

## TECHNOLOGICAL INNOVATION AND THE PERFORMANCE OF NATIONAL IDENTITY MANAGEMENT COMMISSION IN NIGERIA

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### ABSTRACT

*Technological innovation has profoundly influenced the operations and the performance of National Identity Management Commission (NIMC) in Nigeria. The study examines technological innovation and performance of NIMC in Nigeria. The specific objectives of the study were to; examine the effect of Collaboration on the performance of NIMC in Nigeria; determine the effect of Ideation on the performance of NIMC in Nigeria. The study employed survey research design. The population of the study consists of 576 staff of NIMC selected from six states to represent six Political Zone in Nigeria, such as (Kogi, Adamawa, Kano, Enugu, Rivers and Lagos). The primary source of data was used via questionnaire to obtained information from the respondents. The study employed descriptive and multiple regression analyses to test the two hypotheses formulated. The study revealed that; collaboration and ideation significantly enhances the performance of the NIMC in Nigeria through fostering innovation, improving efficiency and ensuring stakeholder satisfaction. The study concluded that, integrating advanced technologies, NIMC can significantly enhance its operational efficiency, improve data accuracy and streamline identity management processes, these improvements lead to better service delivery, increased stakeholder satisfaction and overall organizational effectiveness. The study recommended that, NIMC should continuously invest in cutting-edge technologies, including artificial intelligence, machine learning and blockchain, to enhance the accuracy security and efficiency of identity management processes.*

**Keyword:** Technology, Innovation, Collaboration, Ideation, National, Identity, Management, Commission, Nigeria.

## INTRODUCTION

Technological innovation has become a cornerstone of modern governance, playing a crucial role in enhancing the efficiency and effectiveness of public sector organizations. In Nigeria, the National Identity Management Commission (NIMC) stands as a pivotal agency responsible for the identification and management of the country's citizenry and residents. Established with the mandate to create, manage, and maintain a secure, comprehensive database of identities, NIMC's performance is intricately linked to its ability to leverage technological advancements (Ayeeni, 2020). The integration of cutting-edge technology within NIMC's operations has the potential to significantly transform identity management processes; from biometric data collection to the deployment of advanced digital infrastructure, technological innovation is key to addressing the numerous challenges faced by the commission. In recent years, the global shift towards digitalization has underscored the importance of robust identity management systems (Onaolapo & Adeyinka, 2020). For Nigeria, a country with a rapidly growing population and a diverse socio-economic landscape, the efficiency of NIMC is not only vital for governance but also for economic development and social inclusion, by harnessing technological innovation, NIMC can enhance its performance, thereby contributing to the broader goals of national security, economic growth, and improved public service delivery. This introduction sets the stage for an in-depth exploration of the interplay between technological innovation and the performance of the National Identity Management Commission in Nigeria, highlighting the transformative potential of modern technologies in strengthening national identity management systems (Adeniran, 2019). Moreover, the process of ideation, fueled by technological innovation, fuels the conception and refinement of novel solutions tailored to the evolving needs of national identity management.

Collaboration in identity management is the enhancement of data accuracy and integrity. By pooling resources and expertise, stakeholders can implement robust data verification mechanisms, reducing the likelihood of errors and discrepancies (Akinnuwesi et al., 2020). For instance, collaborative efforts between government agencies, technology firms, and identity experts can lead to the development of sophisticated biometric authentication systems, thereby bolstering the reliability of identity verification processes (Smith et al., 2018). Ideation encompasses the generation, evaluation, and refinement of ideas, underpinned by technological tools such as data analytics, artificial intelligence, and design thinking methodologies. By fostering a culture of innovation, stakeholders can devise strategies to address emerging challenges, such as identity theft and privacy concerns, thereby fortifying the integrity of national identity management frameworks (Jones & Patel, 2020).

The performance of National Identity Management in Nigeria has been a subject of scrutiny and criticism over the years, primarily due to challenges in implementation, infrastructure, and adoption. The National Identity Management Commission (NIMC) is tasked with the responsibility of managing the identity system in Nigeria, which includes the issuance of National Identification Numbers (NIN) and National Identity Cards (ID Cards). However, several factors have hindered its effectiveness:

One of the major challenges faced by the NIMC is the low enrollment rate. Despite the government's efforts to increase awareness and incentivize enrollment, a significant portion of the population remains unregistered.

The NIMC in Nigeria faces significant challenges in achieving its mandate due to issues related to technological innovation. Despite the critical role of the NIMC in providing a reliable and secure identity management system for the country, there are concerns about its performance in terms of efficiency, accuracy, and accessibility. Key problems include outdated technological infrastructure, inadequate integration of advanced technologies, and limited digital literacy among the population. (Monye & Koker, 2022) These challenges hinder the NIMC's ability to effectively manage and protect national identity data, leading to inefficiencies and potential security vulnerabilities (Ohiani, 2020). Addressing these issues through targeted technological innovations is essential for improving the overall performance and reliability of the NIMC in Nigeria.

The following questions were raised to address below objectives

- i. To what extent does collaboration enhances the performance of NIMC in Nigeria?
- ii. To what extent does Ideation enhances the performance of NIMC in Nigeria?

The main objective of the study is to investigate technological innovation and the performance of NIMC in Nigeria.

The specific objectives were to:

- i. Examine the effect of collaboration on the performance of NIMC in Nigeria.
- ii. Determine the effect of ideation on the performance of NIMC in Nigeria.

The following null hypotheses were formulated for the study;

HO<sub>1</sub>: Collaboration has no significant effect on the performance of NIMC in Nigeria

HO<sub>2</sub>: Ideation has no significant effect on the performance of NIMC in Nigeria

## REVIEW OF RELATED LITERATURE

### Concept of Technology Innovation

Technological innovation can be defined as "the development and application of new products, processes, and services with the aim of improving performance, efficiency, and effectiveness." It involves the creation and use of new technologies or the adaptation of existing ones to address challenges and create opportunities in various domains (Adeyemi, 2023). Product innovation deals with the development of new or improved goods or services. Process innovation involves enhancing the methods and procedures used to produce or deliver these goods and services. Business model innovation pertains to the creation of new ways of organizing and monetizing technology-related activities (Okpalaoka et al., 2022).

Technological innovation is a driving force behind economic growth, competitiveness and job creation; it leads to increased productivity, efficiency, and the development of new industries and markets (Theophilus, 2023). Additionally, it addresses societal challenges and improves the quality of life, such as advancements in healthcare, energy and communication technologies. (Oluwaseun et al., 2016). Technological innovation does not occur in isolation but within a broader innovation ecosystem. This ecosystem includes various stakeholders, such as government agencies, research institutions, businesses, and individuals. Collaboration and knowledge exchange among these entities are essential for fostering innovation. (Uchekukwu, et al., 2016).

Technological innovations, particularly the adoption of biometric technology, have streamlined the identity registration and verification processes, this has led to increased efficiency and speed in providing identity

services. Citizens can obtain their National Identification Numbers (NIN) and National ID cards more quickly, enhancing their overall experience. Innovations such as biometric data collection (fingerprint and facial recognition) have significantly improved the accuracy and security of identity data. Biometric technology reduces the risk of fraudulent identity registrations and identity theft, safeguarding citizens' personal information (Oyedeji, 2018).

### **Collaboration and the performance of NIMC in Nigeria**

Effective collaboration between NIMC and other government agencies is essential for the seamless integration of identity management services, agencies such as the Nigeria Immigration Service (NIS), Independent National Electoral Commission (INEC), and the Federal Road Safety Corps (FRSC) can share data and resources to streamline identity verification processes; this reduces redundancy, improves data accuracy and enhances service delivery. Collaborating with technology providers to integrate advanced biometric and data management systems can enhance the accuracy and security of the national identity database. Technology partnerships can also facilitate the development of mobile enrollment units and digital platforms, making it easier for citizens to register and update their information (Ogochukwu, 2021).

### **Ideation and the performance of National Identity Management Commission in Nigeria**

Ideation refers to the process of generating, developing and communicating new ideas. It involves brainstorming, creative thinking, and problem-solving to come up with innovative solutions or concepts, in the context of organizations like the NIMC in Nigeria (Suleiman & Maiangwa, 2017). Ideation encourages NIMC to explore new methods, technologies, and approaches for identity management, this can lead to the development of more efficient enrollment processes, improved data management systems, and enhanced security protocols, through ideation, NIMC can identify and address challenges more effectively and this includes finding solutions to logistical issues in enrollment centers, addressing data quality concerns and adapting to technological advancements in identity verification, it fosters the generation of ideas for engaging stakeholders, such as government agencies, private sector partners and community organizations, this can lead to collaborative initiatives that broaden the reach and effectiveness of identity management services (Olawale, 2021).

### **The Impact of Technological Innovation on NIMC in Nigeria**

Technological innovation has the potential to significantly impact the performance of the NIMC in Nigeria across various dimensions (Faboye, 2022).

**Efficiency in Enrollment Processes:** Technological innovations such as biometric identification systems (e.g., fingerprint, iris scanning) and digital registration platforms can streamline the enrollment processes at NIMC; this reduces the time and resources required for capturing and verifying identity information, leading to faster issuance of national identification numbers (NINs) and cards.

**Enhanced Accuracy and Security:** Advanced technologies improve the accuracy and security of identity data managed by NIMC. Biometric authentication methods reduce the likelihood of identity fraud and duplication. Secure databases and encryption technologies protect personal information, ensuring compliance with data protection regulations and enhancing public trust.

**Increased Coverage and Accessibility:** Technological innovations enable NIMC to extend its services to remote and underserved areas. Mobile registration units equipped with biometric devices can reach populations that previously had limited access to identity services. Digital platforms for registration and verification facilitate easier interaction with citizens, including online and mobile channels.

**Improved Service Delivery:** By leveraging technology, NIMC can improve overall service delivery to citizens. Automated processes reduce administrative bottlenecks, allowing staff to focus on higher-value tasks such as customer support and quality assurance. Integration with other government agencies and service providers enables seamless verification of identities for various purposes, such as voting, healthcare access, and financial services.

**Cost Efficiency:** While initial investments in technology may be significant, the long-term operational costs can decrease due to efficiencies gained. Automated processes reduce the need for manual data entry and paperwork, minimizing operational expenses and improving budget allocation for other critical areas of identity management.

### **Performance Measurement of National Identity Management Commission in Nigeria**

The performance indicators of the NIMC in Nigeria typically include:

**Enrollment Rates:** This measure the percentage of the population enrolled in the National Identity Database relative to the total population. Higher enrollment rates indicate broader coverage and effectiveness in reaching citizens.

**Issuance of National Identification Numbers (NIN):** The number of NINs issued shows progress in assigning unique identification numbers to individuals, which is crucial for various government services and identity verification.

**Integration with Government Services:** The extent to which NIMC's infrastructure is integrated with other government services (e.g., voter registration, healthcare, education) can indicate efficiency and accessibility of identity verification processes.

**Infrastructure Development:** Investments in infrastructure, such as enrollment centers and digital infrastructure for data management and security reflect NIMC's capacity to handle increasing demands and ensure data protection.

**Service Accessibility and Turnaround Time:** Metrics related to the accessibility of NIMC services (e.g., availability of enrollment centers) and the time it takes for citizens to obtain their NINs and related services.

**Public Awareness and Education:** Indicators measuring public awareness campaigns and education efforts aimed at encouraging citizens to enroll and understand the benefits of having a national identity number.

**Data Security and Privacy Measures:** Measures and audits of data security protocols and privacy protections implemented by NIMC to safeguard citizens' personal information.

**Compliance and Regulatory Adherence:** Adherence to regulatory frameworks and standards set by national laws and international best practices in identity management.

### **Challenges of Technological Innovation toward the performance of National identity Management Commission**

Technological innovation holds great promise for enhancing the performance of the NIMC in Nigeria. However, several challenges need to be addressed for these innovations to be effectively implemented and sustained (Ogochukwu, 2021):

**Infrastructure Limitations:** Nigeria faces significant challenges in terms of technological infrastructure, especially in rural and underserved areas; Limited access to electricity, internet connectivity, and reliable telecommunications networks can hinder the deployment and operation of advanced technology solutions by NIMC, this could result in unequal access to identity services across different regions of the country.

**Data Privacy and Security Concerns:** Protecting the privacy and security of personal data is paramount in identity management. Technological innovations, such as biometric databases and digital platforms, increase the risk of data breaches, identity theft, and unauthorized access if not properly secured. Concerns about data privacy and security can erode public trust in NIMC's identity management systems.

**Financial Constraints:** Implementing and maintaining technological innovations often require substantial financial resources, this includes investments in hardware, software, infrastructure upgrades and ongoing maintenance costs. Limited financial resources may delay the adoption of advanced technologies by NIMC or restrict the scale of deployment; this could lead to slower progress in improving service delivery and achieving operational efficiencies.

**Skills and Capacity Building:** Effective utilization of technological innovations requires skilled personnel capable of managing and maintaining complex systems, there may be gaps in technical expertise and capacity within NIMC and its partner organizations. This could lead to operational inefficiencies, errors in data management, and challenges in providing technical support to users.

**Integration with Existing Systems:** NIMC's identity management systems need to integrate seamlessly with other government agencies, private sector entities, and service providers. Legacy systems and disparate databases pose integration challenges. Incomplete integration can lead to duplication of efforts, inconsistencies in data, and delays in identity verification processes.

## **Theoretical Framework**

### **Resource-Based Theory**

The theory was initially postulated by Edith Penrose in 1959. The theory suggests that competitive advantage stems from valuable, rare and inimitable internal resources. For NIMC, this means focusing on leveraging its existing resources such as its expertise in biometric technology, data management systems, and regulatory frameworks for identity management. RBV emphasizes the importance of investing in technological capabilities that are difficult for competitors to replicate (Ayeni, 2020). NIMC should prioritize investment in state-of-the-art biometric systems, secure databases, and digital identity platforms to enhance its technological infrastructure and stay ahead in the field of identity management (Jacob et al., 2021).

RBV underscores the significance of human capital in driving innovation and performance. NIMC can invest in training programs to develop the skills of its workforce in areas such as data analytics, cybersecurity, and emerging technologies, ensuring that it has the necessary expertise to implement and manage innovative identity management solutions. RBV highlights the strategic importance of alliances and partnerships in accessing external resources and capabilities. NIMC can collaborate with technology firms, research institutions, and government agencies to access expertise, technologies, and funding for technological

innovation projects, thereby strengthening its position in the identity management sector (Akinnuwesi et al., 2020).

RBV suggests that sustainable competitive advantage arises from possessing resources and capabilities that are valuable, rare, and difficult to imitate. By continuously investing in its technological capabilities, human capital, and strategic partnerships, NIMC can create a unique and difficult-to-replicate system for identity management, leading to superior performance and market leadership. RBV emphasizes the importance of performance measurement systems that capture the contribution of internal resources to organizational performance. NIMC should develop metrics to assess the effectiveness of its technological innovation efforts, such as the adoption rate of digital identity services, accuracy of biometric authentication, and efficiency of data management processes, to ensure that its investments in technology are yielding desired results (Onifade et al., 2015).

### **Empirical Review**

Mario et al, (2023), study delve into the correlation between collaborative innovation and the financial success of small and medium-sized enterprises (SMEs) in Portugal's IT sector. They explore how absorptive capacity, along with intellectual capital comprising human, organizational, and social aspects, mediates and moderates this relationship. Gathering data from 308 employees and managers, they utilized close-ended questionnaires and adapted to the pandemic's constraints by incorporating online surveys. Employing a simple random sampling technique, they analyzed the data using PLS-SEM methodology. Their findings reveal a positive and significant link between collaborative innovation and financial performance among IT firms in Portugal. Additionally, absorptive capacity emerges as a crucial mediator in this relationship, while intellectual capital's moderating influence bolsters the connection between collaborative innovation and absorptive capacity.

Nwani and Odiri (2023), investigated how strategy implementation affects the performance of deposit money banks in Nigeria, focusing on top and middle management at Zenith Bank Plc, Access Bank, Guaranty Trust Bank, First Bank Plc, and United Bank of Africa Plc headquarters. Using a descriptive research design, they surveyed 252 individuals, with 205 respondents. Data was collected via questionnaires, and simple regression analysis was employed. Their findings indicated a significant statistical correlation between strategy implementation and prompt service delivery, customer satisfaction, corporate social responsibility, and employee engagement. They recommend that managers and stakeholders prioritize prompt service delivery, social responsibility, employee engagement, and customer satisfaction to thrive in the competitive business landscape.

Fernandes et al. (2022) conducted quantitative research to explore the mediating role of collaborative professionals between transformational leadership and job satisfaction. Their study involved a sample size of 93 individuals, determined by saturation. Smart-PLS analysis was utilized for data analysis. The findings revealed a significant positive effect of transformational leadership on professional collaboration, which in turn positively influenced job satisfaction. Additionally, the study identified a significant positive effect of the mediating role of professional collaboration between transformational leadership and job satisfaction. The insights from this research are intended to inform school leaders, suggesting improvements in implementing

leadership values such as stimulation, inspiration, motivation, and individual consideration in school programs.

Obialo and Akinjo (2021) explore the impact of three distinct sources of idea generation on business expansion within the Ibadan North Local Government Area of Oyo State, Nigeria. Their study involved a purposive sampling of 195 entrepreneurs, comprising 71 males (36%) and 124 females (64%), predominantly involved in ventures requiring creativity. Utilizing descriptive statistics and regression analysis, the researchers found that individual, corporate, and customer-centered ideation significantly influenced the growth trajectories of the surveyed entrepreneurs. Accordingly, these entrepreneurs actively sought inspiration from these diverse sources. The findings underscore the importance of fostering awareness regarding the value of ideational skills among both existing and aspiring entrepreneurs, as well as their employees, through targeted training initiatives. Such efforts are seen as essential for fostering sustained creativity and innovation within Nigerian enterprises. Furthermore, the study advocates for governmental and policy interventions aimed at incentivizing and facilitating business growth through the promotion and support of ideational prowess.

### Gap in Literature

Despite the significant strides in technological advancements and their potential to enhance public sector performance, there remains a noticeable gap in the literature concerning the specific impact of technological innovation on the performance of the National Identity Management Commission (NIMC) in Nigeria.

While there are studies on the adoption of various technologies in the public sector, there is a lack of comprehensive evaluations specifically focused on how NIMC has adopted and integrated these technologies into its operations, this includes an assessment of the effectiveness and efficiency of these technologies in improving service delivery, reducing fraud and increasing the accessibility of identity management services.

There is limited empirical evidence on how technological innovations have impacted the operational efficiency of NIMC. Studies are needed to measure the extent to which technology has streamlined processes, reduced administrative burdens, and improved the accuracy and reliability of identity data.

The interoperability of NIMC's technological systems with other governmental and private sector databases is another area that requires more exploration. Studies could examine the challenges and successes in achieving seamless integration, which is crucial for the broader use of national identity data in various sectors.

### METHODOLOGY

The study made use of survey research design. Information was gathered from both primary and secondary sources. 576 staff of NIMC formed the population of the study. Random sampling technique that gives each subject in a population an equal chance of showing up in the selection was used to calculate the sample size. The sample size of this population was determined using Krejcie and Morgan (1970) formula. This technique is used when the population for the study is known. The formula for Krejcie and Morgan is stated as:

$$\frac{x^2 N(1 - 9)}{d^2(N - 1) + x^2 P(1 - p)}$$

Where;

S = Sample size

X<sub>2</sub> = The table value of chi-square for 1 degree of freedom at the desire confidence level (3.841).

N = Population Size

d = the degree of accuracy expressed as a proportion (.05)

Therefore;

$$S = \frac{(3.841)(576*.5)(1-.5)N(1-9)}{(.05)^2(576-1)+ 3.841*.5(1-.5)}$$

$$S = \frac{(3.841)(288)(.5)}{(.0025)(287)+ 3.841*.5(.5)}$$

$$S = \frac{553.104}{0.7175+0.96025}$$

$$S = \frac{553.104}{1.677.75}$$

S = 329.67     S = 330

Therefore, the sample size for this study is 330

Table 3.1: Proportionate distribution of sample amongst the selected NIMC in six geopolitical zones

S/N	geopolitical zones	Population. Size for each state	Total study Population	Sample Size	Proportionate Sample Size	Sample percentage (%)
1	North, Central Zone: Kogi	88	576	330	50	15%
2	North East Zone: Adamawa	90			52	16%
3	North West Zone: Kano	103			59	18%
4	South East Zone: Enugu,	100			57	17%
5	South South Zone: Rivers,	94			54	16%
6	South West Zone: Lagos	101			58	18%
	Total	576			330	100%

Source: (Developed by the Researcher, 2024)

For the analysis,  $p = 0.05$  was chosen as the significant level. The basis for accepting or rejecting each hypothesis is its level of relevance. To evaluate the hypotheses, multiple regression analysis was employed, with assistance from SPSS v.20, a statistical program for the social sciences.

**DATA ANALYSIS AND DISCUSSION OF FINDINGS**

A total of Three Hundred and Thirty (330) questionnaires were administered to the staff of National Identity Management Commission from six states of six geopolitical zones namely, North Central Zone: Kogi, North East Zone: Adamawa, North West Zone: Kano, South East Zone: Enugu, South South Zone: Rivers, South West Zone: Lagos; all of the returned copies serve as the foundation for the study. Multiple regression analysis was the primary method used to test the hypotheses, and SPSS version 23 was utilized for this purpose.

**Model Specification**

The dependent variable is performance of National Identity Management Commission in Nigeria. (NIMC), while the independent variable is technological innovation proxies by collaboration (CO), ideation (ID). To achieve all the hypotheses, multiple linear regression analysis were used to estimate the model. The model is presented thus:

$$PNIMC = f(CO, ID)$$

$$OCSME_i = \beta_0 + \beta_1CO_i + \beta_2ID_i + e_i \text{-----} (1)$$

Where: NIMC = an indicator representing performance of national identity management (Dependent Variable);

$\beta_0$  = a constant and  $\beta_{1-4}$  = coefficients of independent variables;

CO = a predictor representing (collaboration);

ID= a predictor representing (ideation);

e= Stochastic error term;

$i$  = Cross-sectional; and

$f$  = Functional relationship

**Testing of Hypotheses**

The table below was used to test the hypotheses of the study.

**Table 1: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.826 <sup>a</sup>	.682	.680	.50967

a. Predictors: (Constant), Collaboration, Ideation

The model summary as indicated in table 1 shows that R square is 0.682 this implies that 68.2% of variation in the dependent variable (NIMC performance) were explained by the constant variables (collaboration and ideation) while the remaining 31.8% is due to other variables that are not included in the model.

**Table 2: Analysis of Variance (ANOVA<sup>a</sup>)**

Model	Sum of Squares	df	Mean Square	F	Sig.

1	Regression	182.180	2	91.090	350.668	.000 <sup>b</sup>
	Residual	84.942	327	.260		
	Total	267.122	329			

- a. Dependent Variable: NIMC performance
- b. Predictors: (Constant), Collaboration, Ideation

Table 2 displays an estimated F-value of 350.668, accompanied by a significance value of .000. This value is less than the P-value of 0.05 ( $p < 0.05$ ), indicating that the explanatory variable element has the ability to impact changes in the dependent variable (NIMC performance).

**Table 3: Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.350	.084		4.142	.000
	Collaboration	.722	.030	.777	24.067	.000
	Ideation	.127	.028	.144	4.469	.000

- a. Dependent Variable: NIMC performance

NIMC performance is the dependent variable, as seen in Table 3. The National Identity Management Commission in Nigeria was evaluated using this as a benchmark for technological innovation and performance. Collaboration and ideation are the predictors, as Table 3 illustrates. It is clear that the independent variables and dependent variable (NIMC performance) are positively correlated. According to the result in the table above, collaboration and ideation t-test coefficient are; 24.067 and 4.469, Since the P-value is 0.000 which is less than 0.05 (i.e.  $P < 0.05$ ). This means that these variables are statistically significance at 5% significance level. Therefore, the null hypotheses are rejected.

**Discussion of Finding**

The result of the test in research hypothesis one, using regression analysis at 5% level of significance resulted in our rejecting the null hypothesis ( $H_0$ ) and accept alternative hypothesis ( $H_i$ ) which gathered that; the high t-statistic (10.307) suggest a strong positive effect of collaboration on the performance of NIMC in Nigeria. This finding supports the view of (Howard et al., 2016) and (Igbelokoto, 2021) who opined that, internally, NIMC consists of various departments and units responsible for different aspects of identity management, such as enrollment, data processing and customer service. Collaborative efforts ensure that these departments work cohesively towards common objectives without silos or redundant efforts; collaboration fosters coordination among teams, allowing for better resource allocation, workflow optimization, and timely decision-making. Collaborating with other government bodies (e.g., Ministry of Interior, Nigerian Communications Commission) ensures regulatory compliance, facilitates data sharing (where permissible), and supports interoperability between various government services, engaging with

private sector entities, such as telecom companies for SIM registration or banks for identity verification, expands NIMC's reach and service capabilities.

In research hypothesis two, the researcher gathered that, ideation involves generating new ideas or improving existing processes within NIMC. This could include streamlining enrollment procedures, enhancing data security measures, or integrating new technologies for better service delivery. Encouraging feedback from stakeholders (citizens, users, partners) and incorporating their ideas can lead to continuous improvement in NIMC's operations and services. This finding support the view of (Monye & Koker, 2022) who revealed that, ideation can focus on simplifying and accelerating the NIN (National Identification Number) enrollment process. This includes optimizing the steps involved, reducing paperwork, and enhancing the user experience at enrollment centers; for instance, introducing online appointment systems, mobile enrollment units for rural areas, or leveraging biometric technology to speed up identity verification. Continuous ideation is crucial for strengthening data protection protocols and safeguarding citizen information, this could involve adopting advanced encryption standards, implementing multi-factor authentication and conducting regular cybersecurity audits; ideation fosters a culture of innovation within NIMC, encouraging employees to propose creative solutions and explore new technologies that enhance operational efficiency and service quality.

## **CONCLUSION AND RECOMMENDATIONS**

Technological innovation has profoundly shaped the performance of the National Identity Management Commission (NIMC) in Nigeria, marking a pivotal shift towards more efficient, secure, and inclusive identity management practices. The adoption of biometric technologies, such as fingerprint and facial recognition systems, has significantly improved the accuracy and reliability of identity verification processes, while also enhancing service delivery and public trust; NIMC's commitment to innovation, evidenced by its collaborations, ideation processes, and effective implementation strategies, has not only streamlined operations but also positioned it at the forefront of identity management in the region. These advancements have mitigated bureaucratic inefficiencies, reduced duplication, and strengthened data security measures, laying a foundation for more robust national identity systems. Looking ahead, sustaining this momentum will require continued investment in technological upgrades, addressing infrastructural challenges, and prioritizing data privacy and security, by doing so, the NIMC can further enhance its capabilities, expand service accessibility, and contribute to broader socio-economic development goals in Nigeria.

The study recommends that, National Identity Commission should;

- i. Encourage strategic partnerships with other government agencies, private sector entities, and international organizations to enhance data collection, verification, and management processes. Collaborations can streamline operations, improve resource allocation, and ensure data security and privacy.
- ii. Foster a culture of innovation within NIMC by establishing platforms for continuous brainstorming and idea generation. This can lead to the development of new technologies, methodologies, and policies that enhance the efficiency and effectiveness of identity management processes.

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