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Work-Life Balance and Organisational Performance in Nigeria Food, Beverage and Tobacco Manufacturing Sub-Sector

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ABSTRACT

Purpose: The study sought to examine how work-life balance affects organisational performance in the context of the Nigerian food, beverage and tobacco manufacturing sub-sector. With its importance, it addresses the lacuna in understanding how work-life balance influences organisational performance. And this study gives actionable insights for managers and policymakers to implement targeted strategies that improve organisational performance and maintain competitive advantages.

Methods: The research design adopted a quantitative survey. Questionnaires were administered to 384 employees of the food, beverage and tobacco manufacturing subsector. Descriptive statistics were used to analyse demographic data, while PLS-SEM was employed to test the hypotheses at a 0.05 level of significance using SmartPLS 4.

Findings: The findings revealed that flexible work arrangements, including flexitime, shift-swapping, and predictable schedules, have a significant effect on job satisfaction of employees ($\beta = 0.707$, $t = 19.774$, $p < 0.05$), and career development opportunities, such as mentoring and promotion pathways, have a significant effect on quality of outputs ($\beta = 0.759$, $t = 21.223$, $p < 0.05$) except for in-house training, which has a negative effect.

Implications: This study highlights that effective work-life balance practices significantly enhance organisational performance. It informs managers on designing targeted interventions to boost productivity and operational efficiency, while guiding policymakers in establishing frameworks that support employees' well-being.

Originality: This study is original as it empirically examines the influence of WLB on organisational performance specifically within the Nigerian food, beverage, and tobacco sector. Unlike prior research, it integrates multiple dimensions of employee-centred practices and uses PLS-SEM to quantify their collective impact, providing evidence from emerging areas where data on WLB and performance outcomes remain limited.

1. Introduction

Work-life balance (WLB) has evolved from its traditional interpretation of managing competing work and family responsibilities to a broader organisational concept involving employee well-being, flexibility, psychological fulfilment, and sustainable employment practices. Earlier perspectives viewed WLB primarily as an extent to which individuals are able to minimise conflict between professional and personal roles. However, contemporary perspectives recognise work-life balance as a strategic human resource management practice that enables employees to maintain personal well-being while contributing effectively to organisational objectives. Recent studies indicated WLB has become increasingly important due to changing workforce expectations, increased workload pressures, technological advancement, and the need for organisations to create sustainable work environments (William & Singh, 2024). Globally, the modern workforce has witnessed fundamental shifts in work patterns. Studies from the United States, the United Kingdom, and Scandinavian nations consistently link better WLB with amplified job satisfaction, abridged turnover, and better productivity outcomes.

Across Africa, the discourse on work-life balance is gaining prominence, though it remains underexplored in many regions. African economies, often characterised by informality, limited regulatory oversight, and rapid urbanisation, are seeing increased pressure on workers to juggle expanding job demands with family and societal roles (Yamoah, 2025).

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Cultural expectations, extended family structures, and weak institutional support systems often compound these challenges. However, progressive African firms and multinationals are beginning to see five importance to WLB through different ideas such as elastic work settings, mental health support, and gender-sensitive workplace plans.

In Nigeria, the pressure to stabilise work and lifetime is particularly acute. With a growing population, high youth unemployment, long commuting hours, and socio-economic volatility, Nigerian workers frequently experience high levels of stress, fatigue, and dissatisfaction (Magaji *et al*., 2021).

Recent evidence suggests that organisations that implement appropriate work-life balance policies experience improvements in employee satisfaction, commitment, and organisational effectiveness because employees perceive greater organisational support and control over their work demands. In the Nigerian food, beverage and tobacco manufacturing sub-sector, these practices are particularly relevant due to the labour-intensive nature of production activities and the need to maintain employee productivity while managing workforce well-being.

However, existing studies have largely focused on work-life balance from a general HR or psychological standpoint, with limited contextual research on its strategic role in Nigeria's manufacturing sector. Most available literature either overlooks the food and beverage industry or fails to assess how work-life initiatives affect performance metrics such as product quality and employee engagement in structured, measurable ways (Solihu *et al*., 2023). The paucity of empirical studies and contextualised evidence has created a gap in understanding how organisations like NBC can adopt WLB strategies to drive performance.

While flexible work arrangements have been widely embraced in developed countries, their effectiveness in enhancing employee satisfaction in Nigeria's corporate environment, particularly within large manufacturing firms, is yet to be comprehensively examined. A clear understanding of this relationship is essential in informing management policies that not only enhance employee well-being but also drive performance.

In addition to flexible work arrangements, the role of career development opportunities in influencing organisational output cannot be overstated. In knowledge-driven economies, the continuous professional development of employees is key to maintaining a competitive edge. Career development includes training programmes, mentorship, promotions, and other opportunities that enable employees to grow within their organisations. In a high-performing organisation where production targets and quality assurance are paramount, it becomes imperative to examine whether or not career development opportunities translate into improved quality of output. The absence of clear growth paths and inadequate investment in employee development could result in stagnation, low morale, and low productivity.

2. Review of Literature

2.1. Work-Life Balance

WLB continues to attract considerable attention in HRM as it influences employees' comfort and organisational goals. The concept explains the level to which employees are able to effectively combine their job responsibilities with personal, family, and social commitments without experiencing excessive conflict between these roles.

Similarly, Çivilidağ and Durmaz (2026) asserted the establishment of flexible working arrangements significantly contribute to WLB by reducing work-family conflict and improving employees' attachment to their organisations. Work-life balance is particularly important because employees are often exposed to demanding production schedules, shift duties, workload pressure, and strict operational targets.

2.2. Flexible Work Arrangements

This idea describes how workplace practices permit employees to have some level of freedom in deciding when, where, or how they perform their job responsibilities. Rather than following rigid work schedules, employees are given alternative options such as flexible working hours, shift flexibility, compressed work schedules, remote or hybrid work arrangements, and adjusted work patterns to help them manage both formal and personal responsibilities. Çivilidağ and Durmaz (2026) discover flexible working practices significantly reduce work-family conflict and contribute to improved employee outcomes through greater control over work responsibilities. Recent evidence suggests that organisations that implement appropriate work-life balance policies experience improvements in employee satisfaction, commitment, and organisational effectiveness because employees perceive greater organisational support and control over their work demands. In the Nigerian food, beverage and tobacco manufacturing sub-sector, these practices are particularly relevant due to the labour-intensive nature of production activities and the need to maintain employee productivity while managing workforce well-being.

2.3. Career Development Opportunities

Career development opportunities are recognised as support and avenues provided by organisations to enable

employees to improve their knowledge, acquire new skills, and advance in their professional careers. It involves activities such as training programmes, mentoring, coaching, career counselling, promotion opportunities, and exposure to challenging assignments that prepare employees for higher responsibilities. Similarly, Suleiman and Otanwa (2026) found that career development opportunities significantly influence the performance of employees among manufacturing firms in Nigeria. Muthukumar *et al*. (2026) observed that employees who have access to training, promotion opportunities, and career planning are more motivated and less likely to consider leaving their organisations.

2.4. Organisational Performance

Organisational performance is a broad concept that explains how effectively an organisation achieves its objectives through the efficient use of available resources. According to recent scholars, organisational performance represents the overall outcomes generated from an organisation's strategies, processes, and human resources. Sarwar and Khattak (2024) described organisational performance as a multidimensional construct that captures different aspects of organisational success, including financial performance, production effectiveness, product quality, marketing outcomes, environmental responsibility, and knowledge creation.

2.5. Quality of Output

Quality of output is an important dimension of organisational performance that reflects the ability of an organisation to produce goods or services that meet expected standards, customer requirements, and regulatory specifications. Agyapong *et al*. (2024) explained that organisations with strong quality management practices are more capable of achieving operational excellence because consistent product quality reduces production errors, improves customer confidence, and strengthens market performance. Surya *et al*. (2025) argued that quality performance is shaped by internal organisational capabilities such as employee skills, continuous improvement practices, and effective management systems.

2.6. Job Satisfaction of Employee

The level of positive feelings, attitudes, and contentment employees develop towards their jobs based on their experiences, work conditions, rewards, and relationships within the organisation depicts a sense of job satisfaction of the employee. Job satisfaction is influenced by several factors, including compensation, recognition, career growth opportunities, supportive leadership, workload, and work environment.

2.7. Flexible Work Arrangements and Employee Job Satisfaction

FWA are gradually known as the strategic tool to improve employee satisfaction and productivity. Recent studies highlight that flexibility in work hours, telecommuting options, and task autonomy reduces stress, enhances work engagement, and strengthens organisational commitment. In the food and beverage sector, where operational processes are time-sensitive, providing employees with flexible scheduling and task control has been linked to higher-quality outputs and reduced turnover. The dimensions commonly used to measure FWA include flexible hours, remote work options, and job autonomy, which allow researchers to capture the nuanced effects of flexibility on employee attitudes and performance. Employees with high perceived flexibility are prone to exhibit proactive behaviour, problem-solving capability, and adherence to quality standards. However, variations exist depending on organisational culture and managerial support, suggesting that flexibility alone is not sufficient without complementary organisational resources.

H1: Flexible work arrangements have a positive influence on the job satisfaction of employees.

2.8. Career Development Opportunities and Quality of Output

Career development opportunities (CDO) encompass formal training, mentoring programmes, promotion pathways, and skill development initiatives. The literature consistently demonstrates that CDO is a strong predictor of employee performance and the quality of organisational outputs. However, recent studies in emerging economies indicate that structured development programmes enhance employee competency and reduce errors, directly impacting the operational efficiency of manufacturing and processing firms.

H2: Career Development Opportunities has a significant and positive effect on the quality of output.

2.9. Research Gap

While substantial research focus has been made on WLB and how it relates with employee and organisational achievement, existing literature reveals several conceptual, contextual, and methodological gaps that necessitate further investigation. These gaps are particularly relevant within Nigeria's Food, Beverage and Tobacco Manufacturing Sub-Sector, where organisational operations differ significantly from many sectors previously examined.

To start with, conceptual gaps in the existing literature regarding the connection between employee-oriented

workplace practices and specific dimensions of organisational performance exist. Previous studies have largely examined WLB, flexible work arrangements, and career development opportunities in relation to individual-level results such as employee commitment, satisfaction of job, psychological comfort, and turnover thoughts (Çivilidağ & Durmaz, 2026). With the contributions of these studies, provision of limited explanation of how such practices influence broader organisational outcomes is unanswered, particularly quality of output and employee job satisfaction as performance indicators. This creates a need for further research that moves beyond employee attitudes to examine how work-life balance practices contribute to measurable organisational performance outcomes.

Also, a sectoral and contextual gap exists because much of the current evidence on work-life balance and flexible work practices has emerged from developed economies and service-based industries. For example, Çivilidağ and Durmaz (2026) highlighted the benefits of flexibility and employee autonomy; however, their findings were largely developed within work environments where remote work and flexible schedules are more easily implemented. In contrast, manufacturing organisations, particularly those in the Food, Beverage and Tobacco Sub-Sector, operate under different conditions characterised by production targets, physical operational requirements, shift systems, and strict quality control standards. Therefore, findings from other contexts may not adequately explain how employee-centred practices function within Nigerian manufacturing firms. This study addresses this contextual limitation by providing evidence from a sector where maintaining employee effectiveness and product quality remains a critical organisational challenge.

Likewise, there is a measurement gap in how organisational performance has been examined. Existing studies have often relied on broad or financial measures of performance, including profitability, market growth, and productivity indicators. However, contemporary scholars argue that organisational performance is multidimensional and should include both operational and employee-related outcomes (Sarwar & Khattak, 2024). Despite this argument, limited empirical studies have considered non-financial indicators such as quality of output and employee job satisfaction, especially within developing economy manufacturing environments. This creates uncertainty regarding the extent to which human resource practices contribute to operational excellence and employee-related performance outcomes.

More so, a theoretical and explanatory gap exists in understanding the mechanisms through which work-life balance practices influence organisational performance. Existing studies have established positive relationships between workplace support practices and employee outcomes, but insufficient attention has been given to explaining how these practices translate into improved organisational effectiveness. For instance, career development opportunities may enhance employee competence and confidence, while flexible work arrangements may improve concentration and reduce work-related strain; however, the pathways through which these benefits improve output quality and job satisfaction remain underexplored.

Accordingly, a methodological gap is evident in previous studies, as many investigations have focused on single workplace practices or examined relationships within general organisational populations. Such approaches provide useful but limited explanations because organisations typically implement multiple human resource practices simultaneously. A more integrated assessment of work-life balance dimensions, including flexible scheduling, shift flexibility, career development opportunities, mentoring, and employee support mechanisms, provides a clearer understanding of their collective influence on organisational performance.

To sum up, unlike previous studies that have mainly concentrated on employee attitudes or general organisational settings, this study integrated work-life balance practices with specific organisational performance outcomes, including quality of output and employee job satisfaction. By providing evidence from the Nigerian manufacturing context, the study contributes to existing knowledge on how strategic human resource practices can support improved organisational effectiveness and sustainable performance.

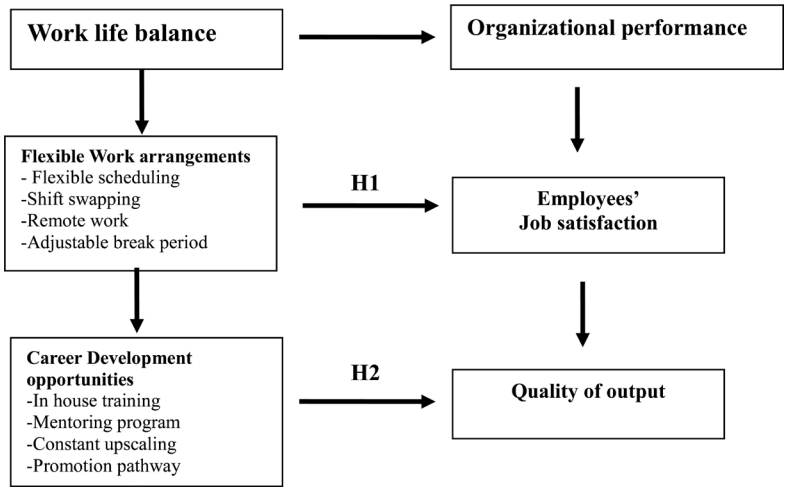
2.10. Theoretical Foundation

Arnold Bakker and Evangelia Demerouti in 2001 propounded Job Demands–Resources (JD-R) Theory, describing how different work settings influence employee well-being, motivation, and performance. The theory was developed based on the assumption that every occupation comprises two broad categories of factors: demands for a job and resources available for a job. The theory assumes that excessive demands for jobs without adequate resources can result in stress, exhaustion, and reduced performance, whereas sufficient resources such as autonomy, supportive work policies, and flexible work arrangements promote employee engagement and satisfaction. The contribution of JD-R Theory lies in its ability to provide a comprehensive explanation of how workplace factors bring about employee hard work with health impairment and motivational processes, thereby linking employee experiences with organisational effectiveness. The theory extends organisational research by emphasising that employee performance is influenced not only by individual competence but also by the availability of organisational resources that enable employees to manage

work responsibilities effectively. In relation to this study, JD-R Theory implies that WLB practices are tools for job resources that help employees achieve competing work and personal demands, reduce work-related stress, and enhance their ability to contribute positively to organisational goals. Therefore, a relevant foundation for examining how work-life balance influences organisational performance is provided, as organisations that provide adequate resources to support employee balance are more likely to achieve improved productivity, service quality, responsiveness, and adaptability.

The theory of social exchange was made known by George Homans in 1958 and then, afterwards, expanded by Peter Blau in 1964 to explain how relationships are developed and sustained through mutual exchange between individuals and groups. The theory predicted that individuals tend to maintain relationships when they believe that the benefits they receive are valuable and outweigh the efforts or sacrifices involved. In the workplace, the theory suggests that employees develop positive feelings towards their organisation when they observe the organisation valuing their contributions and supporting their needs through fair treatment, recognition, good working conditions, and employee-friendly policies. In return, employees are likely to reciprocate such support through greater commitment, improved dedication, higher engagement, and better job performance. The major contribution of Social Exchange Theory is that it explains the importance of trust, support, and reciprocity in shaping employee attitudes and behaviours within organisations. It shows that the relationship between employees and employers goes beyond formal employment agreements, as employees often respond to how they are treated by the organisation. In relation to this study, suggestions that WLB practices, such as work flexibility arrangements, supportive workplace policies, and consideration for employees' personal responsibilities, are forms of organisational support that employees may repay through increased commitment and improved performance. Therefore, it implies that investing in employees' well-being can develop stronger employee relationships and achieve better organisational performance.

2.11. Conceptual Model



Source: Author's Computation, 2026

3. Methodology

3.1. Research Design

A quantitative approach was used to design the research, as it agrees with systematic variable measurement, test of hypothesis statistics, and objective evaluation of relationships between constructs, ensuring rigor and replicability in line with international research standards.

3.2. Sampling Design

The study focused on 384 employees out of the 9001 population of the Nigeria food, beverage, and tobacco industry (National Bureau of Statistics, 2026). A probability sampling approach is adopted to ensure that all the population has an identified and non-zero chance of selection (Bryman & Bell, 2015).

With a finite population, Yamane's (1967) determinant formula was used to determine sample size. The formula is expressed as

$$n = \frac{N}{1 + N\left(e^2\right)}$$

where:

- n is the sample size,
- N is the population size,
- E is the margin of error (level of precision).

$$n = \frac{9001}{1+9,001(0.0025)}$$

$$n = \frac{9001}{1+22.5025}$$

$$n = \frac{9001}{23.5025}$$

$$n \approx 382.96$$

Therefore, the calculated sample size was approximately 383 respondents. However, to improve the adequacy of responses for possible errors made, the sample size was moved to 384 respondents.

Specifically, stratified random sampling is employed to capture variation across departments and job levels, ensuring proportional representation of all relevant subgroups and reducing sampling bias (Etikan *et al*., 2016).

The sample frame is the official employee roster of the company, which provides an accurate list of all potential respondents, while the sampling unit is the individual employee (Kothari, 2022).

Hypothesis testing is a statistical approach based on representativeness, balancing precision with practicality (Cochran, 1977). Stratification further increases precision by ensuring key subgroups are included proportionally (Daniel, 2012).

The use of stratified random sampling allows for enhanced generalizability of findings, as each subgroup within the Nigeria food, beverage, and tobacco industry is proportionally represented, reducing bias and ensuring that results can be extrapolated to the entire population (Bryman & Bell, 2015). To mitigate issues of low response rate, follow-up reminders and assurances of confidentiality were employed, improving participation and the reliability of the data (Dillman *et al*., 2014). Potential sampling errors, such as non-response bias or underrepresentation of specific strata, are acknowledged. Stratification minimizes these errors by ensuring critical subgroups are adequately sampled, and statistical adjustments may be applied if deviations occur (Cochran, 1977; Daniel, 2012).

3.3. Instrument Design

The closed-ended form of the questionnaire assisted in collecting data from respondents, which allows for standardized data collection and facilitates quantitative analysis (Kothari, 2022).

WLB was valued using items relating to flexible work arrangements that were adapted from Çivilidağ and Durmaz (2026), confirming the relationship between workplace flexibility, work-family balance, and organizational commitment. Furthermore, organizational performance indicators, particularly quality of output and employee-related performance outcomes, were adapted from Sarwar and Khattak (2024), who conceptualized organizational performance as a multidimensional construct incorporating operational effectiveness, quality improvement, and employee outcomes. All variables were measured with a Likert scale of 5 points: 1 - strongly disagree to 5 - strongly agree.

The structured questionnaire format ensures clarity, consistency, and ease of response, while the use of previously validated scales strengthens content validity and allows comparability with prior research.

3.4. Data Collection Procedure

A structured questionnaire was administered physically to employees of the Nigeria food, beverage, and tobacco industry. The copies of the questionnaire were hand-delivered to respondents and collected after completion for a high response rate, to clarify any misunderstandings, and to verify completeness of responses. Physical administration is preferred because it fosters direct engagement with respondents, minimizes non-response, and enhances the reliability of the data by allowing immediate clarification of questions, particularly in organizational settings where respondents may have varying familiarity with research instruments (Dillman *et al*., 2014; Kothari, 2022).

3.5. Data Analysis Tools

PLS-SEM was used as the tool to analyze the data gathered; it was used for handling complex models and assessing both measurement and structural relationships simultaneously (Hair *et al*., 2017). This approach ensures robust, predictive, and reliable estimation of the hypothesized relationships.

4. Results

4.1. Hypothesis 1

The path model illustrating the effect of flexible work arrangements on employee job satisfaction in Nigeria Bottling Company Plc. This model was developed in line with Objective One, which seeks to examine how elements such as flexible schedules, shift swapping, remote work, and adjustable break periods influence job satisfaction, as shown in Figure 1 above. The measurement model assessment identifies these components as key indicators of flexible work arrangements. Each proxy was analysed for its contribution to employee satisfaction using structural equation modelling. The visual path model provides a clear representation of the relationships, enabling a better understanding of how flexibility impacts job-related contentment.

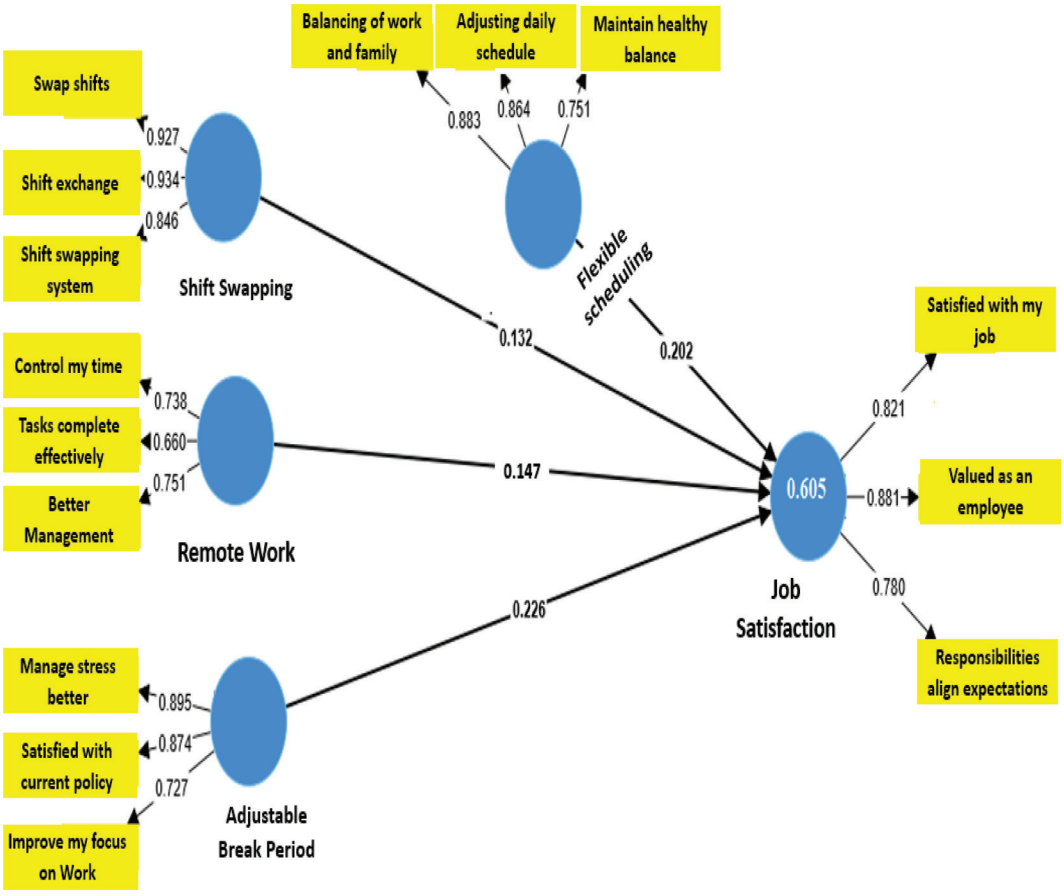


Figure 1: Path Model of Effect of Flexible Work Arrangements on Employee Job Satisfaction
Source: SmartPLS Output, 2026

Table 1: Construct Reliability and Validity

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Job Satisfaction	0.838	0.868	0.882	0.773
Flexible scheduling	0.622	0.633	0.840	0.724
Shift Swapping	0.819	0.938	0.914	0.841
Remote Work	0.789	0.792	0.904	0.825
Adjustable Break Period	0.722	0.723	0.801	0.856

Source: SmartPLS Output, 2026

Construct reliability and validity results for the variables used for the assessment of the effect of work arrangements flexibility on employee job satisfaction. The constructs include job satisfaction, flexible scheduling, shift swapping, remote work, and adjustable break period.

Meanwhile, all constructs exceed the acceptable threshold of 0.70, except for flexible scheduling, which is slightly lower at 0.622, indicating moderate internal consistency as explained in the above table 1. However, this is supported by its high composite reliability of 0.840, suggesting that the construct remains reliable overall. Composite reliability (rho_c) scores for all constructs range from 0.840 to 0.914, indicating strong internal consistency. The average variance extracted for each construct is above the benchmark of 0.50, ranging from 0.711 for job satisfaction to 0.841 for shift swapping, confirming adequate convergent validity.

Table 2: Discriminant Validity

	Job Satisfaction	**Flexible scheduling**	**Shift Swapping**	**Remote Work**	**Adjustable Break Period**
Job Satisfaction	0.701				
Flexible scheduling	0.634	0.759			
Shift Swapping	0.683	0.686	0.718		
Remote Work	0.703	0.734	0.682	0.824	
Adjustable Break Period	0.624	0.782	0.802	0.747	0.834

Source: SmartPLS Output, 2026

The square root of AVE for job satisfaction (0.773) is greater than the correlation values of flexible scheduling (0.634), shift swapping (0.634), remote work (0.703), and adjustable break period (0.624). And the correlation value for the same construct (0.701) is greater than the correlation value with respect to other latent variables in that order, as shown in the above table 2.

Also, the square root of AVE calculated for flexible scheduling (0.724) is higher than the correlation values of other latent variables (0.686, 0.734, and 0.782), respectively, and the correlation value for the same construct (0.724) is above the correlation value with respect to other latent variables in that order. The square root of AVE for shift swapping (0.841) has a greater value compared to the correlation values of other latent variables (0.682 and 0.802), respectively, and the correlation value for the same construct (0.718) is greater than the correlation value with respect to other latent variables in that order. The square root of AVE for remote work (0.825) is higher than the correlation values of other latent variables (0.703, 0.734, and 0.682), respectively; the bolded diagonal correlation value of the same construct is also greater than the correlation values of other latent variables in that category. In the same dimension, the square roots of AVEs for adjustable break periods (0.856) respectively surpass the correlation values of the other latent variables either when assessed in columns or in rows, as seen above. The same applies to their bolded diagonal correlation values. This outcome indicated that discriminant validity is well established between the variables used.

Table 3: Inner VIF Values

	VIF
Flexible scheduling →Job satisfaction	1.754
Shift Swapping →Job satisfaction	1.689
Remote Work →Job satisfaction	1.627
Adjustable Break Period →Job satisfaction	1.725

Source: SmartPLS Output, 2026

Table 3 presents a multicollinearity assessment of the variables. This test is essential to determine whether the variables in the model are highly correlated, which could affect the accuracy and interpretation of the regression results. Multicollinearity is considered problematic when VIF scores exceed 5 or 10, depending on the threshold adopted. Table 3 shows that all the independent variables—flexible scheduling, shift swapping, remote work, and adjustable break period—have scores extending from 1.627 to 1.754. This means that each independent variable provides unique information in explaining job satisfaction and that their effects are not redundant.

Table 4: Coefficient of Determination Score

	R-square	**R-square adjusted**
Job Satisfaction	0.605	0.602

Source: SmartPLS Output, 2026

The R-square value of 0.605 indicates that approximately 60.5 per cent of the variance in job satisfaction can be explained by the independent variables flexible scheduling, shift swapping, remote work, and adjustable break period, as shown in table 4 above. This shows that flexible work arrangements display a significant role in influencing employee job satisfaction. Adjusted R-square value of 0.602, which slightly adjusts for the number of predictors in the model, also confirms the model's reliability and goodness-of-fit. The minimal variance between the R-square and adjusted R-square further validates that the model is not overfitted. Hence, the result provided strong evidence in

contradiction of the null hypothesis, implying that work arrangement flexibility does have a significant effect on job satisfaction.

Table 5: Effect Size (f^2)

	f-square
Flexible scheduling →Job satisfaction	0.114
Shift Swapping →Job satisfaction	0.433
Remote Work →Job satisfaction	0.478
Adjustable Break Period →Job satisfaction	0.243

Source: SmartPLS Output, 2026

The effect size assessment (f^2) measures the individual contribution of each independent variable to the variance explained in the dependent variable, job satisfaction. According to Cohen's guidelines, an f^2 value of 0.02 is considered small, 0.15 is medium, and 0.35 or above is large. The results show that remote work has the highest effect size at 0.478, indicating a large and substantial impact on job satisfaction. Shift swapping also has a strong effect value of 0.433, similarly falling within the large effect category. The adjustable break period has a medium effect size of 0.243, suggesting a moderate influence on job satisfaction. Flexible scheduling, with an effect value of 0.114, cascaded slightly below the medium threshold but still indicates a meaningful, small-to-moderate contribution. Overall, these results suggest that all four components of flexible work arrangements positively influence job satisfaction, with remote work and shift swapping having the most significant effects.

Table 6: Path Coefficient for Structural Model Bootstrapping Results

	Original sample (O)	**Sample mean (M)**	**Standard deviation (STDEV)**	**T statistics (|O/STDEV|)**	**P-values**
Flexible scheduling →Job satisfaction	0.202	0.204	0.066	3.061	**0.002**
Shift Swapping →Job satisfaction	0.132	0.134	0.047	2.809	**0.005**
Remote Work →Job satisfaction	0.147	0.145	0.058	2.534	**0.012**
Adjustable Break Period →Job satisfaction	0.226	0.223	0.064	3.531	**0.000**

Source: SmartPLS Output, 2026

The bootstrapping results of the structural model explained the path coefficient for flexible scheduling to job satisfaction as 0.202, a t-statistic of 3.061, and a p-value of 0.002. Since the p-value is less than 0.05, the relationship is statistically significant, indicating that flexible scheduling positively affects job satisfaction. Shift swapping showed a path coefficient of 0.132, a t-statistic of 2.809, and a p-value of 0.005. This also indicates a significant effect, suggesting that shift-swapping practices contribute meaningfully to job satisfaction. Remote work scored a coefficient of 0.147 and a t-statistic of 2.534 but had a p-value of 0.012, which is above the threshold of 0.05, showing a negative relationship with job satisfaction, though comparatively weaker. The adjustable break period exhibits the strongest effect coefficient, showing 0.226, a t-statistic of 3.531, and a p-value of 0.000, indicating a highly significant and positive influence on job satisfaction. Therefore, all components of flexible work arrangements pointedly assist job satisfaction in Nigeria Bottling Company PLC.

4.2. Hypothesis 2

Career development opportunities and quality of outputs in the Nigeria Bottling Company Plc path model were illustrated above in Figure 2. This model was used to evaluate how key proxies such as in-house training, mentoring programs, constant upscaling, and a clear promotion pathway influence the quality of employee outputs. These variables collectively represent the organization's investment in employee growth and long-term development. The assessment assisted in establishing the reliability and validity of the indicators used. By analyzing this relationship, the study aims to determine whether structured career development initiatives contribute to improved performance, reduced errors, and better adherence to quality standards within the company, ultimately strengthening overall productivity and competitiveness.

Construct reliability and validity results in Table 7 show that the constructs used in measuring career development

opportunities and quality of output demonstrate acceptable levels of their consistency and convergent validity with a value of Cronbach's alpha within 0.636 to 0.878. Although the alpha value for in-house training (0.636) is slightly below the conventional threshold of 0.70, it is still acceptable in exploratory research. Other constructs such as mentoring program (0.724), constant upscaling (0.690), and promotion pathway (0.878) indicate strong reliability. Reliability values of the composite (rho_c) vary from 0.810 to 0.895, all above the 0.70 threshold, suggesting good internal consistency. AVE scores for all constructs exceed 0.50, varying from 0.587 to 0.781, indicating that each construct explains more than half of the variance in its indicators.

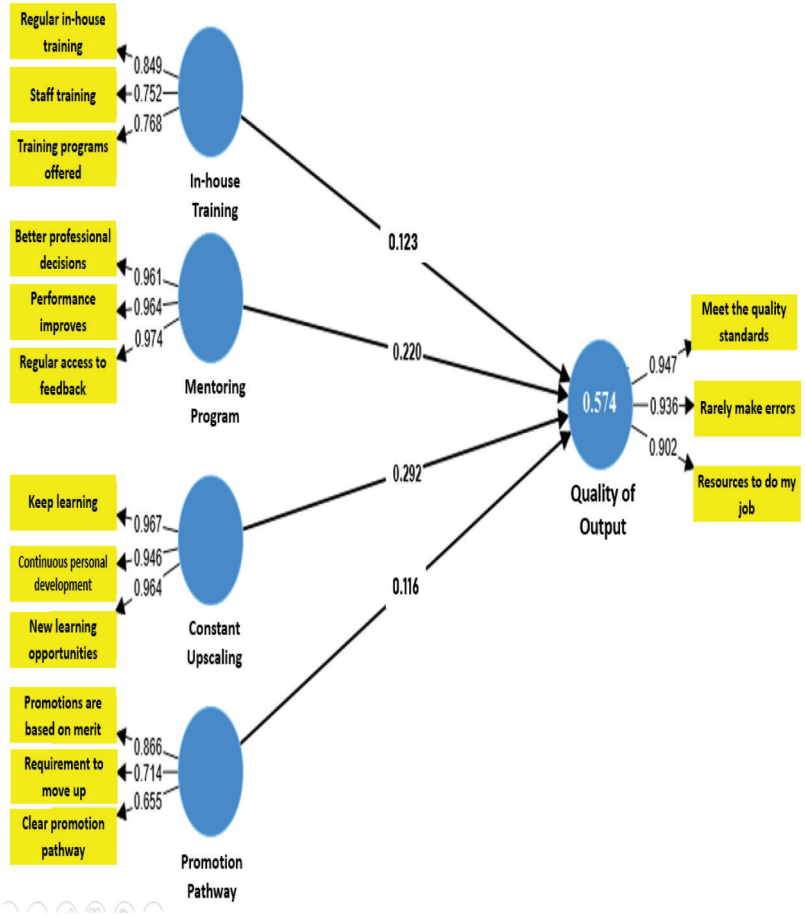


Figure 2: A path model of career development opportunities on the quality of outputs
Source: SmartPLS Output, 2026

Table 7: Construct Reliability and Validity

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Quality of Output	0.858	0.860	0.895	0.855
In-house Training	0.636	0.683	0.842	0.802
Mentoring Program	0.724	0.753	0.877	0.793
Constant Upscaling	0.690	0.777	0.861	0.786
Promotion Pathway	0.878	0.720	0.810	0.758

Source: SmartPLS Output, 2026

Table 8: Discriminant Validity

	Quality of Output	**In-house Training**	**Mentoring Program**	**Constant Upscaling**	**Promotion Pathway**
Quality of Output	0.749				
In-house Training	0.623	0.781			
Mentoring Program	0.684	0.633	0.694		
Constant Upscaling	0.665	0.627	0.686	0.732	
Promotion Pathway	0.713	0.701	0.519	0.694	0.705

Source: SmartPLS Output, 2026

The results presented in Table 8 show the validity of the discriminant of constructs in the model, using the Fornell-Larcker criterion. The construct discriminant validity is established using the square root of the average variance extracted as displayed in the last column of table 7. In this case, the square root of AVE for quality of output (0.855) is greater than the correlation values of in-house training (0.623), mentoring program (0.684), constant upscaling (0.665), and promotion pathway (0.713). And the correlation value for the same construct (0.713) is above the correlation value with respect to other latent variables in that order.

Also, the square root of AVE gotten for in-house training (0.802) is higher than the correlation values of other latent variables (0.634, 0.627, and 0.701), respectively, and the correlation value for the same construct (0.781) is above the correlation value with respect to other latent variables in that order. The square root of AVE for the mentoring program (0.793) surpasses the correlation values of other latent variables (0.684 and 0.633). Respectively, the correlation value for the same construct (0.781) is above the correlation value with respect to other latent variables in that order. The square root of AVE for constant upscaling (0.786) goes beyond the correlation values of other latent variables (0.665, 0.627, and 0.686), respectively; the bolded diagonal correlation value of the same construct is also greater than the correlation values of other latent variables in that category. In the same dimension, the square roots of AVEs for the promotion pathway (0.758) surpass the correlation values of other latent variables (0.713, 0.701, 0.519, and 0.694), respectively. The bolded diagonal points of the same construct are also greater than the correlation values of other latent variables in that category, and the correlation value for the same construct is 0.705.

Table 9: Inner VIF Values

	VIF
In-house Training → Quality of output	1.635
Mentoring Program → Quality of output	1.236
Constant Upscaling → Quality of output	1.596
Promotion Pathway → Quality of output	1.643

Source: SmartPLS Output, 2026

The results presented in Table 9 show VIF values are below the commonly accepted threshold of 5, indicating that multicollinearity is not a concern. Specifically, the VIF for in-house training is 1.635, the mentoring program is 1.236, constant upscaling is 1.596, and the promotion pathway is 1.643. These values suggest all independent variables contribute uniquely to explaining the quality of output and are not excessively correlated with the others. Therefore, the data meets the assumption of low multicollinearity, and the independent variables can be reliably used to assess their individual effects on the quality of output in the Nigeria Bottling Company Plc.

Table 10: Coefficient of Determination Score

	R-square	**R-square adjusted**
Quality of Output	0.574	0.570

Source: SmartPLS Output, 2026

The coefficient of determination describes the extent to which the independent variables account for the variance in the dependent variable. The explained R-square value is 0.574, meaning that approximately 57.4 percent of the variation in quality of output can be explained by the

combined effect of in-house training, mentoring program, constant upscaling, and promotion pathway. And, adjusted R-square is 0.570, which accounts for the number of predictors in the model and provides a more accurate estimate of the explanatory power. This implies that the model has a moderately strong illustrative authority and that career development opportunities significantly influence the quality of outputs in Nigeria Bottling Company Plc. Hence, the predictors provide a meaningful contribution to understanding changes in quality of output among the employees.

Table 11: Assessment of the Effect Size (f^2)

	f-square
In-house Training → Quality of output	0.229
Mentoring Program → Quality of output	0.323
Constant Upscaling → Quality of output	0.225
Promotion Pathway → Quality of output	0.311

Source: SmartPLS Output, 2026

Table 11 shows the effect size (f-square) values, which measure the individual input of all independent variables to the dependent variable. According to Cohen's guidelines, an effect size of 0.02 is considered small, 0.15 is medium, and 0.35 is large. Meanwhile, the f-square value for in-house training is 0.229, indicating a moderate effect on the quality of output. The mentoring program inputted a substantial effect size of 0.323, which is approaching a large effect, showing it plays a significant role in influencing the quality of output. Constant upscaling has a moderate effect size of 0.225, while the promotion pathway shows a relatively strong influence with an effect size of 0.311, also nearing a large effect. These results suggest that all four components of career development opportunities positively impact the quality of outputs, with mentoring and promotion pathways contributing more substantially to the improvements in output.

Table 12: Results Showing Path Coefficient for Structural Model Bootstrapping

	Original sample (O)	**Sample mean (M)**	**Standard deviation (STDEV)**	**T statistics (|O/STDEV|)**	**P values**
In-house Training → Quality of output	0.123	0.123	0.045	2.733	0.006
Mentoring Program → Quality of output	0.220	0.220	0.052	4.231	0.000
Constant Upscaling → Quality of output	0.292	0.292	0.060	4.867	0.000
Promotion Pathway→ Quality of output	0.116	0.116	0.041	2.829	0.004

Source: SmartPLS Output, 2026

The results presented in Table 12 show the bootstrapping analysis of the path coefficients for the structural model by examining the relationships between the various training and development practices and the quality of output. The path from in-house training to quality of output has a coefficient of 0.123, a t-statistic of 2.733, and a negative p-value of 0.006, which is greater than the 0.05 p-value threshold. This indicates a negative effect and relationship between in-house training and quality of output. Similarly, the mentoring program to quality of output shows a stronger positive effect with a coefficient value of 0.220, a t-statistic of 4.231, and a p-value of 0.000. This implies a highly significant influence, highlighting the effectiveness of mentorship in improving performance. Constant upscaling shows the highest coefficient of path, 0.292, with a t-statistic of 4.867 and a p-value of 0.000, confirming a very strong and significant effect on the quality of output. The promotion pathway also exhibits a significant relationship with a coefficient of 0.116, a t-statistic of 2.829, and a p-value of 0.004, indicating that clear advancement opportunities positively influence performance outcomes. All three variables, the Mentoring Program, Constant Upscaling, and Promotion Pathway, have a strong statistically significant and positive effect on the quality of output at a 5 percent level of significance except for in-house training.

5. Discussion

The findings revealed that flexible work arrangements significantly and positively influence employee job satisfaction. Explicitly, mentoring programs, constant upskilling, and promotion pathways significantly aid employee satisfaction, while in-house training was not statistically significant. This result suggests that employees' satisfaction is influenced not only by the availability of development programs but also by whether such programs provide meaningful career direction, recognition, and opportunities for future advancement. The significant relationship between mentoring programs and job satisfaction designated that employees value continuous guidance, feedback, and professional support from experienced colleagues and supervisors. Mentorship creates a sense of belonging and recognition because employees perceive that the organization is interested in their personal

and professional growth. This finding agrees with Çivilidağ and Durmaz (2026), who emphasized that organizational support practices strengthen employee satisfaction by creating positive workplace experiences and improving employees' perception of organizational value. Similarly, the significant effect of constant upskilling suggests that employees derive satisfaction from opportunities that improve their competence and prepare them for future workplace demands. In the Food, Beverage, and Tobacco Manufacturing Sub-Sector, technological advancement, changing production processes, and increasing quality expectations require employees to continuously improve their knowledge and skills. The significant influence of promotion pathways also demonstrates that career visibility remains an important source of employee satisfaction. This finding supports the human resource management argument that career progression enhances employee motivation by linking individual aspirations with organizational objectives. However, the insignificant effect of in-house training presents an interesting finding. Although training is commonly expected to improve employee satisfaction, the result suggests that internally organized training programs may not automatically create positive employee perceptions. Employees may consider such programs less valuable when they are not linked to career advancement, certification, recognition, or practical improvements in their work roles. This finding provides a useful refinement to previous studies by suggesting that the effectiveness of training depends not only on its availability but also on its perceived relevance and impact on employee career growth. Therefore, the study backs on existing literature by demonstrating that flexible work arrangements influence job satisfaction more strongly when they are supported by developmental practices such as mentoring, continuous learning, and transparent promotion systems. For manufacturing organizations, improving employee satisfaction requires a strategic combination of flexibility and career-oriented support rather than isolated workplace interventions.

Career development opportunities positively influenced the quality of output among employees in Nigeria's food, beverage, and tobacco manufacturing sub-sector. Unambiguously, flexible scheduling, shift swapping, and adjustable break periods were found to have significant contributions to output quality, whereas remote work did not demonstrate a significant influence. This finding suggests that career development opportunities should not be interpreted narrowly as only formal training, promotion, or skill acquisition programs; rather, they also include organizational practices that create favorable conditions for employees to apply their knowledge, maintain concentration, and perform their duties effectively. The significant effect of flexible scheduling indicates that when employees have some control over their work schedules, they are more likely to manage work demands effectively and maintain the level of attention required for quality production. In manufacturing environments where employees are often exposed to repetitive tasks, production pressure, and strict quality standards, excessive fatigue and work-related stress may increase the likelihood of errors and reduce output consistency. Therefore, flexible scheduling provides employees with the opportunity to perform their responsibilities under improved psychological and physical conditions, which ultimately enhances product quality. The present study extends these arguments by demonstrating that supportive work arrangements associated with career development can translate into tangible organizational outcomes, particularly quality of output. The significant influence of shift swapping further highlights the importance of employee flexibility within manufacturing operations. Unlike service industries, where tasks may be performed independently, manufacturing activities often require physical presence, teamwork, and coordination among employees. Allowing employees to exchange shifts when necessary may reduce absenteeism, improve work commitment, and ensure that production responsibilities are performed by employees who are mentally prepared and physically available. Çivilidağ and Durmaz's (2026) findings described that workplace flexibility enhances employee commitment and reduces work-related conflict. However, the insignificant influence of remote work on quality of output provides an important contextual contribution. While remote work has been widely associated with improved productivity in knowledge-intensive sectors, its relevance may be limited in manufacturing settings where employees are directly involved in production processes, equipment operation, quality monitoring, and physical workflow activities. As a result, the findings imply that manufacturing organizations seeking to improve output quality should prioritize practical flexibility mechanisms such as shift adjustment and employee-centered scheduling rather than adopting flexibility practices without considering operational realities. The study therefore provides sector-specific evidence that employee support practices can serve as strategic mechanisms for improving production quality and organizational effectiveness.

6. Implications of the Study

6.1. Theoretical Implications

From the perspective of JD-R Theory, the findings reinforce the argument that WLB practices function as essential job resources that enable employees to manage workplace demands, reduce psychological strain, and sustain positive

work behaviors. Recent studies continue to affirm that an equilibrium between job demands and available resources influences employee well-being, engagement, and performance, particularly within changing work environments characterized by flexibility, digital transformation, and evolving job structures. Similarly, the findings align with Social Exchange Theory by demonstrating that organizational support through work-life balance initiatives creates a sense of obligation among employees, encouraging reciprocal behaviors such as commitment, dedication, and improved performance. Recent research emphasizes that supportive organizational practices, including flexibility and employee-centered policies, strengthen positive employee outcomes and contribute to organizational effectiveness. Therefore, this study contributes theoretically by integrating both perspectives to explain that organizational performance is influenced not only by employees' ability to meet job demands but also by the quality of resources and supportive exchanges provided by the organization. The study further advances JD-R Theory and Social Exchange Theory by demonstrating their relevance in contemporary workplace contexts where WLB has become a strategic mechanism for improving productivity, service quality, responsiveness, and adaptability.

6.2. Practical Implications

In the food, beverage, and tobacco manufacturing sub-sector, managers should recognize that improving organizational performance requires more than investment in technology and production systems; it also requires creating work environments that enable employees to perform effectively. The significant influence of flexible scheduling, shift swapping, and adjustable break periods on quality of output suggests that manufacturing firms can improve productivity and product quality by introducing employee-friendly scheduling systems without compromising operational efficiency. Such practices can reduce work pressure, improve concentration, and enhance employees' commitment to maintaining production standards.

Furthermore, the study highlights the importance of structured career development systems. Organizations should strengthen mentoring programs, continuous upskilling initiatives, and transparent promotion pathways because employees demonstrated higher levels of commitment and satisfaction when they perceived opportunities for professional growth. However, the insignificant effect of some practices, such as remote work and in-house training, suggests that organizations should avoid adopting workplace practices without considering their relevance to the nature of manufacturing operations. Instead, human resource strategies should be designed based on job characteristics, operational requirements, and employee expectations.

At the policy level, the findings provide useful insights for industry stakeholders to support organizational competitiveness. Manufacturing organizations should develop balanced employment policies that incorporate flexibility, career advancement, and employee support mechanisms as part of their broader performance improvement strategies.

7. Limitations and Future Scope

Several limitations were acknowledged. First, the focus on the Nigerian food, beverage, and tobacco industry confined the scope of the findings to other sectors or regions. Second, the cross-sectional research design restricts the ability to establish causal relationships or examine fluctuations in WLB and organizational performance over time. Third, data reported independently from employees may lead to response bias or social desirability effects, potentially affecting the correctness of the reported outcomes. Finally, the study did not examine potential moderating factors such as leadership style, organizational culture, or digital readiness, which may also influence associations between work-life balance and organizational performance.

Future research could address these limitations in several ways. Replicating the study in different industries or countries would boost the holiness of the findings. Longitudinal studies are recommended to explore the dynamic and causal impacts of WLB on organizational outcomes over time. Moreover, employing mixed-method approaches that combine quantitative surveys with qualitative interviews could provide richer insights into employee experiences and contextual factors. Future studies may also investigate other intermediaries such as employee engagement and motivation and supportive variables such as leadership support and technological adoption to better understand the mechanisms underlying the observed relationships.

In addressing these impediments and exploring the proposed directions, future research can produce more comprehensive, generalizable, and actionable insights, ultimately supporting better policy and management decisions in organizations.

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Authorship Contribution

The contributions of the authors to this study are stated as follows:

Jimoh Rafiu Amosa: Conceptualization, development of the research framework, formulation of research objectives,

literature review, methodological design, data analysis and interpretation of findings, manuscript preparation, and critical revision of the final manuscript.

Toheeb Kunle Pelowo: Conceptualization support, data collection and management, validation of research instruments, assistance with data analysis, review of findings, and revision of the manuscript for intellectual content.

Conflict of Interest

The authors declare that there is no conflict of interest regarding the research, authorship, or publication of this study.

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Ethical Declaration

Ethical approval and necessary permissions were obtained before data collection. Participation was voluntary, and respondents provided informed consent before taking part in the study. Their identities were kept confidential, and the information collected was used strictly for academic purposes. The researchers ensured that participants were not subjected to any form of pressure or harm throughout the research process.

Human and Animal Rights

This study involved human participants only and did not involve any animals. All procedures were conducted in line with ethical research standards. Participants' rights, privacy, and confidentiality were fully respected throughout the study, and participation was based on voluntary informed consent.

Data Availability Statement

The data used for this study are available from the corresponding author upon reasonable request. The data will be provided for academic purposes while ensuring that the confidentiality and privacy of the respondents are maintained.

Figure Permission

The figures presented in this manuscript were developed by the authors based on the researchers' own computation and analysis of the study data. Therefore, no external permission was required for their use. The authors retain full responsibility for the accuracy, interpretation, and presentation of the figures.

AI Disclosure Statement

In line with the journal's AI policy, the authors disclose the use of artificial intelligence-assisted tools during the preparation of this manuscript. The AI tool used was ChatGPT. The tool was used to support the lucidity, coherence, organisation, and presentation of the manuscript while maintaining full responsibility for the originality, correctness, explanation, and final content of the study.

The authors affirm that the AI tool was not used to substitute scholarly judgement, generate unsupported research claims, fabricate data, or determine the conclusions of the study. All AI-assisted outputs were critically reviewed, verified, and edited by the authors, who remain fully responsible for the integrity and accuracy of the manuscript.

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