

**EFFECT OF THE PRESIDENTIAL DIGITAL TALENT
PROGRAMME INNOVATIONS ON PUBLIC SERVICE
DELIVERY**

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DECLARATION

This research project is my original work and has not been presented for the award of degree in any other university or institution for any other purpose.

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This research project has been submitted for examination with my approval as University supervisor.

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DEDICATION

I dedicate this project to my entire family. Thank you for your support and constant encouragement in all my endeavors.

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ABSTRACT

The Government of Kenya aggressively established public sector reforms that were meant to overhaul the process through which public institutions operate to enhance efficiency, effectiveness and to be more responsive to the needs of both government and the citizenry. The objective of this research was to explore the effect of innovation on public service delivery in Kenya with a focus on the Presidential Digital Talent Programme. The study aimed at furnishing the researcher with profound knowledge on the relationship between innovation and public sector performance. The qualitative research method was used that utilized a case study design. Primary data was collected through interviews with 16 interns from Presidential Digital Talent Programme. The interview guide was divided into three sections. Section one covered general information about the interviewees, while the second section captured information about the innovations developed by the PDTP interns. Section three was used to establish the effect that the PDTP innovations had on public sector organizations operations and public service delivery. The data collected from the study was discussed and reviewed using content analysis. The results of the study indicated that the PDTP programme had received 50 innovative solutions that were targeted towards improving public service delivery. Only 10 of these solutions were reported to have been successfully implemented. The results also indicated that most of the interns reported to have encountered challenges in the process implementing their innovative solutions to the various public institutions. A large number of the respondents agreed that the PDTP innovations that had been successfully implemented had improved public service delivery. However, lack of adequate support for the PDTP innovations from the public institutions' management, employees and PDTP programme management was highlighted to have caused many innovation projects in the programme to be abandoned. After reviewing the data collected it can be concluded that diffusion of innovation within the public sector in Kenya is still slow. The PDTP interns while deployed to various government institutions had identified problems and gaps in government and proposed or developed various innovative solutions to these problems. However, the results from the study showed that very few of these innovative solutions had been applied by public institutions. The lack of implementation was evidence that there existed certain barriers and constraints in the public sector that stifled innovation. The PDTP programme may have made an effort to enhance delivery of public services through innovation. The programme however, has not provided adequate support to the interns to ensure that their innovative solutions are successfully deployed.

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ABBREVIATIONS AND ACRONYMS

3Es: Economy, Efficiency and Effectiveness

DOI: Diffusion of Innovation

ICT: Information Communication and Technology

IOO: Input, Output and Outcome

ITU: International Telecommunication Union

MOICT: Ministry of Information Communication and Technology

NPM: New Public Management

PDTP: Presidential Digital Talent Programme

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

In 2017, research by the United Nations on Innovation in the Public Sector, concluded that innovation is critical in enhancing the productivity of an economy and offering efficient service delivery. The report highlighted that there is a need to further develop the understanding of public service innovation and to increase policy awareness (UNECE, 2017). Marín (2014) in an analysis of innovation in public sector institutions in developing countries, concluded that innovations may not improve substandard institutions in a country because innovation requires a systematized organizational structure to be in place. He however further added that innovation could be particularly beneficial for developing the institutions and, thereafter, applying top level innovations.

While reviewing literature on innovation in the public sector, De Vries, Bekkers and Tummers (2014) found out that public sector innovation was often weakly conceptualized, while the knowledge base is centered on executive process innovations derived from within the organization. Moreover, the outcomes are often not reported, limiting what is known about the effects of the innovation efforts applied. A World Bank report of 2018, analyzed successful public sector innovations and identified the main characteristics that have contributed to their success. The report established that countries can improve public sector services even when facing difficult challenges although it will require persistence and endurance.

This study was guided by the Diffusion of Innovation (DOI) Theory, developed by Everette Rogers in 1962 and the New Public Management (NPM) framework. The Diffusion of Innovation theory, for the adoption of innovations within individuals and

organizations was developed from Innovation research carried out by Rogers (1962) that constituted the findings of over 508 diffusion studies. The New Public Management (NPM) has made a substantial contribution to understanding of the factors that need to be measured to produce useful information on public sector innovation (Djellal, Gallouj & Miles, 2013). NPM looks at the deficiencies and shortfalls of public sector services over a period of time and the exact challenges in the framework and procedures of public service operations and conventional public governance (Kalimullah, Ashraf, & Ashaduzzaman, 2012).

1.1.1 Concept of Innovation

The history of the principle of innovation is not different from that of many other concepts, like curiosity, creativity and revolution (Godin, 2015). Koselleck (1972) had earlier explained that over the years it had not been innovation itself which overwhelmed people but the term used to define it. Goswami and Mathew (2005) offered that various definitions of innovation exist in literature and organizational practice.

Joseph Schumpeter is known to develop a lot of ideas on innovation and his reputation as a “prophet of innovation” (McCraw, 2007) has been firmly established. The description of innovation as “the creative destruction of the existing by an entrepreneur” (Schumpeter 1934; Schumpeter 1942) has been well popularized. Schumpeter (1912) similarly defined five classes of innovation “1) introduction of a new good; 2) introduction of a new method of production; 3) opening of a new market; 4) establishment of a new provision of supply of primary commodities; and 5) introduction of a new organization type” (p. 66). A study by Siguaw, Simpson, & Enz (2006) showed that the concept of innovation is therefore interconnected to change.

1.1.2 Public Service Delivery

A World bank (2018) report offered efficient delivery of public services is essentially about governing bodies' ability to offer on their policy commitments to the advantage of their citizens. The idea of performance in public administration involves a high level of service delivered by the government institutions and continuous improvement of these services to ensure that they are effective and efficient and satisfy the citizens' expectations (Leoveanu, 2016). To achieve this high standard of public services frequently involves active involvement of staff and top management, the citizens and other stakeholders and reforming or improving tools, methods and procedures for providing these services.

A study by Shah et al. (2005) on public service delivery suggested that many developing countries continue to experience unsatisfactory and frequently dysfunctional governance systems. Such substandard administration results in undesirable outcomes for access to public services by the poor and other disadvantaged members of the society. A report of World bank (2014) indicated that efficient delivery of public services is about impact and results and the measurements should focus on outcomes and outputs, not just the inputs.

Public sector efficiency can be argued to have evolved and improved due to; the transformation from Public Administration to Management, (Jermain, 1997), the implementation of public sector reforms (World Bank, 2008) and globalization and the pluralization of service provision (UNDP, 2015). Denhardt and Denhardt (2000) pointed out that public sector reforms have been conducted in relation to three terms of reference, namely, (1) Old Public Administration, Impacted by the concepts of the Max

weber model of hierarchical organization of administrations, (Sager & Rosser, 2009), (2) New Public Management (NPM), that focused on promoting better service delivery, efficiency, output, and accountability (Hughes, 2003) and (3) New Public Service (NPS) that focused on the general public and the local community and its dependence on citizens that participate actively (UNDP, 2015). The implementation of NPM and NPS has incontestably helped shaped the efforts to make the public sector more competitive and public administration better accommodative to citizens' needs by offering "optimal use of resources, openness and ability to select options" (OECD, 1993, p. 9). Enhancing the efficiency of state sector institutions expanded the proficiency of these organizations.

1.2 The Presidential Digital Talent Programme

In 2015, The Ministry of Information Communications and Technology (MOICT) launched the Presidential Digital Talent Programme (PDTP), an internship programme that develops the Information Communication and Technology talent pool in Kenya through a private and public sector collaboration. The programme was borne out of the need for the government to enhance its capacity to use Information Communication and Technology (ICT) in effective public service delivery. The programme admits 400 recently graduated students, for 12 months on job training. During this period, the interns are deployed to different public and private organizations to work in various capacities to build experience. The graduates in the PDTP Programme receive internships with specialized training, certification, and mentorship, while contributing to public-sector innovation and eGovernment development (Goodwin, 2019)

One of the main components of the PDTP Programme is Innovation. Each intern is challenged to identify a gap in the Ministries, State Corporations, Departments and

Agencies (MCDAs) where they are deployed, and come up with innovative solutions to tackle the problems detected. The interns are also encouraged to assist Government, in realizing the Big 4 Agenda, by Innovating around the four sectors. The overall goal of the Innovation initiative is to provide a platform for the interns to help improve service delivery in government and encourage a culture of innovation on the interns for self-employment.

1.3 Research Problem

Public sector innovation is a subject that progressively needs to be addressed. Efficient delivery of public services has also been an area of concern. Literary works on capacities required for innovation as well as optimization procedures in government institutions is not easily available (Choi & Chandler, 2015). Many public sector innovation studies have covered the innovation lifecycle portions: “problem recognition, idea creation, proposal formation, project implementation, evaluating innovations and diffusing lessons” but have left out the measurement factor (OECD, 2019, p.7). Due to challenges experienced in measurement of government service innovation, a study by Arundel, Bloch and Ferguson, (2016), suggested using an approach, that combines the subject-based approach with overall enquiries on innovation plans and abilities, and the object-based approach with enquiries on a particular innovation.

A study by Marín (2014) looked at innovation in public sector and focused on disputing the common assumption that the public sector is devoid of innovative activities. The study that was carried out using an empirical-quantitative approach demonstrated that there are a variety of components impacting and facilitating development of innovation

in the public service in addition to a number of stakeholders getting involved in the process and varied methods being applied to understand innovation. To study the effect of innovation and optimization on state-owned institutions, Gieske, Meerkerk, and Van Buuren, (2018) carried out a survey in the Netherlands on public sector institutions and concluded that optimizing and innovating impacted public sector delivery. To understand the state of innovation in public service in Kenya, a study done by Agolla and Lill (2017) using the qualitative method, identified public sector innovation drivers, innovation impediments, plans to resolve the impediments, innovation measures and outcomes in the public service. Further research by Wangila (2018) looked at the influence of innovation practices on the public sector delivery in the Nairobi County government, assessed data from 384 civil servants in the County and concluded that efficient delivery of public services will improve if institutional, product, technology, process and market innovations are improved.

More research has to be done on public sector innovation as many parameters of assessing innovation in the public sector exist, making the concept a subject that can be explored from different angles. This study focused on answering the following question; how has the innovations by the presidential digital talent program interns influenced public service delivery.

1.4 Research Objective

The objective of this research was to explore the effect of innovation on public service delivery in Kenya with a focus on the presidential digital talent programme.

1.5 Value of the Study

Research findings from this study have theoretical value as they will provide a source of reference for academicians interested in researching innovation, its impact and its role in public sector delivery. The study will contribute empirical data to the already existing body of literature on innovation in the public sector. The findings of this study will assist researchers to explore the topic further and carry out additional research.

The study will also provide guidance to the government on how to formulate policies and strategies towards public service delivery. Many public policies and procedures have not evolved to modern work practices and means of communication. The study can contribute towards public sector administration change to allow innovation to play its role in positively impacting and economically enhancing Kenya as per vision 2030. Finally, the study will help assess the effectiveness of existing frameworks for assessing innovation and delivery of public services. Due to the peculiar nature of the public sector environment and the many approaches to public administration, it is important to ensure that tools used to assess efficiency in public service results in better decisions and improved outcomes in the public sector. This study will provide additional material required for development of strategies for public sector improvement.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter discusses previous research work on the influence of innovation on public sector delivery. The first part reviews the Diffusion of Innovation theory and the New Public Management Framework. The second part reviews empirical data on institutional innovation and its relationship to public sector delivery.

2.2 Theoretical Framework

Research by Grant and Osanloo (2014) suggests that a theoretical framework is the ‘blueprint’ or guide for research. Theoretical frameworks enhance the quality of a study by guiding the researcher in considering possible theories that might challenge his or her frame of reference (Eisenhart, 1991). Two theories form the basis of this study namely; Diffusion of Innovation Theory and New Public Management (NPM) framework.

2.2.1 Diffusion of Innovation Theory

In 1903, Gabriel Tarde was the first scientist to examine The Diffusion of Innovation (Toews, 2003). Diffusion of innovation was defined by Rogers (1962) as the “relative speed at which participants adopt an innovation” and “measured by the length of time required for a specific proportion of the participants of a framework to accept an innovation” (p. 23). The Diffusion of innovation theory aims at describing how, why, and at what speed novel ideas and technology spread by considering the rate of adoption, adoption strategies and adopter categories (Rogers, 1995).

The external environment, the economy, the industry within which an institution operates, the community and other stakeholders, exert pressure on the organization and affect how it will adopt innovations. An organization is more inclined to adopt an innovation that is diffusing across the organization's internal environment (Meyer & Goes, 1988). It was also noted in diverse studies in the health sector by Øvretveit, et al., (2002) that, Innovations that are deliberately rolled out, either by political mandate or official order, are also likely to diffuse with great speed.

Ven (1991) however argued that the diffusion of innovation model provides adequate information in explaining the adoption of innovations by individuals, but it should be revised to satisfactorily include the complexities often observed when looking at adoption of innovations in organizations. Damanpour and Gopalakrishnan (1998) observed that diffusion of innovations in organizations will depend on whether the innovations are developed by the organization for internal use or for export to other organizations or on if the innovations have been imported for adoption by the organization. In his research on innovation theories, Damanpour (1996) had earlier concluded that diffusion theories cannot account for all parameters, and as a result could fail to capture significant indicators of innovation adoption when applied.

2.2.2 New Public Management Theory

There is a growing concern to improve efficiency and proficiency in the public sector management (Pina, Torres & Martín, 2019). A research by Pollitt and Bouckaert (2011) had stated that noticeable reforms in the public sector involve “purposeful amendments to the structures and procedures of public service institutions with the goal of making them improve their functions” have been noticed in the recent years. The emergence of

the New Public Management over time is among the highest notable global trend in public administration (Dunsire, 2007). NPM proposes reforms on public service delivery assessment and improved accounting in the government sector (Gruening, 2001). It encompasses a series of principles, standards, mechanisms and customs regarding management in the public sector (Ravand, 2014, p. 6). In reference to several studies, Osborne and Gaebler (1992) had earlier offered that NPM is attributed to an “enterprising, catalytic, market-oriented, community-owned, outcome-oriented, competitive, decentralized, mission-based, customer-focused and anticipatory government” (p. 35-282).

A Management by Results structure that focused on performance increasingly permeated the public sector and replaced an existing doctrine in the public service that was governed by Inputs and Outputs (Dunleavy & Hood, 1994). As New Public Management became popular, new systems and procedures for oversight, management and assessment of public sector efficiency were introduced (Diefenbach, 2009). An institutional analysis by Rosta (2011) had concluded that, as of 2011, nearly 60 countries had attempted to integrate NPM reforms within their public sector, with comprehensively differing outcomes, as the countries had implemented the NPM reforms at different times.

According to a study by Brignall and Modell (2000), the NPM model has positively impacted public services in advanced economies like U.K. and Scandinavia since the 1990s, as the governments are put on the spot to provide better efficient and effective service. Chowdhury & Shil (2017) suggested that developing countries can benefit from NPM. The model is important for today’s government organizations because the

measurement characteristics result in a remarkable reduction in government expenditure as demand increases for quality services from citizens. Larbi (1999) however had disputed the use of NPM by arguing that applying NPM in crisis states suggests institutional and other problems whose continuous use may be binding in limitations on implementation. Brinkerhoff and Brinkerhoff (2015) also disputed the use of NPM by arguing that NPM as a framework for measurement has challenges when applied to developing countries, especially those that rely on donor funds and have to adhere to donor project designs and reporting requirements.

2.3 Institutional Innovation

In a report by OECD (2005), innovation was defined as “the introduction of a novel or substantially enhanced product or process, a new marketing approach, or introduction of new enterprise procedures, new structures in the workplace or external linkages” (p. 46). Hamel (2006) suggested that innovation marked departure from conventional management practices, concepts and procedures, or a departure from traditional organizational structures that define how organizations’ operations are run. De Vries, Bekkers and Tummers (2014) further added that it is the extent to which specific new changes are implemented in an organization. Klein and Sorra (1996) had argued that the success or the failure of organization innovation is often evaluated in terms of performance and its performance consequence cannot be completely analysed before its sustained implementation.

In the public sector, innovation is shifting to be one of the main political and governance agendas in several developed western countries (Borins, 2006). A research conducted by Halvorsen, et.al (2005) had identified the motivations for innovation in

public service as (i) Problem solving (ii) Increased funding (iii) The expansion of a policy, idea or justification (iv) More staff and (v) Public relations (p. 14). Bekkers and Tummers (2018) however suggested that state institutions have to collaborate with other stakeholders to succeed in innovation. According to Millard (2013), ICT will become the main driver for government institutions to become more innovative and to better respond to the community demands.

2.4 Evaluating Public Service Delivery

The provision of public services is a substantial indicator of government effectiveness (Ketelaar, 2007). Public sector delivery is the consequence of the concurrent effort to achieve efficiency, effectiveness and a corresponding budget in the public sector through the application of different frameworks (Profiroiu, 2001, p. 8). Boyne (2002) argued that efficient delivery of public services is founded on two core models: the “3Es”- (economy, efficiency, effectiveness) model and “IOO” (input, output, outcome) model (pp. 17-24).

Assessment of the effectiveness of public services has consistently been an aspect of public service accountability (Jackson, 1993). Power (2000) argued that the growing focus on evaluation of the delivery of public services corresponded to the increase in administrative reforms. Turner and Hulme (1997) had suggested that the reforms involve intentional efforts to change to public sector bureaucracies. They coincide with innovation and their objective is to achieve efficiency and effectiveness and subsequent improvement in public service.

Many new integrated and multi-dimensional tools have been developed to evaluate the efficiency of public service delivery due to the constraints of traditional performance measures (Dixon et al., 1990). Thiel and Leeuw (2002) suggested that, the performance assessment frameworks applied in the public sector need to address the unique characteristics of the public service. The measurement of efficient public service delivery has also been expanded to incorporate the performance management of government employees. Hope (2012) showed that the utilization of new governance mechanisms like performance contracting is necessary to effectively carry out public sector transformation. The extensive use of performance contracting is driven by its capacity to promote an improved public sector with better results. Murray (2002) had previously offered that the performance contracting tool can demonstrate clearly, what state institutions will accomplish in an expanded redistributed management environment, whereas preserving the required accountability.

Governments need to pursue operational models that increase the efficiency of the public sector to effect increasing economic stability, higher levels of education and income for its citizens and improved infrastructure (Mihaiu, Opreana & Cristescu, 2010). The public sector can perform better by engaging and empowering its citizens, collaborating actively with the private sector, applying data-driven decision making and deliberately investing in expertise and skill-building (Farrell & Goodman, 2013). Curristine, Lonti, and Joumard (2017) in their study had however concluded that, no blueprint exists for enhancing public sector efficiency.

2.5 Innovation and Public Service Delivery

Innovation has come to be known as “the tool for growth, and growth as the occasion for and goal of innovation” (Schon, 1967, p. 54). Innovation in public service was defined by West and Farr (1990) to be the deliberate initiation and use inside a function, team or institution, of new concepts, products and procedures, unfamiliar to the relevant adopting agency, intended to substantially add value to the individual, the team, the establishment or the general community. In government, innovation needs to be considered an essential activity and not an optional luxury or liability, because good governance and efficient delivery of services to the public relies on effective innovation for better utilization of resources, solving existing challenges, development of effective tools and applying recent technologies (Mulgary & Albury, 2003).

The public sector is seeking to innovate to become more open, collaborative, iterative and participatory (OECD 2015). A research by León, Simmonds and Roman (2012) had earlier claimed that scarcity of resources, political aspiration and citizen expectations are the key motivating factors for innovations in government organizations. Unfortunately, many public organizations as mentioned by Bozeman (1993) are experience statutory requirements and extraneous bureaucratic formalities, that interrupt, or hinder innovations. Effectual implementation of innovation, as stated by Mulgal and Albury (2003), requires non-compliance with the rules. Borins (2001, 2006) claimed that from an individual point of view, public innovation initiatives are subdued because incentives are not awarded to public institution employees for taking risks. To add on, Osborne and Brown (2011) offered that the deficiency in institutional promotion of innovation might also discourage innovation in government or confine innovation to minor, gradual improvements. Innovation in state institutions has been

critiqued for its inability to fulfil the expected outcome of higher efficiency and better service delivery (Choi & Chandler, 2015).

Revolution of the public sector through innovation would enhance transparency and boost citizens trust in the public sector (Altshuler & Behn, 2010). To counter the challenges in public sector and achieve high performance, governments are pursuing collaboration with other stakeholders, such as private corporations, citizens and societal organizations (Sørensen & Torfing, 2011). To ensure survival and improved performance in public service delivery, effective management of innovation is a necessity (Adejuwon, 2018). Innovation frameworks for public institutions would enable continuous improvement of public services, and help nurture an entrepreneurial and innovation culture in public service delivery (ITU, 2019).

To encourage the use of ICT for effective public service performance a PDTP Innovation award is presented to the intern or group of interns that come up with the most disruptive innovation (OFA, 2017). The 100 interns from the first cohort who graduated in January of 2017 produced 29 innovations, five of which advanced to implementation stage; including the “Nyumba Kumi” app which boosts security through the use of real-time data and the “Damu-Sasa” app that helps to facilitate blood delivery services in hospitals (Mamabolo, 2018).

2.6 Summary of Literature and Knowledge Gaps

Many governments have enhanced their tools for public service delivery especially in developed countries to ensure that citizens receive services fast and effectively. This has been done through implementation of public sector reforms and focused innovation

in public services tools. Insufficient knowledge is however accessible to appreciate the performance of innovation in government services (Bloch & Bugge, 2013).

A research by United Nations (2015) explored the innovative best practices in public service delivery by reviewing reports by different countries. The study finding suggested that for the public sector to be innovative, it must focus on administration governance problems, refocusing public administration and enhancing capacity in public service delivery. The study however was limited in scope and context as it only focused on United Nations Member States and examined the best practices in the framework of the 2030 Agenda for Sustainable Development.

A study by Chambers, Wild and Foresti, (2013) studied Innovation in public service delivery in Africa and looked at delivery of government services in low population areas. The study analyzed case studies from six African countries and concluded that innovative mechanisms do not always work through government alone, and can often use a range of other types of governance models for service delivery. The study however, only focused on successful innovative products and their adoption in low density areas in the countries studied. The success of other innovative products and adoption of the innovations in other regions in the country could not be determined.

A similar research in Africa by Okafor, Fatile, & Ejalonibu, (2014) examined the principles that form the basis for the African Governments' program of innovation in public service delivery. Using a comparative and analytical method, the study suggested that conventional public sector ethos ought to be reformulated to enable innovative ideas in service delivery. The research did however not point out specific programmes that have put in place by the different countries to enhance innovation in the public sector.

A Research by Mwamba, Wachira & Wambugu, (2016) also assessed the effect of innovation on public service delivery in Kenya by adopting a descriptive analysis method. The research reviewed data from 280 employees working at the Nairobi Huduma Centre in GPO and concluded that products and service innovations carried out at Huduma centers have contributed immensely on performance of the centers in Kenya. The research was however specific to one organization and focused on one innovative product in the public sector in Kenya. The shortfalls of these studies call for more research to be done to understand the performance of government institutions in developing countries. This research seeks to provide knowledge on this area of study by evaluating the effect of innovation on public sector performance in Kenya.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Overview

This chapter provides a summary of how the study was undertaken. It highlights the techniques and procedures that were used to collect data for the study. It also provides information on the method that was used to analyze the data collected.

3.2 Research Design

As stated by Mcmillan and Schumaker (2001), a research design is a procedure for choosing subjects, a study location and data gathering methods to respond to research questions. Cohen and Manion (1994) had earlier offered that a survey research intends to collect data at a specific time and apply it to define the features and quality of existing circumstances. This study was a qualitative research that utilized the case study design.

Case study research is described by Stake (1995) as “the study of the characteristics and complexity of a particular situation, getting to understand its movement within important conditions” (p.7). Case study methodology serves to offer a structure for evaluation and analysis of intricate issues (Heale, 2018). The case study approach enables the gathering of comprehensive descriptive data, that is normally qualitative. This study was aimed at furnishing the researcher with profound knowledge on innovation and public sector delivery. Case Study research design was therefore considered suitable as it undertook a comprehensive study of the Presidential Digital Talent Programme innovation in public sector initiative and their potential impact.

3.3 Data Collection

Data collection is the “accurate, consistent collection of relevant data to the research sub-problems, utilizing tools such as focus groups, one on one interviews, case studies, direct observation and use of narratives” (Burns & Grove, 2003, p. 52, 363, 445). In this research, data collected relied on primary and secondary data sources. The secondary data was compiled from published books, articles, research reports, journals, public records and statistics, historical documents and information from the topic. Primary data was collected through interviews with 16 members of presidential digital talent programme who had graduated and an officer from the PDTP programme. One on one interviews were carried with 5 Interns and the programme officer, while telephone interviews were conducted with 11 of the interns. The interview guide had three sections. Section one of the interview covered the general information about the interviewee while the second part captured information about the innovations developed by the intern. Section three of the interview guide was used to establish the effect that the innovations had on the public sector organizations and their impact on delivery of public services.

3.4 Data Analysis

This study relied on primary and secondary data. It applied content analysis method to review the data collected. The aim of content analysis as stated by Bengtsson (2016) is to organize and extract meaning from the collected data and to derive reasonable conclusions from it. Downe-Wambolt (1992) had offered that content analysis links the conclusions to their context or to the environment in which they were produced. Qualitative content analysis is an effective mechanism for data records analysis in case study research.

CHAPTER FOUR: DATA ANALYSIS, RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

The objective of this research was to explore the effect of innovation on public service delivery in Kenya with a focus on the Presidential Digital Talent Programme. This chapter presents the analysis and findings of the research based on the objectives outlined. The findings are divided into three sections namely; information about the respondents, information about the PDTP innovations and their implementation within public institutions and the effect of the innovations on public service delivery. The chapter also highlights the effect of the PDTP programme of public service delivery. The names of the respondents that wished to remain anonymous were changed accordingly.

4.2 Information about the Respondents

This part of the interview was meant to capture information about the presidential digital talent interns and their deployment details to various public institutions. The respondents interviewed for the study were specifically chosen by the researcher because they had according, to a report issued by the programme, submitted innovations during their internship. The researcher interviewed 16 interns from the PDTP. 1 respondent was from cohort 1, 5 respondents were from cohort 2 and 10 respondents from cohort 3. The researcher also interviewed one officer from the PDTP programme.

4.3 The PDTP Innovations

This section of the interview guide sort to establish the number of innovations that the presidential digital talent programme had contributed to improve public service delivery. The findings indicated that the PDTP programme had so far received 142 submitted innovations. Out of the 142 innovations received, 50 of them were reported to be targeted to improve services in the public sector institutions. According to feedback from the programme officer interviewed, only 10 of these innovations were reported to have been successfully implemented by the public sector organizations they were intended for.

The results gathered from the Sixteen (16) interviewed interns showed that, seven (7) of the respondents had their innovative solutions implemented by the target public institutions. These innovations included a Government Internship Management System, Public Service Innovations Management Portal, Agriculture Subsidy System, Digital Literacy Programme Management System and a Blood Ecosystem Management System. Five (5) of the respondents had however reported that their solutions, a Criminal Records Management System and an Online Innovations Management Platform, had been piloted at the target institutions or temporarily been implemented but later abandoned. Two (2) of the respondents reported that their solutions, a Library system and a Mobile Tax Application were currently under implementation while three (3) respondents reported that their solutions, a Proposal on Event Management, a documents verification system and a Teachers Service Commission Application had not been implemented by the target organization. The respondents agreed that the slow approval process undertaken by the organizations had contributed to the failure to implement.

4.4 Diffusion of PDTP Innovations in Public Institutions

All the respondents agreed that lack of enough support for innovators had led to the slow adoption of the innovations within targeted public institutions. The respondents also affirmed that the lack of allocation of resources was a drawback in implementation of their solutions and had identified scarcity of financial, technical, and human resources as key constraints. While initially developing their solutions, the unavailability of requirements and test data made it difficult for the respondents to design and test their solutions.

Christopher and Gregory indicated that there lacked a suitable procedure that outlined how to accommodate or integrate innovators and innovations into current system within public institutions. The public institutions did not provide clear guidelines to the innovators on whether implementation of their solutions was to be based on a contractual agreement or be subjected to a procurement process. Henry reported that he had suggested to have a partnership arrangement with the public institution to have their innovations implemented but their proposals had not been positively responded to. Christopher also pointed out that the Institution they had developed the solution for had been unable to absorb his team on employment or consultancy terms citing that the organizations employment policy only facilitated for employment of staff through the National Police Service or from the Ministry through the Public Service Commission. There was not a mechanism to adopt the innovators into the institution.

Franklin, Duncan and Henry asserted that there was a lack of good will from the public organization's management to support innovations from the interns. Some of the host organization did not recognize the efforts by the interns to solve their problems and did

not support their projects. In his opinion, Dominic suggested that objection by employees due to existing modes of operation and organization culture was a major challenge. Kevin, Darwin and Stephen proposed that one of the reasons why innovations had a slow adoption in public service was that some of the public servants were not conversant with technology and did not fully trust automated systems to carry out their operations. In his experience, Phillip had reported that the organization he was developing a solution for did not accept his innovation because it was considered an external project by the employees because the intern was technically not an employee of that organization. The employees had insisted that the organization needed to have systems fully developed within the organization for ownership rather than engaging external partners. Duncan had therefore concluded by suggesting that there was a lack of trust by the public institution officers that the interns were capable of delivering viable solutions to their problems.

It was also reported by James and Phillip that the slow approval processes that exist within the public sector led them to fail to begin to implement their projects while undertaking their internship. According to Phillip, a considerable amount of time had been spent in organizing meetings and deliberating on implementation procedures. Eventually, a consensus was not reached on how to implement his solution and he ended up giving up on the project. When it came to implementing his solution, Dominic explained that he had been deliberately excluded from the initial phases of deployment by the organization which demoralized him and affected the successful implementation of the project.

4.5 Effect of PDTP Innovation in the Public Sector

All the respondents agreed that their innovative solutions would have an effect on how public institutions carried out their operations. Seven (7) of the respondents whose innovative solutions had been implemented reported that their solutions would improve output of services within the institutions where they were implemented. The Internship Management System was reported to streamlined operations and management of activities within the government internship programmes. These activities include deployment, mentorship, training and reports generation. This allowed the organization to offer better services to services to the interns in the programme. The Ministry of Public Service Innovations Management Portal was reported to have enhanced the management of innovations for the organization. It provided for a faster innovation's submission and evaluation process that was used to award winners of the Public service innovation awards. It provided a fair adjudication process that was professionally handled that assured accountability and an easy to audit process. The system was reported to be easy to be very user friendly which allowed officers work better and stakeholders more responsive to the public service initiative. It allowed for better record management of innovations in public service.

The Agricultural Management System was reported to have solved the problem of inconsistencies experienced in daily operations by officers in the Ministry of Agriculture. It provided a central depository of updated data that could be shared. The system helped enhance better coordination of activities for all extension officers, National Cereal and Produce Board officers, County Executives and Ministry Officers. It was also reported to provided better real time reports as compared to the previous manual system, for executive management other stakeholders for decision making. The

system was also reported to mitigate and enhance communication challenges experienced due to officers being in different locations by ensuring that they communicated and shared data via the system. Overall, the system was reported to have made it easier for the government, through the Ministry of Agriculture to offer services to farmers.

The Blood Services Information Management System deployed at Kenyatta hospital was also reported to have significantly improved services at the hospital. The system had contributed to better inventory management of blood units in the blood bank. Previously, it was likely that blood could expire before being used and had to be discarded. The system ensures regular checks on blood expiry dates were done and notifications and alerts are sent to the respective individuals in charge to ensure that stored blood is consumed effectively. The system was also reported to allow tracking of blood issued to the hospital staff for better dispensation and report generation. This ensures that blood is well handled by staff adhering to proper blood handling regulations. The system was also reported to have enabled the hospital to better serve patients by ensuring availability of resources and providing accurate information. Compared to the previous manual system, Blood Services Information Management System was reported to provide more detailed, instant, updated reports that allowed collection of accurate health data for the health sector. Due to the expansion of the solution to provide health information and alerts to donors, the system has contributed to increased public awareness on the value of donating blood and was reported to have resulted to more citizens volunteering to donate blood at the hospital.

4.6 Effect of The PDTP Programme on Public Service Delivery

10 of the participants interviewed agreed that the PDTP programme has contributed to effective delivery of public services. However, it was suggested by Enos, Peter, James, Crispin and Darwin that innovation was not the major success factor. The main contribution, according to the respondents, that the PDTP programme had brought to public service was the needed human resource and manpower to assist public institutions and government ICT flagship projects. Crispin explained that the interns had been able to solve minor ICT issues in some organizations and had assisted in accelerating the delivery ICT projects as per set deadlines.

The PDTP monitoring and evaluation reports of 2017 and 2018, indicated that the PDTP interns had participated in 49 government projects. Cohort 1 interns were reported to have participated in 14 ICT government projects while cohort 3 interns were reported to have participated in 35 government ICT projects. A good example was offered by Stephen, who was an intern deployed to one of the County Ministry of Lands offices. He noted with concern that the Ministry registry had a problem in digitizing land ownership documents. Most of the land titles and green card were old and torn and they needed to be scanned and stored as soft-copy in the database. He had been assigned the responsibility of scanning and storing the documents in hard-drives, since all land processes were being done manually. To counter this challenge, Stephen decided to train the staff members present on how to use Ministry of Land Information System. As a result, the staff members could then execute land processing activities online for citizens faster and more efficiently.

Franklin, Moses, Gregory, Kevin and Dominic affirmed that PDTP innovation was a major contributing factor to enhanced public service delivery in Kenya. Gregory however pointed out that the innovations success rate was less than 10%. All of the participants had indicated in their responses that they had successfully identified gaps or problems in various public institutions and had proposed innovative solutions to these problems. However, some of them pointed out that the PDTP programme has not adequately assisted interns to implement the innovative solutions within the targeted public institutions. In his response, Felix believed that many interns have given up on having their innovative solutions implemented due to lack of support. According to Christopher, the piloting and implementation of his team's solution to the targeted organization was initially successful due to consistent support from the organization where he was deployed. When the internship programme ended, the deployment organization no longer actively supported the project leading to its discontinuation. Based on these sentiments, it was therefore not surprising that 5 of the respondents refuted the claim that the PDTP programme had contributed to enhanced public service delivery through innovation.

According to Moses, the PDTP programme had an impact on government spending because the solutions provided by the interns were cost effective and cheaper to implement for government as compared to other solutions. Franklin also pointed out that so many services and solutions had been developed by the PDTP interns that helped streamline and enhance public services. However, he offered that there needed to be a structured incubation programme established to support the innovators. The PDTP programme, according to Kevin had brought in new blood into public service that was ready to make changes.

The findings of this study support the Diffusion of Innovation Theory. According to Rogers (2003), adoption is the “exhaustive application of an innovation as the most suitable approach available” and rejection is a decision “not to embrace an innovation” (p. 177). The results of this study have shown that some public institutions adopted the innovative solutions developed by the PDTP interns while some did not adopt them due to various obstacles. A study by Greenhalgh, et al. 2004, had observed that organizations have more challenges in adopting innovations because an organization is an entity comprising multiple people, at the same time is a component with its own structure, standards and set of procedures.

A research by Kaul (1997), emphasized that there has been a profound transformation in the working of the public sector which has led to significant and perceivable management of innovations in the administrative framework and governance systems geared towards delivering increased efficiency, and more receptive and flexible public services. The innovations have led to the ‘New Public Management’. The results of this study have demonstrated that some public institutions have changed how they carry out their operations and how they dispense services to citizens as a result of adopting the PDTP innovations. This transformation has led to changes in the organizational structure and management of services, hence contributing to the ongoing Public sector reforms in Kenya.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter outlines a summary of the findings from the study. It also provides a conclusion of the study based on the results of the research. The chapter also provides recommendations based on the findings of the study and offers suggestions for further research.

5.2 Summary of Findings

The objective of this research was to explore the effect of innovation on public service delivery in Kenya with a focus on the presidential digital talent programme. The researcher established that the PDTP programme had received 50 innovative solutions that were targeted towards improving public service delivery with only 10 being reported to have been successfully implemented. Of the Sixteen interns interviewed, seven had their solutions fully implemented, five had their solutions provisionally tested but not operationalized, two were currently having their solutions being implemented and three solutions were never considered for implementation.

The results also showed that most of the participants had stressed that they had encountered certain challenges in the process submitting their proposals as well as implementing their innovative solutions to the various public institutions. Some of the challenges experienced were in relation to the development process, negotiating the terms of engagement with the organisation, procurement requirements, rigid policies, procedures and legislation existing in the public sector, lack of allocation of resources for projects, technology challenges for some employees, existing risk-averse culture in

government and staff resistance. Other challenges addressed the issue of support by management and employees and approval for the innovations and the innovator.

The results also showed that a large number of the respondents approved that the PDTP innovations implemented had transformed the way public institutions carried out their operations. The innovations were also referenced to have contributed to effective delivery of services to citizens. However, lack of adequate support for the PDTP innovations from the Public Institutions management, employees and PDTP programme management had caused many innovation projects to be abandoned. The research findings also illustrated that while PDTP innovations were identified to have enhanced public service delivery in some institutions, innovation was not considered by all as the major key contributor to public service delivery within the programme. The availability of additional ICT manpower for the various public institutions was considered a greater contributor to enhanced public service delivery.

5.3 Conclusion of the Study

From the results of the research it can be concluded that adoption of innovation within the public sector is still slow. The PDTP interns fulfil their mandate of identifying various gaps and problems that exist in public service while during their internship. The interns had also proposed and developed various viable innovative solutions to counter these problems identified as expected. This is evident from the number of innovations submitted to the programme for implementation by every cohort. The results however show that of the many innovative solutions proposed by the interns, only a few of them were reported to have been successfully implemented within government. These results help us conclude that there are certain existing constraints

within public sector organizations that hinder innovations and innovators from implementing their solutions and engaging with government. These barriers lead to slow diffusion of innovation in the public sector.

The public sector reforms in Kenya called for public institutions to recognize innovation as one of the key contributors to effective public service delivery. However, the results of this study show that there was still a lack of support for innovation in the public sector in Kenya. Some of the interns had identified that one of their major challenge was lack support from top management in public institutions for their projects. This had discouraged interns from implementing their solutions. The interns were also discouraged by the lack of confidence from management as well as other employees in their ability to deliver viable solutions. Some interns had also reported that their solutions had been implemented by the target institution for a short period of time and later abandoned due to lack of champions within the organization to carry on the projects.

One of the objectives of the PDTP programme was to have the interns internally develop solutions for organizations where they are developed. This it was presumed would accelerate the process of innovation adoption process in the public sector through organization innovation. However, the results of this study have shown that even when solutions are developed by interns within the organization of deployment, the implementation of these solutions was not guaranteed.

The PDTP programme has made an effort promote the transformation of the public sector and contribute to effective delivery of public services through innovation.

However, the programme seems not to have succeeded in providing the innovators with the necessary support they require to successfully develop their solutions and engage their target public institutions to ensure that innovations that come out of the programme are fully implemented. The lack of support from host organizations suggests that there seems to lack an active partnership between the PDTP programme and public Institutions. The collaboration should have defined a structure and support mechanism for the interns and their projects. The results also illustrate that there lacks sufficient, comprehensive and accurate documented data on the interns output from the programme; their individual and collaborative projects. This data can be useful in measuring the success of the programme and its contribution to enhanced public sector performance.

5.4 Recommendations

Based on the findings of the study, the researcher observed that the PDTP programme is well positioned to effectively contribute to enhanced public service delivery through innovation. However, it is recommended that the programme needs to measure its success not by the number of innovations submitted but by the number of successful innovations implemented. There needs to be an aggressive effort by the PDTP programme management to ensure that all innovations proposed in the programme are pursued and applied. Public institutions also need to revise their policies and procedures to accommodate innovations and their unpredictable nature. Measures on how to engage innovators should be put in place to ensure that the process of assimilating innovations within the organization is smooth and easy and does not stifle innovations.

Public institutions also require innovation champions who can ensure that viable proposed and developed solutions are not rejected or neglected. It would be advisable to have active co-creation and collaboration between PDTP innovators and the organization employees to assist in easier transition and diffusion of innovations within the organizations. Top management should support viable innovative projects within the organization to enable middle management and other employees to follow their example and be supportive. For the PDTP programme to achieve its objectives, it is recommended that public institutions recognize the interns as solution providers to public sector challenges and should work with them to enhance service delivery.

5.5 Limitations of the study

The main limitation of the study accessing the interns in order to carry out the interviews. The process involved constant scheduling and re-scheduling of appointments with the interns due to unavailability. It also involved preparing the respondents in advance for the interviews by sending them the interview questions. Where one on one interviews were deemed impossible to perform, telephone interviews were carried out. There was also the limitation in the of lack of sufficient documented information on innovations from the programme.

5.6 Suggestions for Further Research

This study's objective was to establish the effect of Innovations on public service delivery. The scope was however limited to the Presidential Digital Talent Programme. The public sector is a wide area of study that requires various methods and approaches to effectively collect comprehensive data to inform government. The limitation of the scope of this study thus necessitates further research to be done on other public sector

initiatives or programmes that are contributing to enhanced public service delivery. The research can be expanded to include the impact of public sector innovations from the recipients of the solutions perspective. Research also needs to be done to highlight the challenges and barriers to effective diffusion to innovation in the public sector in Kenya.

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APPENDICES

APPENDIX ONE: INTERVIEW GUIDE 1

Consent Declaration: The response provided in this interview will be used purely for academic purposes and the data collected will be treated with utmost confidentiality and will not be shared or used for any other use purpose outside this research.

Section I: Information about the interviewee

1. Name _____
2. Contact Details _____
3. PDTP Cohort Year _____
4. Which Public Institution where you were deployed to during the programme?
5. How long were you stationed in this Institution?

Section II: Innovation information

1. What gap did you identify in the public institution you were deployed to?
2. What solution did you propose or develop to bridge this gap?
3. How does the solution work?
4. Did you complete developing the solution?
5. Was your solution implemented by the organization?
6. What challenges did you experience in implementing your solution?

Section III: Effect of Innovation on Public Service Delivery

7. What changes does your solution bring to the organization?
8. What is the overall effect of the innovation on the performance of the organization?
9. Has the PDTP programme contributed to reforming the public sector?

APPENDIX TWO: INTERVIEW GUIDE 2

Consent Declaration: The response provided in this interview will be used purely for academic purposes and the data collected will be treated with utmost confidentiality and will not be shared or used for any other use purpose outside this research.

Section I: Information about the interviewee

1. Name _____
2. Contact Details _____
3. Name of organization _____
4. Role in Institution _____

Section II: Innovation information

5. How many PDTP Innovations have been submitted to the programme since its inception?
6. How many of these submitted innovations targeted the Public Sector Institutions?
7. How many of these innovations that targeted the public sector can you confirm to have been fully implemented?