

Introduction

Universities in Nigeria play a vital role in national development through the provision of quality education, research, and community service, and their success largely depends on the productivity of both academic and non-academic staff. Employee productivity in Nigerian universities is essential for operational efficiency, fostering a conducive learning environment, and ensuring that institutional goals are met (Adebayo & Lucky, 2022). However, challenges such as inadequate funding, poor infrastructure, and ineffective management practices have often hindered optimal performance (Okoro & Abdul, 2023). Key factors that influence employee productivity include organizational culture, leadership style, and job satisfaction, as a positive organizational culture fosters teamwork and innovation, effective leadership provides direction and motivation, while job satisfaction enhances commitment and morale (Nguyen et al., 2021). Nasarawa State University, Keffi (NSUK), like many other public universities in Nigeria, depends on its workforce to achieve its mission of excellence in teaching, research, and community service, but has faced issues such as limited resources and leadership variations, which affect staff performance (Ocheje & Yakubu, 2023). Understanding how organizational culture, leadership style, and job satisfaction interact to influence employee productivity at NSUK is therefore crucial to improving efficiency and creating a positive academic environment. For this study, employee productivity refers to the efficiency and effectiveness with which employees complete their assigned tasks to achieve the university's goals (Armstrong, 2020).

It is commonly measured in terms of output per unit of input, such as time, effort, or resources used (Drucker, 1999). High productivity is characterized by optimal performance, timely task completion, and quality service delivery, while low productivity can result in inefficiencies, delays, and reduced organizational success. In academic institutions like Nasarawa State University, Keffi (NSUK), employee productivity among both academic and non-academic staff is critical for maintaining high standards of teaching, research, and administration. Academic staff productivity is often measured by their teaching effectiveness, research output, and student engagement, while non-academic staff productivity is evaluated based on administrative efficiency, support services, and institutional management.

Organizational culture encompasses the shared values, beliefs, and norms that shape employee behavior and workplace interactions (Schein, 2010). A strong organizational culture fosters

commitment, motivation, and job satisfaction, which can enhance employee performance (Denison, 2000). Conversely, a weak culture may lead to inefficiencies, a lack of coordination, and decreased productivity. In universities, organizational culture influences collaboration between faculty and administrative staff, impacting teaching quality and service delivery (Cameron & Quinn, 2011). Moreover, organizational culture significantly affects employee behavior and performance. It is defined as a set of shared beliefs, values, and norms that influence how members of an organization interact and work together. A strong organizational culture fosters a supportive environment, leading to higher employee engagement and productivity (Ilham, 2017; Nilasari & Kasmir, 2021). Researchers have established that key elements of organizational culture, such as shared values and norms, subsequently impact job satisfaction and performance (Ilham, 2017). For instance, studies have emphasized the positive effects of organizational culture on job satisfaction, indicating that when employees feel aligned with their organization's culture, their motivation and commitment levels substantially increase, thereby enhancing productivity (Prabowo et al., 2018; Cahyani et al., 2022).

Leadership style is another critical factor affecting employee productivity. Transformational leadership, which emphasizes inspiration, motivation, and individual development, has been associated with higher employee engagement and performance (Bass & Riggio, 2006). Transformational leadership, which involves inspiring employees, fostering innovation, and creating a vision for the institution, has been linked to higher job satisfaction and productivity (Bass, 1990). Conversely, transactional leadership, which focuses on rewards and punishments, may be effective in maintaining order but may not necessarily enhance employee engagement or creativity (Avolio & Bass, 2004).

In Nigerian universities, leadership practices often vary between academic and non-academic staff. While academic leaders, such as Department Heads and Deans, may adopt participatory and consultative approaches, administrative leaders may rely on more hierarchical and bureaucratic styles (Egwunyenga, 2008). The impact of leadership style on job performance and satisfaction is crucial in understanding how employees respond to workplace expectations and responsibilities (Yukl, 2013). Studies have shown that transformational leadership fosters job satisfaction among academic staff, while a mix of transactional and transformational leadership is often required for non-academic staff to ensure administrative efficiency (Adebayo, 2019).

Furthermore, job satisfaction is a crucial determinant of employee productivity and organizational commitment (Locke, 1976). Employees who find fulfillment in their work environment, compensation, career advancement opportunities, and leadership support tend to be more productive and committed to institutional goals (Judge et al., 2001). In contrast, dissatisfaction can lead to absenteeism, low motivation, and high turnover rates (Spector, 1997). For academic staff in Nigerian universities, job satisfaction is often influenced by factors such as research funding, teaching workload, promotion opportunities, and institutional autonomy (Aina, 2021). Non-academic staff, on the other hand, prioritize job stability, work conditions, and leadership support (Okafor & Eze, 2019). The level of satisfaction within these groups determines their productivity and their willingness to contribute to institutional growth (Ajayi, 2016).

Based on the above premise, this paper aims to compare the influence of organizational culture, leadership style, and job satisfaction on employee productivity among academic and non-academic staff in Nasarawa State University, Keffi (NSUK), Nigeria. While academic staff may experience research-related stress, non-academic staff face administrative bottlenecks and unclear job roles, affecting their efficiency. University-wide industrial actions, administrative inefficiencies, and leadership conflicts exacerbate these issues, leading to lower staff morale and institutional instability (Adegbite, 2022). Despite numerous studies on workplace productivity, little attention has been given to the comparative analysis of organizational culture, leadership style, and job satisfaction between academic and non-academic staff in Nigerian universities, especially in NSUK. As a result, this study seeks to fill this gap by analyzing how these factors impact productivity differently across both groups in Nasarawa State University, Keffi (NSUK).

Objectives

The paper, therefore, outlines the following objectives:

- i. To identify the relationship between organizational culture factors (Involvement, Consistency, Adaptability, and Mission), leadership style (idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration), job satisfaction, and employee productivity among academic and non-academic staff in Nasarawa State University, Keffi (NSUK).
- ii. To examine the difference in organizational culture between academic and non-academic staff in Nasarawa State University, Keffi (NSUK).

- iii. To assess the level of job satisfaction difference among academic and non-academic staff in NSUK.

Hypotheses

The paper was guided by the following hypotheses.

- i. There is a significant difference in organizational culture between academic and non-academic staff in Nasarawa State University, Keffi.
- ii. There is a significant difference in job satisfaction between academic and non-academic staff in Nasarawa State University, Keffi.
- iii. There is a significant relationship between organizational culture factors (Involvement, Consistency, Adaptability, and Mission), leadership style (idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration), job satisfaction, and employee productivity among academic and non-academic staff in Nasarawa State University, Keffi (NSUK).

Methodology

This paper employs a descriptive survey research design to investigate the relationship between organizational culture, leadership style, job satisfaction, and employee productivity among academic and non-academic staff at Nasarawa State University, Keffi (NSUK). The survey method was considered appropriate as it allows the collection of primary data from a large population, enabling quantitative analysis and comparative assessment between the two categories of staff. The population comprised 1,551 staff members (703 academic and 848 non-academic), with a scientifically determined sample size of 318 derived using Yamane's (1967) formula at a 95% confidence level. A stratified random sampling technique was employed to ensure proportional representation, selecting 144 academic and 174 non-academic staff. Data were collected using a structured questionnaire developed from standardized and validated instruments, including the Multifactor Leadership Questionnaire (Bass & Avolio, 1994) to measure leadership style, the Denison Organizational Culture Questionnaire (Denison, 1990) to assess organizational culture, the Job Satisfaction Scale (Shapiro et al., 1996) to measure employee job satisfaction, and the Employee Productivity Scale (Endicott, 1992) to evaluate productivity. These instruments have demonstrated high reliability, with Cronbach's Alpha coefficients exceeding 0.80.

The administration of questionnaires was supported by trained research assistants, with 318 distributed and 307 returned valid for analysis. Ethical principles such as informed consent, voluntary participation, and confidentiality were strictly upheld throughout the process. Data analysis was conducted using descriptive statistics, including frequencies, percentages, means, and standard deviations, for demographic characteristics. Inferential statistics, such as independent sample t-tests, hierarchical multiple regression, and correlation matrices, were employed for hypothesis testing using SPSS version 27. The justification for adopting this methodology lies in its cost-effectiveness, reliability, and efficiency in capturing employee perceptions across a large sample, ensuring that the paper successfully explores how organizational culture, leadership style, and job satisfaction influence employee productivity at NSUK.

Results and Analysis

Demographic information

This section captures the demographic characteristics of the respondents as presented in Table 1.

Table 1: Descriptive Cross Tabulation of the Demography of Respondents

Demographic	Category	Academic Staff	Non-Academic Staff
Age	18 – 25 years	35	27
	26 – 35 years	4	28
	36 – 45 years	38	56
	46 – 55 years	29	1
	56 years above	35	54
	Total	141	166
Gender	Male	126	59
	Female	15	107
	Total	141	166
Marital Status	Single	34	27
	Married	74	111
	Divorced	29	1
	Widowed	4	27
	Total	141	166
Qualification	SSCE	0	26
	OND/NCE	0	28
	HND/BSc.	7	82
	MSc.	41	28
	PhD.	93	2
	Total	141	166
Experience	Less than 1 year	35	27
	1 – 5 years	7	57

6 – 10 years	4	26
11 – 15 years	60	2
16 years and above	35	54
Total	141	166

Table 1 provides a comprehensive overview of the demographic characteristics of the 307 staff members, comprising 141 academic staff and 166 non-academic staff. Regarding age distribution, the majority of staff were between 36–45 years ($n = 94$), representing 30.6% of the total sample. Notably, academic staff had substantial representation both in the 36–45 years ($n = 38$) and 56 years and above ($n = 35$) categories, indicating a relatively experienced academic workforce. In contrast, non-academic staff were most represented in the 36–45 years ($n = 56$) and 56 years and above ($n = 54$) categories, suggesting a mature non-academic staff population. Only a small proportion of academic staff were in the 26–35 years age group ($n = 4$), whereas non-academic staff had a larger proportion in this category ($n = 28$), reflecting a somewhat younger cohort among non-academic employees. In terms of gender composition, the workforce was predominantly male ($n = 185$; 60.3%), with academic staff having a notably higher proportion of males ($n = 126$; 89.4%) compared to females ($n = 15$; 10.6%). Conversely, non-academic staff had a more balanced distribution, with females ($n = 107$; 64.5%) outnumbering males ($n = 59$; 35.5%). This indicates substantial gender differences in staffing between academic and non-academic roles. With respect to marital status, most staff were married ($n = 185$; 60.3%). Among academic staff, the majority were married ($n = 74$), followed by divorced ($n = 29$) and single ($n = 34$). The number of widowed academic staff was comparatively low ($n = 4$). Among non-academic staff, married individuals comprised the majority ($n = 111$), while widowed employees accounted for 27 cases, suggesting that a higher proportion of non-academic staff were widowed compared to academic staff. Regarding educational qualifications, there was a marked contrast between the two groups. Among academic staff, the largest segment held PhDs ($n = 93$; 66%), followed by those with master's degrees ($n = 41$). No academic staff reported holding SSCE or OND/NCE qualifications. Conversely, non-academic staff predominantly held HND/BSc. Degrees ($n = 82$), while a substantial number had OND/NCE ($n = 28$) or SSCE ($n = 26$) as their highest qualifications. Only two non-academic staff members possessed a PhD. This pattern underscores a clear differentiation in educational attainment between academic and non-academic personnel.

In terms of years of professional experience, the distribution showed notable variability. Among academic staff, the largest proportion reported 11–15 years of experience ($n = 60$), followed by those with less than 1 year ($n = 35$) and those with 16 years and above ($n = 35$). Very few academic staff reported 6–10 years of experience ($n = 4$). In contrast, non-academic staff were most commonly within the 1–5 years category ($n = 57$), indicating higher turnover or more recent hiring trends among non-academic employees. Additionally, a substantial number of non-academic staff had 16 years or above of experience ($n = 54$), suggesting the coexistence of long-tenured and recently hired staff within this group.

Hypothesis One

There is a significant difference in organizational culture between academic and non-academic staff in Nasarawa State University, Keffi. This hypothesis was tested using an independent sample t-test in Table 2

Table 2: An independent sample t-test on the difference in organizational culture between academic and non-academic staff in Nasarawa State University, Keffi

DV	Staff	N	Mean	σ	t	df	p	95%CI	Cohen's d
Org Culture	Academic	141	99.40	4.217	-.989	157.24	.324	[-.362, .366]	-.219
	Non-Academic	166	99.76	1.134					

Table 2 summarizes the independent samples t-test conducted to determine whether there was a statistically significant difference in organizational culture perceptions between academic and non-academic staff at Nasarawa State University, Keffi. The analysis compared the mean scores of organizational cultures between the two groups. The academic staff ($N = 141$) had a mean score of 99.40 with a standard deviation of 4.22, while the non-academic staff ($N = 166$) had a slightly higher mean score of 99.76 with a standard deviation of 1.13. The results revealed that the difference in mean scores was not statistically significant, $t(157.24) = -0.99$, $p = .324$. The 95% confidence interval for the mean difference ranged from -0.362 to 0.366, indicating that the true mean difference could be close to zero or in either direction, thus supporting the lack of significance. The effect size, calculated using Cohen's d, was -0.22. This is considered a small

effect size, which implies that the observed difference between academic and non-academic staff in terms of their perception of organizational culture is minimal and likely not practically significant. These results suggest that both academic and non-academic staff perceive the organizational culture of Nasarawa State University similarly.

Hypothesis Two

There is a significant difference in job satisfaction between academic and non-academic staff in Nasarawa State University, Keffi. This hypothesis was tested using an independent sample t-test in Table 3

Table 3: Summary of independent sample t-test showing there is a significant difference in job satisfaction between academic and non-academic staff in Nasarawa State University, Keffi

DV	Staff	N	Mean	σ	t	df	p	95%CI	Cohen's d
JS	Academic	141	74.30	1.789	2.855	219.47	.005	[.346, 1.890]	.308
	Non-Academic	166	73.19	4.657					

Table 3 presents the results of an independent samples t-test conducted to examine whether there is a significant difference in job satisfaction between academic and non-academic staff at Nasarawa State University, Keffi. The analysis revealed that academic staff (N = 141, M = 74.30, SD = 1.79) reported significantly higher levels of job satisfaction compared to non-academic staff (N = 166, M = 73.19, SD = 4.66). The difference in mean scores was statistically significant, $t(219.47) = 2.86$, $p = .005$, indicating that the observed difference is unlikely due to chance. The 95% confidence interval for the mean difference ranged from 0.35 to 1.89, suggesting that in the broader population, academic staff are likely to report higher job satisfaction than non-academic staff. The effect size, represented by Cohen's $d = 0.31$, indicates a small to moderate effect, meaning the difference, while statistically significant, is modest in practical terms. This finding underscores that the staff category may influence how employees perceive and experience job satisfaction at the university. It may reflect differences in work roles, professional expectations, recognition, or opportunities for advancement between academic and non-academic personnel.

Hypothesis Three

There will be a significant relationship between organizational culture factors (Involvement, Consistency, Adaptability, and Mission), leadership style (idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration), job satisfaction, and employee productivity among academic and non-academic staff in Nasarawa State University, Keffi (NSUK). This hypothesis was tested using a correlation matrix in Table 4

Table 4: Correlation matrix of significant relationships between organizational culture factors (Involvement, Consistency, Adaptability, and Mission), leadership style (idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration), job satisfaction, and employee productivity among academic and non-academic staff in Nasarawa State University, Keffi (NSUK)

	IN	CON	ADA	MI	IDI	IM	IS	IC	JS	EP
IN	1									
CON	-.008	1								
ADA	.684**	-.005	1							
MI	.621**	-.014	.918**	1						
IDI	.380**	-.026	.115*	.431**	1					
IM	.298**	-.026	-.018	.294**	.986**	1				
IS	.279**	-.026	-.018	.298**	.986**	1.000**	1			
IC	.275**	-.028	-.020	.268**	.911**	.924**	.924**	1		
JS	.407**	-.029	-.020	-.060	.168**	.177**	.159**	.176**	1	
EP	.398**	-.032	-.022	.058	.477**	.489**	.476**	.478**	.383**	1

****.** Correlation is significant at the 0.01 level (2-tailed).

***.** Correlation is significant at the 0.05 level (2-tailed).

Table 4 presents the results of a Pearson product–moment correlation analysis examining the relationships among organizational culture factors (involvement, consistency, adaptability, and mission), leadership style dimensions (idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration), job satisfaction, and employee productivity among academic and non-academic staff at Nasarawa State University, Keffi. Involvement was positively and significantly correlated with adaptability ($r = .684, p < .01$) and mission ($r = .621, p < .01$), indicating that greater involvement was associated with higher adaptability and clearer mission perception. Adaptability was also strongly positively correlated with mission ($r = .918, p < .01$). Regarding leadership style dimensions, idealized influence was positively and significantly correlated with inspirational motivation ($r = .986, p < .01$), intellectual stimulation ($r = .986, p < .01$), and individualized consideration ($r = .911, p < .01$), reflecting strong interrelationships

among transformational leadership components. Inspirational motivation was perfectly correlated with intellectual stimulation ($r = 1.000, p < .01$) and strongly correlated with individualized consideration ($r = .924, p < .01$). Job satisfaction showed a significant positive correlation with involvement ($r = .407, p < .01$), suggesting that higher involvement was associated with higher job satisfaction. Additionally, job satisfaction was positively correlated with idealized influence ($r = .168, p < .01$), inspirational motivation ($r = .177, p < .01$), intellectual stimulation ($r = .159, p < .01$), and individualized consideration ($r = .176, p < .01$). Employee productivity was positively correlated with involvement ($r = .398, p < .01$), idealized influence ($r = .477, p < .01$), inspirational motivation ($r = .489, p < .01$), intellectual stimulation ($r = .476, p < .01$), individualized consideration ($r = .478, p < .01$), and job satisfaction ($r = .383, p < .01$). These results indicate that both organizational culture and leadership style are associated with higher productivity. Consistency did not demonstrate significant correlations with other variables, suggesting it may not be strongly associated with perceptions of leadership, job satisfaction, or productivity in this sample. These results indicate that higher involvement, adaptability, and mission clarity within the organizational culture, as well as transformational leadership behaviors, are significantly related to increased job satisfaction and employee productivity.

Discussion of Findings

Hypothesis one stated that there is a significant difference in organizational culture between academic and non-academic staff in Nasarawa State University, Keffi. The analysis using an independent samples t-test indicated that there was no statistically significant difference between academic staff ($M = 99.40$) and non-academic staff ($M = 99.76$) in their perceptions of organizational culture as it relates to productivity, $t(157.24) = -0.989, p = .324$. The effect size was small (Cohen's $d = -0.219$), suggesting minimal practical difference. This outcome aligns with Denison's Organizational Culture Theory, which holds that shared organizational values, norms, and practices can create a cohesive culture that is experienced consistently by employees across roles. Denison (1990) emphasized that strong cultures transcend departmental boundaries and foster uniformity in employee attitudes and behaviors. This finding is consistent with Nnamani and Agu (2012), who observed that in Nigerian public institutions with clearly articulated policies, employees often report similar cultural experiences regardless of their positions. However, this result diverges somewhat from Givens (2012), who argued that organizational subcultures can emerge, leading to differential perceptions across occupational groups. The lack of difference

observed here may reflect the effective dissemination of institutional norms and consistent management practices at NSUK.

Hypothesis two stated that there is a significant difference in job satisfaction between academic and non-academic staff in Nasarawa State University, Keffi. The independent samples t-test revealed a statistically significant difference in job satisfaction between academic staff ($M = 74.30$) and non-academic staff ($M = 73.19$), $t(219.47) = 2.86$, $p = .005$, with a small to medium effect size (Cohen's $d = 0.308$). This outcome suggests that academic staff experience higher satisfaction, likely due to greater autonomy, professional development opportunities, and recognition inherent in academic roles. This result supports Herzberg's Two-Factor Theory (1959), which posits that intrinsic factors such as achievement, advancement, and meaningful work are primary contributors to job satisfaction. The findings are also in line with Ajayi (2016), who observed that academic staff in Nigerian universities reported higher satisfaction than their non-academic counterparts due to professional identity and career growth potential. Similarly, Aina (2021) emphasized that academic staff are more likely to perceive their work as intrinsically rewarding, which contributes to higher satisfaction levels. This study extends prior research by confirming that these differences are not only statistically significant but also relevant for understanding variations in productivity perceptions between staff categories.

Hypothesis three stated that there will be a significant relationship between organizational culture factors (Involvement, Consistency, Adaptability, and Mission), leadership style (idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration), job satisfaction, and employee productivity among academic and non-academic staff in Nasarawa State University, Keffi (NSUK). Pearson correlation analysis provided robust evidence supporting this hypothesis. Involvement, idealized influence, inspirational motivation, intellectual stimulation, individualized consideration, and job satisfaction all demonstrated significant positive correlations with employee productivity (r values ranging from .159 to .489, $p < .01$). These relationships reinforce the integrated perspective that organizational culture, leadership behaviors, and job satisfaction are interconnected drivers of performance. Denison's Organizational Culture Theory (1990) asserts that involvement and mission contribute to a sense of purpose and engagement that elevates productivity, an assertion supported by the positive correlations observed here. Bass's Transformational Leadership Theory (1985) similarly emphasizes that transformational leadership behaviors, particularly inspirational motivation and individualized

consideration, encourage employees to exceed expectations, which aligns with the positive associations in this study. The positive correlation between job satisfaction and productivity ($r = .383, p < .01$) also supports Herzberg's Two-Factor Theory, underscoring that satisfied employees are more motivated and effective. Interestingly, consistency and adaptability showed weaker or nonsignificant correlations, indicating that while these cultural dimensions are important, they may exert more indirect influences. These findings corroborate Givens (2012), who argued that the combination of supportive culture and transformational leadership is central to fostering high performance.

Conclusion

This paper investigated the comparative analysis of organizational culture, transformational leadership, job satisfaction, and employee productivity among academic and non-academic staff of Nasarawa State University, Keffi, and the findings have provided valuable insights into these dynamics in a higher education context. The results showed that perceptions of organizational culture did not significantly differ between staff categories, suggesting a cohesive environment shaped by shared policies and practices. Transformational leadership factors collectively had a significant impact on productivity, with inspirational motivation emerging as a strong positive predictor and intellectual stimulation demonstrating a negative effect, indicating that while visionary leadership enhances performance, excessive intellectual demands without sufficient support can undermine it. Organizational culture dimensions of involvement and mission were significant positive predictors of productivity, highlighting the importance of participatory practices and clarity of purpose, while adaptability had a significant negative association, and consistency was not a significant contributor. Additionally, academic staff reported higher job satisfaction than non-academic staff, emphasizing the role of intrinsic motivators and professional growth opportunities in shaping satisfaction. Correlation analysis further confirmed that organizational culture, transformational leadership, and job satisfaction were significantly related to productivity outcomes. Collectively, these findings demonstrate that fostering an environment characterized by inspirational leadership, employee involvement, and satisfaction is essential for improving performance, while also illustrating that certain cultural and leadership practices require careful management to avoid unintended negative consequences.

Recommendations

The paper recommends the following.

- i. Management should continue to cultivate and reinforce the shared values, norms, and practices that have contributed to a cohesive cultural environment across academic and non-academic staff. Regular assessments, including staff engagement surveys and feedback mechanisms, are recommended to monitor perceptions of culture over time, identify emerging concerns, and ensure the institution remains responsive to the evolving needs of employees.
- ii. Targeted interventions should be developed to improve job satisfaction, particularly among non-academic staff. This could include expanding opportunities for professional development, designing clear career progression pathways, and creating recognition programs that affirm contributions across all roles. Fostering a supportive environment where employees feel valued and empowered can help drive engagement and reduce turnover.
- iii. Given the strong connections identified among leadership, culture, satisfaction, and productivity, it is recommended that the University adopt a comprehensive approach to human resource management. This strategy should align leadership practices, cultural reinforcement efforts, and well-being initiatives within a unified framework that supports both organizational performance and employee development. Establishing clear metrics and continuous monitoring will help sustain these improvements over time