THE ROLE OF TRAINING PROGRAMS, COMMUNICATION CHANNELS, AND TECHNOLOGY USE IN ENHANCING EMPLOYEE PRODUCTIVITY IN TERTIARY INSTITUTIONS IN RIVERS STATE

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ABSTRACT

The study investigated the role of training programs, communication channels and use of technology in enhancing employee productivity in tertiary institutions in Rivers State. A total of two research questions and two hypotheses guided the study. The study adopted descriptive survey design. A sample of 345 respondents constituting of 243 academic staff and non academic staff from the three tertiary institutions namely, Ignatius Ajuru University, Rivers State University and University of Port Harcourt. The sample was obtained by using 5% of the total population and were selected from each of the universities. An instrument Titled; Role of Training Programs, Communication Channels and Use of Technology and Employee Productivity (RTPCCUTEP) was self developed and used for data collection. The instrument was validated by experts from the department and the reliability coefficient of 0.76 was obtained using test retest method. The data obtained from research questions were analyzed using mean and standard deviation while the hypotheses were tested using z-test at 0.05 level of significance. Major funding of the study revealed that training programs, communications channels and use of technology greatly enhanced the productivity of both academic and non academic staff of the tertiary institutions. It was however recommended that management of tertiary institutions should regularly train their staff to keep them abreast of new innovations.

INTRODUCTION

The Role of Training Programs, Communication Channels, and Technology Use in Enhancing Employee Productivity in Tertiary Institutions in Rivers State

In the dynamic and competitive educational environment, the role of training programs, communication channels, and technology integration in enhancing employee productivity has gained significant attention. In tertiary institutions, especially in Rivers State, Nigeria, these factors are essential for fostering a productive and efficient workforce. As these institutions strive to improve academic delivery, administrative functions, and overall institutional effectiveness, it is crucial to understand how training, communication, and technology converge to optimize employee performance.

Training is a vital tool for improving employee knowledge, skills, and competencies. For employees in tertiary institutions in Rivers State, continuous professional development through training programs helps them stay abreast of emerging trends and best practices in their respective fields. According to Akinwale and Aderounmu (2023), the productivity of employees in higher education institutions is highly influenced by the quality of training programs provided. These programs not only enhance academic and administrative staff's technical skills but also nurture soft skills such as leadership, teamwork, and communication, which are essential for fostering collaboration within institutions.

Furthermore, as tertiary institutions increasingly incorporate digital learning tools, specialized training becomes necessary to ensure employees effectively utilize these new technologies. Adequate training programs help reduce skill gaps, foster innovation, and enable staff to manage their responsibilities with greater confidence and efficiency. For instance, faculty members who are proficient in digital teaching tools are better equipped to enhance the learning experience for

students, thus contributing to improved academic outcomes and institutional success (Bello & Oke, 2022).

In Rivers State, where there is a growing emphasis on improving educational standards, regular training programs are crucial for enhancing employees' job satisfaction and overall performance. Research by Oyewole and Akinyemi (2021) suggests that institutions that prioritize continuous training and development enjoy higher levels of staff engagement and productivity, which ultimately translate into better service delivery and institutional growth.

Effective communication is the cornerstone of any productive organization, including tertiary institutions. In the context of Rivers State's tertiary institutions, communication channels are essential for disseminating information, aligning institutional goals, and fostering collaboration. Whether through formal communication mechanisms such as emails and meetings or informal channels like internal social platforms, the way information flows within an institution has adirect impact on employee productivity. A study by Okafor and Eze (2021) highlights the importance of clear and transparent communication in reducing misunderstandings and enhancing employee morale in Nigerian universities. When employees at all levels are well-informed about institutional policies, goals, and changes, they can make better decisions and work more efficiently. Communication channels also play a pivotal role in feedback systems, which allow employees to voice concerns, share ideas, and contribute to institutional decision-making. The result is a more engaged workforce that feels valued and motivated, ultimately leading to increased productivity (Bello, 2022).

In Rivers State, where institutions often face resource constraints, effective communication tools such as video conferencing and collaborative platforms (e.g., Zoom, Microsoft Teams) have become indispensable. These tools facilitate regular interactions between academic and non-academic staff, ensuring that everyone is on the same page despite physical distances. According to Ogbari and Chidozie (2022), the use of digital communication platforms helps streamline administrative processes, improve coordination, and foster a more cohesive working environment. The Integration of technology has revolutionized the way employees in tertiary institutions perform their tasks. From administrative functions to teaching and research, technology enhances efficiency and productivity by automating routine tasks and providing innovative solutions for complex challenges. In Rivers State, where tertiary institutions are striving to modernize and enhance their competitiveness, embracing technology is crucial for improving employee productivity.

Digital platforms such as Learning Management Systems (LMS) and educational software enable academic staff to streamline course delivery, track student progress, and engage with students in real-time, regardless of geographical barriers. The use of cloud computing for document management, data storage, and collaboration enhances administrative efficiency by reducing the time spent on manual tasks and paper-based systems (Oyeniyi & Olalekan, 2022). Moreover, technology can support employee development by offering access to online training programs, webinars, and e-learning resources, which are essential in keeping employees up-to-date with the latest trends in their fields. As institutions in Rivers State increasingly adopt e-learning and blended learning approaches, the ability to navigate these technologies has become a critical skill for both academic and administrative staff. According to Eze and Chukwu (2023), institutions that leverage technology not only enhance employee productivity but also improve the overall quality of service delivery to students.

Additionally, data analytics and management systems enable institutions to assess employee performance, identify areas of improvement, and tailor professional development programs to meet specific needs. By employing data-driven decision-making processes, tertiary institutions can foster a culture of accountability and continuous improvement (Akinyemi, 2023).

The role of training programs, communication channels, and technology use in enhancing employee productivity in tertiary institutions in Rivers State cannot be overstated. These factors create an environment where employees are equipped with the skills, tools, and information they need to perform optimally. As tertiary institutions in the state continue to embrace modernization,

it is essential to prioritize these areas to ensure a competent, motivated, and productive workforce. The intersection of training, communication, and technology is a key driver of institutional success, contributing to better service delivery, improved educational outcomes, and the long-term sustainability of these institutions.

Statement of the Problem

In recent years, tertiary institutions in Rivers State have faced increasing challenges in achieving optimal employee productivity despite their critical role in the educational and administrative sectors. A key issue in addressing this challenge is the underutilization or insufficient integration of training programs, communication channels, and technology in enhancing the performance of both academic and non-academic staff.

Firstly, while training programs are widely recognized as essential for employee development, many tertiary institutions in Rivers State lack regular, targeted, and up-to-date training opportunities for staff. As a result, employees often struggle with skill gaps, which affects their ability to adapt to emerging demands in their professional roles. This is particularly concerning in a rapidly evolving academic environment where new teaching methods, administrative systems, and technological advancements are continually reshaping job functions.

Secondly, communication channels within many of these institutions remain inadequate. Ineffective communication strategies hinder the flow of information, create confusion, and limit collaboration among staff. This results in poor alignment with institutional goals and diminished productivity. Inadequate communication systems, especially between departments, often contribute to delays in decision-making, inefficiency in service delivery, and an overall lack of coordination that impacts employee performance.

Lastly, the adoption and effective use of technology have been relatively slow and inconsistent across tertiary institutions in Rivers State. Although the potential of technology to enhance productivity through automation, resource management, and better communication is widely acknowledged, the gap in technological infrastructure and digital skills among employees remains a significant challenge. The failure to integrate modern technology into the academic and administrative processes limits the efficiency and effectiveness of employees, who could otherwise benefit from tools such as Learning Management Systems (LMS), e-learning platforms, and digital communication tools.

This research seeks to investigate the role of training programs, communication channels, and technology use in enhancing employee productivity in tertiary institutions in Rivers State. By identifying the key factors that hinder or promote productivity, the study will provide insights into how these elements can be better utilized to improve employee performance and institutional efficiency. The findings aim to inform policy and practical recommendations for the effective implementation of training, communication, and technology strategies in these institutions.

Purpose of the Study

The purpose of this study is to examine the role of training programs, communication channels, and technology use in enhancing employee productivity in tertiary institutions in Rivers State. Specifically, the study aims to:

- 1. Investigate how training programs influence the productivity of academic and non-academic staff in tertiary institutions in Rivers State.
- 2. Assess the effectiveness of communication channels within these institutions in promoting collaboration, efficiency, and overall employee productivity.
- 3. Explore the impact of technology adoption and usage on improving work processes and productivity among staff members in Rivers State's tertiary institutions.

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Research Questions

The following research questions will guide this study:

- 1. What is the impact of training programs on the productivity of academic and non-academic staff in tertiary institutions in Rivers State?
- 2. How do communication channels within tertiary institutions in Rivers State influence employee collaboration and productivity?
- 3. To what extent does the use of technology enhance employee productivity in tertiary institutions in Rivers State?

Null Hypotheses

The following null hypotheses will be tested in this study:

- 1. Ho1: There is no significant relationship between training programs and employee productivity in tertiary institutions in Rivers State.
- 2. H₀₂: Communication channels do not significantly influence employee productivity in tertiary institutions in Rivers State.
- 3. H₀₃: Technology use does not significantly enhance employee productivity in tertiary institutions in Rivers State.

Theoretical Review on the Role of Training Programs, Communication Channels, and Technology Use in Enhancing Employee Productivity in Tertiary Institutions in Rivers State

1. Human Capital Theory

Human Capital Theory, proposed by Schultz (1961) and Becker (1964), posits that investments in training and education improve the skills, knowledge, and abilities of employees, leading to increased productivity. According to this theory, employees are seen as valuable assets whose productivity can be enhanced through continuous development and skill acquisition. In the context of tertiary institutions in Rivers State, this theory underscores the importance of training programs as a strategic investment in human resources. The theory suggests that well-structured and ongoing training programs, both for academic and non-academic staff, enhance their competencies, which directly translates into improved work performance and overall productivity within the institution.

Relevance to the Topic:

Human Capital Theory is highly relevant to the study, as it provides the basis for understanding how training programs enhance employee performance. In Rivers State's tertiary institutions, continuous investment in training can bridge the skill gaps among employees, improving both their individual and institutional productivity.

2. Communication Theory

Communication Theory, particularly Shannon and Weaver's (1949) Model of Communication, emphasizes the role of clear and effective communication in organizations. The model suggests that communication involves a sender, a message, a medium, a receiver, and feedback. Communication is essential for ensuring that information flows smoothly within an organization, helping employees stay informed, aligned, and motivated to meet organizational goals.

Effective communication within tertiary institutions can improve task coordination, reduce misunderstandings, and foster collaboration, all of which contribute to increased employee productivity. Communication also plays a key role in employee motivation, as clear feedback and regular updates about institutional goals can inspire staff to perform at their best.

Relevance to the Topic:

This theory highlights the importance of effective communication channels in enhancing productivity. In Rivers State's tertiary institutions, the proper design and implementation of

communication tools (e.g., emails, meetings, digital platforms) are essential for ensuring that staff members understand their roles, goals, and expectations, which directly impacts productivity.

3. Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM), developed by Davis (1989), is widely used to explain how users come to accept and use new technologies. TAM suggests that perceived ease of use and perceived usefulness are two key factors that determine whether an individual will adopt technology. The model has been extended to various contexts, including education and organizational settings, to study how employees' adoption of technological tools affects productivity.

In tertiary institutions, technology adoption—such as Learning Management Systems (LMS), e-learning platforms, and administrative software—can streamline administrative tasks, enhance teaching and learning experiences, and improve communication. The use of these technologies allows staff to perform tasks more efficiently, improving overall institutional productivity.

Relevance to the Topic:

TAM is relevant to understanding how technology adoption within tertiary institutions in Rivers State can directly influence productivity. The theory explains how the ease of using digital tools and their perceived usefulness for academic and administrative tasks can determine whether technology is embraced by employees. Successful integration of technology can lead to enhanced performance and productivity within these institutions.

4. Motivational Theories (Herzberg's Two-Factor Theory)

technology can lead to higher job satisfaction and increased productivity.

Herzberg's Two-Factor Theory (1959) identifies two key factors that influence employee motivation: hygiene factors (such as working conditions, salary, and job security) and motivators (such as recognition, responsibility, and opportunities for growth). The theory posits that the presence of motivators leads to higher job satisfaction and productivity, while the absence of hygiene factors can cause dissatisfaction but does not necessarily reduce motivation if motivators are present. Training programs, effective communication, and technology use are key motivators that can enhance employee productivity. Herzberg's theory suggests that providing employees with opportunities for skill development (training), clear communication, and the use of advanced

Relevance to the Topic:

Herzberg's theory supports the notion that training, communication, and technology are not just tools but motivators that can increase employee engagement and performance in tertiary institutions. In Rivers State, implementing these factors can improve staff satisfaction, reducing turnover and boosting productivity.

5. Systems Theory

Systems Theory, as proposed by Bertalanffy (1968), focuses on the interdependence of different components within an organization. It argues that an organization functions as a system where various parts (e.g., employees, communication channels, technology, training programs) must work together harmoniously to achieve organizational goals.

In the context of tertiary institutions, Systems Theory emphasizes the importance of integrating training programs, communication channels, and technology use to enhance overall institutional productivity. When these elements are effectively coordinated, they create a system that supports employee performance and contributes to the institution's success.

Relevance to the Topic:

Systems Theory provides a holistic view of how training, communication, and technology must be integrated to create an efficient and productive working environment in tertiary institutions. In Rivers State, this approach can guide institutions in aligning these elements to improve the productivity of both academic and non-academic staff.

Empirical studies on the role of training programs, communication channels, and technology use in enhancing employee productivity in tertiary institutions in Rivers State.

Empirical Studies on the Role of Training Programs, Communication Channels, and Technology Use in Enhancing Employee Productivity in Tertiary Institutions in Rivers State

1. Training Programs

Training programs are crucial for improving employee competencies, boosting morale, and enhancing overall productivity within tertiary institutions. Several empirical studies have documented the positive relationship between employee training and institutional productivity. Akinwale and Aderounmu (2023) conducted a study on Nigerian higher education institutions, including those in Rivers State, exploring the impact of training programs on employee productivity. They found that regular and structured training programs for both academic and non-academic staff led to increased employee performance. Specifically, faculty members who participated in pedagogical training programs demonstrated better instructional quality, which translated into improved student outcomes. Non-academic staff, on the other hand, reported better organizational efficiency and service delivery after undergoing skills enhancement training.

In a similar study, Oyewole and Akinyemi (2021) examined the role of training programs in Nigerian universities, with a focus on Rivers State, and found that training positively influenced staff job satisfaction, which in turn enhanced productivity. The study emphasized the importance of aligning training programs with the specific needs of employees to ensure their effectiveness. For instance, technical staff who received training in data management systems were able to process and store institutional data more efficiently, reducing workload and improving productivity across administrative departments.

Additionally, Oyeniyi and Olalekan (2022) explored the effect of training on the productivity of administrative staff in Rivers State's tertiary institutions. Their findings suggest that employees who were regularly exposed to training on time management, communication skills, and digital tools reported higher productivity levels. The study noted that well-structured training programs helped employees in these institutions reduce errors, work more collaboratively, and handle responsibilities with greater autonomy, ultimately leading to greater productivity.

2. Communication Channels

Effective communication within institutions is a key determinant of organizational success, influencing employee productivity significantly. A number of empirical studies have shown how well-established communication channels enhance employee performance in educational settings. Okafor and Eze (2021) investigated the impact of communication channels on employee productivity in Nigerian universities, focusing specifically on Rivers State. The study found that clear and timely communication facilitated by emails, meetings, and internal communication platforms helped academic staff to stay updated on institutional policies, assignments, and deadlines. The researchers found that when communication channels were optimized, academic staff felt more empowered and were better able to perform their tasks with a clear understanding of their responsibilities, leading to improved productivity.

Moreover, Ogbari and Chidozie (2022) conducted a study on the effectiveness of digital communication tools within Nigerian tertiary institutions, including those in Rivers State. They observed that the use of communication tools such as Microsoft Teams, Zoom, and institutional intranet platforms contributed to improved collaboration among staff. These platforms allowed for real-time discussions, sharing of resources, and feedback exchange, which enhanced decision-making processes and overall productivity. The study highlighted that the integration of digital

communication tools not only improved internal communication but also fostered a more inclusive work culture, where all employees could easily share ideas and concerns.

The importance of feedback mechanisms was also emphasized in a study by Omoju and Adebayo (2022), which examined the role of communication in enhancing employee productivity in Nigerian higher education institutions. The study revealed that when staff received regular, constructive feedback, it motivated them to improve their performance. Additionally, clear communication of institutional goals and expectations helped employees align their efforts with broader institutional objectives, enhancing collective productivity.

3. Technology Use

The integration of technology has revolutionized operations within tertiary institutions. From administrative functions to academic delivery, technology plays an increasingly central role in improving employee productivity. Several empirical studies have examined the relationship between technology use and employee productivity in Nigerian tertiary institutions, with a focus on Rivers State.

Eze and Chukwu (2023) conducted an empirical study on the use of technology in Nigerian universities, particularly focusing on Rivers State. The study showed that the adoption of digital tools such as Learning Management Systems (LMS), e-learning platforms, and digital research databases significantly enhanced the productivity of both academic and administrative staff. Academic staff were able to streamline teaching methods, track student progress, and engage with students more effectively using LMS. Meanwhile, administrative staff benefitted from the automation of routine tasks, such as document management and data processing, which freed up time for more strategic activities.

Similarly, Bello (2022) explored the role of technology in administrative productivity in tertiary institutions in Rivers State. The study revealed that the use of cloud-based tools for document management and internal communication systems contributed to significant improvements in productivity. Administrative staff reported that technology helped them reduce time spent on manual tasks, enhanced coordination between departments, and allowed for better management of institutional resources. The study concluded that technology, when effectively integrated into operations, significantly boosts productivity by increasing efficiency and reducing errors.

Another empirical study by Akinyemi (2023) examined the relationship between technology adoption and productivity among faculty members in Rivers State universities. The study found that faculty members who adopted technological tools for lecture preparation, grading, and student engagement were able to perform their duties more efficiently. The use of e-learning platforms allowed faculty members to offer flexible learning experiences to students, leading to better academic outcomes. Furthermore, the ability to access academic resources online helped faculty members to stay current with research developments, which enriched their teaching and research productivity.

The role of data analytics In improving institutional decision-making was also discussed in Akinwale and Aderounmu's (2023) study. They highlighted how the use of data analytics and management systems in tertiary institutions allowed administrators in Rivers State to make more informed decisions about resource allocation, staff development, and student management. By analyzing trends in employee performance and student outcomes, institutions were able to identify areas needing improvement, allocate resources more effectively, and set targeted goals to boost overall productivity.

4. Challenges and Opportunities

While the studies reviewed above provide evidence of the positive impact of training programs, communication channels, and technology use on employee productivity, challenges remain. For instance, Okafor and Eze (2021) noted that limited access to advanced technology, insufficient training opportunities, and resistance to change among some staff members can hinder the full

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potential of these interventions. In Rivers State, the disparity in technology infrastructure between institutions can create challenges in adopting digital tools effectively across the board.

However, these challenges also present opportunities for improvement. Institutional leaders and policymakers in Rivers State can invest in comprehensive training programs, strengthen communication channels, and provide adequate technological infrastructure to ensure that these elements work together to enhance productivity. Collaboration between government bodies, tertiary institutions, and private sector partners can help address these gaps, ultimately fostering a more productive and efficient workforce in the state's tertiary institutions.

METHODOLOGY

RESEARCH DESIGN: The study adopted descriptive survey design.

POPULATION OF THE STUDY: The target population consisted of 4,804 academic staff and 2,041 non academic staff of three tertiary institutions in Rivers State; namely; Rivers State University = 1,800, University of Port Harcourt = 1,456 and Ignatius Ajuru University = 1,608 for academic staff while the non academic staff has Rivers State University = 768, University of Port Harcourt = 675 and Ignatius Ajuru University = 598 respectively.

SAMPLE AND SAMPLING TECHNIQUES: A sample size of 345 respondents consisting of 243 academic staff and 102 non academic staff were selected using sample random sampling technique to obtain the sample, 5% of the target population was used, hence, in the academic staff category, Rivers State University = 90 Uniport = 73 and Ajuru University = 80, give a total of 243, while the non academic category the sample was obtained thus: Rivers State University = 38, Uniport = 34 and Ajuru = 30 given a total of 102.

INSTRUMENT FOR DATA COLLECTION: The instrument for data collection was a self designed instrument captioned Role of Training Programs, Communication Channels And Technology Used In Enhancing Employee

Productivity (RTPCCTUEEP). The response options were designed in accordance to likert format of Strongly Agree and Disagree and Strongly Disagree. The first part of the instrument addressed the demographic detail of respondents while the second part has the questionnaire items.

VALIDITY OF THE INSTRUMENT: The instrument was dually validated by experts from the department to ascertain its authencity in testing what its supposed to test.

RELIABLITY OF THE INSTRUMENT: A test retest method was used to determine the internal consistency of the research instrument. This was later correlated using Pearson product moment coefficient to obtain coefficient index of 0.76.

METHOD OF DATA ANALYSIS: The data obtained from research questions were analyzed using mean and standard deviation while Z test was used to test the hypotheses at 0.05 level of significance.

RESULTS

Research question one: What is the impact of training programs on the productivity of employees in tertiary institutions in Rivers State?

Table 1: Mena and Standard deviation responses on the impact of training programs on the productivity of employees,

| S/N | Items | Academic Staff | | | Non Academic Staff | | | |
|-----|---|----------------|-------|-------|--------------------|-------|-------|--|
| | | SUM | Х | SD | SUM | Х | SD | |
| 1 | Regular training and retraining improves employee performance | | 3.004 | 1.733 | 298 | 2.921 | 1.709 | |

| 2 | It enhances better organizational efficiency and service delivery | 716 | 2.946 | 1.716 | 289 | 2.833 | 1.683 |
|---|---|-----|-------|-------|-----|-------|-------|
| 3 | Skill enhancement: training improves job satisfaction | 695 | 2.861 | 1.691 | 297 | 2.911 | 1.706 |
| 4 | Training programs help employees reduce errors and handle responsibilities with greater autonomy. | 698 | 2.872 | 1.694 | 285 | 2.794 | 1.671 |
| | Aggregate Mean | | 2.921 | 1.709 | | 2.864 | 1.692 |

Table 1 data analysis showed that items 1-4 had all the mean score for academic and non academic staffs above the criterion mean of 2.5, an indication that training programs impacts on the productivity of employees by improving their performance enhancing better organizational efficiency and service delivery and improvement of job satisfaction among employees.

RESEARCH QUESTION TWO: What is the influence of communication channels on employee productivity in tertiary institutions in Rivers State.

Table 2: Mean and standard deviation responds on the influence of communication channels of employee productivity.

| S/N | Items | Academ | ic Staff | | Non Academic Staff | | | |
|-----|--|--------|----------|-------|--------------------|-------|-------|--|
| | | SUM | Х | SD | SUM | Х | SD | |
| 5 | Effective communication channels empowers staff to perform their duties leading to improved productivity | 728 | 2.995 | 1.730 | 300 | 2.941 | 1.714 | |
| 6 | The use of communication tools such as email, zoom contributes to improved collaboration among staff | 702 | 2.888 | 1.619 | 305 | 2.990 | 1.729 | |
| 7 | It enhances effective decision making which leads to improved productivity | 710 | 2.921 | 1.709 | 301 | 2.902 | 1.703 | |

| 8 | Clear channels of communication enhances collective productivity | 2.914 | 1.707 | 292 | 2.862 | 1.691 |
|---|--|-------|-------|-----|-------|-------|
| | Aggregate Mean | 2.929 | 1.711 | | 2.923 | 1.709 |

Analysis of data in table 2 revealed that items 5-8 had all the mean scores for academic and non academic staffs above the criterion mean of 2.5 showing that respondents are in agreement that the communication channels influences productivity of employees by empowering them to perform their duties, enhances effective decision making among staff and enhances collective productivity. Research Question Three: How does the use of technology enhance employee productivity in tertiary institutions in Rivers State?

Table 3: Man and standard deviation responds on the use of technology to enhance employee

productivity.

| S/N | Items | Academ | ic Staff | | Non Academic Staff | | | |
|-----|---|--------|----------|-------|--------------------|-------|-------|--|
| | | SUM | Х | SD | SUM | Χ | SD | |
| 9 | Technology when effectively integrated into co operations boost productivity of staff | 711 | 2.926 | 1.710 | 302 | 2.901 | 1.720 | |
| 10 | Adoption of appropriate technology which enhances productivity of staff | 715 | 2.942 | 1.715 | 297 | 2.912 | 1.706 | |
| 11 | The use of cloud based tools for document management improves productivity of staff | 702 | 2.888 | 1.699 | 320 | 3.137 | 1.771 | |
| 12 | Technology tools enhances research productivity among staff | 718 | 2.954 | 1.718 | 298 | 2.921 | 1.709 | |
| | Aggregate Mean | | 2.927 | 1.710 | | 2.912 | 1.706 | |

Table 3 data analysis revealed that items 9-12 had all the mean scores for academic and non academic staff above the criterion mean of 2.5 meaning that respondents agreed that the use of technology enhances employee productivity by effectively integrating it into various operations, application of appropriate technology with document management also enhances productivity of staff.

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Hypothesis One: There is no significant difference between the mean scores of academic and non academic staff on the impact of training programs on productivity in tertiary institutions in Rivers State.

Table 4: Z – Test analysis on the impact of training programs on productivity among academic and non academic staff

| Variables | N | Х | SD | DF | z -Cal | z-Critical | Remark |
|--------------------------|-----|-------|-------|-----|--------|------------|----------|
| Academic Staff | 243 | 2.921 | 1.709 | 243 | 0.285 | 1.96 | Ho1 |
| Non Academic Staff | 102 | 2.846 | 1.692 | | | | Accepted |

Data analysis on Table 4 showed that z – calculated value of 0.285 is less than z critical value of 196 at 0.05 level of significance and 243 degrees of freedom. Hence, the hypothesis is accepted meaning that there is no significant difference in the mean scores of academic and non academic staff on the impact of training programs on productivity of employees in tertiary institution in River State.

Hypothesis Two: There is no significant difference between the mean scores of academic and non academic staffs on the influence of communication channels on employee production in tertiary institutions in Rivers State.

Table 5: z-test analysis on the influence of communication channels on employee productivity.

| Variables | N | Х | SD | DF | Z -Cal | Z Critical | Remark |
|--------------------------|-----|-------|-------|-----|--------|------------|----------|
| Academic Staff | 243 | 2.929 | 1.711 | 243 | 0.297 | 1.96 | Ho2 |
| Non Academic Staff | 102 | 2.923 | 1.709 | | | | Accepted |

Table 5 data analysis revealed that the z calculated value of 0.297 was less than the z critical value of 196 at 0.05 level of significance and 243 degrees of freedom. Hence the null hypothesis was accepted, showing that there is no significant difference between the mean scores of academic and non academic staffs on the influence of communication channels on the productivity of employees in tertiary institutions in Rivers State.

Hypothesis Three: There is no significant difference between the mean scores of academic and non academic staff on the use of technology to enhance the productivity of employees in tertiary institutions in Rivers State.

Table 6: z test analysis on the influence of technology on the productivity of employees

| Variables | N | Χ | SD | DF | Z -Cal | Z Critical | Remark |
|--------------------------|-----|-------|-------|-----|--------|------------|----------|
| Academic Staff | 243 | 2.927 | 1.710 | 243 | 0.744 | 1.96 | Ho3 |
| Non Academic Staff | 102 | 2.912 | 1.706 | | | | Accepted |

Table 6 data analysis indicated that z calculated value of 0.744 is less than the z critical value of 1.96 at 0.05 level of significance and 243 degrees of freedom. Hence, the null hypothesis was accepted, meaning that there is no significant difference between the mean scores of academic

and non-academic staff of the use of technology to enhance the productivity of employees in tertiary institution in Rivers State

DISCUSSION OF RESULT

The findings on research question one and hypothesis. One revealed that training programs impact on employee productivity by enhancing better organizational efficiency and service delivery, and improvement in staff job satisfaction. These findings aligns with Akinwale and Adeorunmu (2023) Oyewole and Akinyemi (2021) who posted that training of staff improves their performance and productivity. The implication of this finding is that as staff are trained they acquire more skills to carry out their duties more effectively.

Research question two and hypothesis two findings showed that communication channels influence employee productivity by empowering staff with necessary information to perform their duties, enhancement of effective decision making process to improve collective productivity. Those findings are in line with Okafor and Eze (2021), Ogbari and Chigozie (2022) who asserted that clear channels of communication enhances collaboration among staff which leads to improved productivity. It also fosters inclusive work culture among staff this implies that through various channels of communication staff will be abreast with current issues and development in the institution.

The findings of research question three and hypotheses three indicated that the use of technology enhance employee productivity by effectively integrating it into operation to boost productivity and adoption of appropriate technological tools and cloud based tools to improve productivity of staff these findings agrees with Akinyemi (2023) and Eze and Chuckwu (2021) who stated in their study that technology tools such as E-learning platforms, email, zoom enhances the productivity of staff. This means that the use of modern technology tools improves productivity of staff in institution of learning.

CONCLUSION

Training programs, channels of communication and use of technology, are widely recognized as essential tools for Employees development as it improves employee knowledge, skills and competences. They are necessary for fostering a productive and efficient work force. This study therefore, concludes that training programs channels of communication and use of technology enhances the productivity of academic and non-academic staff of tertiary institution in Rivers State

RECOMMENDATIONS

Based on the findings of the study, it was recommended as follows:

- 1. Management of tertiary institution should regularly train and retrain their staff to enhance their performance
- 2. Special funds should be appropriated to staff training programs annually to boost their productivity level
- 3. Efforts should be made by all institutions to include training, programs in their academic activities

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