

# Relationships between self-efficacy, autonomy, employee engagement, and performance in Nigerian public sector organizations

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## Abstract

**Purpose:** This research studies the how self-efficacy, autonomy, employee performance (EP) and employee engagement (EE) interacts and relates, in the public sector organizations in Nigeria, investigating their significance and impact on the outcomes of the organizational.

**Design/methodology/approach:** This research is quantitative in nature. Data was obtained via a cross-sectional survey of 301 employees from 10 federal public sector organizations in Nigeria. The data retrieved was evaluated using partial least squares structural equation modelling (PLS-SEM).

**Findings:** A significantly positive relationship was achieved between self-efficacy, autonomy, and EP. Higher self-efficacy is associated with improved performance outcomes, and greater autonomy leads to higher performance levels. Moreover, both self-efficacy and autonomy positively affect employee engagement, with individuals who believe in their capabilities and have work autonomy reporting higher engagement levels. EE acts as partial mediator, linking self-efficacy, autonomy, and EP.

**Research limitation/implications:** These findings have important consequences for policymakers, human resource managers, and organizational leaders in the Nigerian public sector organizations. Strategies and policies can be developed to enhance self-efficacy, autonomy, and EE, resulting in improved EP and organizational outcomes.

**Originality/value:** This research added to current literature on EE and EP by offering empirical evidence on the position of autonomy and self-efficacy in explaining the impact of EE on EP.

**Keywords:** Self-efficacy, Autonomy, Employee engagement, Performance, Nigerian public sector organizations

## Introduction

EP is a pertinent when determining the progress and success of any organization or business (Abdullah & Abdullah, 2020). Numerous research has emphasized on the significance of EE in enhancing productiveness of workers (Abdullah et al., 2023; Gasela, 2022). However, a

dearth exist in academic investigations studying the combined role of self-efficacy and autonomy in improving EE and, ultimately worker's performance in public sector organizations, particularly in Nigeria (Abdullah & Abdullah, 2020).

The public sector is a vital part of the Nigerian economy and plays a significant responsibility towards the nation's development (Onah et al., 2022). Public sector organizations in Nigeria are responsible for providing essential services to citizens, such as healthcare, education, transportation, and security. However, these organizations have faced several challenges that have affected their performance and ability to deliver services effectively (Abdullah et al., 2023; Oyedele & Aluko, 2018; Simba et al., 2022). Among the significant problems confronting public sector organizations in Nigeria is bureaucracy (Onah et al., 2022). The bureaucratic process and procedures often lead to delays and inefficiencies in service delivery, which have increasingly affected the performance of the organization (Abdullah et al., 2023). Additionally, the issue of corruption pose a significant challenge that affects the public sector in Nigeria (Abu & Staniewski, 2021). Corruption could result to limited transparency, mismanagement of resources, and a decline in public trust in the government. Inadequate resources are also a significant challenge faced by public sector organizations in Nigeria (Idigo, 2023). The limited availability of resources, including funding, infrastructure, and personnel, can affect the performance of these organizations (Abdullah & Abdullah, 2020). This limitation can result in inadequate service delivery, which can negatively impact the lives of citizens.

EP contributes significantly to the growth, success, and development of an existing public organization (Tensay & Singh, 2020). The kind of effort that employees brings to work can directly affect service quality and efficiency of the organization (Brunetto et al., 2020). A well-performing employee can improve service delivery, reduce delays, and enhance the effectiveness of the organization. In contrast, a poorly performing employee can lead to service delivery inefficiencies and undermine the organization's effectiveness (Mhlanga et al., 2019). Consequently, given the pertinence of EP in public sector organizations in Nigeria, it is pertinent that all factors that could improve EP are investigated. The current academic investigation seeks to examine the function of self-efficacy and autonomy in improving EP and their EE in Nigeria public sector organizations.

EE is an important issue that influences EP in any organization (Katou et al., 2021), including public sector organizations in Nigeria. EE is generally observed as a psychological state in which employees displays cognitive and emotional connections to their task accomplishment and organization, leading to better performance and productivity (Alsafadi & Altahat, 2021; Cooper-Thomas et al., 2018). When individuals are engaged in their jobs, they are more committed to completing task effectively and efficiently, have a positive attitude, and usually show the willingness in bringing extra effort to their jobs for the realization of organizational goals and objectives. Several factors can influence EE, including job challenge, social support, reward and recognition, self-efficacy and autonomy (Abdullah & Abdullah, 2020). These factors can generate both positive or negative effects on employee engagement, and understanding their role is essential for improving EP. While there are some investigations on the factors that increase EE in public sector organizations, including Nigeria, only limited research are found discussing the role of self-efficacy and autonomy in enhancing EE and EP (Ikhida et al., 2022). Self-efficacy expresses how certain and confidence a worker is towards showing their proficiency to accomplish any given task or role, while autonomy refers to an employee's freedom and control over their work and how they fulfil it (Azim & Halawani, 2020). Both factors are crucial for enhancing EE and improving EP in Nigeria public sector organizations.

Self-efficacy is critical in determining an employee's ability to perform specific tasks and achieve goals successfully within a given time (Azim & Halawani, 2020). An employee with

high self-efficacy usually exudes higher motivation and commitment towards task completion because of the confidence they have in their capacity to do so, leading to improved task performance. On the hand, granting employees the freedom and independence to decide how they perform their tasks and fulfil their responsibilities can increase their job satisfaction and motivation, which can ultimately lead to better performance (Rich et al., 2010; Tensay & Singh, 2020).

However, the current knowledge and awareness on the connection between self-efficacy, autonomy, and EP in the Nigerian public sector is limited (Abdullah & Abdullah, 2020). Previous studies have focused on other factors such as job challenge (Toyama et al., 2022), social support, (Wu et al., 2022), reward and recognition (Baqir et al., 2020), among others. However, the role of self-efficacy and autonomy has been relatively neglected, hence, this investigation seeks to complete this dearth by exploring the effects of self-efficacy and autonomy on performance of employee and their engagement level in the Nigerian public sector organizations. Moreover, by investigating the linkages between self-efficacy, autonomy, EP and engagement, this research seeks to contribute to the development of effective strategies and policies that can improve performance and effectiveness of public sector organizations in Nigeria. Additionally, EE is chosen as a mediator in this study due to its critical role in increasing the connection between the endogenous variable (EP) and the exogenous variables (self-efficacy and autonomy). Engaged employees are more driven psychologically, more productive, and committed, directly influencing performance outcomes (Akingbola & van den Berg, 2019; Rich et al., 2010; Saks, 2006). By using EE as the mediating variable, the research seeks to understand how organizational practices lead to improved EP within the Nigerian public sector organizations.

Moreover, the research framework and theoretical foundations, such as the SET and JD-R Model, support this choice. These theories suggest that increased engagement, when employees feel valued and supported, leads to higher performance. This theoretical underpinning highlights the importance of fostering engagement to achieve organizational goals within the Nigerian public sector. Furthermore, previous studies have consistently shown that EE effectively mediates the influence of various antecedents on performance (Saks, 2006, 2019). Consequently, in the context of the Nigerian public sector, where issues like low morale are common, enhancing engagement is key to improving performance. Thus, this study's approach aligns with existing research and addresses specific challenges in the Nigerian public sector, providing valuable insights for policymakers and leaders.

### ***Significance of the Study***

The Current investigation aims to add to the development of strategies as well as policies that can improve the performance and effectiveness of organizations within the Nigerian public sector by investigating the role of self-efficacy and autonomy in enhancing EP and engagement. The findings of this research will bring of immense benefit to policymakers, human resource managers, and scholars in the field of public administration by providing insights into factors that can enhance EP and engagement in public sector organizations.

### ***Research Questions***

- How does self-efficacy influence EP in Nigerian public sector organizations?
- What is the impact of autonomy on EP in the context of Nigerian public sector organizations?
- How do self-efficacy and autonomy collectively contribute to EE in Nigerian public sector organizations?

- Does EE mediate the relationship between self-efficacy, autonomy, and EP within the Nigerian public sector organizations?

### ***Research Objectives***

- To investigate the relationship between self-efficacy and EP in Nigerian public sector organizations.
- To examine the relationship between autonomy and EP in Nigerian public sector organizations.
- To explore the impact of self-efficacy and autonomy on EE in Nigerian public sector organizations.
- To determine the mediating effect of EE on the connection existing between self-efficacy, autonomy, and EP in Nigerian public sector organizations.

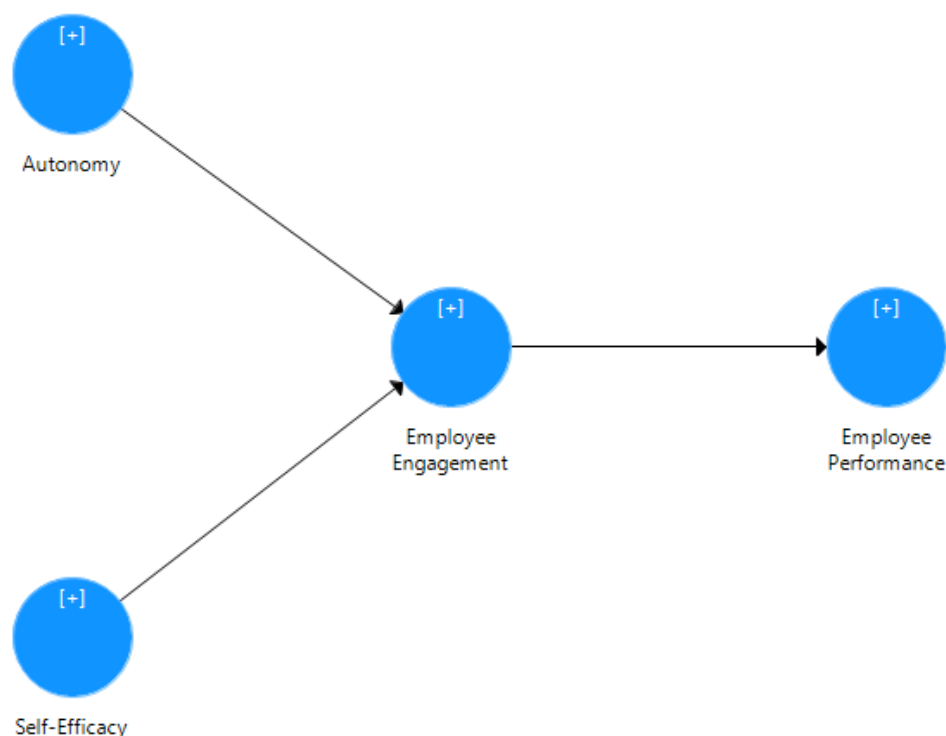


Figure 1. Research model. Source: Researcher's analysis.

## **Literature Review**

### ***Theoretical background and Hypothesis Development***

The public sector in any nation brings a pertinent contribution to the economic growth, development, and sustainability of the country, and EP is one of the factors that are pertinent for determining the success of public sector businesses. Hence, this literature review seeks to explore the determinants of EP in public sector organization, with a focus on how influential self-efficacy and autonomy are, as well as how EE serves in the mediation responsibility.

EP is an essential aspect of organizational success, and it has been the subject of numerous studies in organizational behaviour and management. Alsafadi and Altahat (2021) express EP as the degree to which individuals accomplish the tasks assigned to them by their organizations. In other words, it refers to how well an employee performs his or her duties and responsibilities efficiently and effectively. The determinants of EP are essential factors that affect the success or failure of an organization.

According to Ikhida et al. (2022) factors that influence EP can be broadly categorized in two classifications: organizational factors and individual factors. Organizational factors refer to the environmental and contextual aspects of an organization that can impact EP. These factors include work environment, organizational culture, leadership, reward systems, and training and development opportunities (Ikhida et al. 2022). Earlier studies have proven that a positive work environment and a supportive organizational culture can improve EP and productivity (Brunetto et al., 2020). Effective leadership, clear communication, and opportunities for career development are also essential factors that can enhance EP. Furthermore, the reward system and recognition policies of an organization can significantly affect EP by motivating and incentivizing employees to perform better (Almotawa & Shaari, 2020).

Individual factors that influence EP include job satisfaction, motivation, and individual characteristics such as personality traits (Mhlanga et al., 2019). Job satisfaction translates to be the level of contentment individuals feel about their jobs and is related positively to EP (Jacob Olufemi et al., 2020). Motivation is the internal drive that compels an individual to behave or act in a particular order. A motivated employee would more likely perform better than an unmotivated one (Akingbola & van den Berg, 2019). Lastly, individual characteristics such as personality traits have also been found to affect EP. For instance, employees who possess an attitude that is positive and whose emotions are stable would bring in high performance (Alamina et al., 2020; Crawford et al., 2010).

Overall, understanding the determinants of EP is fundamental for businesses seeking to improve their performance. By focusing on both organizational and individual factors, organizations can develop strategies and policies that create a positive work environment, promote job satisfaction and motivation, and identify individuals who are well-suited to certain types of jobs. Figure 1 portrayed the relationship between the variables while in the following subsections, further explanation is provided.

Blau (1964) social exchange theory (SET) can be used to establish the relationship involving allowing employees to have autonomy and engaging their self-efficacy with improving their performance. SET is founded and reliant on the principle of mutual benefit (reciprocation) which recommends that the action of a response from an individual is subject to or dependent on what the other party is offering. Subject to this point of theoretical perspective, autonomy can be positively linked to EE and encourage self-efficacy for several reasons (Lartey, 2021). For instance, allowing employee autonomy will enable individuals approach their tasks with several creative perspectives which may increase their confidence and self-efficacy. Furthermore, knowing they can approach task with their own discretion without the fear of punishment if failure is recorded will ultimately increase EE. Self-efficacy will happen when the level of confidence an individual possesses is constant and reliable (Hans & Gupta, 2018). When employees perceived that they could carry out assignments with little or no restriction from superiors or the organization, they will ultimately reciprocate with creative and innovative behaviours towards task completion and attendance (Lartey, 2021).

### ***Relationship between autonomy and EE***

Autonomy can be said to be the amount of freedom, discretion, and independence, accorded or allowed to individual or workers in scheduling and designing their work and have adequate control in the processes and procedures they use to achieve their work (Hackman & Oldham, 1975). Autonomy is a fundamental aspect of the job context that can significantly influence EE and EP. The degree of autonomy an employee has over their work is determined by the level of independence and control they have over their tasks, responsibilities, and decision-making processes (Albrecht et al., 2021). Studies have shown that employees who have greater autonomy as to how they prefer to accomplish given tasks would more probably experience



greater motivation, job satisfaction, which will translate to higher performance (Allison et al., 2018; Hussein, 2018; Nguyen & Pham, 2020). This is because autonomy gives the freedom to decide and take ownership of work activity to the employees, leading to more innovative solutions to problems and a better sense of being responsible and accountable. Autonomy has been a regularly researched construct within the EE studies as one of the pertinent antecedents (Albrecht et al., 2021; Hans & Gupta, 2018; Isaiah Clement & Eketu, 2019; Karkkola et al., 2019). Autonomy intensifies the significance of work because it affords a perception of control and ownership over the consequences of work (Hackman & Oldham, 1980; Kahn, 1990).

The study conducted by Hackman and Oldham (1975) suggests that autonomy is a critical aspect of job design that can significantly impact EE, motivation, and EP. According to their research, job characteristics, such as autonomy, directly impact employee satisfaction and motivation, which translates to influencing engagement and job performance positively. Additionally, the investigation conducted by Kidane and Xuefeng (2021) observed that autonomy had a positive impact on EE and EP, and job satisfaction in a range of different work settings. Another study conducted by Lartey (2021) also found autonomy to be linked with improved levels of job satisfaction and increased employee commitment to their organization. Similarly, research by Clement and Eketu (2019) suggests that autonomy can translate to increased levels of job satisfaction, creativity, and innovation. Overall, these findings imply that autonomy is an essential basis of EE and performance and can significantly impact an organization's effectiveness and productivity.

Furthermore, research has also shown that the connection between autonomy and EP is moderated by various factors, such as how complex is the task, how much support is offered by the supervisors, and how experienced the employee is to be able to handle the task (Allison et al., 2018; Hans & Gupta, 2018; Clement & Eketu, 2019; Karkkola et al., 2019). For instance, employees who are highly experienced will highly be more engaged at work and perform well when given greater autonomy compared to employees with less experience. Additionally, the level of support from supervisors can also be of high pertinence in determining the extent to which autonomy influences EE. When supervisors provide clear guidelines and support for autonomous decision-making, employees would be happy to feel engaged and perform well (Karkkola et al., 2019). Conversely, inadequate support from supervisors can result in employees feeling overwhelmed and uncertain, this would result in a negative response to their performance at work. Therefore, employee's autonomy is critical to their level of engagement and performance at their job and this needs to be taken into awareness by organizations' management. Thus, we hypothesised that:

*H1: Autonomy is positively related to EE.*

### ***Relationship between self-efficacy and EE***

Self-efficacy refers to how an individual feels they are capable and available to engage in performing their job assignments at a time. The higher the perception of an individual's self-efficacy, the higher they tend to perform (Lyons & Bandura, 2019). Self-efficacy has been found to be a critical determinant of EE and EP in various organizational settings. Research has shown that workers having high self-efficacy are found to set higher goals for themselves, bring in more effort in completing their tasks, and maintain greater persistence in the face of challenges than those with low self-efficacy (Abdullah et al., 2023; Lianto et al., 2018). Furthermore, employees possessing greater self-efficacy are more likely to cope effectively with job-related stress and are less likely to experience burnout (Azim & Halawani, 2020). Furthermore, it is also believed that self-efficacy is a significant factor in shaping an individual's career choices and aspirations. Individuals with high self-efficacy tend to pursue challenging career paths and are more likely to take on leadership roles than those with low

self-efficacy (Lyons & Bandura, 2019). Therefore, it is essential for organizations to consider employees' self-efficacy beliefs when designing their recruitment and career development programs. Additionally, studies have elucidated that interventions aimed at enhancing employees' self-efficacy can lead to significant improvements in their EP. For instance, training programs that focus on building employees' self-efficacy beliefs have been found to increase their job-related capacities and know-how, and positively influenced EE and EP (Latham, 1988). Additionally, providing employees with feedback on their performance can help to reinforce their self-efficacy beliefs, leading to risen degrees of motivation and job satisfaction (Lyons & Bandura, 2019).

Furthermore, Fulaedzah et al. (2022) assert that self-efficacy is a better driver of EE than most traditional job attitudes (i.e., organizational commitment and job satisfaction), feedback interventions, personality traits, goal setting, training, and level of education. Self-efficacy increases individual performance, motivation, and cognitive ability because an individual will strive to achieve knowledge and only engage in activities that they are convinced that they process the capacity to perform (Albrecht et al., 2021; Memon et al., 2020). Self-efficacy is a critical determinant of EP in the workplace. Individuals possessing elevated self-efficacy tend to be more motivated, persistent, and resilient in the face of challenges, leading to improved EE and EP. Therefore, organizations should consider interventions aimed at enhancing employees' self-efficacy beliefs as part of their human resource development strategies. Following the discussions above we therefore hypothesize that:

*H2: Self-efficacy is positively related to EE.*

### ***The mediating role of EE between self-efficacy, autonomy, and EP.***

EE is a critical idea that has garnered considerable interest in the organizational literature. It often translated to mean the limit to which individuals are bound to their work and the organization they work for (Kahn, 1990). Individuals who show engagement are emotionally and cognitively bound to their work, leading to better performance and productivity (Assefa & Manjit, 2020). EE is considered a vital factor that influences employee behaviour and organizational outcomes. EE can be risen by several factors, which includes job challenge, social support, reward and recognition, self-efficacy, and autonomy (Lee et al., 2022). Job challenge refers to the degree to which workers feel challenged by their work tasks, and it can impact their level of engagement with their job. Social support, such as support from supervisors and colleagues alike, can also impact EE by establishing a positive job contexts that fosters employee well-being and commitment to the organization (Ruggeri et al., 2020).

Past investigations have proven that EE mediates the relationship between these factors and EP (Abdullah & Abdullah, 2020; Alamina et al., 2020; Katou et al., 2021; Spoor et al., 2022). Individuals who are engaged are easily motivated to perform well and are more likely to continue even when confronted with adversities (Thanh et al., 2022). Therefore, organizations that want to enhance EP and effectiveness should focus on creating an environment that fosters employee engagement. By focusing on, self-efficacy and autonomy, organizations can facilitate a work context that supports EE and, in turn, enhances EP. Moreover, studies have shown that EE is linked positively to organizational commitment, job satisfaction, and overall well-being (Albrecht et al., 2021; Corbera et al., 2020; Rasool et al., 2021; Tensay & Singh, 2020). High levels of EE can create positive work environment, which can promote teamwork, collaboration, and innovation (Nduati. & Wanyoike, 2022). Furthermore, organizations with high degrees of EE would relatively experience lower turnover rates and higher customer satisfaction.

As a mediator, EE can enhance the relationship between individual and organizational factors and EP. For example, a highly engaged employee may feel more confident in their ability to

complete a challenging task (self-efficacy) and may also have greater freedom to use their decision-making skills to find innovative solutions to difficult tasks (autonomy) (Guan & Stephen, 2020; Isaiah Clement & Eketu, 2019). These factors can further higher levels of performance, with EE acting as a mediator in this relationship. Therefore, understanding the role of EE as a mediator in the relationship between self-efficacy, autonomy, and EP can help organizations particularly the public sector, develop strategies to enhance employee engagement, leading to consistent organizational success through better performance. With the foregoing discussions, we proposed that:

*H3a: EE mediates the relationship between autonomy and EP.*

*H3b: EE mediates the relationship between self-efficacy, and EP.*

## Methods

### *Sample and procedures*

The population for this present research is consisting of 10 federal public sector organizations in Nigeria headquartered in Abuja, the federal capital territory of Nigeria. Responses were gathered from administrative officers and executive officers who have been in the public service for more than 5 years indicating that they are already confirmed, and they have the routine knowledge about service provision and task performance of their various ministries, departments, and agencies (MDAs). The sample was randomly chosen from the list of existing public sector organizations in Nigeria. These 10 federal public sector organizations are from various MDAs such as Ministry of Education, Health, Agriculture and Natural Resources, Finance, Works, among others. Those who took part were notified that involving in the current investigation is on voluntary basis, and they can pull out whenever they feel so. Confidentiality and anonymity of the data gathered from participants were closely protected to guarantee sincerity and honesty which encouraged respondents to be comfortable to share information that are sensitive in the questionnaire. Data was gathered in 2022. The minimum sample was derived by calculating it using a predictive power of 0.95 with the G-power software in alignment with the studies of Ahmad et al., (2019) and Nasir et al., (2022). Estimates indicated that, using three predictors at maximum, the suitable sample size was 119 at an effect size of 0.15. 402 questionnaires were given out to all 10 selected federal public sector organizations headquartered in Abuja, with 301 valid questionnaires being returned.

### *Measures*

All constructs used in the study were validated scales that have been used in earlier research. Overall, items were assessed using a seven-point Likert scales which ranges from 1 (Strongly disagree) to 7 (Strongly agree).

EP: Available studies indicates several scales for measuring EP (Hakro et al., 2022; Karoso et al., 2022; Kurniasih et al., 2022). Among the past studies, the 5-items instrument developed by Ramdani et al. (2019) built on the thorough validation process is selected. Following this, the scale was used to measure the 5-item task performance. A sample item of the scale was “I am able to complete the task assigned to me on time”.

EE: To measure EE, we employed the Utrecht Work Engagement Scale UWES 9-item scale by Schaufeli (2012) which is consisting of three dimensions i.e. Vigor, Dedication, and Absorption. Following Kulikowski (2017) suggestion that the reduced version of the UWES is the most widely used, and its valid and reliable while containing higher psychometric characteristics than the more elaborated 17-item version of the scale. A sample of the item of the scale was “When I get up in the morning, I feel like going to work”.



Autonomy: Autonomy was measured using the 5-item adopted measure developed by Morgeson and Humphrey (2006). A sample item used to measure autonomy is “The job allows me to make decision about how to schedule my work”.

Self-efficacy: Self-efficacy was assessed using the 4-item measure adopted from Jones (1986). The 4-item scale was utilized to gauge the employee’s perception of how ready and capable they are in taking up tasks and completing them on time. A sample of the item of the scale was “I am confident that my skill and abilities matches the assignments I am given”.

### ***Assessment of Common Method Variance CMV***

Because of the self-report nature of the measurement instrument utilized, we therefore employed a statistical and procedural remedy to inhibit CMV as suggested by previous studies (Podsakoff et al., 2003). For the procedural remedy, the avoidance of dishonest and artificial response from respondents was ensured through the imposition of anonymity and confidence of the participants in the study. Furthermore, variables used in the research were introduced in a random manner into the survey via the integration of extra constructs which are not originally included in the research. This process generates a psychological split and inhibit respondents from inferring cause-effect connections among the variables used in the research.

As for the statistical methods, the estimation of the existence of CMV in the data was done using two tests. Firstly, Harman’s single factor test was carried out. The results from the test showed the total variance explained by one factor to be 41.50% which was below the threshold limit of 50% therefore suggesting that CMV does not exist in the current investigation. Secondly, a complete collinearity testing which led to the generation of variance inflated factors (VIF) which is totally agreed upon when it comes to PLS-SEM data analysis procedure as suggested by (Kock & Hadaya., 2018). This test point toward the fact that VIF figure greater than 3.3 indicates collinearity thus there is CMV. For this study, the VIF figures ranges between 1.7 and 2.1 confirming there are no CMV, and it is not a threat to the current investigation.

### ***Analysis and Results***

PLS-SEM which is a variance-based method was applied for the analysis of data in this research. Data analysis and hypothesized relationship testing in the research model was done using SmartPLS version 3.3.3 software (Hair et al., 2022). The research adhered to recent guidelines for carrying out the analysis and reporting the results in PLS-SEM.

### ***Measurement Model Assessment***

Assessing the measurement model to guarantee that the variables with the acceptable validity and reliability are utilized for the assessment of the structural path model was the immediate step in PLS-SEM. With this, the indicator reliability, internal consistency reliability, convergent validity, and discriminant validity were evaluated. Table 1 shows the outcomes gotten from assessing the measurement model consisting of the outer loadings, composite reliability, average variance extracted (AVE), square roots of the AVE values, and heterotriat-monotriat (HTMT) ratio. These outcomes validate the measurement model’s appropriateness for structural analysis (Hair et al., 2022).

### ***Structural Model Assessment***

The structural model assessment was implemented in line with the steps which was recommended by Sarstedt et al. (2020). Firstly, the examination of the structural model for possible collinearity was carried to stall bias on the path coefficients. In Table 2 it shows that the variance inflated factors (VIF) for all variables are quite lesser than 5 which is the threshold recommended (Sarstedt et al., 2020). Therefore, collinearity was not found as an issue in the

structural model of the current study. Secondly, the examination of the coefficient of determination ( $R^2$  value) for predictive accuracy and  $Q^2$  for the predictive relevance of the model was done. The offered model account for 47% of the variance ( $R^2 = 47$ ) in EP which reveals adequate predictive accuracy of the model (Sarstedt et al., 2020). Likewise, the  $Q^2$  values derived through the blindfolding procedure are 0.24 for autonomy, 0.22, for employee engagement, 0.21 for EP, and 0.25 for self-efficacy respectively. Being greater than zero, these  $Q^2$  values established strong predictive relevance of the model (Sarstedt et al., 2020).

Table 1. Results of measurement model assessment

Construct	Items	Loadings	CR	AVE
Autonomy	AUT1	0.795	0.845	0.525
	AUT2	0.783		
	AUT3	0.579		
	AUT4	0.680		
	AUT5	0.765		
Employee Engagement	EE1	0.803	0.949	0.728
	EE2	0.842		
	EE3	0.862		
	EE4	0.868		
	EE5	0.850		
	EE6	0.866		
	EE8	0.878		
Employee Performance	EP1	0.886	0.900	0.692
	EP2	0.862		
	EP4	0.842		
	EP5	0.730		
Self-Efficacy	SEFF1	0.696	0.889	0.670
	SEFF2	0.908		
	SEFF3	0.788		
	SEFF4	0.867		

Note: Items EE7, EE9, EP3 were deleted due to low loading.

Table 2. Discriminant validity (HTMT ratio)

	1	2	3	4
1. Autonomy				
2. Employee Engagement	0.647			
3. EP	0.744	0.763		
4. Self-Efficacy	0.767	0.511	0.626	

Table 3. Hypotheses testing

Hypothesis	Relationships	std Beta	std Error	t-value	P Values	BCILL	BCIUL	f <sup>2</sup>	VIF
H1	Autonomy -> Employee Engagement	0.435	0.060	7.219	0.000	0.326	0.527	0.169	2.100
H2	EE-> EP	0.687	0.044	15.641	0.000	0.605	0.750	0.892	2.029
H3	Self-Efficacy -> Employee Engagement	0.196	0.067	2.937	0.002	0.082	0.302	0.034	1.797

Table 4. Indirect effect (mediation)

Hypothesis	Relationships	Std Beta	Std Error	T-Statistics	P-Value
H3a	Autonomy -> EP	0.299	0.049	6.114	0.000
H3b	Self-Efficacy -> EP	0.135	0.047	2.839	0.002

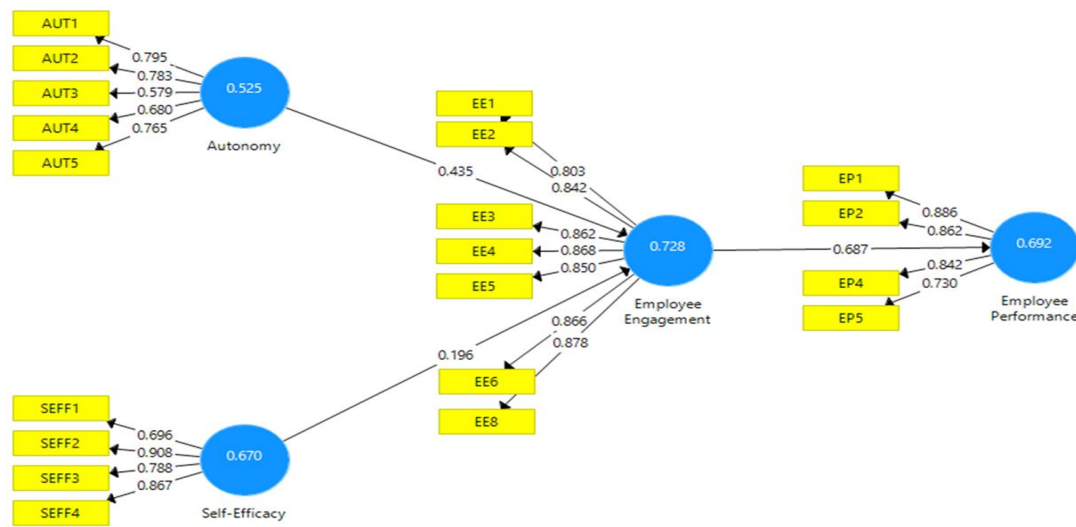


Figure 2. Structural model PLS image. Source: Researcher's analysis.

Lastly, the evaluation of the significance of the path coefficient was carried out. We tested the hypotheses employing the bootstrapping technique utilizing 5,000 bootstrap samples, no sign shows difference alternative and at 95% bias-corrected confidence intervals. In Figure 2 and Table 3, we present the outcomes of the structural path analysis. H1 predicted that autonomy is positively related to EE. The result demonstrated a significant direct positive relationship between autonomy and EE ( $\beta = 0.435$ ,  $p < 0.01$ ). Therefore, H1 is supported. Furthermore, H2 predicted that self-efficacy is positively related to EE. The result also demonstrated a positive relationship between self-efficacy and EE ( $\beta = 0.196$ ,  $p < 0.01$ ). Hence, H2 was also supported accordingly.

Primarily, the study examined the mediating effects of EE between the relationship autonomy and EP as well as between the relationship of self-efficacy and EP. Following the analytical process suggested by Preacher and Hayes (2008) in generating indirect effects. The results from the mediation analysis condensed in Table 4, exposes the hypothesized indirect relationships (H3a and H3b) were all supported. The outcomes demonstrated that EE significantly mediates the relationship between autonomy and EP ( $\beta = 0.299$ ,  $p < 0.01$ ). The results also demonstrated that EE mediates the relationship between self-efficacy and EP ( $\beta = 0.135$ ,  $p < 0.01$ ). This can be further intensified through the R2 value for EE which stands at 33% and the path coefficient ( $\beta = 0.687$ ,  $p < 0.01$ ).

### Discussion and Conclusion

There is a recent clamour in research for EP and engagement within the public sector focusing on those elements which can motivate employee to become engaged and increase performance, particularly in public sector organizations in developing countries (Abdullah & Abdullah, 2020). Drawing on SET, this study strived to assess the impact of autonomy and self-efficacy on EE and EP, while also examining the mediating role of EE among the endogenous and exogenous variables. The implications this research brings both practical and theoretical, through the findings of the research are further discussed in subsequent sections.

### Theoretical Implications

Concerning the theoretical implications, this research contributes in two ways to the growing research on EE and EP within the public sector parlance. Firstly, this research improved the

current countable and opposing empirical evidence on the relationship between autonomy and EE as well as on EP. It further added a new perspective to the available current literature by investigating the relationship between EE and EP through autonomy and self-efficacy providing further clarifications to antecedents of EE as called for by Abdullah and Abdullah, (Rich et al., (2010); Saks, (2019). In view of our hypothesis, we discovered that there exists a strong and positive connection between autonomy, EE, and EP. Current result from our research findings declared that autonomy is influential in motivating engagement and performance of employees, particularly in public sector organizations. Thus, our research proffer empirical evidence to back the proposals of SET (Blau, 1964) and as well validates the opinions that when organization allows their employees to have autonomy on how they carryout tasks, employees will respond with innovative and creative behaviours that will positively affect their performance and that of their organization (Tensay & Singh, 2020; Wushe & Shenje, 2019).

Furthermore, we found that self-efficacy, which was introduced in this study as a new perspective of assessing EE and EP to be positively and directly related to EE and indirectly related to EP in a positive way. This result also indicates that when employee have the right amount of confidence to attend to task, they will be more creative and innovative in the completion of such given tasks (Lianto et al., 2018). This furthers the support on self-efficacy as a pertinent job characteristic that employers need to encourage in their employees.

Secondly, this study was conducted in Nigeria which happens to be categorised under the developing nations and wherein public sector businesses are classified by high level bureaucracy and rigid organizational cultures that often stalled the exhibition of these qualities by employees especially when they are within the ordinary employee cadre and not executive employees. Earlier studies has documented that EE increases EP and organizational performance (Albrecht et al., 2018; Buckingham & Coffman, 2001; Jiang & Men, 2017; Jiatong et al., 2022; Nduati. & Wanyoike, 2022). However, most of these studies only looked at the relationship between EE and EP by employing the basic antecedents the findings from our study. Nevertheless, our study enriched the existing findings by inculcating self-efficacy alongside autonomy both of which constitute important job characteristics to influence the EE level and EP of the workers in the public sector.

### ***Practical and Social implications***

Aside the theoretical implications, the outcome of our investigation provides pertinent social and practical implications. The outcomes showed that aside from creating reciprocal relationships between employees and management, autonomy and self-efficacy are fundamental to the achievement of perceived psychological safety for workers and enabling them to thrive at performing their tasks. The study therefore provides practicable implications which are essential for policymakers, human resource managers, and organizational leaders in Nigerian public sector organizations. Recognizing the significance of self-efficacy, autonomy, and EE, organizations can develop strategies and policies to enhance these factors in the workplace. This may include implementing training programs to build self-efficacy beliefs, granting employees more autonomy in their work processes, to create a work context that is supportive enough for the creation and development of EE through effective communication, recognition, and involvement in decision-making processes.

### ***Limitations and Suggestions for Future Research***

Notwithstanding the obvious practical and theoretical consequences, it is pertinent to acknowledge the limitations of this research which motivated the recommendations for future investigations. Firstly, the reliance on self-reported data could give the chance for common

method bias and social desirability bias to be present in the research. Hence, future studies could consider encompassing objective performance measures or multi-source assessments to mitigate these limitations. Additionally, the focus on Nigerian public sector organizations may limit the generalizability of the results. Replicating the research in different sectors and countries would enable a better and thorough understanding of the relationships investigated. Lastly, the cross-sectional design used in this research constrained the establishment of necessary causative relationships. Future investigations Employing a longitudinal or experimental designs in future investigations would heighten our understanding of the temporal dynamics and causality between the variables.

Furthermore, future investigations could as well test the role of other potential mediators and moderators in the relationship between the examined variables. For instance, factors such as organizational culture, leadership style, and job satisfaction could be investigated to see how they influence or alter the impact of self-efficacy, autonomy, and EE on EP. Another suggestion for future research is to incorporate qualitative methods, such as focus groups or interviews, to enable a broader understanding of the underlying mechanisms and contextual factors that influence the observed relationships. Qualitative data can provide rich insights that complement quantitative findings and offer a more holistic view of the phenomena under study. In addition, expanding the demographic diversity of the sample could enhance the generalizability of the findings, including participants from expanded age groups, educational backgrounds, and levels of experience would provide a more comprehensive perspective on how different factors affect EE and EP.

In conclusion, this investigation offers valuable perceptions into the interplay between self-efficacy, autonomy, employee engagement, and performance in Nigerian public sector organizations. The findings underscore the pertinence of these organizational factors in enhancing positive outcomes for organizations and offer practical recommendations for improving EP and EE. By addressing the study's limitations and following the suggested avenues for future research, scholars and practitioners can deepen their understanding of these relationships and develop more effective strategies to cultivate a productive and engaged workforce in public sector organizations.

## References

- Abdullah, A. S., & Abdullah, A. E. (2020). Perceived organizational support, perceived superior support, employee engagement, and performance in the Nigerian public sector. *Ilorin Journal of Administration and Development*, 6(1-3), 23–32.
- Abdullah, A. S., Abdullah, E. A., & Aladwan, S. I. (2023). Effects of psychological antecedents of engagement on organizational performance: Mediating role of employee engagement. *International Journal of Business and Management*, 7(4), 1–13. <https://doi.org/10.26666/rmp.ijbm.2023.4.1>
- Abu, N., & Staniewski, M. W. (2021). An empirical investigation of the effect of corruption on domestic savings in Nigeria. *Economic Research-Ekonomska Istraživanja*, 35(1), 4092–4112.
- Ahmad, N. H., Ramayah, T., Mahmud, I., Musa, M., & Anika, J. J. (2019). Entrepreneurship as a preferred career option. *Education & Training*, 61(9), 1151–1169.
- Akingbola, K., & van den Berg, H. A. (2019). Antecedents, consequences, and context of EE in nonprofit organizations. *Review of Public Personnel Administration*, 39(1), 46–74. <https://doi.org/10.1177/0734371X16684910>
- Alamina, P., Aliyu, S., & Wapaimi, A. (2020). Workplace spirituality and employee's engagement: An empirical perspective on lecturers work behaviour. *Electronic Research Journal of Behavioural Sciences*, 3. [www.erjbehaviouralsciences.com](http://www.erjbehaviouralsciences.com)38



- Albrecht, S. L., Breidahl, E., & Marty, A. (2018). Organizational resources, organizational engagement climate, and employee engagement. *Career Development International*, 23(1), 67–85. <https://doi.org/10.1108/CDI-04-2017-0064>
- Albrecht, S. L., Green, C. R., & Marty, A. (2021). Meaningful work, job resources, and employee engagement. *Sustainability*, 13(7), 4045. <https://doi.org/10.3390/su13074045>
- Allison, J., Abu, O. P., & Allison, F. K. (2018). Wellbeing, and employee engagement: A study of employees in public institutions of learning in Port Harcourt, Nigeria. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3273867>
- Almotawa, A., & Shaari, R. B. (2020). Validation of EEframework. In *Advances in Intelligent Systems and Computing* (Vol. 961). Springer International Publishing. [https://doi.org/10.1007/978-3-030-20154-8\\_40](https://doi.org/10.1007/978-3-030-20154-8_40)
- Alsafadi, Y., & Altahat, S. (2021). Human resource management practices and EP: The role of job satisfaction. *Journal of Asian Finance, Economics and Business*, 8(1), 519–529. <https://doi.org/10.13106/jafeb.2021.vol8.no1.519>
- Assefa, T. T., & Manjit, S. (2020). The nexus between HRM, EEand organizational performance of federal public service organizations in Ethiopia. *Heliyon*, 5(3), 123–134.
- Azim, M. T., & Halawani, F. M. J. Al. (2020). Perceived non-work social support and employee engagement: the mediating role of self-efficacy. *Middle East Journal of Management*, 7(2), 166–184. <https://doi.org/10.1504/mejm.2020.105946>
- Baqir, M., Campus, M., Hussain, S., Waseem, R., & Islam, K. M. A. (2020). Impact of reward and recognition, supervisor support on employee engagement. *American International Journal of Business and Management Studies*, 2(3), 8–21. <https://doi.org/10.46545/aijbms.v2i3.256>
- Blau, P. M. (1964). *Exchange and power in social life*. John Wiley & Sons, Ltd (10.1111).
- Brunetto, Y., Farr-Wharton, B., Farr-Wharton, R., Shacklock, K., Azzopardi, J., Saccon, C., & Shriberg, A. (2020). Comparing the impact of management support on police officers' perceptions of discretionary power and engagement: Australia, USA and Malta. *International Journal of Human Resource Management*, 31(6), 738–759. <https://doi.org/10.1080/09585192.2017.1375964>
- Buckingham, M., & Coffman, C. (2001). *First, break all the rules: what the world's greatest managers do differently* (1st ed.). Simon & Schuster.
- Cooper-Thomas, H. D., Xu, J., & M. Saks, A. (2018). The differential value of resources in predicting employee engagement. *Journal of Managerial Psychology*, 33(4–5). <https://doi.org/10.1108/JMP-12-2017-0449>
- Corbera, E., Anguelovski, I., Honey-Rosés, J., & Ruiz-Mallén, I. (2020). Academia in the time of COVID-19: Towards an ethics of care. *Planning Theory and Practice*, 21(2), 191–199. <https://doi.org/10.1080/14649357.2020.1757891>
- Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to EEand burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology*, 95(5), 834–848.
- Fulaedzah, I. A., Tjahjono, H. K., & DA, M. K. P. R. (2022). EEmediating self efficacy and quality of work life on contact center's burnout. *Interdisciplinary Social Studies*, 1(7), 234–248.
- Gasela, M. M. (2022). The influence of organizational culture on performance in public entities of South Africa. *Africa's Public Service Delivery and Performance Review*, 10(1), 22–34.
- Guan, X., & Stephen, F. (2020). Organizational support and employee thriving at work: exploring the underlying mechanisms. *Personnel Review*, 50(3), 935–953.
- Hackman, J. R., & Oldham, G. R. (1975). Development of the job diagnostic survey. *Journal of Applied Psychology*, 60(2), 159–170.

- Hackman, J. R., & Oldham, G. R. (1980). *Work Redesign*. Addison-Wesley.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) (3 ed.)* (3rd ed.). Sage Publication Inc.
- Hakro, T. H., Hakro, D. N., & Siddiqui, M. B. (2022). Measuring the impact of transformational leadership on EP: Scale validation based on pilot study. *Research Journal of Social Sciences and Economics Review*, 2(2), 8–17.
- Hans, S., & Gupta, R. (2018). Job characteristics affect shared leadership. *Leadership & Organization Development Journal*, 39(6), 730–744. <https://doi.org/10.1108/lodj-03-2018-0101>
- Hussein, A. (2018). Test of Hackman and Oldham's job characteristics model at general media sector. *International Journal of Academic Research in Business and Social Sciences*, 8(1), 352–371. <https://doi.org/10.6007/ijarbss/v8-i1/3813>
- Idigo, P. I. (2023). Public service reform and EP in Anambra State, Nigeria. *International Journal of Innovative Finance and Economics Research*, 11(1), 14–27.
- Ikhide, J. E., Timur, A. T., & Ogunmokun, O. A. (2022). Dynamics of autonomy support leadership on Gen-Y employees in the Nigerian Public Service. *Journal of Public Affairs*, 1(27), 23–34.
- Isaiah Clement, O., & Eketu, C. A. (2019). Organizational climate and employee engagement in banking in Rivers State, Nigeria. *International Journal of Advanced Academic Research / Sciences*, 5(3).
- Jacob Olufemi, F., I. Afegbua, S., & Etim, E. (2020). Talent management and public sector performance: An assessment of Lagos State Ministry of Education, Nigeria. *The Journal of Social Sciences Research*, 6(69), 845–855. <https://doi.org/10.32861/jssr.69.845.855>
- Jiang, H., & Men, R. L. (2017). Creating an engaged workforce: The impact of authentic leadership, transparent organizational communication, and work-life enrichment. *Communication Research*, 44(2), 225–243. <https://doi.org/10.1177/0093650215613137>
- Jiatong, W., Wang, Z., Alam, M., Murad, M., Gul, F., & Gill, S. A. (2022). The impact of transformational leadership on affective organizational commitment and job performance: The mediating role of employee engagement. *Frontiers In Psychology*, 1–12. <https://doi.org/doi:10.3389/fpsyg.2022.831060>
- Jones, G. R. (1986). Socialization tactics, self-efficacy, and newcomers' adjustments to organizations. *Academy of Management Journal*, 29(2), 262–279. <https://doi.org/10.2307/256188>
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692–724. <https://doi.org/10.5465/256287>
- Karkkola, P., Kuittinen, M., & Hintsa, T. (2019). Role clarity, role conflict, and vitality at work: The role of the basic needs. *Scandinavian Journal of Psychology*, 60(5), 456–463. <https://doi.org/10.1111/sjop.12550>
- Karoso, S., Riinawati, R., Ilham, R. N., Rais, R. G. P., & Latifa, D. (2022). Analyzing the relationship of work environment and quality of work life on EP: The mediating role of organizational commitment. *Journal of Madani Society*, 1(3), 167–173.
- Katou, A. A., Koupkas, M., & Triantafillidou, E. (2021). Job demands-resources model, transformational leadership and organizational performance: A multilevel study. *International Journal of Productivity and Performance Management*. <https://doi.org/10.1108/IJPPM-06-2020-0342>
- Kidane, A., & Xuefeng, Z. (2021). Exploring the relationship between Job autonomy and EE in turbulent times. *International Journal of Research in Business and Social Science* (2147-4478), 10(2), 134–152. <https://doi.org/10.20525/ijrbs.v10i2.1074>
- Kock, N., & Hadaya, P. (2018). Minimum sample size estimation in PLS-SEM: The inverse

- square root and gamma-exponential methods. *Information Systems Journal*, 28(1), 227–261.
- Kulikowski, K. (2017). Do we all agree on how to measure work engagement? Factorial validity of Utrecht Work Engagement Scale as a standard measurement tool – A literature review. *International Journal of Occupational Medicine and Environmental Health*, 30(2), 161–175. <https://doi.org/10.13075/ijomeh.1896.00947>
- Kurniasih, D., Setyoko, P. I., & Saputra, A. S. (2022). The influence of digital electronic performance, competence and motivation on government organization employees. *Journal of Industrial Engineering & Management Research*, 3(5), 86–99.
- Lartey, F. M. (2021). Impact of career planning, employee autonomy, and manager recognition on employee engagement. *Journal of Human Resource and Sustainability Studies*, 09(02), 135–158. <https://doi.org/10.4236/jhrss.2021.92010>
- Lee, W. J. (Thomas), Sok, P., & Mao, S. (2022). When and why does competitive psychological climate affect EEand burnout? *Journal of Vocational Behavior*, 1–16.
- Lianto, Eliyana, A., & Fauzan, R. (2018). Enhancing the employee engagement: The mediating role of exchange ideology. *Jurnal Pengurusan*, 53(2018), 61–71. <https://doi.org/10.17576/pengurusan-2018-53-06>
- Lyons, P., & Bandura, R. (2019). Self-efficacy: core of employee success. *Development and Learning in Organizations*, 33(3), 9–12. <https://doi.org/10.1108/DLO-04-2018-0045>
- Memon, K. R., Ghani, B., & Khalid, S. (2020). The relationship between corporate social responsibility and employee engagement-a social exchange perspective. *International Journal of Business Science and Applied Management*, 15(1), 1–16.
- Mhlanga, T. S., Mjoli, T. Q., & Chamisa, S. F. (2019). Personality and job engagement among municipal workers in the eastern Cape province, South Africa. *SA Journal of Human Resource Management*, 17(0), 11. <https://doi.org/10.4102/sajhrm.v17i0.1188>
- Morgeson, F. P., & Humphrey, S. E. (2006). The Work Design Questionnaire (WDQ): Developing and validating a comprehensive measure for assessing job design and the nature of work. *Journal of Applied Psychology*, 91, 1321–1339.
- Nasir, J., Ibrahim, R. M., Sarwar, M. A., Sarwar, B., Al-Rahmi, W. M., Alturise, F., Samed Al-Adwan, A., & Uddin, M. (2022). The Effects of transformational leadership, organizational innovation, work stressors, and creativity on EP in SMEs. *Frontiers in Psychology*, 13(April). <https://doi.org/10.3389/fpsyg.2022.772104>
- Nduati, M. M., & Wanyoike, R. (2022). EP management practices and organizational effectiveness. *International Academic Journal of Human Resource and Business Administration*, 3(10), 361–378.
- Nguyen, L. G. T., & Pham, H. T. (2020). Factors affecting EEat not-for-profit organizations: A case in Vietnam. *Journal of Asian Finance, Economics and Business*, 7(8), 495–507. <https://doi.org/10.13106/JAFEB.2020.VOL7.NO8.495>
- Onah, F. N., Ugwuibe, C. O., Nwogbo, D., & Osadebe, N. O. (2022). Work ethics and sustainable service delivery in Nigeria public service. *Journal of Economics And Allied Research*, 7(2), 93–110.
- Oyedele, S. O., & Aluko, O. I. (2018). Public Service, Performance Enhancement and the Challenge of Economic Recession in Nigeria. *Journal of Management and Social Sciences*, 7(1), 297–310.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Preacher, K. J., & Hayes, A. . F. (2008). Asymptotic and resampling strategies for assessing

- and comparing indirect effects in multiple mediator models . *Behaviour Research Methods*, 40(3), 879–891.
- Ramdani, Z., Marliani, R., & Rahman, A. A. (2019). The individual work performance scale: A psychometric study and its application for EP. *Humanities & Social Sciences Reviews*, 7(5), 405–414.
- Rasool, S. F., Wang, M., Tang, M., Saeed, A., & Iqbal, J. (2021). How toxic workplace environment effects the employee engagement: The mediating role of organizational support and employee wellbeing. *International Journal of Environmental Research and Public Health*, 18(5), 1–17. <https://doi.org/10.3390/ijerph18052294>
- Rich, B. L., Lepine, J. A., & Crawford, E. R. (2010a). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal*, 53(3), 617–635. <https://doi.org/10.5465/amj.2010.51468988>
- Ruggeri, K., Garcia-Garzon, E., Maguire, Á., Matz, S., & Huppert, F. A. (2020). Well-being is more than happiness and life satisfaction: A multidimensional analysis of 21 countries. *Health and Quality of Life Outcomes*, 18(1), 1–16. <https://doi.org/10.1186/s12955-020-01423-y>
- Saks, A. M. (2006). Antecedents and consequence of work engagement. *Journal of Managerial Psychology*, 21(7), 600–619. <https://doi.org/10.1108/02683940610690169>
- Saks, A. M. (2019). Antecedents and consequences of EErevisited. *Journal of Organizational Effectiveness*, 6(1), 19–38. <https://doi.org/10.1108/JOEPP-06-2018-0034>
- Sarstedt, M., Ringle, C. M., & Hair, J. F. (2020). Handbook of market research. In *Handbook of Market Research* (Issue September). <https://doi.org/10.1007/978-3-319-05542-8>
- Schaufeli, W. B. (2012). The measurement of work engagement. In R. R. Sinclair, M. Wang, & L. E. Tetrick (Eds.), *Research methods in occupational health psychology: Measurement, design, and data analysis* (pp. 138–53). Routledge.
- Simba, A., Kalu, E. U., Onodugo, V., Okoyeuzu, C. R., & Ogundana, O. M. (2022). Women Entrepreneurs in Nigeria. In *Women Entrepreneurs in Sub-Saharan Africa*. Onibonje University Press.
- Spoor, J. R., Flower, R. L., Bury, S. M., & Hedley, D. (2022). EEand commitment to two Australian autism employment programs: associations with workload and perceived supervisor support. *Equality, Diversity and Inclusion*, 41(3), 508–524.
- Tensay, A. T., & Singh, M. (2020). The nexus between HRM, EEand organizational performance of federal public service organizations in Ethiopia. *Heliyon*, 6(2), 2–15.
- Thanh, N. N., Thuy, H. T. T., & Thien, N. T. T. H. N. D. (2022). The relationship between ethical leadership, jobengagement, and job performance: Evidence from the public sector in Vietnam. *PalArch's Journal of Archeology of Egypt/Egyptology*, 19(2), 1161–1176.
- Toyama, H., Upadyaya, K., & Salmela-Aro, K. (2022). Job crafting and well-being among school principals: The role of basic psychological need satisfaction and frustration. *European Management Journal*, 40(5), 809–818.
- Wu, T.-J., Yuan, K.-S., Yen, D. C., & Yeh, C.-F. (2022). The effects of JDC model on burnout and work engagement: A multiple interaction analysis. *European Management Journal*, 6(4), 234–246.
- Wushe, T., & Shenje, J. (2019). The antecedents of EEand their effect on public sector service delivery: The case study of government departments in harare. *SA Journal of Human Resource Management*, 17. <https://doi.org/10.4102/sajhrm.v17i0.1082>