

Digital Government Model for Enhancing the Effectiveness of New Public Management in the Digital Age

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Abstract

Even if digital government improves the utilisation of the principles of new public management to bolster the overall effectiveness of governmental operations and performance, this study is still motivated by the failure of most of the studies to highlight such essential values of digital government system. To respond to such a gap, this study uses integrative review to evaluate and explore edifying effects of digital government system on new public management. In the modern digital age, findings indicated the creation of digital government to enhance the adherence to new public management principles that in turn improves the effectiveness of governmental operations. However, to operate within the principles of new public management that emphasise the importance for improving the efficiency of the modern government's operations, it is suggested that governments must adopt the Digital Government Model for Enhancing the Effectiveness of New Public Management in the Digital Age. The model emphasises the need for the utilisation of the modern internet and information technologies to create the digital government system that enhances the effectiveness of new public management by encouraging the restructuring of government organisation to reduce costs whilst also improving its overall operational efficiency. Though these findings enrich the existing theories and literature on digital government system and new public management, future studies must still focus on evaluating how digital government improves resource optimisation.

Keywords: New Public Management, Digital Government, Impact of Digital Government, Governmental Operations, New Public Management Principles

1. Introduction

Digital government improves the overall effectiveness of new public management approach to governance. As the new public management approach seeks to improve the efficiency of governmental operations, the introduction of digital government system plays instrumental roles for influencing the improved operational efficiency of the government to respond to the increasing demand of the population for superior public services [1]. Digital government connotes the strategic process of using a combination of digital technologies that are aided by the internet connected technologies, robotics, machine learning and artificial intelligence systems to bolster the overall seamless government-public interface.

As digital government systems influence the seamless interactions of government officials with the public, it also bolsters the capabilities of government officials to understand and respond to some of the service delivery challenges that the population could be experiencing [2]. Digital government system entails the utilisation of a set of digital technologies that not only improve operational efficiency and cost minimisation, but also usage of a combination of big data analytics technologies. Usage of big

data analytics technologies aids the accurate gathering and analysis of large amount of data that the government usually deals with to enable the easy identification and response to some of the service delivery challenges that the population could be experiencing [3].

Given such positive outcomes, digital government system is emerging as one of the new concepts that improve the embracement of the principles of new public management. New public management refers to the new system of public administration and management that seeks to displace the traditionally bureaucratic system of government by encouraging the adoption of more efficiency enhancing systems of governmental operations [3]. Even if digital government improves the utilisation of the principles of new public management to bolster the overall effectiveness of governmental operations and performance, this study is still motivated by the failure of most of the studies to highlight such essential values of digital government system [5-8].

Since most of the governments are still in their embryonic state of developing a digital government system, most of the studies have also just focused on evaluating the success factors as well as the inhibitors of digital government

system's implementation. Though such approach influences the effectiveness of the process for creating a digital government system, it still does not put out clearly the business case why digital government must be integrated by governments in their operations as part of the approaches for improving their operational efficiency as prescribed in the new public management. As reflected in the methodology below, it is such a gap that this study seeks to respond to by conducting relevant analysis of the existing theories and literature to extract and suggest a digital government model for enhancing the effectiveness of new public management in the digital age.

2. Methodology

To discern the digital government model that can be adopted for enhancing the effectiveness of new public management in the digital age, the study used integrative review of the existing theories and literature as one of the techniques for qualitative critical content analysis. Integrative review refers to the qualitative critical content analysis technique that focuses on evaluating and analysing all forms of studies and articles in order to obtain comprehensive information about the concept being evaluated [9]. It differs from systematic review or meta-synthesis for the reason that the focus of systematic review and meta-synthesis is usually the extraction and analysis of only the peer-reviewed articles and studies. This study aimed to obtain a comprehensive insight on how digital government system enhances the effectiveness of new public management to bolster the effectiveness of governmental performance. Hence it was perceived that the use of integrative review that extracts and uses all forms of relevant articles and studies would be more suitable for responding to the critical research question for the study [10].

It was also construed that given the avalanche of studies and articles written on digital government and new public management, there was adequate secondary information that could be analysed to make logical conclusions on whether or not digital government systems improve adherence to the principles of new public management to bolster the overall effectiveness of governmental operations. To achieve that, the process of integrative review was structured according to four steps encompassing formulation of the integrative review question, literature search, extraction of articles and analysis [9]. Regarding the integrative review question, the study evaluated research question entailing the analysis of:

- How does digital government enhance the adherence to new public management principles to improve the effectiveness of governmental operations in the digital age?

While using such a question, the process of literature search also used keywords like "new public management", "digital government", "impact of digital government on governmental operations", "digital government and new public management principles". In that process, the literature search process was also accomplished using search engines like Google and Web of Science. However, it was only the articles reflecting the full texts which are published in English in the period between 2015 and 2024 that were extracted and included in

the analysis.

Since the study was using integrative review, all articles including grey literature that reflected plausible insights on how digital government enhances the adherence to new public management principles to improve the effectiveness of governmental operations in the digital age were extracted and included in the analysis. Completion of articles' extraction was accompanied with the use of thematic analysis in the process of analysing and extracting the required themes, subthemes and their explanatory texts from each of the 28 extracted articles [9]. In that context, the details of the findings are as evaluated and presented below.

2.1. Findings

To respond to the research question that sought to examine how digital government enhances adherence to new public management principles to improve the effectiveness of governmental operations in the digital age, the findings are presented according to two subsections encompassing:

- New Public Management
- Digital Government System

From such analysis, study links the evaluation of digital government with new public management to discern how digital government enhances the adherence to new public management principles to improve the effectiveness of governmental operations in the digital age. Details of these are as follows.

2.2. New Public Management

New public management emphasises the importance for the adoption of a lean governmental operations as part of the quests of reducing operational costs and efficiency of the government to effectively respond to the constantly changing efficiency needs of the citizens [11]. In the quests to adopt a lean system of governmental operations, new public management system advocates for downsizing of government staffs, privatization, outsourcing and the adoption of public-private partnerships. Given the positive results that the notion of new public management introduced in the United Kingdom and Australia in the 1980s, the notion of new public management has gained significant acceptance around the world [12].

However, the concept of new public management is not just extracted from the radical public management approaches that were introduced by Margaret Thatcher, the former Prime Minister of the United Kingdom and Ronald Reagan, the former United States' president in the 1980s. Instead, the idea about the notion of new public management is said to have also emerged from a mix of criticisms arising from the weaknesses of the traditionally bureaucratic public administration system, important administrative reforms in Western governments, 1988 Minnowbrook Conference II, as well as Osborne and Gaebler's "Concept of Government Re-invention". Bureaucratic system of public administration had been used for decades and decades.

But as the needs and demands of the population started to change, government officials and even public administration practitioners and civil society organisations started to realise that significant reliance on bureaucratic system did not create outcomes that enhanced effective response to the challenges affecting the population [7]. Stronger reliance on highly bureaucratic public administration system was used as the pretext for preventing transparency and accountability. Due to lack of transparency and accountability, inefficiencies soon set in because of lack of effective scrutiny from the public.

Corruption, fraud and embezzlement of public resources soon thrived to affect the optimisation of funds meant for improving the implementation of different service delivery programmes. Dealing with such challenges was interpreted to require the complete overhaul of the entire system of bureaucratic public administration system [8]. Yet as the concept of new public administration was introduced to improve transparency and accountability, the technological advancement introducing the notion of digital government played roles that are even more significant. As contrasted to the previous system, digital government as integrated with the concept of new public management improves the level of transparency and accountability.

Placing the entire government information and progress reports online improves the capabilities of the public to access and analyse every information to call the government officials to account where it is required. However, it is not just the weaknesses of the bureaucratic system of public administration as advocated by Weber that influenced the emergence of the concept of new public administration, but also the West governments' major Public Administrative Reforms [13]. Public Administration Reforms were inspired by the emergence of "New Rights Philosophy" that advocated for the reduction of the major roles played by the government in accomplishing different economic development activities.

Instead "New Rights Philosophy" advocated for socio-economic and political liberalization reflecting the adoption of a free market economy, capitalism, monetarism, supply-side economics, individual liberty, privatization as contrasted to nationalization, liberty and libertarianism [14]. To achieve and retain these values, "New Rights Philosophy" advocated for radical change and transformation of public administration and management to enable the adoption of the concept of new public management. As new public management adopted such principles, the introduction of digital government system even improved the overall effectiveness of new public management system [15].

Digital government seamlessly connects the government with its citizens as well as other stakeholders and partners who are interconnected with each other and the government through the aid of mobile electronic devices like computers or smartphones. This renders it possible for government to link up and work with some of the best service providers to reduce its direct roles as the planner and implementer of different development programmes and projects. As "New

Rights Philosophy" influenced the emergence of the concept of new public administration, the outcomes of the 1988 Minnowbrook Conference 11 also played more instrumental roles that catalyzed the embracement of the concept of new public management [16].

After thorough discussions and debates, outcomes of Minnowbrook Conference advocated for governments to adopt neoliberalism, de-bureaucratization, de-regulation, privatization, democratisation and decentralisation as the fundamental principles for enhancing the effectiveness of governmental operations. The influence from Minnowbrook Conference combined with Osborne and Gaebler's "Concept of Government Re-invention" further catalysed the impetus for the adoption of the concept of new public management. Just like the Margaret Thatcher's concept of new public management, Osborne and Gaebler advocated for the reinvention of public administration to ensure that public services are created and delivered to the citizens using an array of multiple sources and channels [17]. Through improvement of the healthy competition between the government and private sector players, it is construed that the quality of the government services would significantly improve. In that regard, Osborne and Gaebler emphasised the need for the reinvention of public administration so that the private sector players can compete with the government in the critical sectors like healthcare, education and transport services.

Quests for the reinvention of government was also emphasised to require the elimination of bureaucracy, usage of goals and not laws to influence attainment of the desired outcomes, citizens' empowerment and periodic measurement and improvement of the government's operational efficiency [18]. Besides stressing the importance of treating citizens as customers who must be treated with care, Osborne and Gaebler's "Concept of Government Re-invention" further agitates for the improvement of value for money, decentralisation, proactive analysis and prevention of undesirable situations and usage of free market rules. The process of the reinvention of government system would also require greater collaboration and liaison between the government, private sector, civil society organisations, religious leaders and ordinary citizens to ensure that the best services are created and delivered to the population. It is at that point that the creation of the digital government system becomes quite essential for enhancing the overall efficiency of governmental operations [19].

2.3. Digital Government System

Digital government connotes the strategic process of using a combination of various interconnected internet technologies to aid the efficient and effective creation and delivery of the required government services [20]. Through automated systems and robotics, digital government system enhances ordinary citizens' capabilities to access and benefit from government services at any time and from any location that they may be residing in. The increasing adoption of digital government system is attributable to a combination of factors like the increasing advancement of the information

technologies, the emergence of the concept of new public management and the increasing citizens' demands for a more efficient and effective government systems [21]. Information technology has evolved and advanced from just the internet-connected computers to the use of more advanced technologies like cloud computing, big data analytics, Internet-of-Things, machine learning, robotics and artificial intelligence that seek to mimic human brains and actions to aid in the accomplishment of various government service delivery processes.

Combined with the advancement in the mobile technologies and devices that connect multitudes of governments and ordinary citizens, the idea for the creation of the digital government system became quite logical for reaching and engaging multitudes of citizens who are connected through the aid of different internet-supported devices [22]. However, some theories point out digital government system must not be created just for the sake of solving smaller problems like the service deliver challenges, but also for innovative initiatives that improve the overall effectiveness of governmental operations. In that process, digital government tends to improve the effectiveness of new public management by improving the efficiency of governmental operations [23].

However, the challenge may still arise from the utilisation of various technologies adopted as part of the digital government system to come up with innovative solutions that eliminate poverty, diseases and ignorance in the developing countries [24]. Achievement of such outcomes may require not only the introduction of better digital government policies, but also education and empowerment of government workers and the population to realise how digital government systems can be adopted to introduce better products and services that improve the general conditions and standard of living of the population. In such argument, e-government models like the United Nations' E-Government Model, Hiller and Belanger's (2001) E-Government Model as well as Layne and Lee's E-Government Model offer the stages through which electronic or digital government evolves through.

However, they do not offer the insights on how the available digital government technologies can be used to improve innovativeness in various government departments and agencies. To respond to such deficiencies of the existing e-government models, the Value-based Digital Government Model, which is also referred to as the New Digital Government Model, reveals the digital government system to constitute of two levels that encompass the macro and micro levels [25]. Improved analysis and awareness of the challenges and complexities of digital government at the macro level improves the introduction of innovation solutions that are used at the micro level. The model argues that capabilities to emerge with more innovative solutions do not just result from the use of a combination of various technologies and services, but also from the capabilities to seamlessly combine organisational, institutional, procedural

and societal factors. It is through the analysis and relating of the macro factors with the micro variables that government officials are able to emerge with more innovative solutions to the challenges facing the digital government system as well as the population in the external larger digital government's ecosystem [26].

To create value, the model suggests the critical five elements that must be integrated in the digital government system to encompass data, technology, service, people and governance. Data refers to the capabilities of the digital government system to gather, analyse and respond to a range of various unfolding data and trends about different social, economic and political aspects of the digital government operations. Technology connotes the capabilities of the digital government system to absorb and integrate new technologies in order to be able to respond to the constantly changing dynamics in its ecosystem [27].

Services require the available digital government system to be re-engineered to create and deliver better services for the population. This eliminates risks of cultural mismatches where new technologies are introduced, but the culture practices do not evolve and develop with the practices required for enhancing the effective operation of the new digital government technologies. People require government workers to be empowered with relevant skills and competencies to be innovative when using digital government technologies to provide services to citizens who are not treated as citizens, but as customers in the context of the concept of new public management system [28].

Governance ensures that digital government system is used in the way that enhances the use of collaborative approach that consults, engages and involves citizens and other stakeholders in the critical decision-making processes of the government. As reflected in the managerial implications below, it is such elements of digital government system that combine to bolster the capabilities of the digital government system to create and deliver services in the way that improves the overall efficiency and effectiveness of the new government system.

2.4. Managerial Implications

To operate within the principles of new public management that emphasises the efficiency of the modern government's operations, findings imply governments must adopt Digital Government Model for Enhancing the Effectiveness of New Public Management in the Digital Age. As reflected in Figure 1, the model emphasises the need for the utilisation of the modern internet and information technologies to create digital government system. Digital technologies that can be used to create such a digital government encompass Internet-Connected Computers, Mobile Devices, Telecommunication Devices and Technologies, Robotics, Machine Learning, Artificial Intelligence, Cloud Computing, Big Data Analytics and Internet-of-Things [29,30].

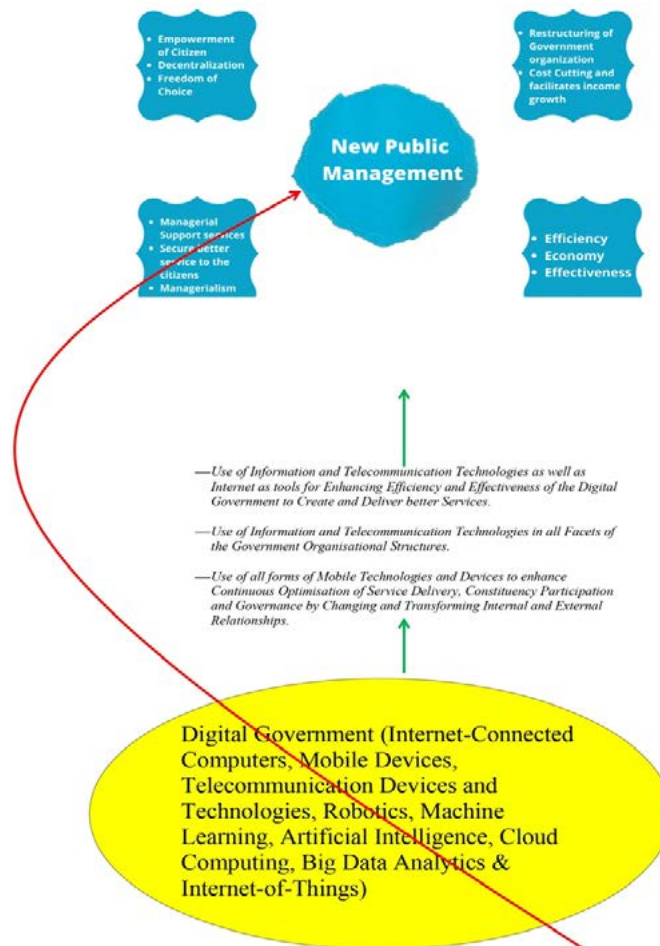


Figure 1: Digital Government Model for Enhancing the Effectiveness of New Public Management in the Digital Age

To create a digital government system that enhances the efficiency of governmental operations in the context of new public management principles, the digital government system must be capable of:

- Using information and telecommunication technologies as well as internet as tools for enhancing efficiency and effectiveness of the digital government to create and deliver better services.
- Using Information and Telecommunication Technologies in all Facets of the Government Organisational Structures.
- Using all forms of Mobile Technologies and Devices to enhance Continuous Optimisation of Service Delivery, Constituency Participation and Governance by Changing and Transforming Internal and External Relationships.

Through the accomplishment of such functions, digital government system will be able to enhance the effectiveness of new public management by encouraging the restructuring of government organisation to reduce costs whilst also improving its overall operational efficiency. The digital government system will also improve the empowerment of the population with the required information as well as using decentralisation that brings power closer to the people to bolster the overall effectiveness of the new public management approach. To bolster effective governmental operations, the new public management system encourages the creation of a government that improves citizens' empowerment whilst also encouraging the restructuring

of governmental structures and usage of goal-oriented approach.

In that process, the created digital government system will also improve the effectiveness of new public administration by encouraging the adoption of Three Es (Efficiency, Economy & Effectiveness) as some of the fundamental principles that reduce costs whilst also improving operational efficiency to bolster the overall level of resource optimisation. Improved resource optimisation is in line with the principles of new public management that seeks to encourage governments to use the limited financial resources to create and deliver as an array of various government services as possible.

Instead of encouraging the effectiveness of public administration, the created digital government will improve public management. Through the digital government system, government officials will be able to easily monitor, evaluate, control and manage the process for the accomplishment of different governmental activities. As prescribed in the new public management, these will improve the effectiveness of managerial support offered to improve service delivery. In otherwords, it is through such initiatives and positive outcomes that digital government improves the utilisation of the principles of new public management to bolster the overall effectiveness of governmental operations and performance.

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