Application and Development Prospect of Digital Transformation in Public Sector

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Abstract: The connection between policymakers' customers (i.e., people) and providers (i.e., public institutions) has undoubtedly changed as a result of digitalization and the adjustment of administration to the digital age. Given the evolving nature of politics, the term "e-governance" is the one that is most frequently used to describe the outcome of this digital change. This special issue focuses on digitalized public services by examining methods and difficulties in their creation, consumption, and assessment. This paper discusses the application benefits and growth prospects of digitalization associated with project governance in the public sector, so that it would make it better serve life and production, in order to better promote the application of digital technology in the public sector and promote the development of e-government.

Keywords: Digital Transformation; e-Government; Public Service; Digital Economy

Introduction

Digital transformation could be understood as a constant process of improving one's level of digital development by using management culture, other technology, and digital ones to foster an innovation transformation. The organization will eventually be able to offer superior services, obtain a competitive edge, and efficiently react to events in a highly dynamic environment thanks to this expertise. Businesses that successfully implement digital transformation get higher asset values and overall profitability[1].

Productivity improvements in the government service could free up funds to support other growth targets. A more accessible and welcoming society, stable economic growth, and jobs and acceptable work for all can all be facilitated by efficient and productive use of technologies in the backroom in combination with governmental, institutional, and procedure re-engineering. This article will focus on the application of digitization to public services, i.e. e-government, with a case study using the Danish government as an example.

1. Development of digital transformation in public sector

Medical, vehicles, finance, industry, health - care, economics, and the public sector are all impacted by digital transformation [2]. This makes it difficult to use a specific definition for all business sectors and organizational kinds. Digital transformation in the public sector was that it was a departure from digitization and involved redesigning government services to meet changing user needs as they were constantly being pressured by their internal and external environments to adapt to changes [3].

The continual connection between technology advancements and social transformation is how e-government has developed. As societal concerns become more complicated, each agency's ability to address them is constrained. It is essential to approach the issue effectively through transparency and ICT-based interactions. Since 2010, every nation has been putting its Digital Transformation Policy into practice to boost its competition by integrating digital technologies across the board. Public services must undergo a paradigm change, and a growth of e model is suggested as a substitute. The goal is about environmental sustainability across society and methods are offered for technology, information sharing, and human resource training. This is accomplished by automating 100% of public services.

It is crucial to examine digital transformation in the perspective of both the public and commercial sectors because it is not just a phenomenon in the former. Since the introduction of mainframes in the 1950s, personal laptops in the 1980s and early 1990s, and subsequently the ubiquitous use of the Online, the public sector has seen a digital transformation[4]. The public sector, however, has transformed slowly and is still lagging while behind private sector. This is due to the requirement for consistency in the public sector, which has led to a variety of motivations for technology-enabled development[5]. Although to some gaining perspective, the public sector's emphasis on e-government programs and digitalization does not lessen the challenge from the latest influx of upheavals since it necessitates ongoing adjustments to key strategies. It's crucial since reacting to the present demands an expansion from past change processes like digitalization and e-government since public sector organizations (PSOs) have a low appetite for risk for any transformation that threatens their viability. PSOs must therefore adjust their operations to be adaptable to changes brought about by the digital transformation while maintaining their security.

2. Application of digital transformation in public sector

The public sector is developing e-government by first altering the internal environment, then the external relationships, and subsequently contextualizing the e-government conversion endeavor to a specific policy aim, according to proposal for a digital evolution model. Previous survey on the digital transformation of the public sector has focused on the steps of e-government, also referred to as t-government . This demonstrates that PFOs' attempts at digital transformation have grown more ongoing as the objectives and setting for e-government programs change to include t-government .
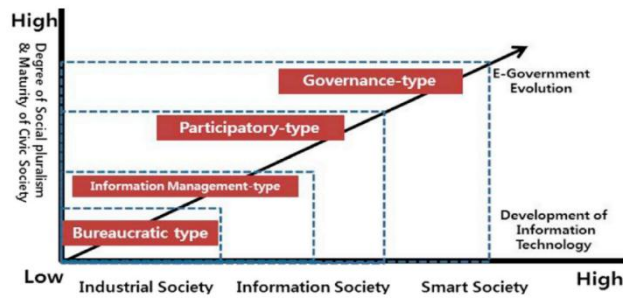
Figure 1 ：E-government maturity model

Three types of e-government: e-government focused on citizen involvement, e-government centered on government development, and e-government that relies on services. The UN study, which identified 5 phases of e-government evolvement (arising, reinforced, collaborative, interactional, and attached) while evaluating the readiness of e-Government, can be utilized to illustrate the first set of developmental periods classified depending on the Web or the Internet. This method is based on how effectively web pages communicate and convey administration information and resources[6]. In the most advanced stage, known as "connected," government services are seamlessly requested, processed, and provided by globally interconnected and linked government agencies that use web technology.

The OECD (2003) research, which represents the second technique, categorizes things depending on how the government innovates and provides services. Siau divided the e-Government into four stages based on the service form or value, which are simple information stipulation, information dissemination through citizen-government engagement, payment, and information sharing[7]. They did this using the OECD (2003) prototype. It is said that streamlined public administration keeps evolving the process and promotes productivity at the most advanced level of data sharing, thus reducing the time required for citizens to apply for government services.

The third approach, which is focused on citizen involvement, is applied in research. Depending on what the government hopes to accomplish in the end, Ramsey (2004) divided digital government among four phases or "waves." The customizable government created by government evolution provides the most incorporated phase of digital government in both vertical and horizontal aspects, integrating every link in the supply chain from internal operations to customer service relations to purchasing providers, private-sector companions, and the public at large.

3. Case study: Make Denmark as an example

From 2010, the Danish Authority for Digitization has been in charge of the daily management of the strategic priorities as well as the Danish e-government vision, objectives, and planning processes. Instituting and maintaining benefit realization and adherence were part of the mission. A new organization was formed as a result of the consolidation of the major government players, such as the National IT and Telcom Organization, the Authority for Governmental Administration, and the Digital Taskforce government agencies, which are in charge of developing the systems, infrastructural facilities, and guidelines for e-government and were established in the Ministry of Finance in 2005[8]. The goal was to

increase the effectiveness and efficacy of the governance system, according to policy guidelines and previous studies. Additionally, it indicates that the merger is related to the OECD's 2010 suggestions to reinforce the strategic emphasis in order to ensure greater ambition and a clearer leadership position for e-government with established powers and obligations to advance Danish digitisation initiatives.

Similar to most other nations, the PSC serves as the major decision-making institution for e-government in Denmark and is comprised of important central government actors in charge of social agencies, taxation, police, culture, health, core registries, and land registry data. The Danish strategy differs from other approaches in that the management committees of the umbrella organizations of Danish Regions (DR) and Local Government of Denmark (LGDK) are included in the PSC. There are umbrella organizations that represent local and regional government in many different nations across the world. Local government is especially interesting in terms of the strategic orientation because it is close to people and companies and frequently offers more than just public services. Similar to other countries, Denmark's towns supply over 80% of all services to individuals and businesses, including visas, health insurance cards, and driver's licenses for national authorities, among others.

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