

Capacity building and sustainable development efforts of national population commission, Awka, Anambra State

Stella Chinelo Nwagbala¹, Musa David Edibo², Samuel Anodi Ejiogu³, Chimamkpa Promise Obijiaku⁴

Nnamdi Azikiwe University, Awka, Anambra State, Nigeria¹⁻⁴

sc.nwagbala@unizik.edu.ng¹, ddavoe10@gmail.com², divinehilary@yahoo.com³,

obiakiupromise@gmail.com⁴



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Abstract

Purpose: This study explored the relationship between capacity building and sustainable development efforts of the National Population Commission, Awka, Anambra State, Nigeria. Specifically, it examined the relationship between technological upgrade and accountability, it also determined the relationship between skills enhancement and resource efficiency of the National Population Commission, Awka, Anambra State.

Methods: The study employed a survey research design. The population of the study was 190. Hypotheses were tested with Pearson Product Moment Correlation Coefficient with the aid of Statistical Package for Social Sciences (SPSS, version 27). Hypothesis one revealed that there is a significant positive relationship between technological upgrade and accountability of the National Population Commission, Awka, Anambra State with $r = 0.876$, $n = 190$, and p -value of 0.000 ($p < 0.05$).

Results: Hypothesis two showed that there is a positive significant relationship between skills enhancement and resource efficiency of the National Population Commission, Awka, Anambra State with $r = 0.647$, $n = 190$, and p -value of 0.015 ($p < 0.05$).

Limitations: The researcher encountered problems during the data collection process. The researcher was faced with an uncooperative attitude of some respondents by not providing answers to the questionnaire.

Contribution: This study contributes to the existing body of knowledge by providing empirical evidence on the significant positive relationships between technological upgrade and accountability and skills enhancement and resource efficiency in the National Population Commission, Awka, Anambra State. This study provides novel insights into effective population management strategies in Southeastern Nigeria.

Keywords: *Capacity Building, Sustainable Development, Technological Upgrade, Skills Enhancement, Resource Efficiency*

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1. Introduction

The dynamics of population growth and demographic trends play a crucial role in shaping the socio-economic landscape of any nation. In Nigeria, a country characterized by its vast population and diverse cultural fabric, managing population growth and ensuring sustainable development are paramount for national progress ([Aluko, Odewale, Taiwo, & Adefeso, 2024](#)). The National Population Commission

(NPC) of Nigeria, established in 1988, is the principal governmental body responsible for overseeing population management, demographic data collection, and analysis ([Maconick, 2002](#)). In the quest for sustainable development, national governments and international organizations have recognized the importance of capacity building as a crucial element in achieving development goals ([Modibbo, Ali, & Ahmed, 2021](#)). Many organizations experience challenges related to resistance from employees, lack of alignment with corporate goals, and inadequate evaluation of performance improvements resulting from change efforts ([Ezeanokwasa Francisca, Nwagbala Stella, & Nwachukwu, 2023](#)). Successful change management is crucial for organizational adaptability and growth ([Ezeanokwasa Francisca et al., 2023](#)). The National Population Commission (NPC), as a key player in population management and development, requires robust capacity to effectively implement its mandates and contribute to national sustainable development ([Lempert, 2015](#)).

Capacity building is a concept that covers various aspects, including technology upgrade, skills enhancement, human resource development, institutional strengthening, and infrastructure enhancement ([Bakdiah, Satriawan, & Yanti, 2024](#)). It involves the process of empowering individuals, organizations, and institutions to acquire the necessary skills, knowledge, and attitudes to perform their functions effectively ([Heslop, 2010](#)). As stated in Nwagbala, Ezeanokwasa, and Aziwe (2023) Knowledge management is essential for employees to be able to maneuver the current trends, make decisions, deliver superior value to competitors, and steadily improve performance. Sustainable development is a development model that meets the needs of the present without compromising the ability of future generations to meet their own needs. It covers three dimensions: economic, social, and environmental ([Banso, Coker, Uzougbo, & Bakare, 2023](#)). The NPC's efforts in capacity building and sustainable development are crucial in achieving the country's development goals, particularly in the areas of population management, health, education, and poverty reduction. Nigeria's National Population Commission lacks adequate capacity to effectively manage population growth and achieve sustainable development, hindering national progress. This capacity gap undermines the commission's ability to implement its mandates, ultimately affecting the country's development goals in population management, health, education, and poverty reduction ([Gwin, 2005](#)).

1.1 Statement of the Problem

Nigeria's National Population Commission (NPC) faces significant challenges in carrying out its mandates, including inadequate technology, skill gaps, insufficient infrastructure, limited human resources, and financial constraints. These challenges hinder the commission's ability to provide accurate and reliable data, undermining development planning, policy formulation, and decision-making. The limited research on capacity building and sustainable development in the NPC has exacerbated these challenges. This knowledge gap necessitates systematic research to investigate the commission's efforts in these areas. This study aims to bridge this gap by examining the relationship between capacity building and sustainable development in the NPC, Awka, Anambra State.

1.2 Objectives of the Study

The broad objective of this study is to explore the relationship between capacity building and sustainable development efforts of the National Population Commission, Awka, Anambra State. Specifically, the study sought to:

1. Examine the relationship between technological upgrade and accountability of the National Population Commission, Awka, Anambra State.
2. Determine the relationship between skills enhancement and resource efficiency of the National Population Commission, Awka, Anambra State.

1.3 Research Questions

The following questions guided the study:

1. What is the relationship between technological upgrade and accountability of the National Population Commission, Awka, Anambra State?
2. What is the relationship between skills enhancement and resource efficiency of the National Population Commission, Awka, Anambra State?

1.4 Research Hypotheses

The study formulated the following null hypotheses which were tested in the study:

H₀₁: There is no significant relationship between technological upgrade and accountability of the National Population Commission, Awka, Anambra State.

H₀₂: There is no significant relationship between skills enhancement and resource efficiency of the National Population Commission, Awka, Anambra State.

1.5 Significance of the Study

This study is relevant to the government because its findings can enhance the effectiveness of population management and development programs, improve resource allocation and utilization, strengthen institutional capacity and infrastructure, support evidence-based decision-making, and inform policy decisions on capacity building and sustainable development. The findings can help the populace through increased awareness of the importance of population management and sustainable development, enhanced understanding of the Commission's role and efforts, supporting community-led initiatives for sustainable development, and empowering citizens to participate in population-related decision-making. Academics can benefit from this study through: its contribution to the body of knowledge on capacity building and sustainable development, informed theoretical frameworks and models, provision of insights for future research on population management and development, and support the development of academic programs and curricula related to population studies and sustainable development.

1.6 Scope of the Study

The geographical scope of this study is Awka, Anambra State, Nigeria. The study is delimited to the National Population Commission, Awka, Anambra State. The independent variable is Capacity Building and its proxies are: technological upgrade, and skills enhancement, while the dependent variable is Sustainable Development Efforts and its proxies are accountability and resource efficiency. This study was conducted in 2024.

2. Literature review

2.1 Conceptual Review

2.1.1 Capacity Building

In the words of [Potter and Brough \(2004\)](#), capacity building is a multifaceted and comprehensive process that aims to enhance the abilities, skills, knowledge, and resources of individuals, organizations, and communities to effectively and efficiently achieve their desired goals and objectives. It is a holistic approach that goes beyond simply providing training or resources but rather focuses on fostering sustainable and long-term improvements in an entity's overall capacity to function, adapt, and thrive ([Piala et al., 2024](#)). Capacity building involves strengthening the skills, knowledge, and competencies of people, enabling them to perform their roles and responsibilities more effectively. This can include training programs, mentorship initiatives, and opportunities for continuous learning and professional development. By investing in the growth and empowerment of individuals, capacity building empowers them to contribute more meaningfully to their organizations and communities ([McClelland, 2021](#)).

From the view of ([Olujobi, Irumekhai, & Aina-Pelemo, 2024](#)), capacity building covers a wide range of strategies and interventions designed to enhance the overall performance, efficiency, and resilience of an organization. This can involve improving organizational structures, governance, financial management, human resource management, program planning and implementation, monitoring and evaluation, and the utilization of technology and information systems. Capacity building at this level aims to build the organization's internal capabilities, strengthen its systems and processes, and foster a culture of continuous improvement and innovation ([Otoo, Agapitova, & Behrens, 2009](#)). Capacity building seeks to empower and enable communities to identify, prioritize, and address their own development needs. This can involve building the capacity of community-based organizations, strengthening local leadership and decision-making processes, enhancing community participation and engagement, and fostering collaborations and partnerships among different stakeholders ([Modibbo et al., 2021](#)). By building the capacity of communities, capacity-building efforts can lead to more

sustainable and locally-driven development initiatives that are responsive to the unique needs and aspirations of the people ([Sembiring, 2016](#)).

2.1.2 Technological Upgrade

Technological upgrade is the process of enhancing, replacing, or improving the hardware, software, and digital systems used within an organization or by an individual to enhance performance, increase efficiency, and maintain relevance in an ever-evolving technological landscape. It is a multi-faceted endeavour that goes beyond simply acquiring new devices or installing the latest software versions, but rather a strategic and holistic approach to modernizing and future-proofing an entity's technological infrastructure ([Purvis, Mao, & Robinson, 2019](#)). It involves the integration of emerging technologies, such as cloud computing, artificial intelligence, the Internet of Things (IoT), or automation solutions. These innovative technologies can significantly transform and streamline business processes, improve data management and decision-making, and enable organizations to stay ahead of the curve in an increasingly digitalized world ([Lertpiromsuk, Ueasangkomsate, & Sudharatna, 2022](#)).

A technological upgrade is a strategic investment in the future of an organization or an individual, enabling them to enhance productivity, improve decision-making, enhance security, and maintain a competitive edge in an increasingly technology-driven world ([Hung, Cant, & Wiid, 2016](#)). According to [Nwagbala, Ezeanokwasa, and Aziwe \(2023\)](#), Organizations, especially in emerging economies like Nigeria, are working extremely hard to survive and maintain a competitive edge due to the turbulent and increasing changes in the environment. Owing to this, most organizations are resorting to retrenching employees as a means to pull through. It also necessitates robust change management strategies, ensuring that employees or users are adequately trained, supported, and empowered to seamlessly transition to the new technological environment. This may involve comprehensive training programs, user manuals, and ongoing technical support to facilitate a smooth adoption of the upgraded systems and minimize resistance to change ([Purwanto, 2020](#)).

2.1.3 Skills Enhancement

[Purwanto \(2020\)](#), posits that skills enhancement is a process that aims to identify, cultivate, and continuously improve the abilities, competencies, and proficiencies of individuals, teams, or organizations. ([Nwagbala, Johnson, Aziwe, & Okeke, 2024](#)) stated that most managers lack the skills and attitudes necessary to influence employees to meet organizational and individual goals. It is a holistic approach that goes beyond simply acquiring new skills or improving existing ones but rather focuses on developing a well-rounded and adaptable skillset that enables individuals and entities to thrive in an ever-evolving professional and personal landscape. Skills enhancement involves a systematic and strategic approach to identifying one's strengths, weaknesses, and areas for growth, and then implementing targeted interventions to enhance these capabilities ([Trilestari, 2024](#)). Skills enhancement may include formal training programs, mentorship initiatives, on-the-job learning opportunities, and personalized coaching sessions that help individuals develop both hard skills (such as technical proficiencies, analytical abilities, or project management expertise) and soft skills (such as communication, critical thinking, problem-solving, and emotional intelligence) ([McClelland, 2021](#)). Skills enhancement involves a strategic and coordinated effort to identify, cultivate, and align the collective skills and competencies of the workforce to achieve the entity's overarching goals and objectives ([Auzar, Ngaliman, & Khaddafi, 2024](#)). This may include assessing the current skill gaps within the organization, designing and implementing targeted training and development programs, fostering a culture of continuous learning and knowledge-sharing, and encouraging cross-functional collaboration and interdisciplinary skills acquisition ([Sembiring, 2016](#)). Skills enhancement recognizes that the development of skills is an ongoing and iterative process that requires a multifaceted approach. This may involve a combination of formal training, on-the-job learning, mentorship, job rotations, and access to relevant resources and tools. It also necessitates a culture of continuous feedback, performance evaluation, and the creation of personalized development plans that cater to the unique needs and aspirations of individuals or teams ([Sofyani, Riyadh, & Fahlevi, 2020](#)). Skills enhancement is not limited to the acquisition of new abilities only but also the refinement and expansion of existing skills. This

may cover leveraging emerging technologies, exploring interdisciplinary learning opportunities, and seeking out diverse experiences and challenges that push individuals or teams to grow and adapt to changing circumstances ([McKinsey, 2001](#)). Skills enhancement is a strategic investment in the long-term success and resilience of individuals, teams, and organizations. By prioritizing the continuous development and refinement of skills, entities can better navigate the complexities of the modern professional landscape, remain competitive, and contribute to the overall growth and prosperity of their respective fields or communities ([Potter & Brough, 2004](#)).

2.1.4 Sustainable Development

Chinelo and Ejike (2022) stated that Sustainable development is the process of attaining social and economic growth without degrading a country's natural resources. [Robert, Parris, and Leiserowitz \(2005\)](#) stated that sustainable development is an interdisciplinary approach that encompasses the economic, social, and environmental dimensions of development, aiming to meet the needs of the present generation without compromising the ability of future generations to meet their own needs. According to [Nwagbala, Harrieta, Obijiaku, and Ejiogu \(2024\)](#), By combining economic, social, and environmental factors into a comprehensive framework that puts equity, justice, and human well-being first, sustainable development is a dynamic and multifaceted process that seeks to balance the needs of the present without sacrificing the capacity of future generations to meet their own needs. It calls for a long-term outlook, a system thinking approach, and a dedication to social and environmental responsibility ([Nwagbala, Harrieta, et al., 2024](#)). It is a holistic and integrated concept that balances the three pillars of sustainability:

1. Economic development: promoting economic growth, prosperity, and poverty reduction, while ensuring fair distribution of resources and opportunities.
2. Social development: fostering social justice, equity, and human well-being, including education, health, and human rights.
3. Environmental development: conserving natural resources, protecting the environment, and promoting ecological sustainability.

Sustainable development is a transformative approach that prioritizes the well-being of people, the planet, and prosperity, recognizing their interdependence and the need for collective action to build a more resilient, equitable, and thriving world for all ([Heslop, 2010](#)).

2.1.5 Accountability

Accountability is a multifaceted concept that encompasses the responsibility, answerability, and liability of individuals, organizations, and institutions to ensure transparency, justify actions, and acknowledge outcomes. It involves the obligation to explain, justify, and take responsibility for one's decisions, actions, and performance, and to be held responsible for any consequences or outcomes ([Williams, 2022](#)). Accountability implies a relationship between an individual or organization and a higher authority, such as a supervisor, regulator, or stakeholder, to whom they are responsible for reporting, explaining, and justifying their actions. It involves a commitment to transparency, openness, and honesty in all dealings, and a willingness to be held accountable for one's actions and decisions ([Purvis et al., 2019](#)).

Accountability is a principle according to which a person or institution is responsible for a set of duties and can be required to give an account of their fulfillment to an authority that is in a position to issue rewards or punishment ([Chankseliani & McCowan, 2021](#)). It is a vital concept that ensures individuals, organizations, and institutions are responsible, transparent, and answerable for their actions, decisions, and performance, promoting trust, integrity, and good governance ([Dykstra, 2023](#)).

2.1.6 Resource Efficiency

Resource efficiency is the relationship between a specific benefit or result and the deployment of resources required to achieve this. It is the maximizing of the supply of money, materials, staff, and other assets that can be drawn on by a person or organization to function effectively, with minimum wasted (natural) resource expenses ([Chileshe, Kavishe, & Edwards, 2023](#)). It is the optimal use of

resources, such as water, energy, materials, and land, to achieve desired outcomes while minimizing waste and reducing environmental impacts ([Miller, 2021](#)). Resource efficiency is the maximizing of the supply of money, materials, staff, and other assets that can be drawn on by a person or organization to function effectively, with minimum wasted (natural) resource expenses. It means using the Earth's limited resources sustainably while minimizing environmental impact ([Berry, 2022](#)).

Resource efficiency is the ability to deliver the same or improved quality of life while using fewer resources, reducing waste and pollution, and mitigating climate change ([Lubis & Sahidan, 2024](#)). It is a management approach that seeks to optimize the use of resources, reduce waste and emissions, and improve overall performance ([McClelland, 2021](#)). Resource refers to all the materials available in our environment that are technologically accessible, economically feasible, and culturally sustainable and help us to satisfy our needs and wants ([Bintang, Kasran, & Sampetan, 2024](#)). Resource efficiency is the effective use of resources to achieve sustainable development, minimize environmental impacts, and promote economic growth. It is about using resources in a way that minimizes waste, reduces environmental impacts, and promotes sustainable development ([Hut, 2012](#)).

2.2 Theoretical Framework

This study is anchored on Resource-Based View (RBV) theory, by Jay Barney in 1991. It suggests that a firm's resources and capabilities are the primary sources of competitive advantage and sustainable business performance. Key aspects of the RBV theory include Resources and capabilities, competence and capabilities of the firm, internal resources for strategy formulation and implementation, innovations and entrepreneurship, competitive advantage and sustainable business performance, and leadership positions within industries. The RBV theory has been influential in strategic management and continues to evolve, with applications in various business contexts. The RBV theory is relevant to the present study because it provides a valuable framework for understanding how capacity building and sustainable development can be achieved through effective resource management and strategic leveraging of internal capabilities.

2.3 Empirical Studies

[Piala et al. \(2024\)](#) explored building capacity, driving impact: A holistic approach to school leader development in the Philippines. This systematic literature review explores the multifaceted landscape of "Building School Leader Capacity for Impact." Drawing upon diverse studies, the review identifies key strategies to enhance the capacity of school leaders, underscoring their direct influence on educational outcomes. The findings reveal that professional development, including sustained and job-embedded initiatives, serves as a cornerstone for capacity building, aligning leaders with the dynamic challenges of educational leadership. Additionally, the transformative potential of distributed leadership models emerges, emphasizing the benefits of shared responsibility and decentralized decision-making within school communities. Contextualized approaches to capacity building stand out as a vital finding, emphasizing the need to tailor strategies to the unique challenges of individual educational settings.

[Abdulkareem, Jimoh, and Shasi \(2023\)](#) examined socioeconomic development and sustainable development in Nigeria: the roles of poverty reduction and social inclusion. Vector error correction model (VECM) was adopted as the analytical technique. Three groups of factors were employed when determining SD: economic (per capita gross domestic product [GDP] and the inflow of foreign direct investment [FDI]), social (life expectancy, school enrollment, poverty, and the proportion of women in parliament) and environmental (CO₂ emission and natural resource endowment). The findings revealed that the economic factors (GDP per capita and the inflow of FDI to the GDP ratio) and two of the social determinants (life expectancy and school enrollment) had a positive effect on SD while the remaining two social determinants (poverty gap and the proportion of women in parliament) and the environmental determinants (CO₂ emission and natural resource endowment) had a negative influence on SD in Nigeria during the period under study.

[Ufua, Osabohien, Imhonopi, Olujobi, and Ogbari \(2020\)](#) explored change management and capacity utilization: A critical requirement for business sustainability among small and medium-sized enterprises

(SMEs) in Nigeria. This study focused on the practice of change management and operational resilience among Small and Medium Enterprises (SMEs) in Nigeria. The research adopted an empirical approach, relying on secondary data sourced from the 2014 enterprise survey of the World Bank and applied the logit regression analysis. Results showed that product development and experience are statistically significant and positively related to capacity utilization. Political instability, spoilage (loss of product in transit, due to theft, breakage, or spoilage), and financial constraints are negatively related to capacity utilization.

[Purwanto \(2020\)](#) examined the effect of hard skills, soft skills, organizational learning, and innovation capacity on Islamic University lecturers' performance in Indonesia. The purpose of this research was to analyze the effect of hard skills, soft skills, organizational learning, and innovation capacities on the performance of lecturers at Islamic Universities in Indonesia. Data collection was carried out by simple random sampling of 261 populations of an Islamic University in Indonesia. The results of the questionnaire were returned and valid in as many as 244 samples. Structural Equation Modelling method with Smart Partial Least Square 3.0 software was used for data processing. The research results showed that hard skills, soft skills, organizational learning, and innovation capacities had a positive and significant direct effect on lecturer performance. In addition, soft skills had the greatest influence on lecturer performance among other variables.

[Seroka-Stolka and Fijorek \(2020\)](#) examined enhancing corporate sustainable development: Proactive environmental strategy, stakeholder pressure, and the moderating effect of firm size in Poland. This article aimed to evaluate the influence of pressure from 10 distinct types of stakeholders on the adoption of environmental strategies, with a special focus on the proactive environmental strategy (PES). The moderation effect of the company size on this relationship was investigated in depth. The existence of the relationship between stakeholder pressure and environmental strategies has been explored by numerous studies. The study added significantly to this ongoing discussion as the moderation effect of the company size was explored scarcely so far in the literature. The results from the multinomial logistic regression models confirmed almost unanimously the effect of stakeholder pressure and the presence of moderation. Positive, but nonlinear, direct and moderated effect of pressures of regulators, competitors, clients, NGOs, media, shareholders, and employees on PES was discovered. In the case of suppliers, consumers, and top management, the pressure–PES relation was more complex. Also, large companies seemed to be more resilient to pressures than smaller ones when adopting PES.

[Sofyani et al., 2020](#)) examined improving service quality, accountability, and transparency of local government: The intervening role of information technology governance in Indonesia. This study aimed to examine the perception of government employees about the association of the culture of compliance in information technology (IT) on service quality, accountability, and transparency through effective IT governance (ITG) as an intervening variable. This study was carried out in the local government (city) of Surabaya, Indonesia. The population of this study was all Local Government Organizations (LGOs) in Surabaya, while the samples were LGOs for public services and administration. Data was gathered through the questionnaires distributed directly to the respondents. The respondents are LGO employees who are involved with e-government implementation. The number of distributed questionnaires was 200, but there were only 141 returned and analyzed. The partial Least Square-Structural Equation Modeling (PLS-SEM) was utilized to analyze the data. The results of this study showed that the culture of compliance in IT is associated with service quality, accountability, and transparency indirectly through effective ITG. The result implies that effective ITG is a crucial aspect that must be considered for achieving successful e-government development in Indonesian local governments.

[Lertpiromsuk et al. \(2022\)](#) investigated skills and human resource management for Industry 4.0 of small and medium enterprises in Thailand. This study is aimed at identifying the skills that small and medium enterprises in the food industry place importance upon, the skills levels of the food industry employees of the small and medium enterprises, the skills levels that students acquire from educational institutions, any skills gap between those salient to small and medium enterprises and those possessed by employees and students as well as the role of human resource management in addressing this skills gap, where it

exists. The results showed that social skills and personal skills are deemed very important, while technical skills and methodological skills are considered as being important for Industry 4.0. There is a gap in all these types of industry skills requirements regarding employees of small and medium enterprises as well as those of 4th-year students who are about to graduate. Moreover, human resource management in the recruitment process influences the reduction of the skills gap ($\beta = -0.390$) at a significance level of 0.01, while such management in human resource planning impacts a reduction in the skills gap ($\beta = 0.309$) at a significance level 0.05 for SMEs in the Thai food industry.

2.4 Gap in Literature

There is a significant knowledge gap regarding the interplay between capacity building and sustainable development efforts of the National Population Commission, Awka, Anambra State. None of the studies reviewed have investigated this relationship through critical proxies, including technological upgrade and accountability, skills enhancement, and resource efficiency. This study aimed to bridge this gap by conducting an in-depth examination of these variables, providing invaluable insights for employees, management, policymakers, and academics to inform strategies that foster sustainable development and optimal performance in the National Population Commission, Awka, Anambra State.

3. Research Methodology

This study employed a survey research design to gather data from the 190 staff members of the National Population Commission in Awka, Anambra State. The reasons for choosing this design are that survey research is an inexpensive and practical method for collecting quantitative data, allowing researchers to reach a large demographic in a relatively short time. Additionally, surveys provide fast results, which is essential for studies that require timely insights. The population of this study was easily accessible through the personnel office of the National Population Commission, making it an ideal choice. Furthermore, survey research enables researchers to cover every component of a topic, ask as many questions as needed, and provide opportunities for scalability. The instrument of the study is a structured questionnaire which was given to experts in the faculty of Management Sciences at Nnamdi Azikiwe University, Awka who scrutinized the questionnaire through face and content validity and attested the instrument valid. For the internal consistency or reliability of the instrument, a value of 0.816 was obtained through Cronbach's Alpha Coefficient in Statistical Packages for Social Science (SPSS version 27). The use of Pearson Product Moment Correlation Coefficient on SPSS version 27 at a 5% level of significance ensures that the hypotheses were rigorously tested and analyzed.

4. Results and discussions

4.1 Analysis of data related to research questions

Decision rule:

The decision in this analysis section is determined by the average of the responses of respondents. Strongly Agreed (5 points), Agreed (4 points), Disagreed (3 points), Strongly Disagreed (2 points) and Undecided (1 point). The average of the responses:

$$\frac{5 + 4 + 3 + 2 + 1}{5} = 3.0$$

Therefore, a mean score below 3.0 would be considered rejected and a mean score of 3.0 and above would be considered accepted.

Table 1. Research Question 1: What is the relationship between technological upgrade and accountability of the National Population Commission, Awka, Anambra State?

Technological Upgrade

S/N	Items	N	Mean	Remark
1	My organization provides sufficient training for new technological upgrades.	190	3.58	Accepted
2	I am confident in my ability to adapt to new technologies in the workplace.	190	2.34	Rejected
3	My daily tasks are made easier by the technological tools available to me.	190	4.02	Accepted

4	My department regularly updates its software and hardware to keep pace with industry standards.	190	3.60	Accepted
Accountability				
5	My organization has clear systems in place for monitoring accountability.	190	1.98	Rejected
6	Accountability is essential for my professional growth.	190	4.27	Accepted
7	I understand the consequences of not meeting the expectations set by my organization.	190	2.01	Rejected
8	I love accountability because it keeps me focused	190	3.66	Accepted

Source: Field Survey, 2024

In Table 1, all the items address the first research question which is "What is the relationship between technological upgrade and accountability of the National Population Commission, Awka, Anambra State?" From the data analysis, items 1, 3, 4, and 6 obtained a mean rating above the criterion mean of 3.0 and items 2, 5, and 7 obtained a mean rating below the criterion mean of 3.0. The result of the analysis indicated that the majority of the respondents supported that technological upgrade relates to accountability in the National Population Commission, Awka, Anambra State.

Table 2. Research Question 2: What is the relationship between skills enhancement and resource efficiency of the National Population Commission, Awka, Anambra State?

Skills Enhancement

S/N	Items	N	Mean	Remark
9	My organization encourages continuous learning and development.	190	3.22	Accepted
10	I actively seek out ways to enhance my skills to stay competitive in my role.	190	1.28	Rejected
11	My manager does not support my efforts to enhance my skills and knowledge.	190	3.27	Accepted
12	My organization communicates clearly about available skill enhancement programmes	190	3.42	Accepted
Resource Efficiency				
13	I am advised to use resources responsibly in my daily work.	190	1.92	Rejected
14	I am told to raise concerns about the inefficient use of resources.	190	4.11	Accepted
15	My organization rewards innovative ideas that lead to better resource efficiency.	190	3.33	Accepted
16	My organization encourages us to minimize waste in our work processes.	190	3.66	Accepted

Source: Field Survey, 2024

In table 2, all the items were addressing the first research question which is "What is the relationship between skills enhancement and resource efficiency of National Population Commission, Awka, Anambra State?" From the data analysis, items 9, 11, 12, 14, 15 and 16 obtained a mean rating above the criterion mean of 3.0, and items 10 and 13 obtained a mean rating below the criterion mean of 3.0. The result of the analysis indicated that the majority of the respondents supported that skills enhancement relates to the resource efficiency of the National Population Commission, Awka, Anambra State.

4.2 Hypotheses Testing

Decision rule: Reject the null hypothesis and accept the alternate if P-value < 0.05; if otherwise, accept the null Hypothesis.

Table 3. Relationship between technological upgrade and accountability

		Technological Upgrade	Accountability
Technological Upgrade	Pearson correlation	1	.876**
	Sig. (2-tailed)		.000
	N	190	190
Accountability	Pearson correlation	.876**	1
	Sig. (2-tailed)	.000	
	N	190	190

Source: SPSS ver. 27 Outputs

4.2.1 Summary of Finding

Table 3 shows that there is a significant positive relationship between technological upgrade and accountability of the National Population Commission, Awka, Anambra State with $r = 0.876$, $n = 190$, and p -value of 0.000 ($p < 0.05$). Therefore, the study accepted the alternate hypothesis and concluded that there is a significant positive relationship between technological upgrade and accountability of the National Population Commission, Awka, Anambra State. This implies that investments in modern technology can lead to more transparent, efficient, and reliable operations. This, in turn, enhances the credibility and effectiveness of the Commission, ultimately supporting better population management and contributing to broader socio-economic development goals.

Table 4. Relationship between skills enhancement and resource efficiency

		Skills Enhancement	Resource Efficiency
Skills Enhancement	Pearson correlation	1	.647**
	Sig. (2-tailed)		.015
	N	190	190
Resource Efficiency	Pearson correlation	.647**	1
	Sig. (2-tailed)	.015	
	N	190	190

Source: SPSS ver.27 Outputs

4.2.2 Summary of Finding

Table 4 shows a positive significant relationship between skills enhancement and resource efficiency of the National Population Commission, Awka, Anambra State with $r = 0.647$, $n = 190$, and p -value of 0.015 ($p < 0.05$). Therefore, the study accepted the alternate hypothesis and concluded that there is a positive significant relationship between skills enhancement and resource efficiency of the National Population Commission, Awka, Anambra State. This implies that investing in staff development is a key strategy for improving the overall efficiency and effectiveness of the Commission.

4.3 Discussion of Findings

1. Hypothesis one indicated that there is a significant positive relationship between technological upgrade and accountability of the National Population Commission, Awka, Anambra State with $r = 0.876$, $n = 190$, and p -value of 0.000 ($p < 0.05$). Therefore, the study accepted the alternate hypothesis and concluded that there is a significant positive relationship between technological upgrade and accountability of the National Population Commission, Awka, Anambra State. This finding is congruent with the result of ([Sofyani et al., 2020](#)) that technology has a positive significant relationship with the accountability and transparency of staff, in the study on improving service quality, accountability and transparency of local government: The Intervening role of information technology governance in Indonesia.

2. Hypothesis two revealed that there is a positive significant relationship between skills enhancement and resource efficiency of the National Population Commission, Awka, Anambra State with $r = 0.647$, $n = 190$, and p -value of 0.015 ($p < 0.05$). Therefore, the study accepted the alternate hypothesis and concluded that there is a positive significant relationship between skills enhancement and resource efficiency of the National Population Commission, Awka, Anambra State. This relationship underscores the value of human capital in achieving organizational goals and highlights the broader benefits of a well-trained and capable workforce in managing resources prudently and achieving sustainable development objectives. This result is in agreement with the result of [Lertpiromsuk et al. \(2022\)](#) that personal skills have a significant positive relationship with human resource management of a firm in the study on skills and human resource management for Industry 4.0 of small and medium enterprises in Thailand.

5. Conclusion

5.1 Conclusion

This study concluded that there is a positive and statistically significant relationship between capacity building and the National Population Commission's sustainable development efforts in Awka, Anambra State. This implies that investing in capacity building has a direct, positive impact on the National Population Commission's sustainable development efforts in Awka, Anambra State, meaning that enhancing their workforce's skills and abilities leads to more effective and lasting development outcomes. This also indicates that investing in staff development is a key strategy for improving the overall efficiency and effectiveness of the Commission.

5.2 Limitation

The researcher encountered problems during the data collection process. The researcher was faced with an uncooperative attitude of some respondents by not providing answers to the questionnaire; some saw the survey as an interruption to their work schedules, while others saw it as purely academics. Some respondents had ill feelings that providing relevant information would endanger their position or job. Nonetheless, the researcher overcame these challenges through time management and effective communication skills by explaining to the respondents the importance of the research and assured them their answers and information shall be treated with the utmost confidentiality.

5.3 Suggestion

1. Digital Literacy and Economic Empowerment among Rural Women in Nasarawa State, Nigeria.
2. Renewable Energy and Sustainable Development: A Comparative Analysis of Policy Frameworks in Anambra State, Nigeria.

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