, A. (2004). Using the lens of Max Weber's Theory of Bureaucracy to examine eGovernment Research. Proceedings of the 37<sup>th</sup> Hawaii International Conference on System Science, Hawaii.
- Kamal, M. M. & Hackney, R. (2012). 'Inhibiting Factors for e-Government Adoption: The Pakistan Context', *Pacific Asia Conference on Information Systems*, Hochiminh City, Vietnam.
- Kamal, M. M., Hackney, R. & Ali, M. (2013). Facilitating Enterprise Application Integration Adoption: An Empirical Analysis of Local Government Authorities, *International Journal of Information* Management, 33(1), 61-75
- Kertesz, S. (2003). Cost Benefit Analysis of e-Government Investments, J.F. Kennedy School of Government, Harvard University, USA. Retrieved: September 7, 2009 from <u>http://www.edemocratie.ro/pub\_cost\_benefit.html</u>
- Leitner, Ch. (Ed.), (2003), e-Government in Europe: The State of Affairs. European Institute of Public Administration, Maastricht, Holandsko
- Loveridge, D., & Street, P. (2005). Inclusive foresight. *Foresight: The Journal of Futures Studies, Strategic Thinking and Policy*, 7(3), 31–47.
- Mosse, B., & Whitley, E. A. (2004). Assessing UK e-Government websites: classification and benchmarking. *Proceeding of the 12<sup>th</sup> European Conference on Information Systems*, Turku, June 14-16, Finland.
- Nugroho, Y., & Saritas, O. (2009). Incorporating network perspectives in foresight: a methodological proposal. *Foresight: The Journal of Futures Studies, Strategic Thinking and Policy*, 11(6), 21–41.
- OECD (2002), The Electronic Commerce Business Impacts Project (EBIP), Paris.
- OECD (2003), The e-Government Imperative: Main Findings. The OECD Observer. Retrieved: August 29, 2009 from <u>http://www.oecd.org/dataoecd/60/60/2502539.pdf</u>
- OECD (2009), OECD e-Government Studies: Rethinking e-Government Services; User-Centered Approaches, Paris.
- Oostveen, A., & Van de besselaar, P. (2004). From small scale to large scale user participation: A case study of participatory design in e-Government systems. Paper presented at the Participatory Design Conference, Toronto, Canada.
- Parilli, M. D. (2007). SME Cluster Development. Basingstoke, UK: Palgrave Macmillan.
- Reffat, R. M. (2006). Developing successful e-Government, Faculty of Architecture, University of Sydney, Australia
- Rehman, M., Esichaikul, V., & Kamal, M. M. (2012). Factors Influencing e-Governemnt Adoption in Pakistan, *Transforming Government: People, Process and Policy*, *6*(3), 1-18.
- Sandberg, K. W., & Pan, Y. (2007). The role of human factors in design and implementation of electronic public information systems. In D. Harris (Ed.), Engineering psychology and cognitive ergonomics, HCII (pp. 164–173). Berlin Heidelberg: Springer-Verlag.
- Schuppan, T. (2009). E-Government in developing countries: Experiences from sub-Saharan Africa. *Government Information Quarterly*, *26*(1), 118–127.
- Soufi, B., & Maguire, M. (2007). Achieving Usability within e-Government web sites illustrated by a case study evaluation. In M. J. Smith, & G. Salvendy (Eds.), Human interface, part II, HCII 2007, LNCS, vol. 4558 (pp. 777–784). Berlin Heidelberg: Springer-Verlag.
- Tung, L. L., & Rieck, O., (2005). Adoption of electronic government services among business organizations in Singapore. *Journal of Strategic Information Systems*, 14(4), 417–440.
- United Nations (2008). E-Government Survey 2008 From e-Government to Connected Governance, Department of Economic and Social Affairs, Division of Public Administration and Development Management, New York.
- UNKB Nations e-Government Development Knowledge Base (2010), "e-Government Survey 2010', Department of Economic and Social Affairs, Division of Public Administration and Development Management, New York.

- UNKB Nations e-Government Development Knowledge Base (2012), "e-Government Survey 2012', Department of Economic and Social Affairs, Division of Public Administration and Development Management, New York.
- UNCTAD (2009). Information Economy Report 2009, Trends and Outlook in Turbulent Times, United Nations publication, New York and Geneva.
- van Deursen, A., van Dijk, J., & Ebbers, W. (2006). Why e-Government usage lags behind: Explaining the gap between potential and actual usage of electronic public services in the Netherlands. Lecture Notes in Computer Science, 4084, 269–280.
- Van Dijk, J., Peters, O., & Ebbers, W. (2008). Explaining the acceptance and use of government internet services: A multivariate analysis of 2006 survey data in the Netherlands. *Government Information Quarterly*, *25*(3), 379–399.
- van Velsen, L., van der Geest, T., ter Hedde, M., & Derks, W. (2009). Requirements engineering for e-Government services: A citizen-centric approach and case study, *Government Information Quarterly*, *26*(3), 477-486.
- Verdegem, P., & G. Verleye (2009). User-centered e-Government in practice: A comprehensive model for measuring user satisfaction. *Government Information Quarterly*, *26*(3), 487-497
- Wang, L., Bretschneider, S., & Gant, J., (2005). Evaluating web-based e-Government services with a citizen-centric approach. Paper presented at the 38th Hawaii International Conference on System Sciences, Hawaii, USA.

Yin, R. K. (2003) Case Study Research: Design and Methods, third edition, Sage Publication.

Zhang, J., Dawes, S.S., & Sarkis, J. (2005). Exploring stakeholders' expectations of the benefits and barriers of e-Government knowledge sharing. *Journal of Enterprise Information Management*, 18(5/6), 548–567.