

# Agile Methodologies and Organizational Performance of Selected Government Agencies in Delta State, Nigeria

Nwannebuife Roseline Biose<sup>1</sup> and A. Mukoro<sup>2</sup>

<sup>1</sup>Business School, Asaba Study Centre, Delta State University, Delta State, Nigeria.

<sup>2</sup>Department of Business Administration, Delta State University, Abraka, Delta State, Nigeria.

\*Corresponding author's email: [akpomuviremukoro@delsu.edu.ng](mailto:akpomuviremukoro@delsu.edu.ng)

Received 5 September 2025, Accepted 10 November 2025, Published 1 December 2025

## Direct Research Journal of Management and Strategic Studies



Vol. 6(1), Pp. 156-163, November 2025,

Author(s) retains the copyright of this article

This article is published under the terms of the Creative Commons Attribution License 4.0.

<https://journals.directresearchpublisher.org/index.php/drjmss/index>

Research Article  
ISSN: 2787-009X

### ABSTRACT

*This study examines the influence of Agile Planning (AP), Continuous Improvement (CI), and Team Collaborations (TC) on Organizational Performance (OP) in selected government agencies in Delta State, Nigeria. A survey research design was employed, with 222 questionnaires distributed and 215 valid responses analyzed (96.8% response rate). The results were analyzed through descriptive statistics, correlation, and regression techniques. Findings revealed strong agreement among respondents regarding the adoption of agile practices, with mean scores above 4.0 across AP, CI, TC, and OP. Correlation analysis demonstrated significant positive relationships between AP ( $r = 0.712$ ), CI ( $r = 0.689$ ), TC ( $r = 0.735$ ), and OP ( $p < 0.01$ ). Regression results confirmed that AP ( $\beta = 0.345$ ), CI ( $\beta = 0.301$ ), and TC ( $\beta = 0.362$ ) each exerted a significant effect on OP, jointly explaining 65.9% of its variance ( $R^2 = 0.659$ ). These findings highlight the critical role of agile methodologies in enhancing responsiveness, efficiency, and service delivery in public institutions. The study contributes to the literature on agile governance by empirically validating its relevance in the Nigerian public sector, where institutional challenges often hinder performance. It concludes that embedding agile planning frameworks, continuous improvement programs, and collaborative cultures can significantly strengthen organizational outcomes. Recommendations include formal adoption of agile structures, establishment of feedback-driven improvement systems, and promotion of cross-departmental collaboration to achieve sustainable performance and public value creation.*

**Keywords:** Agile Methodologies, organizational performance, agile planning, Continuous Improvement collaborations



Citation: Biose, N. R. & Mukoro, A. (2025). Agile Methodologies and Organizational Performance of Selected Government Agencies in Delta State, Nigeria. *Direct Research Journal of Agriculture and Food Science*. Vol. 6(1). Pp. 156-163.  
<https://doi.org/10.26765/DRJMSS026423517146>

## INTRODUCTION

The increasing complexity of today's work environments has compelled organizations both private and public to adopt more flexible and adaptive approaches to management. Agile methodologies, which originated in the software development sector, have evolved into organization-wide frameworks for improving responsiveness, accelerating decision-making, and enhancing customer or stakeholder value (Rigby, Sutherland, & Takeuchi, 2016). Agile approaches emphasize iterative planning, continuous feedback, cross-functional collaboration, rapid learning, and decentralized decision-making, making them suitable for institutions operating in dynamic and uncertain environments (Denning, 2018).

In recent years, growing interest has emerged regarding the applicability of agile methodologies within the public sector. Government agencies often operate within rigid bureaucratic structures that slow decision-making, limit innovation, and impede effective service delivery. However, studies show that when properly adapted, agile practices can improve public-sector outcomes by promoting transparency, shortening project cycles, increasing employee involvement, and enhancing flexibility in policy implementation (Lappi, Aaltonen, & Kujala, 2020). Nonetheless, implementing agile principles in government organizations presents challenges such as resistance to change, hierarchical cultures, legal constraints, and limited digital infrastructure (Conforto et al., 2016). These barriers are even more pronounced in developing countries where institutional and technological capacity may be weaker.

In Nigeria, the need for improved public-sector performance has intensified due to rising citizen expectations, digital transformation efforts, and the drive for more efficient governance. Emerging studies indicate that agile principles are gradually gaining traction in Nigerian public institutions, particularly in areas related to digital governance, project management, and administrative reforms (Adebayo & Adegoke, 2022). Despite this, empirical research remains limited, especially regarding how agile methodologies influence organizational performance in specific state-level government agencies.

Delta State, like many other subnational governments in Nigeria, faces ongoing pressure to strengthen administrative efficiency, enhance service delivery, and manage public resources more effectively. As government agencies in the state seek to modernize their operations, agile methodologies offer a potential pathway for improving adaptability, responsiveness, and overall organizational performance. However, little is known about the extent of agile adoption in these agencies or the effectiveness of such approaches in the unique socio-administrative context of Delta State. This study therefore seeks to fill this gap by examining the effect of agile

methodologies on the organizational performance of selected government agencies in Delta State, Nigeria. By assessing how agile principles such as iteration, collaboration, adaptability, and continuous learning influence operational outcomes, the study contributes to the growing body of knowledge on public-sector agility in developing economies. The findings are expected to provide insights that can guide policymakers, public administrators, and organizational leaders in designing and implementing agile-driven reforms that enhance government performance.

Despite the increasing global adoption of agile methodologies as a framework for improving efficiency, responsiveness, and service delivery in public institutions, many government agencies in Delta State continue to struggle with bureaucratic delays, poor service delivery, limited innovation, and slow decision-making processes. Unlike private organizations that embrace agile frameworks to enhance adaptability and continuous improvement, public agencies often operate with rigid hierarchical structures, resistance to change, and inadequate digital capabilities. These limitations hinder the effective implementation of agile practices such as iterative planning, cross-functional collaboration, and rapid feedback cycles. Furthermore, empirical evidence on the application of agile methodologies within Nigerian government agencies remains scarce, leaving a gap in understanding how agile principles such as flexibility, team collaboration, and continuous improvement influence organizational performance outcomes, including efficiency, service quality, and employee productivity. This lack of empirical grounding creates uncertainty regarding whether agile methodologies can significantly improve the performance of government agencies in Delta State. Consequently, there is a compelling need to examine the extent to which agile methodologies contribute to organizational performance within the public sector and identify the factors that may facilitate or hinder their effectiveness.

## Literature Review

### Agile Methodologies

**Agile planning** refers to a flexible and iterative approach to organizing work, where tasks are broken into smaller units and continuously reprioritized based on changing organizational needs and stakeholder feedback. Rather than relying on rigid long-term plans, agile planning emphasizes short planning cycles (sprints), adaptability, and continuous review to ensure that teams respond effectively to emerging challenges and opportunities (Highsmith, 2010; Serrador & Pinto, 2015). It supports improved performance by enabling teams to plan, execute,

and adjust quickly in dynamic environments

### **Organizational Performance**

Organizational performance refers to the extent to which an organization achieves its goals effectively and efficiently across key dimensions such as productivity, service quality, employee satisfaction, innovation, and financial outcomes. It reflects how well an organization utilizes its resources to deliver value and maintain competitiveness in its environment (Richard et al., 2009). Organizational performance is also viewed as a multidimensional construct that includes both financial indicators such as profitability and return on investment—and non-financial indicators such as customer satisfaction, internal process improvement, and learning and growth (Kaplan & Norton, 1996). This broader perspective enables a more holistic assessment of organizational success in both the short and long term.

### **Government Agencies in Delta State, Nigeria**

**Government agencies** in Delta State, Nigeria, refer to public sector institutions established by the state government to implement policies, deliver public services, regulate socio-economic activities, and ensure effective governance within the state. These agencies function as administrative arms of the government responsible for translating government objectives into actionable programmes that address public needs such as infrastructure, health, education, environmental management, and economic development (Ayo & Ekong, 2021). They operate within defined legal and regulatory frameworks and are mandated to promote accountability, transparency, and efficient resource utilization to enhance public service delivery (Omodero, 2019). In Delta State, government agencies play a crucial role in ensuring that state policies are executed efficiently while contributing to sustainable development and improved living standards for citizens.

### **Agile planning (AP) and organizational performance of selected government agencies in Delta State**

Agile planning significantly influences organizational performance by promoting flexibility, rapid response to change, and improved service delivery within government agencies. Unlike traditional planning models that rely on rigid, long-term plans, agile planning emphasizes iterative cycles, continuous feedback, and adaptability, enabling public sector institutions to respond effectively to dynamic administrative and socio-economic conditions (Rigby et al., 2016). In government agencies in Delta State, this adaptability is crucial, given the frequent policy adjustments, resource constraints, and evolving public service needs. Agile planning enhances operational efficiency by breaking down complex projects into smaller,

manageable tasks, allowing teams to track progress, identify bottlenecks early, and adjust strategies accordingly (Denning, 2018). This iterative approach fosters faster decision-making, reduces delays, and improves overall productivity. Furthermore, agile planning promotes cross-functional collaboration and employee engagement, which strengthens teamwork, improves communication, and enhances the quality of public service delivery (Conforto et al., 2016). From a performance standpoint, government agencies adopting agile planning experience improved project completion rates, better alignment with stakeholder expectations, and enhanced capacity to deliver citizen-centric services. Agile planning also reduces waste, optimizes resource allocation, and supports continuous improvement, all of which contribute to enhanced organizational performance (Alahyari et al., 2017). Thus, in the context of Delta State, agile planning can serve as a strategic tool for improving efficiency, transparency, and overall service outcomes in government agencies.

### **Collaborations (TC) and improvement of operational efficiency and service delivery in government agencies**

Collaboration (TC) refers to the structured interaction, cooperation, and information sharing among individuals, departments, and external stakeholders to achieve common organizational goals. In government agencies, collaboration involves integrated efforts across units, joint problem-solving, knowledge exchange, and collective decision-making aimed at improving administrative processes and public service outcomes (Ansell & Gash, 2018). Effective collaboration enhances operational efficiency by reducing duplication of tasks, streamlining workflows, and enabling faster and more coordinated responses to emerging administrative needs (Emerson & Nabatchi, 2015).

Collaboration also improves service delivery by fostering shared understanding, promoting innovation, and ensuring that policies and programs are implemented more effectively through multi-stakeholder participation. When government units work collaboratively, they leverage diverse expertise, harmonize efforts, and enhance resource utilization, thereby improving the quality, timeliness, and responsiveness of services delivered to citizens (Bryson et al., 2017). In this regard, collaboration becomes a strategic mechanism that strengthens interdepartmental synergy, reduces bureaucratic bottlenecks, and ensures citizen-centric governance. Ultimately, collaboration contributes to improved operational efficiency and service delivery by building trust, enhancing communication, and supporting collective problem-solving all of which are essential for meeting the complex demands placed on modern government agencies.

## Continuous improvement (CI) and the performance of government agencies

Continuous Improvement (CI) refers to an ongoing, systematic, and incremental process through which organizations assess and enhance their operations, services, and internal processes in order to achieve higher levels of efficiency, effectiveness, and quality (Imai, 2018). In government agencies, CI involves regularly reviewing administrative procedures, identifying inefficiencies, and implementing targeted adjustments that support better allocation of resources, improved workflow, and enhanced service delivery (Oakland, 2019). The effect of CI on the performance of government agencies is significant because it fosters a culture of learning, innovation, and adaptability. Through CI practices such as feedback loops, performance reviews, and process optimization government institutions are able to respond more effectively to changing public needs, reduce operational bottlenecks, and enhance accountability (Deming, 2018). This continuous refinement helps agencies deliver faster, more reliable, and more citizen-focused services. Furthermore, continuous improvement strengthens organizational performance by enabling government agencies to adopt data-driven decision-making, enhance staff competence, and improve overall productivity (Kaye & Anderson, 2019). These improvements contribute to stronger institutional capacity, better public satisfaction, and increased trust in government systems. Thus, CI serves as a key driver of efficient governance and sustainable public sector performance.

### Empirical Review

Baxter, Dacre, Dong & Ceylan (2023) in *Institutional challenges in agile adoption: Evidence from a public sector IT project*, the authors examine how a large-scale IT programme in the UK defence sector adopted agile methodologies. Their qualitative empirical study explores the transition from traditional project management to agile, revealing that a shift to a “one-team culture” and “mission collaborator” mindset fosters greater collaboration, responsiveness, and alignment with public values. The study finds that, despite institutional and bureaucratic constraints such as governance, approval procedures, and rigid procurement structures agile practices improved project delivery outcomes and stakeholder engagement. This article provides practical evidence that agile can positively affect performance in government contexts, while highlighting the institutional tensions that must be managed for successful adoption.

Adeyinka & Adewumi (2023) in *Enhancing Public Service Delivery in Nigeria through Agile Practice*, Adeyinka and Adewumi conduct a qualitative review focused on how agile methodologies are being leveraged to restructure Nigeria’s public sector institutions toward more citizen-centric, service-oriented delivery.

The authors argue that adopting agile creates more responsive, networked organizational structures that depart from traditional bureaucratic rigidity. Their thematic content analysis suggests that agile adoption improves service delivery accessibility, reliability, and responsiveness, aligning government functions more closely with citizen needs and expectations. The study underscores the potential of agile to transform public-sector institutions in developing country contexts, offering empirical grounding for agile’s positive effect on organizational performance in such settings.

Ylinen (2024) in *Project governance in public sector agile software projects*, Ylinen presents a single-case empirical study of a municipal IT department’s adoption of agile IT-management practices in response to growing digital service demand. The findings demonstrate that agile governance characterized by cross-functional collaboration, adaptive management, and iterative delivery enhanced operational flexibility, improved collaboration among departments, and delivered better customer (citizen) service despite structural resistance and legacy bureaucratic procedures. The study highlights that even in the face of institutional barriers, agile adoption can lead to tangible performance gains in public-sector service delivery and internal efficiency, reinforcing the argument that agile methods are applicable and beneficial beyond private-sector firms.

### Theoretical Review

#### Resource-Based View (RBV) Theory

The Resource-Based View (RBV) Theory, developed by Barney (1991), posits that an organization’s sustainable competitive advantage is derived from its unique resources and capabilities that are valuable, rare, inimitable, and non-substitutable (VRIN). RBV emphasizes that internal resources tangible and intangible are crucial determinants of firm performance rather than merely external market conditions. These resources include skills, knowledge, technological capabilities, and organizational processes that enable firms to innovate and respond effectively to dynamic business environments. In the context of agile methodologies, RBV is particularly relevant because agile practices constitute a strategic capability that enhances a firm’s adaptability, collaboration, and responsiveness. Agile methodologies enable firms to optimize internal processes, streamline production cycles, and rapidly respond to market changes, thereby improving organizational performance. For aluminum manufacturing firms in Delta State, applying agile practices such as iterative planning, cross-functional collaboration, and continuous improvement can be viewed as leveraging internal organizational resources to achieve higher efficiency, quality, and competitiveness in the manufacturing sector. The RBV framework helps explain why firms that adopt **agile capabilities** as a unique

resource can outperform competitors that rely on traditional hierarchical processes. Agile practices, when treated as strategic resources, contribute to innovation, operational efficiency, and sustained business performance (Barney, 1991; Teece, Pisano, & Shuen, 1997). Hence, the RBV provides a **theoretical justification** for studying the effect of agile methodologies on the organizational performance of aluminum manufacturing firms.

## METHODOLOGY

### Research Design

The study adopted a descriptive survey research design, which is suitable for investigating the relationship between independent variables (Agile Planning, Continuous Improvement, and Team Collaborations) and the dependent variable (Organizational Performance). This design allows the collection of quantitative data from respondents across selected government agencies in Delta State to analyze patterns, relationships, and effects of agile methodologies on organizational performance (Kothari, 2021).

### Study Area

The study was conducted in Delta State, Nigeria, focusing on selected government agencies, including the Delta State Ministry of Finance, Ministry of Health, and Ministry of Works. Delta State, located in the Niger Delta region, is characterized by active government operations and policy implementations that make it suitable for examining organizational performance influenced by agile methodologies (National Bureau of Statistics, 2023).

### Study Population

The study population comprised all staff of the selected government agencies in Delta State, totaling 500 employees, including managerial, supervisory, and administrative staff, who are directly involved in operational and strategic activities.

### Sample Size

Using Yamane's (1967) formula for sample size determination:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = sample size

N = population size (500)

e = margin of error (0.05)

$$\begin{aligned} & n=500 \\ & \text{-----} \\ & 1+500(0.05)^2 \\ & =222 \end{aligned}$$

A sample size of 222 respondents was selected for this study

### Sampling Techniques

The study employed a stratified random sampling technique, which ensures that all staff categories (management, supervisory, and administrative) are proportionally represented (Table 1). This enhances the reliability and generalizability of the findings (Etikan, Musa, & Alkassim, 2016).

**Table 1:** Sample distribution by agency.

Agency	Population (N)	Sample (n)
Ministry of Finance	150	67
Ministry of Health	200	89
Ministry of Works	150	66
<b>Total</b>	<b>500</b>	<b>222</b>

Source: Researcher's fieldwork, 2025

### Sources of Data Collection

Data were collected from both primary and secondary sources:

**Primary Data:** Collected directly from staff of the selected agencies using structured questionnaires.

**Secondary Data:** Obtained from organizational reports, official publications, and previous research studies on agile methodologies and organizational performance (Saunders, Lewis, & Thornhill, 2019).

### Method of Data Collection

The study employed questionnaire administration as the main method of data collection. The questionnaire was structured into sections corresponding to the study variables: Agile Planning (AP), Continuous Improvement (CI), Team Collaborations (TC), and Organizational Performance (OP). Likert scale items ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) were used to quantify responses.

### Instruments of Data Collection

The structured questionnaire was the primary instrument, comprising four sections:

**Section A:** Demographic characteristics of respondents (age, gender, position, years of experience).

- Section B:** Agile Planning (AP) items.
- Section C:** Continuous Improvement (CI) items.
- Section D:** Team Collaborations (TC) items.
- Section E:** Organizational Performance (OP) items.

**Validity of Instruments**

The questionnaire was subjected to content and construct validity through expert review by academic and industrial experts. Items were revised to ensure clarity, relevance, and alignment with research objectives (Creswell & Creswell, 2018).

**Reliability of Instruments**

Reliability was tested using Cronbach’s Alpha through a pilot study of 30 respondents from a government agency not included in the main study (Table 2). Results showed high reliability with coefficients above 0.70 for all variables. According to Nunnally (1978), values above 0.70 indicate acceptable internal consistency.

**Table 2:** Reliability was tested using Cronbach’s Alpha.

Variable	Cronbach’s Alpha
Agile Planning (AP)	0.81
Continuous Improvement (CI)	0.84
Team Collaborations (TC)	0.79
Organizational Performance (OP)	0.86

**Method of Data Analysis**

Data were analyzed using descriptive and inferential statistics. Descriptive statistics such as frequency, percentage, mean, and standard deviation summarized respondents’ demographic characteristics and perceptions. Inferential analysis involved multiple regression analysis to determine the effect of independent variables (AP, CI, and TC) on Organizational Performance (OP). The model specification is as follows:

$$OP = \beta_0 + \beta_1 (AP) + \beta_2 (CI) + \beta_3 (TC) + \epsilon$$

Where:

- OP = Organizational Performance (Dependent Variable)
- AP = Agile Planning
- CI = Continuous Improvement
- TC = Team Collaborations
- $\beta_0$  = Constant term
- $\beta_1, \beta_2, \beta_3$  = Regression coefficients
- $\epsilon$  = Error term

Analysis was performed using SPSS version 25, and results were interpreted at a 5% significance level ( $p < 0.05$ ).

**RESULTS AND DISCUSSION**

The study sought to examine the effect of Agile Planning (AP), Continuous Improvement (CI), and Team Collaborations (TC) on the Organizational Performance (OP) of selected government agencies in Delta State. Out of 222 questionnaires administered, 215 were returned and considered valid, representing a 96.8% response rate, which is sufficient for analysis (Saunders, Lewis, & Thornhill, 2019).

**Demographic Characteristics of Respondents**

The demographic profile (Table 3) demonstrates a balanced representation across gender, age, and years of service. Male respondents constituted 60.5%, while females accounted for 39.5%, reflecting the male-dominated nature of the public sector workforce in Delta State. The majority of respondents were between 30–39 years (41.9%), followed by those aged 20–29 and 40–49 (25.6% each), with only 6.9% aged 50 and above. In terms of tenure, most respondents had 6–10 years of service (39.5%), while 32.6% had 1–5 years. This distribution suggests that the sample comprised relatively young and mid-career professionals, consistent with findings that agile adoption is often driven by younger cohorts in public institutions (Adebayo & Adegoke, 2022; Alahyari, Svensson, & Gorschek, 2017).

**Table 3:** Demographic Characteristics of Respondents.

Demographics	Frequency	Percentage (%)
<b>Gender</b>		
Male	130	60.5
Female	85	39.5
<b>Age (Years)</b>		
20–29	55	25.6
30–39	90	41.9
40–49	55	25.6
50 and above	15	6.9
<b>Years of Service</b>		
1–5	70	32.6
6–10	85	39.5
11–15	40	18.6
16 and above	20	9.3

**Descriptive Analysis of Study Variables**

The descriptive statistics (Table 4) reveal high agreement across all variables: Agile Planning ( $M = 4.12$ ), Continuous Improvement ( $M = 4.05$ ), Team Collaborations ( $M = 4.18$ ), and Organizational Performance ( $M = 4.06$ ). These results indicate that agile methodologies are actively practiced in the agencies studied and are perceived to contribute positively to organizational performance. This finding aligns with Denning’s (2018) assertion that agile principles

**Table 4:** Mean Scores of Independent Variables.

Variable	N	Mean	Std. Dev	Interpretation
Agile Planning (AP)	215	4.12	0.63	High Agreement
Continuous Improvement (CI)	215	4.05	0.61	High Agreement
Team Collaborations (TC)	215	4.18	0.59	High Agreement
Organizational Performance (OP)	215	4.06	0.64	High Performance

**Table 5:** Pearson Correlation between Independent Variables and Organizational Performance.

Variables	OP	AP	CI	TC
OP	1			
AP	0.712**	1		
CI	0.689**	0.651**	1	
TC	0.735**	0.672**	0.648**	1

Note:  $p < 0.01$ **Table 6:** Regression Analysis of Agile Methodologies on Organizational Performance.

Model	Unstandardized Coefficients		Standardized Coefficients	t-value	p-value
	B	Std. Error	Beta		
(Constant)	0.582	0.321			1.814
Agile Planning (AP)	0.412	0.092	0.345	0.345	4.478
Continuous Improvement (CI)	0.368	0.087	0.301	0.301	4.230
Team Collaborations (TC)	0.451	0.091	0.362	0.362	4.958

R = 0.812

R<sup>2</sup> = 0.659Adjusted R<sup>2</sup> = 0.653F = 110.245,  $p < 0.05$ 

foster adaptability and responsiveness in complex environments, and with Conforto et al. (2016), who demonstrated that agile practices extend beyond software development into public institutions.

### Correlation Analysis

The correlation matrix (Table 5) shows strong positive relationships between the independent variables and organizational performance: Agile Planning ( $r = 0.712$ ,  $p < 0.01$ ), Continuous Improvement ( $r = 0.689$ ,  $p < 0.01$ ), and Team Collaborations ( $r = 0.735$ ,  $p < 0.01$ ). These results suggest that improvements in agile practices are strongly associated with higher organizational performance. This supports Serrador & Pinto's (2015) quantitative analysis of agile success and resonates with Bryson, Crosby, & Bloomberg's (2017) emphasis on public value governance through collaborative and adaptive approaches.

### Regression Analysis

The regression results (Table 6) confirm that Agile Planning ( $\beta = 0.345$ ,  $p < 0.05$ ), Continuous Improvement ( $\beta = 0.301$ ,  $p < 0.05$ ), and Team Collaborations ( $\beta = 0.362$ ,  $p < 0.05$ ) each significantly predict organizational performance. Collectively, the model explains 65.9% of the variance in performance ( $R^2 = 0.659$ ), underscoring the substantial role of agile methodologies in driving efficiency

and effectiveness in government agencies. This finding is consistent with Rigby, Sutherland, & Takeuchi (2016), who argue that agile adoption enhances organizational outcomes by improving flexibility and responsiveness, and with Kaplan & Norton's (1996) balanced scorecard framework, which highlights the importance of strategic planning, continuous learning, and collaboration in performance management.

### Agile Planning and Organizational Performance

Agile Planning emerged as a significant predictor of performance. Agencies with structured, iterative, and adaptive planning processes were better able to respond to changes, meet targets, and enhance operational efficiency. This corroborates Rigby et al. (2016) and Highsmith (2010), who emphasize that agile planning enhances adaptability and strategic decision-making. In the Nigerian public sector context, this suggests that agencies adopting agile planning frameworks are more resilient to policy shifts and administrative challenges (Adebayo & Adegoke, 2022).

### Continuous Improvement and Organizational Performance

Continuous Improvement also showed a significant positive effect. Respondents agreed that iterative process

reviews, feedback mechanisms, and benchmarking practices improved service delivery and reduced operational errors. This finding aligns with Deming's (2018) philosophy of continuous improvement and Imai's (2018) Kaizen principles, which stress incremental changes for sustained success. Kaye & Anderson (2019) similarly highlight that continuous improvement in the public sector fosters efficiency and accountability. Thus, embedding CI practices in Nigerian agencies can enhance long-term performance and citizen satisfaction.

### Team Collaborations and Organizational Performance

Team Collaborations had the strongest effect among the predictors ( $\beta = 0.362$ ). Effective collaboration fosters knowledge sharing, accountability, and coordinated execution of tasks, which strengthens organizational efficiency. This finding supports Ansell & Gash's (2018) theory of collaborative governance, which emphasizes collective problem-solving and stakeholder engagement. Emerson & Nabatchi (2015) also argue that collaboration is central to governance regimes, particularly in complex public sector environments. In practice, strong collaboration among staff in Delta State agencies facilitated problem-solving and improved coordination, thereby enhancing performance outcomes.

### Integrated Impact of Agile Methodologies

The combined effect of Agile Planning, Continuous Improvement, and Team Collaborations explains 65.9% of the variation in organizational performance. This underscores the importance of adopting agile methodologies holistically rather than in isolation. The findings resonate with Oakland's (2019) Total Quality Management principles and Ayo & Ekong's (2021) emphasis on performance-driven reforms in Nigeria's public sector. By institutionalizing agile practices, government agencies can achieve better service delivery, efficiency, and employee engagement, consistent with global trends in public administration reform (Conforto et al., 2016; Denning, 2018).

### Conclusion

This study demonstrates that embedding agile methodologies into public sector operations can substantially improve organizational performance. The evidence is clear: Agile Planning ( $M = 4.12$ ;  $\beta = 0.345$ ,  $p < 0.05$ ), Continuous Improvement ( $M = 4.05$ ;  $\beta = 0.301$ ,  $p < 0.05$ ), and Team Collaborations ( $M = 4.18$ ;  $\beta = 0.362$ ,  $p < 0.05$ ) all showed strong positive correlations with performance ( $r = 0.712$ ,  $0.689$ , and  $0.735$  respectively). Collectively, these practices explained 65.9% of the variance in organizational performance ( $R^2 = 0.659$ ),

underscoring their critical role in driving efficiency, responsiveness, and service delivery. For policymakers, the implication is straightforward: institutionalizing agile planning frameworks, continuous improvement programs, and collaborative cultures within government agencies offers a practical pathway to strengthen accountability, optimize processes, and enhance citizen satisfaction in Nigeria's public administration.

### REFERENCES

- Adebayo, O. M., & Adegoke, A. A. (2022). *Adoption of agile project management practices in Nigerian public institutions: Challenges and prospects*. *Journal of Public Administration and Policy Research*, 14(2), 45–58.
- Alahyari, H., Berntsson Svensson, R., & Gorschek, T. (2017). A systematic literature review on agile practices and performance in public organizations. *Government Information Quarterly*, 34(4), 480–490.
- Ansell, C., & Gash, A. (2018). Collaborative governance in theory and practice. *Journal of Public Administration Research and Theory*, 18(4), 543–571.
- Ayo, C. K., & Ekong, U. O. (2021). Public sector performance and service delivery in Nigeria. *International Journal of Public Administration*, 44(6), 485–497.
- Bryson, J. M., Crosby, B. C., & Bloomberg, L. (2017). Public value governance: Moving beyond traditional public administration and the New Public Management. *Public Administration Review*, 74(4), 445–456.
- Conforto, E. C., Salum, F., Amaral, D. C., da Silva, S. L., & de Almeida, L. F. M. (2016). Can agile project management be adopted by industries other than software development? *Project Management Journal*, 47(3), 21–34.
- Deming, W. E. (2018). *Out of the crisis*. MIT Press.
- Denning, S. (2018). *The age of agile: How smart companies are transforming the way work gets done*. AMACOM.
- Denning, S. (2018). The age of agile: How smart companies are transforming the way work gets done. *Harvard Business Review Press*.
- Emerson, K., & Nabatchi, T. (2015). *Collaborative governance regimes*. Georgetown University Press.
- Highsmith, J. (2010). *Agile project management: Creating innovative products* (2nd ed.). Addison-Wesley.
- Imai, M. (2018). *Kaizen: The key to Japan's competitive success*. McGraw-Hill.
- Kaplan, R. S., & Norton, D. P. (1996). *The balanced scorecard: Translating strategy into action*. Harvard Business School Press.
- Kaye, M., & Anderson, R. (2019). Continuous improvement in the public sector: A review and synthesis. *International Journal of Public Sector Management*, 32(2), 122–138.
- Lappi, T., Aaltonen, K., & Kujala, J. (2020). Project governance in public-sector agile software projects. *International Journal of Managing Projects in Business*, 13(3), 583–606.
- Oakland, J. S. (2019). *Total quality management and operational excellence: Text with cases*. Routledge.
- Omodero, C. O. (2019). Public sector accountability and government performance in Nigeria. *Journal of Public Administration and Governance*, 9(3), 45–58.
- Richard, P. J., Devinney, T. M., Yip, G. S., & Johnson, G. (2009). Measuring organizational performance: Towards methodological best practice. *Journal of Management*, 35(3), 718–804.
- Rigby, D. K., Sutherland, J., & Takeuchi, H. (2016). Embracing agile. *Harvard Business Review*, 94(5), 40–50.
- Serrador, P., & Pinto, J. K. (2015). Does Agile work?—A quantitative analysis of Agile project success. *International Journal of Project Management*, 33(5), 1040–1051.