



FUTIFMS International Conference

Smart City Governance, Security and Economic Performance in Lagos State

By

Oluwaniyi Moses A.¹, Ayo-Balogun Atinuke O.² & Akindele Latifat I.³

^{1,2&3}Department of Business Administration and Management

Federal University of Technology Ilaro, Ogun State, Nigeria

Abstract

The study analyzed the effect of smart city government and urban security on the performance of economy in Lagos State, Nigeria. The study was quantitative, with a cross-sectional survey design. A structured questionnaire was used to gather data from the respondents in Lagos state which include ICT personnel, private security personnel and business operators. 200 questionnaires were sent out and 161 usable questionnaires were returned and analysed. The instrument has high reliability with Cronbach's alpha coefficient of 0.979. Descriptive statistics, Pearson correlation and multiple regression analysis were used to analyse the data, using SPSS Version 29. The findings showed that Smart City Governance was positively related to Economic Performance ($r = 0.939$, $p < 0.001$) and there was a positive correlation between Urban Security and Economic Performance ($r = 0.873$, $p < 0.001$). Based on the regression results, it was found that the factors of Smart City Governance and Urban Security have a significant and positive effect on Economic Performance. According to the result of the regression analysis, the factors of Smart City Governance and Urban Security have significant and positive effect on Economic Performance. The model accounted for 94.5% of the variance ($R^2 = 0.945$) in Economic Performance. The study indicates that good governance and effective urban security systems are key factors affecting the economic performance of Lagos State. The study suggests that, to improve sustainable urban development and strengthen the economic competitiveness, more investment should be created in digital governance platforms, intelligent security infrastructure and cooperation among stakeholders.

Keywords: Smart City Governance, Urban Security, Economic Performance, Smart Cities, Sustainable Development, Lagos State.

1.0 INTRODUCTION

Urban management solutions in developing countries are demanded because of the high rate of urbanisation, technological development and population growth. Smart city projects have become a key tool for the achievement of better governance, higher security, more efficient service delivery and sustainable economic development. Smart cities use information and communication technologies, data analysis, artificial intelligence and interlinking infrastructure to enhance the quality of life and optimize the functioning of cities. Good governance is still a key element of the implementation of smart city programmes. Smart city governance is the policy and institutional arrangements, leadership and involvement of stakeholders in the planning, implementation and management of smart technologies. Well-functioning governance systems foster transparency, accountability, citizen involvement and effective use of resources, which improves the effectiveness of smart city projects.

Oluwaniyi, Ayo-Balogun & Akindele



FUTIFMS International Conference

Security is also one of the key aspects of smart cities. The installation of surveillance systems, smart traffic control, emergency response systems, and digital monitoring tools have enhanced urban safety and security administration. Insufficient regulatory policies and frameworks, however, remain one of the greatest challenges to smart city development in many developing countries, as do cybersecurity threats and data privacy concerns. One of the key anticipated impacts of smart city projects is economic performance. Smart technologies increase productivity, make business activities easier, facilitate investments, improve the efficiency of the infrastructure and create jobs. As a result, cities with good governance and security are better prepared to have sustainable economic growth and become competitive. Lagos State is now becoming a major hub of digital and economic growth in Africa, and more investments are being directed to smart infrastructure, digital governance, intelligent transportation and security technologies. Despite these efforts, there are still some worries about governance effectiveness, security management, and the impacts on economic performance. The influence of smart city governance and security on economic performance in Lagos State, Nigeria is thus the subject of investigation of this study.

Objectives of the Study

1. To examine the effect of smart city governance on economic performance in Lagos State.
2. To evaluate the influence of urban private security on economic performance in Lagos State.

Smart city governance is the institutional arrangements, leadership, policies and collaboration of stakeholders that enable the planning, implementation and management of smart city initiatives. It concentrates on how to incorporate digital tools in the governance process for better public service, transparency, accountability and citizen engagement. The United Nations (2024) asserts that "digital governance" is one of the ways to support urban sustainability by fostering a data-driven decision-making process and increasing the responsiveness of governments towards the needs of society. Likewise, Anthopoulos (2024) suggested that smart city governance is an important enabler of sustainable urban development because of the effective management of technological, social and economic resources. Governance is still a key factor in achieving a smart city in developing countries. Smart city programmes can frequently be hindered by weak institutional structures, inconsistent policies, and insufficient stakeholder engagement. Strong governance structures, on the other hand, help the adoption of technology, enhance service delivery and ensure public trust, which is important for economic development and urban sustainability (Yigitcanlar et al., 2023).

Urban security is the protection of people, infrastructure, information systems and economic activities in cities. These smart technologies include smart sensors, geographic information systems, intelligent surveillance systems, predictive analytics and others, which are increasingly used by smart cities to enhance public safety and crime prevention. These technologies help enable real-time monitoring, quick response in the case of emergencies, and improved situational awareness. The United Nations Human Settlements Programme (UN-Habitat, 2024) argues that security is an essential element to sustainable urban development as it affects investment decisions, business transactions and quality of life. But, as the use of digital tools has grown, it's also raised cybersecurity concerns, data privacy issues and risks to cyber-attacks. Consequently, the security in smart cities is no longer limited to protecting people and physical property, but involves the security of digital infrastructure and information assets (Kitchin, 2023).

Economic performance is the capacity of an economy or of a locality to generate income, offer job opportunities, draw investments and enhance the living standard of its citizens. Smart city projects



FUTIFMS International Conference

improve economic performance by improving business competitiveness, innovation, infrastructure efficiency and productivity. Digital technologies enable efficient allocation of resources, lower operational costs and opportunities for entrepreneurship and investment (World Bank, 2025). The findings indicate that the structure of digital infrastructure and the quality of governance in cities are linked to a city's economic growth and competitiveness. These smart systems, such as transportation, payment, energy, and cities and public administration, work together to enhance the efficiency of urban economies and contribute to sustainable development (OECD, 2024).

This study is based on Dynamic Capabilities Theory (DCT) of Teece, Pisano and Shuen (1997). The theory suggests that organisations and institutions sustain their performances by developing capabilities that can help them sense opportunities, seize resources, and transform their operations in response to changes in the environment. The theory is applicable in this study because smart city governance is considered the institutional capacity, which coordinates the resources and strategies, and urban security is seen as the ability to protect critical assets and maintain stability in the city. As a whole, these capacities provide the conditions for better economic performance through an investment climate that supports innovation and sustainable urban development. Effective governance and private security systems can improve the ability of the City of Lagos, in particular, to tackle new challenges and best leverage smart city technologies.

2. METHODOLOGY

This study adopted a research design and used a cross sectional survey design to investigate the influence of smart city governance and urban security on the economic performance in Lagos State, Nigeria. The selection of the design was thought to be appropriate as it will help to collect the primary data about how respondents perceive and experience governance, security and economic activities in a smart city environment. The target population was the ICT personnel, private security personnel and business operators that have adequate knowledge about smart city initiatives and urban management in Lagos State. The groups of stakeholders were chosen as they are directly engaged in or influenced by smart city governance and security activities. A purposive sampling was used to identify individuals who had knowledge and experience of the topic and quota sampling was used to ensure that a representative sample of the various stakeholder groups was included. Two hundred questionnaires were distributed, including 50 each from the business operators and private and ICT personnel. Of the 161 questionnaires that were returned 120 were suitable for analysis (effective return rate of 80.5%).

The data were gathered using a structured questionnaire of four sections. The respondents' demographic characteristics were measured by Section A, whereas the Smart City Governance (SCG), Urban Security (US), and Economic Performance (EP) were measured by Sections B, C, and D, respectively. The items for the questionnaire were assessed on a five-point Likert scale 1 (Strongly Disagree) to 5 (Strongly Agree). Face and content validation were conducted on the instrument by experts. Cronbach's Alpha coefficient was used to evaluate the reliability of the scales with the accepted value being 0.70 for internal consistency. This instrument had a Cronbach's Alpha value of 0.979, which was considered as excellent reliability. The statistical package for social sciences (SPSS Version 29) was used to analyse the data. Descriptive statistics (mean and standard deviation) were used to summarize the answers given by the respondents. To analyse the relationship between the study variables, Pearson Product-Moment Correlation was used and the influence of the study variables – Smart City Governance and Urban Security on the Economic Performance at 5% level of significance was done by multiple regression analysis.



3. RESULTS

Table 4.1: Summary of Reliability, Descriptive Statistics, Correlation and Regression Analysis of Smart City Governance, Urban Security and Economic Performance

Variable	Mean	SD	r with EP	B	t-value	p-value	Decision
Smart City Governance (SCG)	11.280	5.941	0.939***	0.649	22.826	<0.001	Significant
Urban Security (US)	12.099	5.810	0.873***	0.384	13.510	<0.001	Significant
Economic Performance (EP)	11.652	5.532	1.000	—	—	—	Dependent Variable

Model Statistics: $\alpha = 0.979$, $N = 161$, $R = 0.972$, $R^2 = 0.945$, Adjusted $R^2 = 0.944$, $F = 1353.048$ ($p < 0.001$), $SEE = 1.308$, $DW = 1.868$.

Source: Field Survey (2026).

Note: EP = Economic Performance; SCG = Smart City Governance; US = Urban Security; β = Standardized Regression Coefficient; SEE = Standard Error of Estimate; DW = Durbin-Watson Statistic. *** $p < 0.001$.

Interpretation

Table 4.1 shows the descriptive statistics, correlation coefficients and results of the regression of Smart City Governance and Urban Security on Economic Performance in Lagos State. The mean scores indicate that respondents reported moderate to high levels of Smart City Governance ($M = 11.280$, $SD = 5.941$), Urban Security ($M = 12.099$, $SD = 5.810$), and Economic Performance ($M = 11.652$, $SD = 5.532$).

The correlation analysis showed that there are strong positive relationships between the explanatory variables and Economic Performance. Smart City Governance had a very strong positive correlation with Economic Performance ($r = 0.939$, $p < 0.001$), and Urban Security had a strong positive correlation with Economic Performance ($r = 0.873$, $p < 0.001$). The results indicated that there is a relationship between the improvement of the governance structure and the economic outcomes in Lagos State, as well as the improvement of urban security.

The regression findings also support the significance of the influence of the Smart City Governance and Urban Security on Economic Performance. Smart City Governance had the highest coefficient ($\beta = 0.649$, $t = 22.826$, $p < 0.001$) and positive contribution to Economic Performance. The contribution of the Urban Security variable was also a positive influence, however not as strong as the contribution of the variable of Smart City Governance ($\beta = 0.384$, $t = 13.510$, $p < 0.001$).

The overall model was statistically significant ($F = 1353.048$, $p < 0.001$) and explained 94.5% of the variation in Economic Performance ($R^2 = 0.945$). The model has high explanatory power, suggesting that both Smart City Governance and Urban Security are key factors that can contribute to improve economic performance in Lagos State. The Durbin-Watson statistic is also 1.868 indicating that there is little autocorrelation in the model.



FUTIFMS International Conference

Hypotheses Testing

Hypothesis One (H_{01}): Smart City Governance has no significant effect on Economic Performance in Lagos State.

The regression results show that the Smart City Governance has a significant positive effect on economic performance with the values of $\beta = 0.649$; $t = 22.826$ and $p < 0.001$. The p-value is very small, meaning that we reject the null hypothesis. Thus, Smart City Governance has a great positive influence on Economic Performance in Lagos State.

H_2 : Urban Security does not have any significant effect on Economic Performance in the Lagos State.

The results indicate that Urban Security has a significant impact on Economic Performance ($\beta = 0.384$, $t = 13.510$, $p < 0.001$). The p-value is < 0.05 , which indicates the rejection of the null hypothesis. Therefore, Urban Security has a significant positive influence on Economic Performance in Lagos State.

Discussion of Findings

The results show that the most significant factor in Lagos State affecting the Economic Performance is Smart City Governance. This indicates that good governance structures, such as good decision-making, engaging stakeholders, coordination of policies, and the use of digital governance platforms, are important to improve economic results in smart cities. The discovery backs the thesis that governance is the institutional basis on which a smart city project is successful. It was also discovered that the variables of Economic Performance showed significant contribution to Urban Security. This one suggests that the investments in urban security will create a climate to favor business activities, attract investment, and enable sustainable economic development through the use of intelligent surveillance systems, emergency response systems, and digital security infrastructure.

The results confirm Dynamic Capabilities Theory's hypotheses regarding the ability of institutions to survive and perform well under conditions of environmental change by building up capabilities. Smart City Governance and Urban Security are key capacities that will allow Lagos State to benefit from technology, access the available resources effectively and generate positive conditions for economic development.

The results also corroborate previous research finding that governance quality and security infrastructure are key factors for economic growth and urban competitiveness. The high level of explanatory power of the model ($R^2 = 0.945$) suggests that Smart City Governance and Urban Security variables explain a significant part of the variations with regard to Economic Performance, which illustrates the importance of these two factors in the process of building a smart and sustainable city.

4. CONCLUSION

This research aimed at the effect of Smart City Governance and Urban Security on Economic Performance in Lagos State, Nigeria. The results indicated that both variables have significant and positive influence on Economic Performance. Smart City Governance was the most significant predictor and Urban Security had a strong positive impact. Finally, the study finds that better governance systems and improved urban security systems are essential to sustainable economic development and more efficient smart city programs in Lagos State.

Recommendations



FUTIFMS International Conference

Government entities need to enhance smart city governance framework by better policy implementation, transparency, accountability and stakeholder involvement.

Investments in digital governance platforms and decision making systems based on data should be enhanced to promote the efficiency of economic and public service delivery.

3. Continue to improve urban security infrastructure by implementing intelligent surveillance systems, emergency response technologies, and cybersecurity measures in Lagos State.

More cooperation is needed between governmental bodies, the private security sector, the technology industry, and members of the community, to enhance urban safety and economic resilience.

Policymakers need to incorporate governance and security issues into the smart city development process to benefit the economy and create a sustainable smart city.

References

- Anthopoulos, L. (2024). *Smart Cities: Concepts, Methodologies and Technologies*. Springer.
- Kitchin, R. (2023). *The Data-Driven City and Urban Governance*. Sage Publications.
- OECD. (2024). *Smart Cities and Inclusive Growth Report*. OECD Publishing.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533.
- United Nations. (2024). *E-Government Survey 2024: Accelerating Digital Transformation for Sustainable Development*.
- UN-Habitat. (2024). *World Cities Report 2024*.
- World Bank. (2025). *Digital and AI: Strengthening Foundations for Inclusive Growth*.
- Bibri, S. E., Krogstie, J., & Kärrholm, M. (2024). Compact urbanism and smart city technologies for sustainable development: Emerging practices and future directions. *Smart Cities*, 7(1), 1–25.
- Caragliu, A., & Del Bo, C. F. (2024). Smart city policies and urban economic performance: Recent evidence and future challenges. *Cities*, 145, 104703.
- Chatterjee, S., Chaudhuri, R., Vrontis, D., & Thrassou, A. (2025). Smart urban security and economic sustainability: The role of digital technologies in city development. *Technological Forecasting and Social Change*, 210, 123789.
- Meijer, A., & Thaens, M. (2024). Urban governance in smart cities: Digital transformation, participation and performance. *Government Information Quarterly*, 41(2), 101943.
- Yigitcanlar, T., Desouza, K. C., Butler, L., & Roozkhosh, F. (2023). Contributions and risks of smart city technologies in urban development: A systematic review. *Sustainable Cities and Society*, 92, 104470.