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A Study of the Advantages and Challenges in the Implementation of E-gov in Transition Countries

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Abstract: ***E-Gov. has a goal to promote and automate government for all stakeholders, businesses, citizens, and government, far beyond the government website on the internet. The use of ICT connects all three groups and supports them. Given the efforts, E-Gov. implementation is still not rated as sufficient in underdeveloped countries. Careful preparation is required to build a structure of E-Government (E-Gov.) with restricted resources and difficulties in underdeveloped countries. This article seeks to report the implementation phases of E-Gov., their challenges and advantages.***

Keywords: E-Gov., under developing countries, obstacles, benefits

1. Introduction

E-Gov. is one of the world's most major concerns, and in their governments, all nations, including developed countries, have begun implementing E-Gov. As is known, every country started to concentrate on this subject because it serves all its citizens. It would also save the country a lot of money, make more progress, take advantage of public sector employees' time and commitment, ensure correct and prompt execution of transactions, relieve the burden on the workforce and make it easier for people in various parts of the world to struggle and be fatigued [1].

Rapid improvements in administrative procedures have now become an essential mechanism for the governments around the globe, reformed through the implementation of E-Gov. It is well known and verified that Information and Communication Technology (ICT) performances as a catalyst for increased administrative performance. Computer-based information systems are introduced, and institutions may have an ability to exchange records and records together, which provides the conditions for introducing one-stop computer resources to make administrative processes simpler. E-Gov. benefits citizens and traders through one-stop shops (OSS) or Points of Single Contact (PSCs). The information on relevant criteria is extensive and helps anyone, in your own country or any other country, to accomplish administrative procedures on the Internet. They ease the development and growth of the single market companies and promote overall procedures for the public [2]. Through cooperation between service offers and responsible authorities, these problems will become the single interlocutor.This is motivated by increased government pressure to find ways to improve the service delivery quality and effectiveness. Delivering these demands drives policymakers to follow people-centered models to provide services that can dramatically enhance their consumer experience through delivering results based in addition to results by increasing service standards at the same or decreasing cost levels based on the desires, expectations, and preferences of citizens. It is important that government officials listen, consider who they are, the encounters that they have, and their knowledge, desires, interests, expectations, and satisfaction through the interactions to continue their journey towards the improvement of citizens' and consumers' experiences [3].

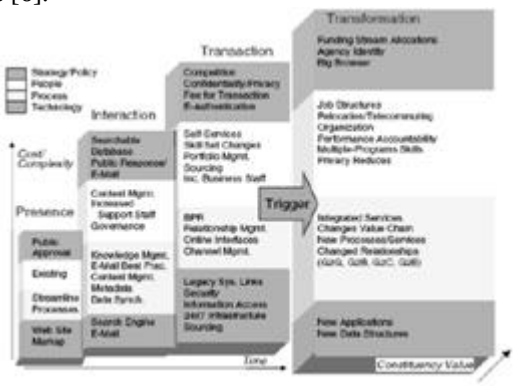
Meeting these challenges however allows the public sector to pursue innovative efficient service delivery models – models that can enhance consumer engagement and performance dramatically by enhancing service levels at the same level or reducing costs [4]. The solution lies in designing civic-centered models driven by the relative achievement of the private sector. The customer is at the core of all decisions, from policy formulation and development to implementation.

Citizen center models include a systematic approach, a holistic approach to knowledge and the interests of the stakeholders, ways and objectives, an emphasis on better consumer journeys and concrete gains, and an awareness of the competitive risk involved with different delivery models [5].Departments and organizations around the world are gradually embracing a citizen-focused service model with One Stop Shop, as they confront the challenge. The one-stop-shop idea enables people and clients to have a single areato access to information and service transactions [3]. In the creation and execution of the customer-centered model, some key aspects that these and other governments attempted to address are:

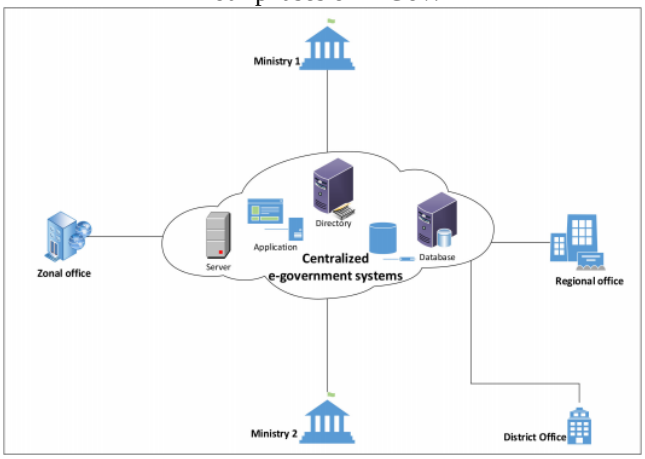
- Speed: The time it takes for a service to be provided to the consumer and to the authorities should be as short as possible, thus ensuring the first information is delivered.
- Engagement: the distribution of services can be perceived as citizen centered.
- Responsive: An 'intelligent' system should be put in place to cope with changes in the quality of operation and transition.
- Reliability: The consumer must assume the One Stop Shop is inexpensive and its value depends on the customer's success rather than on the processes of the organization or department.
- Integration: A one-stop-shop should be incorporated smoothly, and the consumer should not have a 'wrong door' strategy.

The 2012 UN Survey indicates that attempts to implement E-Gov. have been important since 2010, including in

developed nations such as South Africa, the United Arab Emirates (UAE), China, India, Seychelles, and Tuvalu. The survey also shows that in comparison to high accomplishments in developed countries, initiatives are insufficient and that poor management, as well as a limited supply of resources, are major challenges in under developing countries. To develop a system of E-Gov. that has many challenges and limited resources, careful preparation is necessary, particularly because much of the financing required to develop E-Gov. systems depends on donors [6].



Four phases of E-Gov.



Integration of a simplified E-Gov. operation structure [7].

2. Stages of E-Gov. model

There are several steps in the implementation of E-Gov. This segment discusses the measures taken by current literature in the implementation of E-Gov. This includes Gartner research (2003), UN research (2002), Layne and Lee research (2001), and the World Bank (2002).

United Nations and ASPA Research – Five Economic Model Phases

In the [8] research "E-Gov. Benchmarking – A Global Perspective, Assessment of United Nations Member States Progress" the five phases of quantifying government progress are established. The analysis describes phases of E-Gov. as being government developmental representatives, focused largely on the information and resources provided via the official website.

Step 1: Emerging: A few separate official websites establish an Official Government online presence, Restricted, simple, and static information.
Step 2: Improved: Increasing government sites; dynamic information. More regularly, material and information were updated.
Step 3: Interactive: Forms, email officers, website connections and order appointments can be downloaded.
Step 4: Transactional: customers are effectively eligible to register for utilities or make online financial transactions.
Step 5: Seamless: Complete incorporation of administrative facilities across boundaries. Full incorporation of administrative and departmental boundaries of e-functions and services

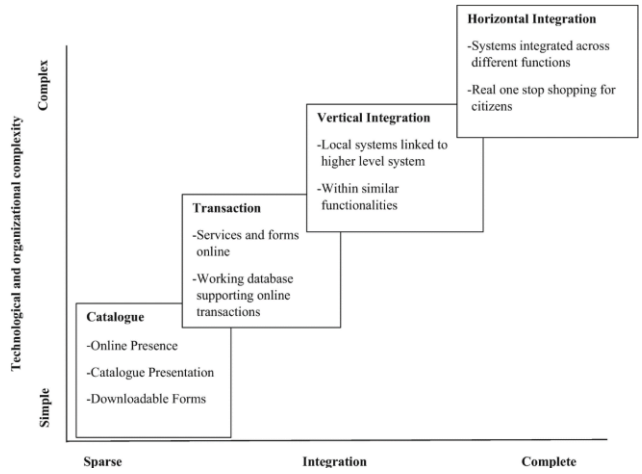
Gartner Research - Four Phases of E-Gov. Model

The Gartner's research divides E-Gov. into 4 phases for the application of E-Gov. projects and for a map to be drawn up to the required rate in order to achieve a constituent service [9]. This can mean where the entire execution of a government policy lies within a project.

Phase 1: Presence: this phase is categorized by a simple website, often referred to as brochure ware that has the same functional levels as a paper pamphlet.
Phase 2: Interaction: The stage of interaction provides easy communications between Governments and Citizens (G2C), between Government and Business (G2B), or between Government and Government (G2G) departments. Websites for the engagement process include connections with emails and digital ways that provide information.
Phase 3: Transaction: Transfers such as online payment for license renewals, payment of taxes or fines or bids on winning are available via a transaction.
Phase 4: Transformation: The highest step, loosely associated with the idea of governance, includes the reinvention of the conception and arrangement of government functions.

Layne & Lee Research – Four Steps ofE-Gov. Model

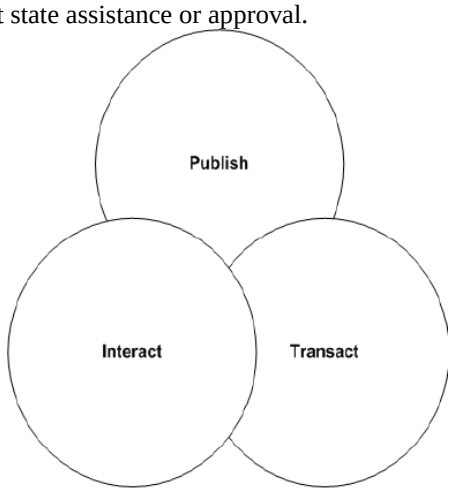
Four steps of E-Gov. implementation by public officials and a growth stage model for operational E-Gov. have been proposed to help you learn about the E-Gov. and its organizations [10].
Step 1: Cataloging: The first cataloguing stage focuses on developing an online government presence.
Step 2: Transaction: During the transaction, electronic government initiatives based on connectivity of the interior government system to internet and will allow citizens to electronically connect with the government.
Step 3: Vertical integration: It means the local, state, and federal agencies linked to multiple administrative roles or services.
Step 4: Horizontal integration: It is characterized as addition across various features and services. The steps of E-Gov. are defined, vertical integration at various levels within the corresponding features at different locations before horizontal integration.



World Bank Research - Three Phases of E-Gov. Model

The E-Gov. development process is split into three phases to help policymakers and strategy-makers to create their strategies and initiatives. These stages neither rely on each other nor do they take one stage to complete before another can start but provide three ways to think about E-Gov. objectives conceptually [11].

- Publish: Publish platform to disseminate government information and government-compiled information to a broader audience. Publishing websites are the e-leading government's edge.
- Interact: Interactive E-Gov. means two-way messaging, beginning with key features such as government e-mail and contact information or input form for users to vote on legislative proposals or policy proposals.
- Transact: Helping users navigate public services or remotely deal with the state. A business website is a direct connection to still accessible public services. Transaction sites can improve efficiency in the private and public sectors by simplifying, speeding, and cheaper procedures without state assistance or approval.



Three Phases of E-Government

3. E-Gov. application fields

The field where ICT has made the most spectacular inroads so far is government delivery. However, it is reported that ICT usage is still limited in two other primary government areas (regulation and policymaking). A UN survey notes that "This dichotomy between political politics and government operations is typical in many parts of the world – notably, in terms of investments in emerging technology and the resulting openness to Digital Innovation, the executive sector far outpaces the legislative branch of the public sector[12].

Technology	*Description*
Database	Are found in three important types of information systems: registry systems for objects carry a general public register. In each field of public administration, sectorial structures facilitate simple transactions. Control structures working within Ministries, the other government departments, and the supported organizations, track and monitor spending on financial, human, and physical (building and equipment) resources. Those forms of authentic registers certify the administrative identity of the person.
Decision Support	Using independently or jointly entered data as help to decision-making processes by applying unique guidelines. Decision support systems can vary from basic (case handling), development rules oriented, to sophisticated advisory and knowledge-based systems. Systems can also provide. As a rule, you can state that any kind of decision that can be taken in an algorithm for the information society is automated eventually.
Networking	They expand fast. They bring to information technology the dimension of connectivity. Consequently, time and place become irrelevant. This introduces all kinds of services. Examples are file sharing, text, blogs, searching, messaging, tracking, videoconferencing, and so forth.
Personal identification, tracking, and monitoring	Including identity numbers and other tagging or track and trace technologies, smart cards can also be used by public services for identification and to control the movement of persons and cars. Tracking and monitoring devices become more important: they are discreet; no rearranging of workflows or schedules are needed but can adapt to current habits, and monitoring devices are highly efficient.

4. Advantages of E-Gov. system

For both developing and underdeveloped nations, the advantages of E-Gov. implementation are similar. However, the benefits for citizens, corporations and government departments are also offered by E-Gov. systems. E-Gov. Applications have access to information 24 hours a day, 7 days a week from public, private and government sectors to increase the quality of those services[13]. Through [14]By justifying and reforming operating procedures, implementing E-Gov. lowers costs and the level of internal processes. By contrast, using E-Gov. resources could maximize governmental departments' productivity and ensure an effective and efficient public service delivery to all clients[15]. Also, [16] describes E-Gov. advantages as follows:

- Minimize time, commitment, and expenses for consumers and companies
- Increased service quality and satisfaction for citizens
- Improved ICT expertise, understanding of the Internet, and use of the computer.
- Newmarket growth and job opportunities.

Moreover, [17] described several benefits to the implementation of E-Gov. such as:

- Increases performance of data processing by government departments
- Expands services by further understanding consumers' needs to achieve unified online services.
- Exchange knowledge and concepts among all departments and agencies to create a giant database.
- Supports government policy agendas through the promotion of e-commerce development and ICT.
- Increased accountability, accuracy and information transformation between public authorities and customers.
- Help develop trust among governments and people through web-based policies to involve citizens in democratic processes, underlining the transparency and accountability of governments, which are essential to good governance.

Finally, The implementation of E-Gov. is evident , not only saves money, effort and energy, but raises service levels dramatically and decreases government office time[18].

5. Obstacles in open stop shop E-Gov. system

The implementation of E-Gov. would be delayed by numerous challenges and obstacles. The wide diversity and complication of E-Gov. initiatives suggest a wide variety of barriers and hurdles to its execution and controlling.

Technical challenges
E-Gov's faces many technological challenges including a lack of general standards and infrastructures in accordance with departments and agencies. Public privacy and protection are also significant hurdles to E-Gov's. Though technical solutions are accountability and potential independent auditing [17], the government's guarantee would not satisfy.

ICT infrastructure
The lack or failure of ICT infrastructure is one of the great obstacles to implement E-Gov. To make it possible to exchange information adequately and to open new contact and delivery channels [13], we need Internetworking. The transition to electronic governance includes developing an architecture, which is a set of values, standards and model. Many under developed nations have a digitaldivide and are not prepared to use ICT technology to use E-Gov. (digital divide applies to the lack of resources for those with internet connectivity and those without internet access[17]. With high income economies with 416 computers per 1000 people and low-income economies with just six per 1000, the digital difference between rich, and under-developed nations is wide [11]. Governments should collaborate build a digital infrastructure for the private sector that provides connectivity to individuals and organizations. One of the main challenges for administration is the lack of infrastructure.

Privacy
In the implementation of E-Gov., privacy is an important issue. Both developed as well as underdeveloped countries. In its implementation of electronic government [10], confidentiality andprivacy were identified as crucial obstacles Privacy is about ensuring that a person's privacy is securely guarded [19]. The need to address the privacy protection of E-Gov. has been emphasized [18]. Technical and political responses would be important to address privacy problem in an E-Gov. world.

Security
Indeed, security is major obstacles in the implementation of E-Gov. initiatives. Security is one of the most significant challenges, several studies have found. It is a key component of citizens' trust and government relationships. Security strategies and standards, an significant step in addressing these challenges that fulfil people's needs [20]. [21] points out which the use of authentication technologies that can help to achieve security targets in E-Gov. applications by using digital signatures, encryption, usernames, passwords, specific numbers of customers, Bank and other account numbers transmitted and electronically stored on the Internet.

Organizational challenge
The implementation of E-Gov. is not only a technological problem but also a matter of organization[22]. Top management assistance, aversion to electronic transitions, collaboration, and the lack of skilled staff, etc. are organizational challenges.

Top management assistance
The E-Gov. implementation requires cooperation from the leaders and top administration for its implementation to be effective. Top management support applies to leaders' commitment to E-Gov. platforms and applications to embrace support and implement. Management is one of the main drivers of a modern and advanced idea, and this makes it important to implement E-Gov.[26].

Aversion to electronic transition
E-Gov. is a modern concept, meaning the transition from manual to automated processes in the workplace. These latest changes would create a radically different advanced environment than has been seen in government agencies for many years [22]. [23]said that many workers observe the implementation of the E-Gov. as a danger to their jobs and fear their job loss and authority. Though, to mitigate aversion to E-Gov. projects, the value, and importance of E-Gov. employees must be understood and ensuring they are not jeopardizing but can reassign new positions by retraining and improving skills.

Collaboration and Cooperation
Collaboration and cooperation among all stakeholders are key factors in the E-Gov. implementation process to achieve a stable E-Gov. system [24].[13] stressed the need for the public- and private-sector involvement to include government- wide services, strategies, expertise, and experiences. The government should enable all businesses to engage and invest in E-Gov.

Lack of skilled staff and training
In the implementation of the E-Gov. the lack of ICT expertise creates a tremendous obstacle for under developing countries [13]. If trained staffs are eligible to launch and improve the E-Gov. system, the E-Gov. system will be introduced effectively [20].

Financial Challenges

The lack of financial resources was declared by [25] to be measured a mainhurdle to E-Gov. implementation in several countries. The actual and planned financial tools are necessary to ensure that they are sufficient to achieve the objectives. A lack of money is the most critical and severe challenge to E-Gov. implementation; and implementation of E-Gov. is costly Since any government budget already has all potential clients, it will be a non-starter, both in budget and budgetary strategy, to invest the substantial amounts that would be paid by excellent E-Gov.[17].

6. Conclusion

Under Developing countries have proceeded as developed countries on the implementation of E-Gov. systems. Given several challenges, it is vital to carefully prepare and handle the development of useful E-Gov. initiatives. Many E-Gov. design recommendations in the literature structures are proposed, although certain recommendations are drafted under Developing and other countries' environments not. Nevertheless, the implementation of E-Gov. Systems in highly difficult environments and value produced from the initiatives remain missing in a comprehensive guideline

In brief, this report the numerous E-Gov. phases are outlined. The benefits and obstacles to a successful implementation E-Gov. system are discussed in this report. E-Gov. specifically requires several growth phases or stages and has several benefits for all business, public and corporate sectors. However, it is not easy to implement the E-Gov. process that must be handled very carefully and faces various hurdles and obstacles.

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