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Digital Innovation and Service Delivery of Regulatory Agencies in Kenya

[1*]Vincent Kipng'etich Cheruiyot, [2] Dr. Josephat Kwasira, [3] Dr. Dennis Juma, [4] Dr. Millicent Mboya

[1] PhD Student, Jomo Kenyatta University of Agriculture & Technology, Kenya,

[2,3,4] Lecturer, Jomo Kenyatta University of Agriculture & Technology, Kenya PhD

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Abstract

Purpose: This study examines how digital innovation influences service delivery in regulatory agencies in Kenya. The analysis focuses on three dimensions of digital innovation, artificial intelligence, data analytics, and data sharing, and assesses their role in strengthening reliability, responsiveness, and tangibility of public service delivery.

Methodology: A cross-sectional survey research design was employed to collect quantitative data from executives, line managers, and heads of departments across all 78 regulatory agencies in Kenya. Using Yamane's formula, a sample of 369 respondents was selected from a target population of 4,660. Data were analysed using descriptive statistics and regression modelling.

Findings: Results indicate that digital innovation has a statistically significant and positive effect on service delivery in regulatory agencies. Regression results show that digital innovation explains 24.1% of the variance in service delivery, with artificial intelligence, data analytics, and data sharing each demonstrating strong reliability (Cronbach's $\alpha > 0.79$). Overall, improved integration of digital innovation enhanced efficiency, accountability, transparency, and responsiveness in service delivery.

Unique Contribution to Theory, Policy, and Practice: The study extends the Technology Acceptance Model (TAM) by demonstrating how digital innovation functions not only as a technological input but also as a strategic capability that strengthens public-sector performance outcomes. Policymakers are offered evidence on the need for robust digital governance frameworks, while practitioners gain insights on prioritising AI-driven systems, advanced analytics, and interoperable data-sharing platforms to improve service delivery across regulatory agencies.

Keywords: *Digital Innovation, Service Delivery, Regulatory Agencies*

1. Background of Study

Service delivery plays a central role in enabling governments to fulfil development obligations and improve the well-being of citizens. High-quality service provision is essential for reducing poverty and achieving broader development targets such as the Sustainable Development Goals (SDGs). According to Okello (2014), service delivery must be accessible, timely, and effective in sectors such as education, health, energy, and ICT to promote equitable development. Similarly, Ojiako et al. (2023) argue that improved service delivery contributes to poverty reduction and enhances opportunities for social and economic empowerment. Service delivery also serves as a critical indicator of government performance and its relationship with citizens (Omboti, Chepkilot, & Tanui, 2019). Increasing expectations for accountability, efficiency, and responsiveness have pushed governments, particularly in Africa, to re-engineer public service systems (Wanjiru, 2022).

Digital transformation has therefore become an essential innovation practice shaping modern public sector operations. Strategic innovation, which includes the use of new ideas, technologies, processes, and services, plays an important role in enhancing public service efficiency and accessibility. Makgopa and Myers (2019) describe strategic innovation as the adoption of novel concepts and practices that reshape organizational performance, while Antonites (2019) emphasizes its influence on organizational competitiveness. Strategic innovation frameworks further include digital, product, process, and service innovations that strengthen institutions by reducing ambiguity, improving coordination, and establishing clear organizational direction (Witjara, Herwany, & Santosa, 2019; Nybakk & Jensen, 2020).

Within the public sector, the integration of digital innovation has gradually transformed service delivery processes. Wijethilake, Munir, and Appuhami (2019) highlight that digital innovation practices, such as automation, ICT-enabled platforms, and digital workflows, enhance service accessibility, speed, and transparency. In Kenya, the uptake of digital systems has been driven by widespread e-government initiatives. Mwanza and Bitange (2021) note that digital advancements have enabled multi-channel service delivery systems that integrate ICT, citizen data, and e-citizen platforms to optimize service access. Similarly, Riany et al. (2019) observe that e-administration has streamlined internal processes and strengthened cross-departmental information flow within public agencies.

Despite these developments, the thesis identifies persistent inefficiencies in the service delivery of regulatory agencies, including delays, limited responsiveness, and inconsistent service standards. These challenges highlight the need to examine how specific innovation practices, particularly digital innovation, shape service delivery outcomes within regulatory agencies in Kenya. Understanding these relationships is essential for strengthening institutional capacity, improving efficienc

1.1 Statement of the Problem

Although limited adoption and technical capacity negatively affect countries implementing modern ICT devices to influence change, digital innovations can lead the way in economic development and prosperity (Shava & Shikha-Vyas, 2022). Local governments find it difficult to harness digital innovations and match them with employee capabilities in order to effect change. A research study was conducted in 2019 by Onyiego on the E-Service operations tactics and overall performance of Kenyan tourism companies in Nairobi. For primary data collection, the study combined quantitative and qualitative methods, regression analysis and descriptive statistics were used for analysis. In their 2019 study, Riany, Were, and Kihara investigated how Kenyan state agencies deliver public services in light of electronic devices. Based on the study results, state agencies in Kenya were able to provide public services more effectively and efficiently after implementing E-Services, one of the E-Government strategies. There are thus contextual, conceptual and methodological research gaps hence this study's specific assessment of the appropriate thematic strategic innovation practices and service delivery thus examined digital innovation practice moderated by culture of innovation on service delivery of regulatory agencies in Kenya.

1.2 Objective of the Study

To establish the influence of digital innovation on service delivery in regulatory agencies in Kenya.

2. Theoretical Framework

Enlightening practitioners about potential actions to take before implementing systems was the practical goal of TAM. The theory's goals were achieved through the implementation of multiple steps (Davis, 1989; Davis, 1993). By defining the mechanisms mediating the relationship between IS characteristics (external factors) and actual system use, Davis started to develop the model of technology acceptance. The Theory of Reasoned Action, which offered a psychological viewpoint on human behavior and was absent from the IS literature at the time, served as the model's foundation (Davis, 1989).

According to the theory (Foley Curley, 1984; Sharda, Barr & McDonnell, 1988), individual and organizational adoption of information technologies can result in both short- and long-term benefits, including increased productivity, cost and time savings, and convenience. For this reason, IS management research has long been driven by the potential benefits of technology to investigate people's readiness to adopt new technology (Davis, 1989). In the 1980s, when the number of personal computers increased, research on technology adoption gained significant importance. The absence of empirical data on users' reactions to information system performance, however, posed a significant barrier to the advancement of research on the adoption of personal computers.

As per TAM, the process of technology acceptance consists of three stages: external factors, such as system design features, initiate cognitive responses, such as perceived ease of use and usefulness, which form an effective response, such as attitude toward using technology/intention,

influencing use behavior (Davis, 1989; Davis, 1993). As the result anticipated by behavioral intention, perceived utility, and ease of use, TAM depicts the behavior (Figure 1). The expectations of favorable behavioral outcomes and the conviction that behavior won't require a lot of work are captured by perceived utility and ease of use (Davis, 1989). The attitude toward behavior (Davis, 1993), which is an affective assessment of the possible consequences of the behavior (Ajzen, 2011), can be used in place of behavioral intention, according to a follow-up study. The likelihood that the behavior will occur increases with the affective response. The significance of the variable in behavior prediction is highlighted by the direct impact that perceived usefulness can have on actual use. According to Davis (1993), perceived ease of use supports the impact of perceived usefulness even though it has no direct effect on use behavior. According to Davis (1989), the model suggests that the more user-friendly an application is, the more probable it is that the user will find it useful, which will increase the likelihood that the technology will be accepted.

2.1 Conceptual Framework

A conceptual framework, according to Zackoff et al. (2022), is a description of the phenomenon being studied that shows the relationship between the independent and dependent variables both diagrammatically and graphically. In the research findings, it serves as the foundation for testing hypotheses and formulating generalizations. The conceptual framework for this research comprised digital innovation and service delivery of regulatory agencies in Kenya.

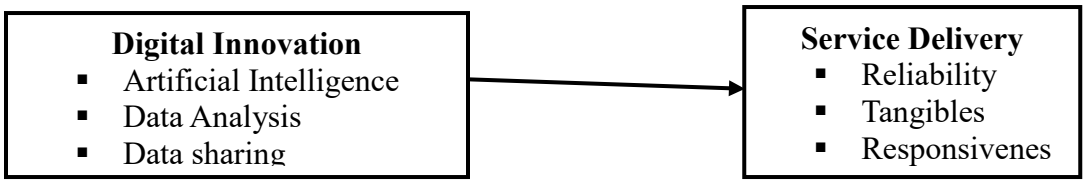

Figure 1: Conceptual Framework

Digital Innovation

Although limited adoption and technical capacity negatively affect countries implementing modern ICT devices to influence change, digital innovations can lead the way in economic development and prosperity (Shava & Shikha-Vyas, 2022). Local governments find it difficult to harness digital innovations and match them with employee capabilities in order to effect change. Martens *et al*., (2022) study supports this perspective by pointing out the lack of organizational readiness worldwide. Municipalities are battling to mitigate a range of barriers (legal, informational, ethical, and infrastructure-related) that affect policymaking in order to facilitate the widespread acceptance and adoption of digital technologies in the delivery of public services, as highlighted by Moody, Plat, and Bekkers (2021). Local governments throughout Africa are interacting and engaging with citizens more on issues related to service delivery because of the widespread usage of social media and the proliferation of digital technology. Social media as a digital innovation tool can effectively harness public participation in municipal decision making

and policy formulation, according to several studies (Anthopolous, Siozos, and Tsoukalas, 2020; Jansen and Estevez, 2021). The ability of local government to encourage and utilize technology-based participation has been further improved by digital innovations, which is crucial for enhancing service delivery (Reddick, 2021). Though their efficacy in providing public goods and services shouldn't be overstated, digital technology has helped close the gap in communication and interaction between citizens and service providers.

According to Lindgren and Jansson (2019), e-service is a concept that is widely used in academic fields and disciplines. It is the application of ICT to support, carry out, and process every stage of service delivery, including distribution, awareness, and interaction, according to Denis-Remis et al. (2018). This improves the delivery of public services. Permit, certificate, and license issuance are a few instances of E-Services, as are requests for public documents and legal documents. Public sector e-services have grown quickly in developing nations, but they are still largely out of reach, according to Axelsson *et al*., (2019). Denis-Remis *et al*., (2018), define E-services as the use of ICT to facilitate, perform, and process front-end customer-facing services, such as consciousness, transaction, interactions, and distribution to improve the delivery of public services to citizens. It is generally thought of as a front-end platform Public document requests, legal document and certificate requests, and license and permit issuance are a few instances of e-services. Electronic service delivery (ESD) of government information, programs, and services that are accessible online 24 hours a day, 7 days a week is another name for e-services, according to Santosh and Dikshit (2019).

By using methods like one-stop service centers, electronic searching and information provision, electronic tax filing (E-Filing), electronic licensing (E-Licensing), and other methods that allow citizens to have all of their needs met through a single point of contact with the government, Kozak (2018) claims that E-Services appear to be the easiest aspect of E-Government to leverage on in the short run. Simple website design and navigation can facilitate e-searching and information provision, but more work may go into e-participation and e-democracy initiatives like reputation systems, open data initiatives, e-voting, e-citizen, e-juries, social translucence mechanisms, cyber campaigns, and online petitions (Kozak, 2018).

Automation, which includes the procedures for obtaining and preserving information about an organization's activities and transactions through the use of ICT, is the effective and methodical management of the development, receipt, maintenance, use, and disposal of records (Sherrif, 2018). With the ability to store and communicate information, governments are essentially socio-technical information processing systems. It's a massive, multi-layered bureaucratic data silo with broken record systems. In order to increase productivity, effectiveness, accountability, transparency, and reduce corruption, automation is crucially needed for the primary task of information processing (Dunleavy, 2019).

Government organizations have been charged with poor performance and cover-ups on numerous occasions. Effective services are hampered by the manual records system, which results in lost or

misplaced files and understaffed areas. Frequently, the registries are stuffy, clogged, and ill-organized. These difficulties could be resolved by e-government, which would also increase service delivery, accountability, transparency, cost effectiveness, and record management while lowering corruption. Through record tracking, it can also support record-keeping procedures (Coleman, 2018). It is hoped that e-government will reduce paperwork or resolve instances of unauthorized access to records. Electronic codes will make it easy to track and access documents, and files will be retrieved quickly. According to Damuniya (2020), this system enhances service delivery, transparency, and efficiency by safeguarding the environment and strengthening document security.

Automation also reduces competition within agencies, dismantles organizational silos, and fosters productive collaboration. Better networks and coordination between agencies are also facilitated. Accordingly, enhanced relationships of this kind would promote greater understanding and connectivity as well as increase the quality, relevance, completeness, and reliability of information (Gelders, 2019). Based on customer registration upon arrival, this seamless initiative offers multiple-channel, single-window access to between thirty and sixty-six different government services at one-stop shop service operations. Its goal is to check for long lines, corruption, inconvenience, efficiency, and cost reduction. Furthermore, Huduma Centers are anticipated to dismantle silo operations in order to improve information access and inspire staff members by utilizing ICT applications to help them perform their jobs more effectively and efficiently. Supervisors have the opportunity to watch the workflow while employees can readily share and exchange information and in the process make the workplace more effective and productive (Hassan, Iravo, & Guyo, 2019).

Service Delivery

Delivering services to the public in accordance with their expectations is known as service delivery (Mbecke, 2018). Additionally, it is a way to provide timely and effective services in response to public demands (Oronsaye, 2019). This is due to the expectation that services will be provided in a welcoming environment free from barriers, annoyances, or disruptions; rather, services will be provided through open communication, transparency, accountability, accessibility, availability, timeliness, and convenience, as well as consultation and openness (OECD, 2019). But like many other nations, Kenya's public sector is underperforming, largely due to a lack of transparency, accountability, dedication, and trust as well as a growing sense of hopelessness among individuals. According to Hope (2020), the performance has not been at its best.

Kenya launched the Huduma Kenya Programme as a flagship project for transforming the public service through an Integrated Service Delivery (ISD) known as Huduma Centers to provide access to various services. Kenya also introduced e-government as a strategy to improve service delivery, enhance communication and information within government, within the citizenry, and within the business community GoK (2020). According to Mutuku (2019), the program was started with the

intention of providing the general public with a variety of services from a single location by using a one-stop shop.

Effectiveness: measures how well the project's goals were or are likely to be accomplished and aims to control the variables that affect goal accomplishment or non-attainment (Ngacho, 2018). According to Mihaiu (2020), the indicator of effectiveness is the ratio between the actual result and the planned outcome. According to Peter Drucker (Drucker, 2001), effectiveness is the foundation of efficiency because achieving success in what you have proposed is more important than achieving success in something else that may not be directly related. Efficiency and effectiveness have the relationship of a part to the whole, with effectiveness being a prerequisite for achieving efficiency. The efficiency and effectiveness analysis is predicated on the relationship between the inputs (entries), outputs (results), and outcomes (effects), according to Breuer and Ludeke-Freund's (2021) paper, "The Effectiveness and Efficiency of Public Spending."

Because efficiency is unaffected by external circumstances, Gelders (2019) claims that effectiveness, which measures how successfully resources were used to accomplish goals, is more difficult to attain than efficiency. Environmental factors, outputs, and outcomes all have an impact on effectiveness. In the latter case, the effectiveness is significantly influenced by environmental factors (such as lifestyle choices and different socioeconomic factors). According to Mihaiu (2020), the effectiveness and efficiency with which public funds are utilized are both influenced by the quality of public administration. According to Hope (2020), efficiency refers to the degree to which intended outcomes are realized at a reasonable cost, or the maximization of output for a given level of input or resources. Based on a comparison of the outcomes of their efforts, efficiency can be generally attained by optimizing the actions' results relative to the resources used (Mihaiu, 2020).

To compare the effectiveness of each sector, a problem relates to the two sectors' complete comparability. These two sectors are not interchangeable, even upon a cursory analysis. The public sector seeks not only economic but also social benefits, with the stated primary goal being to ensure the welfare of the general public. In contrast, the private sector pursues profit. The relationship between efforts or inputs and effects or outputs, as documented in the literature, provides efficiency (Shava & Shikha-Vyas, 2022). In order to ensure that government initiatives meet their stated objectives and address the needs of the community they are intended to benefit, accountability makes sure actions and decisions made by public officials are subject to oversight. This helps to improve governance and reduce poverty (Reddy, Nanda Kishore, Ajmera, Santosh, 2015). According to Mamduh and Pratikto (2021), accountability is generally defined as a relationship in which one person or body is subject to the supervision, guidance, or demand of another that they give details or an explanation for their actions.

2.2 Empirical Literature Review

In their analysis of strategies, crucial success factors, challenges, and the effects of implementing e-government on public service delivery, Irawan et al. (2019) examine the Population and Civil

Recording Agency of Samarinda, Indonesia. A qualitative method was employed in the study, While secondary data was obtained through document tracing, primary data was gathered through the observation and interviewing of state officials and stakeholders who were involved in the Population and Civil Recording Agency's implementation of e-government. An interactive data model was analyzed in order to perform data analysis. According to the study's findings, the agency's ability to provide public services was significantly impacted by e-government because it institutionalized transparency, enhanced performance, and raised public confidence.

A research study was conducted in 2019 by Onyiego on the E-Service operations tactics and overall performance of Kenyan tourism companies in Nairobi. For primary data collection, the study combined quantitative and qualitative methods, regression analysis and descriptive statistics were used for analysis. Stratified random sampling was utilized to sample 35 tourism firms in Nairobi. According to the study, there is a noteworthy correlation between firm performance and E-Service operations strategies, because Kenyan tourism firms have embraced these strategies.

Siddiquee (2019) researched how public service delivery is changing in developing nations through e-government. With the addition of primary data gathered from diverse sources, the research was primarily based on secondary data. Important information was obtained from relevant public sector websites, as well as through interviews and discussions with particular public officials who had in-depth knowledge of E-Government initiatives at the local and field levels, following a thorough examination of secondary sources. Even though e-government hasn't completely revolutionized governance or service delivery, the study found that despite the country's low overall e-government index, e-government has started the process of change and different e-government strategies have revolutionized traditional administrative systems and practices.

E-service delivery's effects on Kenya's Public Service Commission staff were investigated by Onono (2018). The study utilized a descriptive survey design, and to select the sample population from the target population which included all the 200 employees of the Public Service Commission of Kenya in Job Groups A through R, simple random sampling was employed. While stratified random sampling and simple random sampling methods were employed for sampling, primary and secondary data were also used for data collection. In order to display and analyze the data, descriptive statistics were calculated. To make the study's description and explanation easier to understand, data was presented as pie charts, graphs, and frequency distribution tables. The results showed that technology changes occurring in various government sectors had a significant impact on E-Services, making it a crucial factor for determining how services were provided.

In their 2019 study, Riany, Were, and Kihara investigated how Kenyan state agencies deliver public services in light of electronic devices. Based on the study results, state agencies in Kenya were able to provide public services more effectively and efficiently after implementing E-Services, one of the E-Government strategies. Additionally, it was determined that the relationship between E-Services and the provision of public services by Kenyan state agencies was significantly moderated

by the strategy's implementation. According to the study's findings, government agencies can provide better services by adopting e-services, which increases agency efficiency. As a means of encouraging public service delivery, it was suggested that state agencies, via their management, adopt E-Services while maintaining strategy implementation.

3.0 Research Methodology

Research designs, according to Creswell (2020) are plans and processes for conducting research that cover a range of decisions, from general hypotheses to specific techniques for gathering and analysing data. Specifically, a cross-sectional survey research design was used in this study to gather a large amount of quantitative data at one time and establish the relationship between the key study variables, which are the service delivery of Kenyan regulatory agencies as the dependent variable and innovation culture as the moderating variable, and digital innovation practice as the independent variables.

3.1 Target Population

According to Gall and Borg (2017), the accessible population is made up of all the people who could actually be included in the sample, whereas the target population is made up of all the members of a real or hypothetical set of people, events, or objects from which a researcher wishes to generalize the results of their research. As of May 2024, the State Advisory Committee of Kenya reported that there were 78 industry regulators across different sectors, employing 2238 top and middle level managers. The study targets executives, line managers and heads of departments involved in the strategic innovation practice in all the 78 industry regulators. Therefore, the target population for this study was 4,660 as indicated in Table 1.

Table 1: Target Population

Management Level	Target Population
Executives (CEOs, Directors and MDs)	540
Line Managers (Assistant Directors)	1,080
Heads of Department	3,040
TOTAL	**4,660**

3.2 Sample Size

The sample size for the study was determined using the Yamane (1967) formula. A simplified version of the formula proposed by Saunder, Lewis and Thornhill (2022) was used in the inquiry, replacing the one put forth by Cochran.

As per the Yamane formula, at a confidence level of 95% and 0.05 significance level (p), the sample size is:

$$n = N/1+N(e^2)$$

Whereby;

n represents the size of the sample.

N represents the population's size.

e represents the error of 5% points.

When the formula is used, a sample size of 341 is yielded as shown below.

$$n= 4,660/1, +,4,660(0.05^2)$$

$$n=369$$

The study then applied a proportionate sampling technique in selecting the 369 respondents.

Table 2: Sample Size

Management Level	Target Population	Proportionate Sample Size
Executives (CEOs, Directors and MDs)	540	43
Line Managers (Assistant Directors)	1,080	85
Heads of Department	3,040	241
TOTAL	**4,660**	**369**

3.3 Data Analysis

Before processing the responses, data preparation was done on the completed questionnaire by editing, coding, entering and cleaning the data. Data collected was analysed using descriptive statistics. The descriptive statistical tools helped in describing the data and determining the respondents' degree of agreement with the various statements under each factor. Data analysis was done with the help of SPSS version 25.0.

4.0 Research Findings

The study findings were in the form of descriptive and inferential as follows:

4.1 Descriptive Research Findings

Digital innovation practice was assessed by three measures namely; citizen identity, cloud computing and data sharing. Table 3 shows descriptive data presented on a scale of 1 to 5(1-Strongly Disagree, 2-Disagreee, 3-Neither Agree, 4-Agree, 5-Strongly Agree).

Table 3: Descriptive Results for Digital Innovation

Digital Innovation	N	Mean	Std. Deviation	Cronbach's Alpha
Artificial Intelligence	288	3.323	0.976	.901
Data Analytics	288	4.103	0.896	.798
Data Sharing	288	4.160	1.902	.908
Digital Innovation Practice	**288**	**3.844**	**1.258**	**.869**

Key: 1-Strongly Disagree, 2-Disagreee, 3-Neither Agree, 4-Agree, 5-Strongly Agree Overall Cronbach's Alpha = 0.869

Cronbach's alpha was used to test the reliability of the proposed constructs (Mbugua *et al*., 2024). From the study findings, it was noted that citizen identity had a coefficient of 0.901, cloud computing had a coefficient of 0.798 while coordination of data sharing had a coefficient of 0.908. The overall Cronbach's alpha for digital innovation practice (artificial intelligence, data analytics and data sharing) was 0.869. The findings showed that all the three scales of digital innovation practice measures were reliable as their reliability values exceeded the prescribed threshold of 0.7 (Bryman & Bell, 2022).

From the research study, it was noted that artificial intelligence was key to regulatory agencies long-term relationship with the people and artificial intelligence had enabled regulatory agencies to venture into the addressing citizens issues hence enhancing digital innovation practice as indicated by a mean score of 3.323 and a standard deviation of 0.976. These findings were consistent with Wambugu, *et al*., (2022) who did a study on the effect of innovation on service delivery in the public sector in Kenya and strongly indicated that digital innovation practice enhanced performance since it was key to great customer experience had a mean score of 4.103 and a standard deviation of 0.896. These findings were consistent with Matuga *et al*., (2022) who did a study on the effect of strategic management practices on export value addition in the tea subsector industry and asserted that digital innovation practice were key in service delivery in order to propel export value addition and hence foreign exchange earnings performance.

From the research study, it was noted that cloud computing was necessary in digital innovation practice through more flexible and reliable, increased performance and efficiency and helping in reducing IT related costs at regulatory agencies in Kenya, as indicated by a mean score of 4.160 and a standard deviation of 1.902. These findings were consistent with Wambugu *et al*., (2022) who did a study on the on the effect of innovation on service delivery in the public sector in Kenya and strongly indicated that cloud computing enhanced performance of citizens self-serving and accessing government function through platforms that are easily accessed.

4.2 Inferential Statistics

The first specific objective of the study was to establish the influence of digital innovation practice on service delivery in regulatory agencies in Kenya. The associated null hypothesis was that digital

innovation practice has no significant influence on service delivery of regulatory agencies in Kenya. A univariate analysis was conducted in which service delivery in regulatory agencies in Kenya was regressed on digital innovation practice.

The R-Squared depicted the variation in the dependent variable that can be explained by the independent variables. The greater the value of R-squared the greater the effect of independent variable. The R Squared can range from 0.000 to 1.000, with 1.000 showing a perfect fit that indicates that each point is on the line. As indicated in Table 4 the R-squared for the relationship between digital innovation practice and service delivery in regulatory agencies in Kenya was 0.241; this is an indication that at 95% confidence interval, 24.1% of variation in service delivery in regulatory agencies in Kenya can be attributed to changes in digital innovation practice. Therefore, digital innovation practice can be used to explain 24.1% of changes in service delivery in regulatory agencies in Kenya but there are other factors that can be attributed to 75.9% change in service delivery in regulatory agencies in Kenya.

Table 4: Model Summary for Digital Innovation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.491[a]	.241	.240	.67231

a. Predictors: (Constant), digital innovation practice

The analysis of variance was used to determine whether the regression model is a good fit for the data. It also gave the F-test statistic; the linear regression's F-test has the null hypothesis that there is no linear relationship between the two variables. From the analysis of variance (ANOVA) findings in Table 5, the study found out that that Prob>$F_{1, 286}$= 0.000 was less than the selected 0.05 level of significance. This suggests that the model as constituted was fit to predict service delivery in regulatory agencies in Kenya. Further, the F-calculated, from the table (531.05) was greater than the F-critical, from f-distribution tables (3.874) supporting the findings that digital innovation practice can be used to predict service delivery in regulatory agencies in Kenya.

Table 5: ANOVA for Digital Innovation

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	45.67	1	45.67	531.05	.000[b]
	Residual	24.725	286	0.086		
	Total	70.395	287			

a. Dependent Variable: service delivery in regulatory agencies in Kenya

b. Predictors: (Constant), digital innovation

From the results in Table 6, the following regression model was fitted.

$Y = 0.236 + 0.376 X_1$

(X_1 Is Digital Innovation)

The coefficient results showed that the constant had a coefficient of 0.236 suggesting that if digital innovation was held constant at zero, service delivery in regulatory agencies in Kenya would be 0.236 units. In addition, results showed that digital innovation coefficient was 0.376 indicating that a unit increase in digital innovation would result in a 0.376 improvement in service delivery in regulatory agencies in Kenya. It was also noted that the P-value for digital innovation practice coefficient was 0.000 which is less than the set 0.05 significance level indicating that digital innovation practice was significant. Based on these results, the study rejected the null hypothesis and accepted the alternative that digital innovation has positive significant influence on service delivery in regulatory agencies in Kenya.

Table 6: Beta Coefficients for Digital Innovation

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.236	.074		3.189	.000
	digital innovation practice	0.376	0.099	0.377	3.798	0.000

a. Dependent Variable: service delivery in regulatory agencies in Kenya

5.0 Conclusion of the Study

It can be concluded that digital measures (artificial intelligence, data analytics and data sharing) had a statistically significant and positive correlation effect on service delivery of regulatory agencies in Kenya linked to reliability, tangibles and responsiveness. The regression and correlation results revealed a statistically significant positive linear relationship effect between digital innovation practice measures (artificial intelligence, data analytics and data sharing) and service delivery of regulatory agencies in Kenya linked to reliability, tangibles and responsiveness. This was attributed to regulatory agencies in Kenya deploying artificial intelligence, data analytics and data sharing in order to enhance digital innovation practice and overall service delivery of regulatory agencies in Kenya.

6.0 Recommendations

From the study findings, the following are the recommendations:

1. Develop a digital innovation strategy, complemented by a plan of action and an impact assessment instrument.
2. Develop a digital innovation legal and regulatory framework to safeguard citizens' digital rights and incorporate the potential implications of increasing use of emerging technologies and data into existing legal safeguards.

3. Promote and enforce the adoption of digital innovation standards and guidelines to offer more coherent, interoperable, and resilient digital government infrastructures.
4. Invest in the development of important key digital innovation enablers and provide incentives for their use across the regulatory agencies and the public sector.

7.0 Areas for Further Research

This research provides empirical evidence on effect of digital innovation (artificial intelligence, data analytics and data sharing) on service delivery of regulatory agencies in Kenya. There are aspects of strategic innovation management, which can only be explored through further research such as to determine their effect on service delivery of regulatory agencies in Kenya. This study focused only on strategic innovation management in Kenya, more research should also be carried out on this topic in a different country to compare the findings in this research especially to extend the research on perspectives of strategic management related practices and to cover more geographical locations to other countries especially in Africa.

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