



Influence of Organizational Structure on Academic Staff Performance in Federal Polytechnic Nasarawa, Nigeria

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ABSTRACT

Organisational structure plays a critical role in shaping institutional operations by influencing task allocation, authority distribution, and employee performance. However, its impact on employee performance in academic settings remains underexplored, particularly within Nigerian higher institutions, and more specifically in polytechnics, which differ slightly in Organisational structure from universities. This study examines the influence of organisational structure on academic staff performance in Federal Polytechnic Nasarawa. The research investigates four key components of organisational structure: Centralization; Formalization; Hierarchy; and Specialization as independent variables, and their contribution to academic staff performance, which served as the dependent variable. A survey-based cross-sectional design was employed, with data collected through structured questionnaires distributed to academic staff. The study focused on their perceptions of the identified components of organisational structure. Inferential statistical methods, including correlation and multiple regression analyses, were used to evaluate the relationships between these components and academic staff performance. The findings revealed a positive correlation between the organisational structure components and academic staff performance. The results of the multiple regression analysis further demonstrated a significant positive relationship, emphasizing the critical role these components play in enhancing academic staff performance. Specifically, specialization structure has a significant positive effect on academic staff performance in Federal Polytechnic Nasarawa. On the other hand, centralization and organizational hierarchy have negative effect on organizational performance while organizational formalization has insignificant effect in Federal polytechnic Nasarawa. In line with the obtained findings, this study recommends that the governing council of Federal Polytechnic Nasarawa to maintain and improve lecturers' autonomy by increasing their involvement in decision-making especially in terms of curriculum design and administrative planning so as to keep them engaged and motivated. Equally, the research recommends that the Nigerian government to implement and maintain polytechnic governance autonomy by providing policies that will enable the institutions to have greater independence in decision-making which will enable them to respond to local industry needs promptly so as to improve the students' outcome. This study offers evidence-based recommendations for policymakers and institutional leaders to redesign organisational frameworks that promote optimal employee performance. It contributes to the global discourse on organisational dynamics in higher education and highlights the importance of context-specific strategies to improve employee productivity.

Keywords: Organisational Structure, Academic Staff performance, Centralization, Formalization, Hierarchy and Specialization

1. INTRODUCTION

Organizational structure refers to the formal framework of authority, tasks, and relationships that governs employee behavior and actions to achieve organizational goals (Zeng et al., 2010; John, 2017). It outlines how jobs and tasks are arranged within an organization (Tran & Tian, 2013), detailing the allocation of authority, responsibility, and enforcement of rules. According to Funmini (2018), a clear definition of responsibilities within the structure fosters harmonious working relationships among employees. The structure of an organization significantly impacts workflow, strategic objectives, and employee roles, either facilitating or hindering these elements (Lunenborg, 2012). It also serves as a mechanism to align strategies with employee performance evaluation. Key dimensions of organizational structure include the hierarchy's layers, the level of formalization, internal and external boundaries, technology adoption, standardization, productivity, and efficiency (Zheng, Yang, & McLean, 2010; Lunenborg, 2012; Tran & Tian, 2013). These elements, if improperly managed, can negatively affect employee performance.

Globally, organizational structures have played a pivotal role in the success and performance of various projects. For instance, the construction of the Great Pyramids of Giza in Egypt (2550–2490 B.C.) relied on a well-defined hierarchy, while the Great Wall of China (220–206 B.C.) was shaped by the high level of specialization among Chinese engineers (Adams, 2016). Similarly, the Colosseum in Rome, Italy (72–80 A.D.), was constructed by highly organized teams with effectively coordinated departments. In modern times, structured project management continues to drive success. The completion of the 2020 Pipeline Project for Natural Gas in Trans-Anatolia, Turkey, enhanced gas delivery for households due to efficient project management (PMI, 2020). Likewise, the coordination of the University Link Light Rail Extension Sound Transit in Seattle, Washington, in 2017 reduced traffic congestion (PMI, 2021). In Africa, the Grand Renaissance Dam in Ethiopia—set to be the continent's largest hydroelectric power plant—owes its progress to well-trained and organized construction teams under Salini Costruttori's management, with the project poised to supply electricity to several countries across Africa (Osei, 2020).

In Nigeria, the organizational structures of higher institutions of learning are notably more complex than those of other sectors due to their fragmented arrangements, hierarchical frameworks, participatory decision-making processes, centralized authority, and high level of formalization (Oyebade, 2011). This complexity often contributes to various challenges, including funding issues, admission processes, and difficulties in managing staff and students (Abdulkareem & Gabadeen, 2015). The impact of organizational structure on employee performance is a pressing concern in Nigerian universities and polytechnics. While earlier studies have primarily focused on the relationship between organizational structure and employee performance in Universities and manufacturing or service industries in Nigeria (Cyiza & Hakizimana, 2022; Abdulrahman, 2019; Okafor et al., 2017; Shabbir, 2017; Nwankwere et al., 2015), limited research has addressed academic staff in higher institutions. Most notably, there is a significant gap in understanding academic staff perceptions of how specific components of organizational structure influence employee performance in Nigerian polytechnics, which differ in structure from universities. This gap highlights the need for further exploration to provide insights into these unique dynamics.

This research seeks to address the existing knowledge gap by examining the influence of organizational structure on academic staff performance at Federal Polytechnic Nasarawa. The study aims to analyze academic staff perceptions of these structural components to identify strategies for enhancing staff effectiveness and overall institutional performance. Building on insights from prior studies and a comprehensive literature review (Nwankwere & Orga, 2015; Adams, 2016; Daft, 2016; Obi, 2017; Shabbir, 2017; Abdulrahman, 2019; Cyiza & Hakizimana, 2022), several components of organizational structure have been recognized as crucial to employee performance. These include centralization or decentralization of authority, the degree of formalization, job design, specialization and qualification, hierarchical layers, academic qualification, organizational boundaries, reward and incentive systems, standardization, and organizational integration. For the purpose of this study, these elements are grouped into four key components that significantly influence employee performance: centralization, formalization, hierarchy, and specialization. By exploring these components, the research aims to provide valuable insights that can be used to optimize the organizational structure and improve academic staff performance, ultimately contributing to the success of the institution. The primary objectives of this study are to: (i) Determine the influence of Centralisation on Academic Staff Performance in Federal Polytechnic Nasarawa; (ii) Determine the influence of Formalisation on Academic Staff Performance in Federal Polytechnic Nasarawa; (iii) Determine the influence of Hierarchy on Academic Staff Performance in Federal Polytechnic Nasarawa; and (iv) Determine the influence of Specialisation on Academic Staff Performance in Federal Polytechnic Nasarawa.

Basically, the study adopted four research questions in relation to the study objectives; (i) To what extent does Centralisation affect Academic Staff Performance in Federal Polytechnic Nasarawa?; (ii) To what extent does Formalisation affect Academic Staff Performance in Federal Polytechnic Nasarawa?; (iii) To what extent does Hierarchy affect Academic Staff Performance in Federal Polytechnic Nasarawa?; and (iv) To what extent does Specialisation affect Academic Staff Performance in Federal Polytechnic Nasarawa?

Also, in line with the specific objectives and research questions of this study, the following hypotheses were formulated in null form, subject to acceptance or rejection based on the result of the analysis: Ho1: Centralisation does not have significant effect on Academic Staff Performance in Federal Polytechnic Nasarawa; Ho2: Formalisation does not have significant effect on Academic Staff Performance in Federal Polytechnic Nasarawa. Ho3: Hierarchy does not have significant effect on Academic Staff Performance in Federal Polytechnic Nasarawa; Ho4: Specialisation does not have significant effect on Academic Staff Performance in Federal Polytechnic Nasarawa.

2. LITERATURE REVIEW

2.1. *Concept of Organizational Structure*

The concept of "organizational structure" has gained significant importance in the business world today, distinguishing various organizations globally. The term "organization" originates from "organism," which refers to a structured body divided into parts interconnected by relationships to function as a unified whole (Shields, 2016). Okoro (2017) defined an organization as a social setup with boundaries separating it from its environment, aiming to achieve collective goals and control performance. For managers, an organization implies a formalized, intentional structure of roles and positions. Okoro et al. (2017) further described it as a deliberately constructed and reconstructed social unit or human grouping. To ensure consumer retention, organizations must prioritize customer satisfaction, as low-quality services lead to dissatisfaction and diminished performance. While service quality is critical for consumer satisfaction, it is not the sole determinant. Teixeira, Koufteros, and Peng (2020) defined organizational structure as a group of individuals occupying formal positions to achieve specific purposes, enabling society to pursue goals unattainable through individual actions alone. Similarly, organizations are viewed as social systems involving interpersonal relationships structured to accomplish work effectively.

Tsai et al. (2021) argued that establishing an organizational structure presumes operations beyond sole proprietorship, necessitating collaborative efforts for success. This requires clear task allocation, job descriptions, operating procedures, performance standards, lines of authority, and integration systems to ensure cohesion, efficiency, and conflict avoidance. Simply put, organizational structure formalizes the division, grouping, and coordination of job tasks. In addition, Ferreira and Otley (2017) described organizational structure as a framework outlining the execution and monitoring of tasks, roles, and responsibilities to achieve organizational goals. It also dictates the flow of information and communication across management levels. For instance, centralized structures prioritize a vertical, top-down flow of decisions, while decentralized structures distribute authority across various levels (Kenton & Drury, 2021). Organizational structure helps maintain focus and efficiency in achieving goals (Tran & Tian, 2013). The choice and application of an appropriate structure significantly impact organizational performance and outputs. Every management team must establish a suitable organizational structure to handle business activities effectively (Chineme & Okonkwo, 2023).

2.2 Organisational Hierarchy

Hierarchical structure of an organization establishes a predetermined chain of command that extends from top management to the lowest level, clearly defining reporting relationships (Etuku et al., 2020). As the number of hierarchical layers increases, the organizational structure becomes more complex, making coordination and system integration more challenging. Okafor, Agbaeze, and Obi (2017), Nahm (2003), argue that minimizing hierarchical layers enhances decision-making efficiency and improves employee performance. Furthermore, the concentration of authority in decision-making and task execution is referred to as the "hierarchy of authority" (Alqawateh, 2014). He also emphasized that when employees are granted autonomy in decision-making, the necessity for a rigid chain of command diminishes. Organizational hierarchy represents the levels of authority that separate the highest and lowest-ranking employees within an organization. Typically, it takes a pyramidal form, where decision-making authority originates at the top and cascades downward to successive levels. While the traditional pyramidal model incorporates multiple layers between frontline employees and senior management creating a considerable gap many organizations are shifting toward structures that prioritize flexibility.

2.3 Organisational Formalization

Formalization in organizations refers to the extent to which established rules, policies, and procedures govern business operations. A high degree of Formalization is evident when organizations implement well-defined job methods and extensive procedural guidelines (Al-Abro & Kazem, 2018). The primary purpose of documented rules and procedures is to standardize operations, ensuring uniformity and accountability. The degree of formalization determines how much an individual's work is constrained by explicit or implicit regulations, with violations leading to accountability. As formalization increases, employees experience reduced autonomy in selecting their work methods and executing tasks (Mohammed, 2020). The level of formalization within an organization often correlates with its size. Some organizations adopt additional regulations to increase formality, whereas others opt for reduced formalization, fearing that excessive rules and procedures may not only restrict employees but also suppress creativity, independent work, and learning opportunities (Shabbir, 2017). Kim and Beehr (2018) suggest that formalization can be assessed by examining the proportion of jobs that are codified and the level of variability permitted within job-related rules. Organizations with a higher percentage of codified jobs and limited flexibility in their rules are considered highly formalized. The implementation of formal rules, policies, and procedures plays a crucial role in coordination by regulating employees' decision-making and actions within the organization (Schminke, Ambrose, & Cropanzano, 2000).

2.4 Organisational Centralization

Centralization refers to the concentration of decision-making authority at the upper levels of an organization's hierarchy while limiting its delegation to lower levels. In a highly centralized organization, authority is confined to a specific level, creating a structured system where all decisions stem from a single governing center (Habib & Dawood, 2021). As centralization increases, the extent to which authority is delegated decreases, indicating an inverse relationship between the two. The concept of centralization fundamentally describes how an organization structures its authority and manages decision-making processes (Gosselin, 1997; Caruana et al., 1998; Jansen et al., 2006). In essence, centralization determines how power is allocated within an organizational framework and whether employees are given opportunities to participate in decision-making processes (Hage & Aiken, 1967; Rogers, 1995). A highly centralized structure consolidates decision-making power at the topmost administrative levels, where top executives formulate strategic decisions while lower-level managers focus primarily on implementation (Al-Abro & Kazem, 2018). Chelladurai (2001) explains that centralization manifests when key decisions are made by senior leaders (centralized decision-making) rather than being distributed to lower-level personnel (decentralized decision-making). However, excessive centralization, coupled with rigid formalization, can restrict managerial flexibility, reducing the ability of leaders to adapt to unforeseen challenges and opportunities (Sandhu & Kulik, 2018). This suggests that while centralization enhances control and consistency, an overly rigid structure may hinder responsiveness and innovation.

2.5 Organisational Specialization

Specialization refers to the extent to which roles within an organization are differentiated based on specific tasks or objectives (Kikulis et al., 1995). It is commonly associated with organizational differentiation and serves as a key dimension for assessing organizational complexity. The degree of specialization is directly linked to the division of labor and the assignment of specialized roles to the organization's core functions. This division ensures that responsibilities are allocated according to their significance. As specialization increases, job functions become more diverse, with individuals focusing on specific tasks within their areas of expertise (Mohammed, 2020). A high level of specialization facilitates efficiency by ensuring that duties are clearly assigned across various functional areas. Larger organizations often face challenges in managing multiple tasks across a workforce, necessitating a structured allocation of responsibilities to enhance expertise and efficiency (Al-Anzi & Al-Dhaiby, 2013). Specialization involves grouping similar activities under dedicated organizational divisions to optimize task execution. According to this principle, each employee should focus on a specific function, or a specialized unit should be designated for each task. This structured approach enables individuals and teams to operate within defined work schedules, leading to benefits such as faster task completion, enhanced proficiency, and cost efficiency.

2.6 Concept of Performance

Awan et al. (2020) defined performance as the measurable results of an employee's work, a management process, or an entire organization's output, where these results are demonstrated through concrete and quantifiable evidence. Atmaja et al. (2022) described performance as the ability of individuals or

groups to deliver satisfactory results within their respective roles. Van Waeyenberg et al. (2022) viewed performance as the outcome of work produced by employees or the real behavior displayed according to their organizational role. Similarly, USAID (2017) defined project performance across four domains: effectiveness (achieving results and meeting standards), efficiency (delivering services and expanding reach), relevance (engaging stakeholders and fostering learning), and sustainability (mobilizing resources and increasing social capital).

Both structure and performance are critical to organizational success and achievement. When external changes occur, organizations must adapt to remain competitive, and this adaptation often depends on the skills and competence of their employees. Organizational structure plays a key role by enhancing employee productivity and ensuring that goals are achieved efficiently. Additionally, the structure can influence employee behavior, driving changes that align with organizational objectives (Schiffman et al., 2010).

2.7 Employee Performance

The efficiency of employee performance is characterized by achieving maximum satisfaction with minimal or no cost (Abdulrahman, 2016). Employee performance is a complex and measurable parameter that reflects the output produced by an employee's efforts and achievements compared to organizational standards or the output of colleagues working under similar conditions. Gunuraja (2014) defined it as the ability of employees to optimize productivity with minimal effort or expense.

In academic settings, the performance of academic staff is significantly influenced by organizational structure. When academic staff members are adequately motivated, their performance tends to improve markedly. One way to achieve this is through structured training programs, which not only enhance their skills but also boost their confidence and motivation. Onyekwere and Douglas (2022) noted that structure has a direct and positive impact on job performance, especially when effort is appropriately accounted for. In addition, academic staff performance can be assessed through indicators such as punctuality in lectures, timely submission of examination results, and the effectiveness of student project supervision (Faith, 2014; Ishola et al., 2018). This underscores the critical role of structure and motivation in enhancing performance within educational institutions.

Generally, productivity is often associated with tangible, production-oriented metrics such as profit and turnover, while employee performance relates more to efficiency and perception-based metrics, such as supervisory ratings and goal accomplishments. For organizations to thrive, they require competent employees and an appropriate structure that fosters high performance. Abdulrahman (2016) asserts that employee performance is dependent on factors such as job knowledge, dependability in executing tasks with minimal supervision, and adherence to organizational policies and regulations. Similarly, Shabbir (2017) highlights factors such as supervisory ratings, task quality and quantity, efficiency, and effectiveness in assigned roles.

2.8 Empirical Review

Numerous studies have examined the impact of organizational structure on employee performance. One notable study by Veisi, and Hasanvand (2021), titled *"Organizational Structure and Employee's Performance,"* investigated the influence of organizational structure on employee performance within brewing firms in Nigeria. The research aimed to assess whether appropriate structures exist in Nigerian brewing firms and the extent to which these structures contribute to employee performance. The study's population comprised 6,468 employees across five brewing firms listed on the Nigerian Stock Exchange, with the sample size determined using the Taro Yamane method. Employing a descriptive survey design, the study utilized structured questionnaires to collect data, which were analysed using descriptive statistics, correlation, and t-statistics. The findings revealed that the nature of hierarchical layers significantly and positively influenced employee performance, while formalization also had a substantial positive effect. Based on these findings, the study concluded that adopting an appropriate structure is pivotal for optimizing employee performance in brewing firms. Similarly, Muhammad Donal Mon (2019) conducted a study exploring the effects of complexity, formalization, hierarchical structure, and technology on company performance. Data analysis was performed using the SPSS program. The results indicated that complexity and the nature of hierarchical structure had a positive but not significant impact on firm performance. In contrast, formalization and technology exhibited a positive and significant influence. These findings highlight the nuanced role of various structural components in shaping organizational and employee performance.

In a study by Lauring, Selmer and Kubovcikova (2019), the results highlighted that organizational structure significantly affects academic staff productivity in educational institutions. Specifically, the study found that organisational boundaries and hierarchical layers had a substantial impact on academic staff performance. These findings underscore the importance of structural elements in influencing the effectiveness of academic staff within an organization. Similarly, Kampini (2018) examined the effect of organizational structure on employee performance in Malawi, using New Era Secondary School as a case study. A questionnaire was distributed to 25 respondents to gather data. Regarding hierarchy, the researcher sought to understand how it impacted decision-making and overall performance. The results revealed that 52% of respondents believed decision-making was centralized at the top management level, which led to cost reductions, improved uniformity in actions and processes, and enhanced flexibility and speed in decision-making. These factors, in turn, positively affected overall performance. However, interviews also indicated that excessive centralization of decision-making sometimes resulted in bureaucracy, which delayed work. This highlights that while a hierarchical structure can improve performance, excessive centralization may hinder efficiency, demonstrating the complex relationship between hierarchy, decision-making, and organizational performance.

Bass, Avolio, Jung and Berson (2016) investigated the impact of organizational hierarchy and leadership on employee performance and organizational success. Using a sample of 72 army platoon leaders, the study found that leadership styles that provided employees with freedom and autonomy positively influenced both employee and organizational performance. The researchers attributed this to the fact that when individuals are involved in hierarchical decision-making, it boosts their confidence and productivity, which subsequently enhances overall organizational performance. Similar findings were

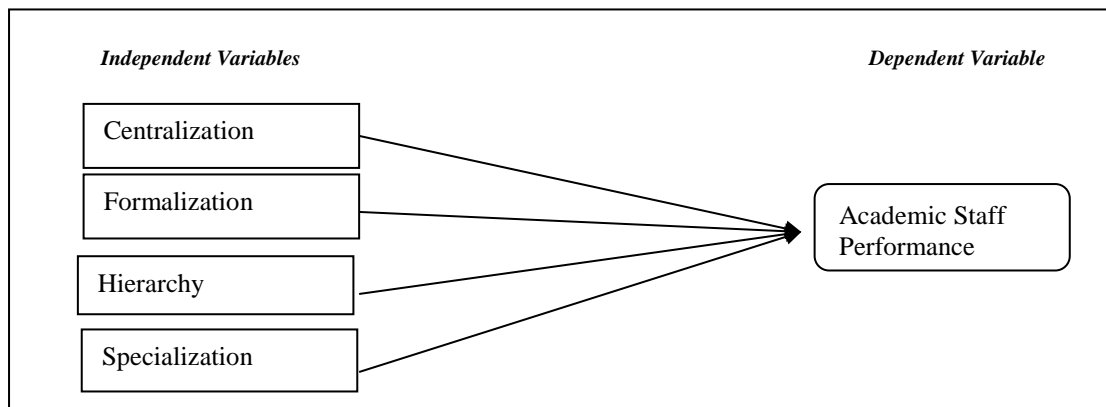
reported by experimental studies. One such study, conducted in Italy with 138 nursing officers (Belle, 2017), found that nurses who were randomly assigned to leadership programs offering autonomy and flexibility performed better than those who did not participate in such programs. Additionally, Kampini (2018) and Al-Meer (2016) examined the impact of leadership hierarchy on organizational performance in Turkey, involving 45 organizations across various sectors. Using a correlation design, the researchers discovered that the level of hierarchy within organizations influenced employee commitment by 16.3%, which resulted in positive job and organizational outcomes. These studies further support the notion that organizational structure, particularly the degree of autonomy and leadership style, plays a crucial role in enhancing employee performance and organizational success.

A study by Ugoani (2012) investigated the correlation between departmentalization and management performance, using First Bank in Nigeria as a case study. Employing a descriptive design, data was collected from 185 respondents selected through purposive sampling. The empirical results revealed a positive relationship between departmental design and management performance. Although the results did not directly show project performance, other studies (Day & Nedungadi, 2019; Davis & Kochhar, 2015) indicated that management performance positively influences overall organizational performance. Departmentalization refers to the process of grouping jobs or organizational teams into functional units, or departments, based on their degree of specialization, with the ultimate goal of achieving organizational objectives (Peter, 2021). Furthermore, Funminiyi (2018) investigated the impact of organizational structure on employee performance. The study found a significant positive relationship between a decentralized system of control and employee productivity. Additionally, the research revealed that standardization systems of control also positively affected employee performance.

In another study conducted by Mugizi, Bakkabulindi and Bisaso (2015) on academic staff in institutions, the results showed that both organizational structure and the level of employee dedication were crucial factors. The study found that organizational formalization and centralization were high, while the implementation of organizational complexity was low. Factor analysis and Cronbach alpha assessments confirmed that the subscales evaluating employee commitment and organizational structure were valid and reliable measures. A weakly positive but significant correlation was found between formalization, centralization, and employee commitment, whereas the relationship with complexity was negligible. This study expanded on previous research by using inferential statistics, particularly multiple regression, within the Nigerian context. In addition, Ann, Nwankwere, and Orga (2015) examined the correlation between organizational structure and performance in technical and service firms in Nigeria. Their findings indicated that decentralization led to better and more informed decision-making in these firms. Furthermore, a positive relationship was found between a narrow span of control and increased efficiency within organisations.

2.9 Conceptual Framework

Fig. 1 shows the framework that relates the components of organisational structure to academic staff performance. The conceptual framework establishes the association between Centralization, Formalization, Hierarchy, Specialization and academic staff performance.



Source: Developed by Author (2025).

3. METHODOLOGY

3.1. Research Design

This study adopted a survey-based cross-sectional research design to collect data from academic staff of Federal Polytechnic Nasarawa. This design was chosen because it allows for the collection of data at a single point in time, facilitating the assessment of current perceptions and trends among the academic staff.

3.2. Data Collection Methods and Research Instrument

The study utilized both primary and secondary data sources. Primary data was obtained through structured questionnaires administered online to academic staff, gathering relevant responses to the research objectives. Secondary data was gathered from both literature review and empirical review of related

studies. The literature review provided a theoretical foundation and contextual background, while the empirical review offered findings from previous research, which helped to interpret and support the findings of the current research..

The research instrument used for data collection was a structured, close-ended questionnaire. The questionnaire employed a five-point Likert scale, which allowed respondents to rate their perceptions of various statements on a scale from 1 (Very Insignificant) to 5 (Very Significant). This scale was designed to minimize subjective bias and ensure clarity in responses, making it suitable for quantitative analysis.

3.3. Population and Sampling Technique

The target population for this study comprised the entire 812 academic staff of Federal Polytechnic Nasarawa. The sample size was determined using Taro Yamane's formula, resulting in 267 respondents, considering a 5% margin of error and a 95% confidence level. A Simple Random Sampling (SRS) technique was employed to ensure each academic staff member had an equal chance of being selected. The random selection was conducted using a random number generator. Only the selected 267 participants were sent exclusive online survey links.

Despite efforts to maximize participation, the survey was voluntary, and 200 completed questionnaires were retrieved out of the 267 that were distributed, yielding a valid response rate of 74.90%.

3.4. Method of Data Analysis

The analysis for the research was conducted using inferential analysis, where correlation analysis was employed to determine the strength and the direction of the relationship between the variables while multiple regression analysis was used for hypotheses testing. The analysis was conducted using SPSS (version 23.0).

4. FINDINGS AND DISCUSSION

Demographic Information of Respondents

Demographic information of the respondents is presented in this section, which comprises gender, age, educational qualification and years of working experience of the respondents within Federal Polytechnic Nasarawa were presented. However, out of 267 questionnaires distributed to the respondents in the polytechnic, only 200 were duly completed and returned which represent 74.9% and considered acceptable by Hair et al. (2013) which suggested a minimum of 30%. The demography was presented in Table 1 as follows:

Table 1: Demographic Information of the respondents

Demographic Variables	Frequency	Percentage%
Gender		
Male	142	71.0
Female	58	29.0
Age Range		
18 - 25 years	4	2.0
26 to 35 years	79	39.5
35 to 45 years	89	44.5
Above 45 years	28	14.0
Educational qualification		
HND/BSC	125	62.5
MSc/MBA	64	32.0
PhD	11	5.5
Years of Experience		
Less than 5 years	39	19.5
5 to less than 10 years	81	40.5
10 to less than 15 years	59	29.5

Demographic Variables	Frequency	Percentage%
15 years and more	21	10.5
Total	200	100.0

Source: field survey 2025

Based on Table 1, out of 200 respondents in the polytechnic, 142 of them representing 71% are men, while the remaining 58 respondents representing 29% are women, which mean men are the majority respondents in the survey. Regarding the age category, the table revealed that only 4 respondents representing 2% are at the age range of 18 to 25 years; up to 79 respondents representing 39.5% are within the age range of 26 to 35 years. In addition, 89 respondents representing 44.5% are within the age range of 35 to 45 years and finally, the age range of above 45 years with only 28 respondents representing 14% frequency. Furthermore, concerning educational qualification, majority of the respondents have the educational certificate of either HND or BSc with 125 respondents representing 62.5% followed by respondents with either MBA or MSc with 64 respondents representing 32% while only 11(5.5%) respondents have PhD in the polytechnic. Lastly, the output revealed that majority of the respondents have between 5 to 10 years working experience with 81 respondents rating 40.5% followed by the respondents with 10 to 15 years with 29 respondents while there are 39(19.5%) respondents with less than 5 years of academic service. However, only 21 respondents were found to be working with the polytechnic for more than 15 years in the survey.

Correlation Analysis

Correlation analysis is a statistical technique used to measure and describe the direction the strength of the relationship between two or more variables, which helps researchers understand how each variable relates among themselves (Creswell, 2012). Accordingly, the correlation result of this study is depicted in Table 2 and interpreted as follows:

Table 2: *Correlation Matrix*

	ASP	CEN	FOR	HIE	SPE
ASP	1				
CEN	-0.349	1			
FOR	0.175	0.099	1		
HIE	-0.482	-0.257	0.141	1	
SPE	0.564	-0.196	0.365	0.249	1

Source: Researcher's compilation in SPSS 23 output, 2025

In this study, strength of the relationship between variables is interpreted based on criteria popularized by Cohen (1988) as the value between 0.1 to 0.29 is small, 0.3 to 0.49 and 0.5 to 1.0 are medium and large respectively. The result in Table 2 reveals that there exists an association between all the variables in the distribution since there is no correlation with zero value. Also, relationship strength between the independent and the dependent variables is said to be between the region of small and large correlations because the matrix values range from 0.175 to 0.564. It can also be observed that the correlation between specialization and academic staff performance is the strongest with 0.564. Furthermore, the correlation analysis diagnosed possible existence of multicollinearity based on the rule of thumb suggested by Tabachnick and Fidell (2007), which suggested a correlation value higher than 0.90 is considered harmful and a sign of multicollinearity in the model.

Coefficient of Determination

The Coefficient of Determination presented in Table 3 of this study expressed that the regression equation is significant with the following result: $R=0.216$, $R^2=0.495$, Adj. $R^2=0.476$. This therefore infers that the independent variables of organizational culture (centralization, formalization, hierarchy and specialization) accounts for 49.5% variance in academic staff performance in Federal Polytechnic Nasarawa. Accordingly, Cohen (1992) classified R^2 into 3 orders as follows: 0.02 as weak, 0.13 as moderate and 0.26 as substantial. Going by this classification, the value of R^2 in the regression result of this study is substantial.

Table 3: *Model Summary*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.216 ^a	.495	.476	.646143

a. Predictors: (Constant), CEN, FOR, HIE, SPE

Regression Analysis and Hypothesis Testing

Regression analysis is a statistical technique that measures the degree or extent of the relationship between the variables of the study (Sekaran & Bougie, 2013). For the purpose of this study, multiple regression analysis was employed to test the research hypotheses that explain the extent of relationships

that exist between the independent variable (centralization, formalization, hierarchy and specialization) and the dependent variable (academic staff performance). Consequently, regression analysis as presented in Table 4 was conducted and the outcome of the analysis was used for answering the research questions of this study. In addition, Tolerance Value and Variance Inflation Factor (VIF) tests were conducted to test the evidence of multicollinearity or otherwise as depicted in Table 4. The tests proved the absence of multicollinearity because the results of the VIF test ranges from a minimum of 1.116 (for formalization) to a maximum of 2.601 (for centralization). Consequently, considering that Hair et al. (2013) asserted that VIF of 5.00 and above can be evidence that multicollinearity, the variables of this study do not have problem of multicollinearity.

Table 4: Regression Result of the organizational structure and academic staff performance

Model	Unstandardized Coefficients		Standardized Coefficient	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	3.816	.801		4.764	.000		
CEN	-2.984	.799	-.236	-3.734	.000	.384	2.601
FOR	1.071	.787	.097	1.361	.068	.896	1.116
HIE	-1.877	.956	-.194	-1.963	.033	.578	1.729
SPE	3.359	.769	.369	4.368	.000	.480	2.083

a. Dependent Variable: ASP

In view of the regression result obtained, it implies that academic staff performance in Federal Polytechnic Nasarawa is greatly determined by how the institution is structured through centralization, hierarchy and specialization, while the contribution of formalization structure is relatively weak. The following sections present the discussion of findings based on the obtained result.

5. Discussion of Findings

Discussion of findings is the section where the researcher outlines the implication of the result as well as the justification of the findings with previous studies. Regarding the first objective, evidence from the regression result revealed that, there is significant negative relationship between centralization of organizational structure and academic staff performance in Federal Polytechnic Nasarawa state evident from the coefficient, t-value and p-value of -2.984, -3.734 and 0.000 respectively. This implies that increase in the centralized environment in the polytechnic will lead to a decrease on academic staff performance, and vice versa. Based on this premise, the first null hypothesis, which stated the “there is no significant relationship between centralization structure and academic staff performance” is rejected and the alternate hypothesis is accepted. Accordingly, this result is in line with the finding of Subvises (2024), which examined the effects of centralized organizational structure and an ethical work climate on the work engagement of local public officials in Thailand. The study found a significant negative effect of centralized organizational structure on employees work engagement in Thailand. The result also agrees with Agbo et al. (2015) which investigate the impact of structure on organizational performance of selected technical and service firms in Nigeria. It was found among others that organizational centralization has a significant negative effect on performance among the companies under study.

In addition, the result of the second objective found an insignificant positive association between formalization and academic staff performance in Federal Polytechnic Nasarawa looking at the coefficient of 1.071, t-value of 1.361 and p-value of 0.068. Based on that, increase or decrease in the extent of formalized organizational structure does not influence the level of performance among staffs of the polytechnic. Hence, the second null hypothesis, which stated the “there is no significant relationship between formalization and academic staff performance” cannot be rejected and the alternate hypothesis is therefore rejected. The result corroborate with the outcome of Abdulrahman (2019) which examined the relationship between organizational structure and academic staff performance in Yusuf Maitama Sule University. The study found that formalization has insignificant effect on academic staff performance while hierarchy and organizational boundary were significant. It also aligns with Ugwu et al. (2019) which examined organizational structure and employee performance in selected micro-finance banks in Enugu State. It was found that formalization does not affect performance of employee in the micro-finance banks.

Furthermore, the third regression result revealed a significant negative relationship between organizational hierarchy and the performance of academic staffs in Federal Polytechnic Nasarawa based on the coefficient value of -1.877, t-value of 1.963 and p-value of 0.033. Based on that, increase in the length of hierarchy in Federal Polytechnic Nasarawa leads to lower performance of academic staff in the polytechnic. Thus, the second null hypothesis, which postulates insignificant relationship between organizational hierarchy and academic staff performance, is rejected and the alternate hypothesis is accepted. In view of that, the finding can be justified by the result Nosike et al. (2024) which determines the organizational structure and employee performance of selected banks in Anambra state, Nigeria. It also aligns with of Gordiya (2024) which examined the impact of organizational structure on employee performance of dairy sector in India and found negative effect of hierarchy structure on employee performance.

Finally, the result of the forth objective found a significant positive association between specialization and academic staff performance in Federal Polytechnic Nasarawa looking at the coefficient of 3.359, t-value of 4.368 and p-value of 0.000. In this regard, structuring organization based on

specialization lead to a significant increase in the academic staff performance in Federal Polytechnic Nasarawa and vice versa. Based on that, the forth null hypothesis, which stated the “there is no significant relationship between specialization and academic staff performance” is rejected and the alternate hypothesis is accepted. Therefore, the result is in line with the outcome of David et al. (2024) which examined the effect of organizational structure on employee productivity in Dangote Sugar company. The study found job specialization, formalization and coordination have significant positive influence of employee productivity with specialization having greater impact. It also aligns with Awala (2024) which examined the relationship between organizational structure and employee performance in Earns and Young Nigeria. The study found among others that the chain of command and specialization have the greatest influence on employee performance in Ernst and Young Nigeria which is similar to the present study.

6. Conclusion

The study found that specialized organizational structure has significant positive effect on academic staff performance in the study area; centralization and hierarchy structures were negative, while organizational formalization was insignificantly related to academic staff performance. Based on these findings, the study concludes that less centralized structures improves the speed and efficiency of decision-making process in the academic environment. Thus, empowering academic staffs to execute some lower-level decisions without always depending on top-down management decision improve the productivity and innovation of the staffs in the polytechnic setting. In addition, it is concluded that having so much fixed operational procedures does not always translate into improved lecturers’ teaching, research and support for students. Rather, their performance heavily depends on the flexibility and autonomy which enables them to give their best in creative teaching method. Furthermore, it is asserted that too many layers of authority in an academic environment delays the approval and execution of necessary academic activities that require prompt actions, which also demotivate the academic staff because their input is considered less-valued. Lastly, this study concludes that structuring organization based on specialization especially in academic environment like polytechnic fosters the alignment with expertise which enables the academic staffs to develop deeper subject mastery which leads to improved efficiency in the entire spectrum of academic activities.

7. Recommendations

In view of the conclusions presented in this study, the following recommendations were made:

- i. This study advises the governing council of Federal Polytechnic Nasarawa to maintain and improve the lecturers’ autonomy in making some decision to certain extent. This includes much involvement in decision-making especially in terms of curriculum design and administrative planning so as to keep them engaged and motivated.
- ii. There is need for the management to reduce the excessive bureaucratic paper works and some rigid policies and frameworks considering that formalization was insignificant. This will give room for flexible guidelines that promote creativity from the academic staffs while complying with minimum administrative rules.
- iii. There is need for the polytechnic to reduce the unnecessary authority layers that hurdle the decision-making process so as to improve communication and reduce the delays in the process of academic activities. This can be achieved by encouraging open-doors policies and interactive interaction between administrators and the academicians in the polytechnic.
- iv. The polytechnic should promote the culture of allocating academic and administrative assignments to the academic staff’s based on their expertise so as to improve the output quality. This will also improve the staff’s professional development and capacity building for the polytechnic as well as deepening their knowledge in their specified fields.
- v. The research also recommends that the Nigerian government implement and maintain polytechnic governance autonomy by providing policies that will enable the institutions to have a greater independence in decision-making. This will enable them to respond to local industry needs promptly so as to improve the students’ outcome.

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