



Flexible Work Arrangements and Good Working Conditions as Predictors of Female Academic Staff Productivity in Public Universities in Ondo State, Nigeria.

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Abstract

Female academic staff productivity in Nigerian public universities is crucial for the overall success of higher institutions but is hindered by work-life balance and workplace conditions. This study examines the individual and joint effects of flexible work arrangements (FWAs) and good working conditions on female academic staff productivity in Ondo State, Nigeria. A descriptive survey design was used, purposively sampling 274 female academics from Adeyemi Federal University of Education and the University of Medical Sciences, Ondo, from a population of 470. Data were collected using the Flexible Work Arrangements and Good Working Conditions Questionnaire-FWAGWCQ ($\alpha = 0.967$) and Female Academic Staff Productivity Questionnaire-FASP ($\alpha = 0.765$), with 239 responses (87.2% response rate). Descriptive statistics, Pearson correlation, and multiple regression analyzed data at a .05 significance level. Productivity was average ($\bar{x} = 2.04$, $SD = 0.70$), with teaching ($\bar{x} = 1.54$) and administrative duties ($\bar{x} = 1.82$) lowest. Research productivity ($\bar{x} = 2.38$) shows moderate engagement. Community service ($\bar{x} = 2.40$) has a slightly higher mean, indicating active engagement. Good working conditions showed a moderate, significant correlation ($r = .30$, $p < .05$) and predicted productivity ($\beta = .29$, $p < .05$), while FWAs had no significant impact ($r = .045$, $p > .05$). The joint model was significant ($R^2 = .08$). Findings confirm working conditions drive productivity, with FWAs limited by infrastructural barriers. Based on the findings, recommendations include upgrading facilities (e.g., reliable internet, ergonomic offices), implementing targeted training for teaching and administrative skills, and developing technology-supported *FWA policies*.

Keywords: Flexible work arrangements, good working conditions, female academic staff, productivity, public universities, Ondo State.

Introduction

The productivity of female academic staff in Nigerian public universities is pivotal to advancing educational quality and institutional development, yet it is shaped by complex workplace and societal factors. Female academic staff in Nigerian public universities are critical to advancing educational quality and institutional growth, yet their productivity—spanning teaching, research, administrative duties, and community service—is hindered by systemic and societal challenges (Adegboyega, 2023). Gendered expectations, such as disproportionate domestic responsibilities, aggravate work-family conflict, particularly in resource-constrained settings like Ondo State (Akanji, 2020). Flexible work arrangements (FWAs), such as telecommuting and flexible scheduling, and good working conditions, including reliable infrastructure and supportive management, are increasingly recognized as strategies to enhance academic performance globally (Umukoro et al., 2020). In Nigeria, however, these interventions face unique challenges, including inadequate technological infrastructure, cultural norms prioritizing physical presence, and gender-based disparities in workload distribution (Ogunode & Ade, 2023).

Female academics, who often balance teaching, research, administrative duties, and community service with significant domestic responsibilities, are particularly affected by these constraints. The conceptual review synthesizes global and Nigerian research across four key areas: the role of FWAs in enhancing academic output, the impact of good working conditions on performance, the joint effect of the two variables on productivity and the influence of gender dynamics on productivity.

Flexible Work Arrangements

Flexible work arrangements (FWAs), encompassing telecommuting, flexible scheduling, and compressed workweeks, purposively enhance employee productivity by allowing greater control over work timing and location (Umukoro et al., 2020). Globally, FWAs have been associated with improved job satisfaction, reduced stress, and higher performance, particularly in knowledge-intensive sectors like academia (Allen et al., 2018). Leslie et al. (2019) found that flexible scheduling increased academic productivity by 15% among female faculty in the UK, attributing this to reduced work-family conflict. Similarly, a study in Australia showed that telecommuting enhanced research output by allowing academics to work during peak

productivity hours (Dockery & Bawa, 2018). These benefits stem from FWAs' ability to align work with personal responsibilities, particularly for women navigating caregiving roles (Akanji, 2020). However, in Nigeria, FWA adoption faces significant barriers, including unreliable internet, frequent power outages, and institutional resistance to non-traditional work arrangements (Jeremiah, 2021). Umukoro et al. (2020) noted that while FWAs improved engagement in Nigeria's corporate sector, their application in public universities is limited by rigid administrative policies and lack of technological infrastructure (Ogbogu, 2019). For instance, telecommuting is often infeasible due to inadequate digital platforms for remote teaching or research collaboration (Adegboyega, 2023).

Cultural norms emphasizing physical presence in workplaces further complicate FWA implementation, particularly in academia, where face-to-face teaching is prioritized (Eze & Ojo, 2022). Female academics, who disproportionately manage domestic responsibilities, may face exacerbated work-family conflicts without effective FWAs, leading to reduced productivity (Akanji, 2020). Moreover, the lack of institutional policies supporting flexible hours or compressed workweeks limits female academics' ability to balance teaching, research, administrative duties, and community service (Ogbogu, 2019). These contextual challenges highlight the need for this empirical study to assess FWAs' efficacy in Nigerian public universities, particularly for female academics navigating high job demands and gendered expectations.

Good Working Conditions

Good working conditions, defined as adequate physical infrastructure, supportive management, and timely compensation, are fundamental to employee productivity and well-being. In Nigerian public universities, dilapidated infrastructure—such as outdated laboratories, overcrowded lecture halls, and unreliable electricity—severely hampers academic output (Okebukola, 2018, Okolocha & Okeke, 2021). Adegboyega (2023) reported that 65% of Nigerian academics identified poor infrastructure as a primary barrier to research productivity, with female academics particularly affected due to limited access to safe and ergonomic workspaces. Supportive management, characterized by fair promotion policies, professional development opportunities, and responsive leadership, enhances motivation and engagement (Choi et al.,

2018). For instance, a study in South Africa found that supportive supervision increased academic job satisfaction by 20%, indirectly boosting productivity (Ngobeni & Makhubele, 2020).

In Nigeria, however, bureaucratic inefficiencies and lack of management support often demotivate academics, particularly women facing gender-based career barriers (Ogbogu, 2019). Timely salary payments are critical, especially for female academics who may be primary caregivers, as financial stress from delayed salaries worsen work-family conflict (Akanji, 2020). Okebukola (2018) noted that salary delays of up to six months are common in Nigerian universities, reducing academic morale and output. Globally, supportive work environments reduce burnout and enhance performance, as confirmed by Bakker and Demerouti (2018), who found that resource-rich workplaces increased employee engagement by 25%. In Nigeria, systemic challenges, including irregular funding and poor maintenance of facilities, undermine working conditions, necessitating urgent interventions (Eze & Ojo, 2022). Female academics, who often juggle teaching, research, administrative duties, and domestic roles, are disproportionately impacted by these deficiencies, leading to lower productivity compared to male counterparts (Adegboyega, 2023). Addressing these issues requires investments in modern facilities alongside policies, ensuring timely compensation and supportive leadership.

Joint Relationship of Flexible Work Arrangements and Good Working Conditions on Productivity

The joint effect of flexible work arrangements (FWAs) and good working conditions on employee productivity is a critical area of inquiry. The interplay of FWAs and good working conditions can amplify productivity by addressing work-family conflict and enabling task performance as these resources may interact to enhance performance. (Bakker & Demerouti, 2018). FWAs, such as telecommuting and flexible scheduling, provide autonomy to manage work-life balance, while good working conditions, including reliable infrastructure and supportive management, create an enabling environment for task performance (Umukoro et al., 2020). Globally, studies suggest that combining these resources can amplify productivity by mitigating job demands like work-family conflict, particularly for female employees (Shockley & Allen, 2018). For instance, a study in the UK found that academics with access to both flexible

schedules and well-equipped workspaces reported 20% higher research output, as FWAs allowed time management while quality infrastructure supported efficient task completion (Knights & Richards, 2020). The JD-R model posits that such resource interactions foster a motivational process, enhancing engagement and reducing burnout (Demerouti et al., 2021). In Nigeria, however, the joint effect is underexplored due to systemic barriers. Inadequate technological infrastructure, such as unreliable internet, limits FWA effectiveness, as telecommuting requires robust digital platforms (Adegboyega, 2023). Similarly, poor working conditions, like outdated facilities or delayed salaries, may undermine the potential benefits of FWAs (Okebukola, 2018).

A study in South Africa found that combining FWAs with supportive management increased employee engagement by 15%, but only when infrastructure supported remote work (Van der Walt & Le Roux, 2022). In Nigerian universities, cultural norms prioritizing physical presence and bureaucratic resistance often prevent synergistic effects between FWAs and working conditions (Ogunode & Ade, 2023). Female academics, facing high job demands from teaching, research, administrative duties, and domestic roles, may benefit most from combined resources, yet contextual constraints limit implementation (Akanji, 2020). For example, Obeng and Okrah (2021) noted that Ghanaian academics with access to both flexible hours and modern facilities reported higher teaching effectiveness, but similar studies in Nigeria are scarce. Addressing these gaps requires policies that integrate FWAs with infrastructure improvements, such as reliable internet and ergonomic workspaces, to maximize productivity (Salami & Oyediran, 2021). This subsection emphasizes the need for this empirical research in Ondo State to validate the joint impact of these resources on female academic productivity, considering Nigeria's unique challenges.

Gender and Productivity in Academia

Female academics face unique challenges that hinder productivity, including work-family conflict, gender-based discrimination, and limited access to career advancement opportunities. In Nigeria, societal expectations place disproportionate domestic responsibilities on women, reducing time for research, teaching, administrative duties, and professional development (Ogbogu, 2019). Akanji (2020) found that female academics reported 30% higher work-family conflict than male counterparts, resulting in lower research output, with women publishing an

average of 0.5 fewer articles per year. Globally, gender disparities in academia are well-documented; Leslie et al. (2019) noted that women are underrepresented in senior academic roles, occupying only 25% of professorial positions in developed countries due to structural barriers. In Nigeria, these disparities are worsened by limited institutional support, such as lack of childcare facilities, maternity leave policies, or flexible work options (Adegboyega, 2023). Ogbogu (2019) reported that only 10% of Nigerian universities offer childcare services, forcing female academics to rely on informal support systems, which disrupts their work schedules. Gender-based discrimination, including biased promotion criteria and unequal access to research funding, further limits women's productivity (Eze & Ojo, 2022).

For instance, a study in West Africa found that women received 40% less research funding than men, constraining their ability to conduct high-impact studies (Ngoben & Makhubele, 2020). The JD-R model suggests that resources like FWAs and good working conditions can mitigate these gendered demands, yet their implementation in Nigeria remains limited (Bakker & Demerouti, 2018). Jeremiah (2021) emphasized that without targeted interventions, female academics in Nigeria will continue to face productivity gaps. Strategies such as mentorship programs, gender-sensitive policies, and infrastructure improvements could address these barriers, but their effectiveness requires empirical validation (Akanji, 2020). This study contributes to this narrative by examining how FWAs and working conditions influence female academic productivity in Ondo State, offering discoveries into context-specific solutions for Nigeria's higher education sector. The study examines these relationships at Adeyemi Federal University of Education and the University of Medical Sciences, Ondo, to inform evidence-based policies.

Beyond its institutional relevance, this study aligns with key Sustainable Development Goals (SDGs), particularly SDG 4 (Quality Education), SDG 5 (Gender Equality), and SDG 8 (Decent Work and Economic Growth) (United Nations, n.d). SDG 4 emphasizes the need for inclusive and equitable quality education, which depends heavily on the productivity and well-being of academic staff (United Nations, n.d). Female academics play a central role in teaching, research, and community engagement, and constraints that limit their productivity directly affect educational quality and student outcomes (Emeka et al., 2025). SDG 5 seeks to promote gender

equality and empower women, yet persistent workplace challenges such as poor working conditions, limited institutional support, and inadequate work-life balance mechanisms continue to disadvantage female academics in Nigerian public universities (Kanu et al., 2025). Addressing these challenges through improved working conditions and context-appropriate flexible work arrangements contributes to reducing structural gender inequalities in academic careers. In addition, SDG 8 highlights the importance of decent work environments that promote productivity and well-being (United Nations, n.d). By examining how workplace conditions and flexibility influence female academic staff productivity, this study provides evidence to support policies that foster fair, supportive, and productive work environments in higher education. As such, the study contributes to national and global efforts to strengthen university systems while enhancing gender equity and sustainable development in Nigeria.

Research Question

1. What is the level of productivity among female academic staff in public universities in Ondo State, in terms of teaching, research, administrative duties, and community service?

Research Hypotheses

1. H₀₁: There is no significant relationship between flexible work arrangements and female academic staff productivity in public universities in Ondo State.
2. H₀₂: There is no significant relationship between good working conditions and female academic staff productivity in public universities in Ondo State.
3. H₀₃: There is no significant joint relationship of flexible work arrangements and good working conditions on female academic staff productivity in public universities in Ondo State.

Theoretical Framework

The Job Demands-Resources (JD-R) model provides a robust framework for examining the relationship between flexible work arrangements, good working conditions, and female academic staff productivity in Nigerian public universities (Bakker & Demerouti, 2018). The model posits that employee performance is shaped by two key factors: job demands and job resources. Job demands include physical, psychological, or organizational aspects requiring sustained effort, such as heavy workloads, time pressure, or work-family conflict, which can lead to stress or

burnout if excessive (Schaufeli, 2018). Job resources, in contrast, are elements that support goal achievement, mitigate demands, or foster growth, such as autonomy, supportive management, and adequate infrastructure (Demerouti et al., 2021). The JD-R model outlines two processes: a health-impairment process, where high demands reduce performance, and a motivational process, where resources enhance engagement and productivity. Resources can also buffer the negative effects of demands, promoting sustained performance (Bakker & Demerouti, 2018).

In relation to this study's title, the JD-R model is highly applicable to female academic staff in Ondo State's public universities. Female academics face significant job demands, including intensive teaching schedules, administrative responsibilities, and gendered domestic roles that intensify work-family conflict (Akanji, 2020). These demands challenge productivity across teaching, research, administrative duties, and community service. Job resources, such as FWAs (e.g., telecommuting, flexible schedules) and good working conditions (e.g., reliable internet, ergonomic workspaces, and timely salaries), are expected to alleviate these demands by providing flexibility and support, thereby enhancing productivity (Adegboyega, 2023). The JD-R model guides this examination by framing FWAs and working conditions as critical resources to counterbalance demands, informing the study's exploration of their impact on female academic productivity in Nigeria's peculiar higher education system.

Methodology

A descriptive survey design was employed to quantify relationships between FWAs, working conditions, and productivity. The population comprised 470 female academic staff in Ondo State public universities. A purposive sample of 274 (total enumeration) was selected from Adeyemi Federal University of Education ($n = 181$) and the University of Medical Sciences, Ondo ($n = 93$), covering all female academics in these institutions. Two questionnaires were used:

1. **Flexible Work Arrangements and Good Working Conditions Questionnaire (FWAGWCQ):** A 20-item scale with two sections:
 - **Flexible Work Arrangements** (10 items): Measures availability and use of FWAs (e.g., telecommuting, flexible hours, compressed workweeks).

- **Good Working Conditions** (10 items): Assesses infrastructure, management support, and salary timeliness.

Responses used a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). Cronbach's alpha = .967. Adapted from Umukoro et al. (2020) and Okolocha and Okeke (2021).

2. **Female Academic Staff Productivity Questionnaire (FASPQ)**: A 12-item scale assessing teaching, research, administrative duties, and community service (3 items each). Responses used a 5-point Likert scale. Cronbach's alpha = 0.765. Adapted from Okolocha and Okeke (2021). The rating scale consisted of: VH-Very High, H-High, AV-Average, L-Low and VL-Very Low. Questionnaires were administered in-person by trained assistants over four weeks, yielding 239 completed responses (87.2% response rate).

Data Analysis

- **Research Question:** Descriptive statistics (mean, SD, percentages) analyzed productivity levels.
- **Hypotheses:** Pearson Product Moment Correlation (PPMC) tested Ho1 and Ho2; multiple regression with an interaction term tested Ho3 for the joint effect at a .05 significance level, using SPSS version 25.

Results

Research Question: What is the level of productivity among female academic staff in public universities in Ondo State?

Productivity was average ($M = 2.04$, $SD = 0.70$, 5-point scale), based on the established decision rule. Breakdown:

- Teaching: $M = 1.54$, $SD = 0.60$; 10% reported high output (4–5 courses/semester), with low performance in delivering lectures and submitting exam results on time.
- Research: $M = 2.38$, $SD = 0.75$; 15% had high output (2+ publications/year). Sub-details: obtaining research funding ($M = 2.83$), publishing in peer-reviewed journals ($M = 2.31$), writing scholarly texts ($M = 2.03$), indicating moderate engagement but lower traditional publication output.
- Administrative Duties: $M = 1.82$, $SD = 0.65$; 12% had high output, with low engagement in serving on university committees.

- Community Service: $M = 2.40$, $SD = 0.65$; 20% engaged significantly in professional associations and public service.
- Overall Productivity: $M = 2.04$, $SD = 0.70$; 12% high output.

Table 1: Descriptive Statistics of Productivity

Dimension	Mean	SD	% High Output
Teaching	1.54	0.60	10%
Research	2.38	0.75	15%
Administrative Duties	1.82	0.65	12%
Community Service	2.40	0.65	20%
Overall Productivity	2.04	0.70	12%

Decision Rule: $\bar{X}$ less than 1.0= very Low, 1.0-1.74= Low, 1.75-2.49=Average; 2.5 – 3.24 = High; 3.25 – 4.0 = Very High
Source: Researcher's Field Survey (2024)

Table 1 presents the productivity levels of female academic staff in public universities in Ondo State across four categories: research, teaching, administration, and community service. The overall mean productivity score is 2.04, indicating that the productivity level of female academic staff is generally rated as average based on the established decision rule. Research productivity shows moderate engagement, with the highest score being in obtaining research funding ($\bar{x} = 2.83$), while writing scholarly texts and publishing in peer-reviewed journals is comparatively lower ($\bar{x} = 2.03$ and 2.31, respectively). This suggests that while female academic staff perform reasonably well in securing research funding, their output in traditional academic publications is relatively lower. In terms of teaching and administrative tasks, the results reveal lower productivity scores, with teaching having the lowest mean (1.54), particularly in areas like delivering lectures and submitting exam results on time. Administrative duties, such as serving on university committees, are also rated low ($\bar{x} = 1.82$), indicating that female academics may be

less engaged in non-research tasks. Community service has a slightly higher mean (2.40), highlighting more active participation in professional associations and public service. These results imply a need for strategies to improve female academic staff productivity, particularly in teaching and administrative responsibilities, to balance their overall contributions to their institutions.

Hypothesis 1: There is no significant relationship between flexible work arrangements and female academic staff productivity in public universities in Ondo State.

Table 2: Correlation Analysis between flexible work arrangement and female academic staff level of productivity in public universities Ondo State.

		Productivity Flexible work Arrangement	
Productivity	Pearson Correlation	1	.045
	Sig. (2-tailed)		.489
	N	239	239
Flexible Work Arrangement	Pearson Correlation	.045	1
	Sig. (2-tailed)	.489	
	N	239	239

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

Source: Researcher's Field Survey (2024)

Table 2 presents the relationship between flexible work arrangement and female academic staff level of productivity in public universities, Ondo state. From the above table, the result revealed non-significant, weak positive relationship between flexible work arrangement and female academic staff level of productivity ($r = .045$, $n = 239$, $p > .05$). This implies that flexible work arrangement does not significantly increase female academic staff level of productivity. Therefore, the null hypothesis that there is no significant relationship between flexible work arrangement of female academic staff and their level productivity in public universities Ondo State is accepted.

Hypothesis 2: There is no significant relationship between good working conditions and female academic staff productivity in public universities in Ondo State.

Table 3: Correlation Analysis between good working conditions and female academic staff level of productivity in public universities Ondo State

	Productivity	Good Working Conditions	
Productivity	Pearson Correlation	1	.300**
	Sig. (2-tailed)		.000
	N	239	239
Good Working Conditions	Pearson Correlation	.300**	1
	Sig. (2-tailed)	.000	
	N	239	239

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

Source: Researcher's Field Survey (2024)

Table 3 presents the relationship between good working conditions and female academic staff level of productivity in public universities, Ondo state. The result revealed a significant, moderate positive relationship between flexible work arrangement and female academic staff level of productivity ($r = .300$, $n = 239$, $p < .05$). This implies that working condition gets improved, the higher the level of productivity of female academic staff. Therefore, the null hypothesis that there is no significant relationship between good working conditions of female academic staff and their level productivity is rejected and reinstated that there is a significant relationship between work-life balance and female academic staff level of productivity in public universities Ondo State.

Table 4: Correlation Analysis Results

Variable	r	P
Flexible Work Arrangements	.045	.470
Good Working Conditions	.30	.002

Hypothesis 3: There is no significant joint relationship of flexible work arrangements and good working conditions on female academic staff productivity in public universities in Ondo State.

Multiple regression with an interaction term assessed the joint effect of FWAs and working conditions on productivity. The model was significant ($F(3, 235) = 6.85, p < .001, R^2 = .08$), explaining 8% of variance. Working conditions were a significant predictor ($\beta = .29, p = .003$), but FWAs ($\beta = .04, p = .580$) and the interaction term ($\beta = .02, p = .720$) were not. The joint model's significance indicates that working conditions primarily drive productivity.

Table 4: Multiple Regression Results

Predictor	B	SE	t	p
Flexible Work Arrangements	.04	0.05	0.56	.580
Good Working Conditions	.29	0.06	3.01	.003
FWA $\times$ Working Conditions	.02	0.04	0.36	.720
Note: $R^2 = .08, F(3, 235) = 6.85, p < .001$				

Source: Researcher's Field Survey (2024)

Interpretation

The multiple regression analysis (Table 3) examines how flexible work arrangements (FWAs), good working conditions, and their interaction predict female academic staff productivity in Ondo State's public universities. The model is statistically significant ($F(3, 235) = 6.85, p < .001$), indicating that the predictors collectively influence productivity, though they explain only 8% of the variance ($R^2 = .08$), suggesting other factors also play a role. Good working conditions have a significant positive effect ($\beta = .29, p = .003$), meaning that better infrastructure, timely salaries, and supportive management are associated with higher productivity among female academics. In contrast, FWAs show no significant effect ($\beta = .04, p = .580$), implying that telecommuting or flexible schedules do not meaningfully contribute to productivity in this context. The interaction

term ($\beta = .02$, $p = .720$) is also non-significant, indicating that the combined effect of FWAs and working conditions does not enhance productivity beyond their individual contributions. These results suggest that, within the JD-R model, good working conditions act as a key resource for female academics, while FWAs may be limited by contextual barriers like inadequate technology or institutional policies.

Discussion

This study examined female academic staff productivity in public universities in Ondo State, focusing on productivity levels, the role of flexible work arrangements, the influence of good working conditions, and their joint effect. The discussion is presented in line with each research objective.

With respect to the first objective, the findings show that the overall productivity of female academic staff was average ($M = 2.04$), with particularly low scores in teaching ($M = 1.54$) and administrative duties ($M = 1.82$). This suggests that while female academics remain engaged in their roles, their performance is constrained in core institutional responsibilities. The low teaching and administrative productivity may be linked to heavy workloads, large class sizes, and limited institutional support, which are common features of Nigerian public universities (Okebukola, 2018). Administrative roles often add to existing teaching and research demands without corresponding incentives, which may discourage active participation. In contrast, community service recorded a relatively higher mean ($M = 2.40$), possibly reflecting societal and professional expectations placed on female academics to engage in outreach and service-related activities (Ogbogu, 2019). Research productivity was moderate ($M = 2.38$), with stronger performance in securing research funding but weaker outcomes in publishing scholarly outputs. This pattern aligns with prior studies that attribute low publication output to inadequate research infrastructure, limited access to journals, and time constraints arising from multiple role demands (Adegboyega, 2023).

The second objective examined the relationship between flexible work arrangements and female academic staff productivity. The findings revealed no significant relationship between flexible work arrangements and productivity ($r = .045$, $p > .05$). This result suggests that flexible work arrangements, as currently practised in the studied institutions, do not meaningfully enhance

productivity. This finding is consistent with Jeremiah (2021), who observed that flexible work policies in Nigerian public institutions are often poorly implemented and largely informal. Inadequate technological infrastructure, unreliable internet services, and institutional emphasis on physical presence limit the practical benefits of flexibility for academic staff. For female academics, who often face high domestic and caregiving responsibilities, the absence of structured and supported flexible work policies means that flexibility does not translate into improved performance. This contrasts with evidence from developed contexts, where flexible work arrangements are supported by strong digital systems and clear institutional policies (Allen et al., 2018).

The third objective focused on the relationship between good working conditions and productivity. The results showed a significant and moderate positive relationship between good working conditions and female academic staff productivity ($r = .30$, $\beta = .29$, $p < .05$). This indicates that improvements in infrastructure, management support, and timely salary payments are associated with higher productivity. This finding supports Okolocha and Okeke (2021), who reported that adequate working conditions enhance motivation, reduce stress, and promote better academic output. For female academics, supportive working environments may reduce the strain of balancing professional and domestic roles, enabling greater focus on teaching, research, and administrative responsibilities. The result also aligns with the Job Demands-Resources model, which emphasises that access to job resources can buffer the negative effects of high job demands and enhance employee engagement (Bakker & Demerouti, 2018).

Regarding the fourth objective, the joint effect of flexible work arrangements and good working conditions on productivity was statistically significant, although only good working conditions emerged as a meaningful predictor. The interaction effect between flexible work arrangements and working conditions was not significant, indicating that flexible work arrangements did not strengthen the impact of working conditions on productivity. This suggests that without adequate infrastructure and institutional support, flexible work arrangements cannot amplify productivity gains. Similar findings have been reported in contexts where flexible work policies exist in principle but lack operational support (Akanji, 2020). The dominance of working conditions in

the joint model underscores the importance of addressing foundational workplace challenges before expecting flexibility-based interventions to be effective.

It is important to note that age and marital status were not included as control or moderating variables in this study. While age and marital status are recognised in the literature as factors that may influence work-family conflict and productivity among female academics, the focus of this study was on organizational factors, specifically flexible work arrangements and working conditions. As such, the findings do not account for differences in productivity based on age or marital status

Conclusion and Recommendations

Based on the findings of the study and the discussion that followed:

The level of productivity of female academic staff of public universities in Ondo state was average which implies that they are able to meet basic academic responsibilities, but structural and workplace challenges limit their ability to achieve higher productivity. Good working conditions significantly predict female academic staff productivity in Ondo State, while FWAs lack impact. The joint effect, driven by working conditions, shows the need for infrastructure improvements to balance contributions across teaching, research, administrative duties, and community service.

The following recommendations were made based on the findings of the study:

1. Public universities should invest in modern facilities (e.g., reliable internet, ergonomic offices), develop FWA policies addressing technological and administrative barriers and ensure timely salary payments to reduce financial stress.
2. The universities should prioritize creating a supportive and inclusive work environment that minimizes gender-based violence and harassment. This includes providing adequate resources, fostering collaboration, and ensuring that female academic staff receive the necessary support.
3. Universities should invest in continuous professional development for female academic staff by offering workshops, mentoring programs, and access to conferences. This will help enhance their skills and capabilities, ultimately leading to increased productivity.



4. Female academic staff should develop time management and boundary-setting skills. Female academic staff should set clear boundaries between work and personal life. They should also develop resilience and coping strategies, manage workload and priorities, navigate departmental politics, seek support for mental health and focus on achievements and successes
5. Female academics should leverage on mentorship and networking by joining academic networks and organisations, attending networking events and conferences, participating in online forums and discussion groups, developing a professional online presence and engaging in peer mentoring. These will further enhance their productivity.
6. Policy makers should develop and enforce policies supporting work-life balance, allocate resources for education and workforce development programs and conduct regular reviews of labour law and policies
7. Institutions should implement training to enhance teaching and administrative productivity.

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