

WORK CONDITION FACTORS AND EMPLOYEE ENGAGEMENT: THE MEDIATING ROLE OF PSYCHOLOGICAL CAPITAL

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Abstract

Work conditions influenced employee engagement, but its influence was still unclear owing to its multi-faceted nature and variations across professions and industries in highly dynamic environments. In addition, studies on the psychological mechanisms explaining this relationship were limited. The study examined specific work condition factors comprising leader-member exchange and role clarity as influences on employee engagement, given psychological capital as a mediating variable. Data were obtained from 231 customer-contact employees working in hotels in two major cities, Asaba and Warri, in Delta State, Nigeria, and analyzed using the partial least squares analytical procedure. The study found that leader-member exchange and role clarity relationships with employee engagement were positive and significant, and psychological capital mediated these relationships. Also, role clarity and psychological capital sequentially mediated the relationship between leader-member exchange and employee engagement. The study contributed an integrated research framework that uncovered the sequential effect of leader-member exchange on employee engagement and the simple and sequential mediation of psychological capital in this framework. The practical implications of the findings were discussed for improving employee engagement.

Keywords: Employee engagement, job resources, leader-member exchange, psychological capital, role clarity, working conditions.

Introduction

Low employee engagement constitutes part of the human resource problems affecting most organizations due to its adverse implications on extra-role behaviors, employee performance, and turnover intentions (Han, 2022; Yan, Mansor, Choo, & Abdullah, 2021). In highly demanding and uncertain organizational settings, employees encounter various challenges such as poor work-family life, job insecurity, excessive workload, irregular working schedule, workplace aggression, and role conflict, which either contribute to or worsen these problems (Ononye, Ndudi, & Memeh, 2023). Finding the right framework to foster and maintain an engaged workforce is now an imperative for organizations to ensure sustainable work and performance outcomes. Employee engagement [EE] is a positive mental state that is marked by vigor (i.e., displaying high levels of energy, effort, and resilience at work), dedication (i.e., showing a sense of enthusiasm, pride, and challenge towards work), and absorption (i.e., demonstrating rapt focus and concentration in the performance of one's work) (Cortes-Denia, Luque-Reca, Lopez-Zafra, & Pulido-Martos, 2023). This attitudinal construct potently predicts desirable outcomes critical for long-term organizational success. For example, studies have concluded that EE is a

significant precursor of workplace creativity (Vila-Vázquez, Castro-Casal, & Álvarez-Pérez, 2020), employee commitment (Rameshkumar, 2020; Saks, 2019), innovative work behavior (Nazir & Islam, 2019), employee performance (Cesário & Chambel, 2017), job satisfaction, organizational citizenship behavior, and reduced turnover intention (Saks, 2019). Many variables affect EE in organizations, but the enhancement of work conditions [WC] (i.e., the environment and all existing circumstances affecting the way employees perform different work roles, tasks, and assignments) could provide answers to curbing attitudinal problems, low EE in particular, in the workplace (Irawan & Ie, 2021; Li, Peng, & Yang, 2022; Manyisa & Aswegen, 2017; Zhenjing, Chupradit, Ku, Nassani, & Haffar, 2022). The employees' responses to work are modulated not only by personal and organizational demands but also by the context of the work environment (Green, Blank, & Liden, 1983; Hakanen, Bakker, & Turunen, 2021).

Several studies have found that positive and stimulating WC engenders desirable work attitudes, such as job satisfaction (Raziq & Maulabakhsha, 2015; Irawan & Ie, 2021; Li *et al.*, 2022; Pawirosumarto, Purwanto, & Gunawan, 2016; Vohra, Özyeşil, & Aktürk, 2022), employee commitment (Irawan & Ie, 2021; Zhenjing *et al.*, 2022), and EE (Judeh, 2021; Saleem, Isha,

Yusop, Awan, & Naji, 2020). The growing evidence on WC and work attitudes has provided important insights, but there are still areas in need of more clarification and support in research. First, WC comprises two broad dimensions: job demands and job resources (Li *et al.*, 2022). Job demands are organizational characteristics that require sustained exertion of physical and psychological abilities or energy, which may lead to adverse work outcomes. Examples are work overload, role ambiguity, role conflict, negative leadership styles, etc. In contrast, job resources are resourceful and supportive factors of the work environment that bring about personal growth and development, goal attainment, reduction in job demand effects, sustained engagement, and other positive work outcomes (Hakanen *et al.*, 2021). Examples are social support, team cohesion, leader-member exchange, job clarity, positive leadership styles, job autonomy, job security, feedback, etc.

It seems possible that multifaceted constructs, like WC, might activate different processes and produce different results, which makes their influences uncertain. Li *et al.* (2022) suggest that WC varies across different professions, fields, and organizations and cannot be treated as the same due to their unique peculiarities. Therefore, additional research is needed to establish the relationship between specific WC factors and EE. The study focuses on job resources because they foster resource-rich WC, leading to the promotion of positive outcomes (psychological wellbeing, good mental health, job satisfaction, employee commitment, staying intentions, etc.) and the reduction of negative outcomes (e.g., burnout, strain, depression, turnover, dissatisfaction, etc.). Second, though considerable evidence shows job satisfaction and employee commitment as attitudinal outcomes of WC, studies on the WC-EE link have received comparatively little attention. George, Okon, and Akaiqhe (2021) observe that most studies see EE as a stronger determinant of performance outcomes than many other attitudinal constructs. Cesário and Chambel (2017) lent empirical support to this observation by focusing on the linkages between employee commitment, EE, and employee performance. The study demonstrated that EE was more relevant in elucidating employee performance because employee commitment presented no significant effect. Understanding how organizations can elicit EE in the work environment is crucial. Furthermore, the generality of the findings may be challenged as relationships in Nigeria could differ markedly from those evidenced in the reviewed studies, many of which were not conducted in the Nigerian context.

Studies have indicated that job resources foster increased EE in the workplace. Still, the context-specificity argument suggests that certain job resources

could be more beneficial in some jobs but less so in others (Hakanen *et al.*, 2021). It is important to be cautious when making generalizations about the significance of certain job resources in a given context. In this study, aspects of job resources included leader-member exchange [LMX] and role clarity [RC]. LMX refers to the quality of exchange relationships between managers and employees over time through workplace interactions, leading to the reciprocity of tangible and intangible resources. RC, on the other hand, pertains to the degree of certainty and understanding about expected roles, responsibilities, and behaviors within a job. These psychosocial variables have been found to be strong antecedents of employees' attitudes, behaviors, and performance (ul-Hassan, Ikramullah, Khan, & Shah, 2021; Kundu, Kumar, & Lata, 2020; Sutanto & Hendarto, 2020; Volmer, Spurk, & Niessen, 2012). Psychosocial variables influence employees psychologically and socially and are critical parameters for describing individuals in relation to their work environment (Thomas *et al.*, 2020). Besides, job characteristics (Saks, 2019) and supportive exchange relationships (Ross & Boles, 1994; Wagner & Koob, 2022) are foundational to the nurturing of a positive work climate and environment.

Leithwood and McAdie (2010) argue that the psychological states of employees are the immediate causes of their actions, and many of these personal states are strongly linked to the WC. This led to the selection of psychological capital [PsyCap] as a possible intermediary resource. PsyCap is an affirmative mental state accruing through the interplay of hope (i.e., the ability to persevere in the pursuit of a goal and, when necessary, change paths for successful goal attainment), self-efficacy (i.e., the belief in one's ability to attain desired results or outcomes), resilience (i.e., the capacity to anticipate, adapt, and overcome challenging situations to achieve success), and optimism (i.e., maintaining positive attributions about present and future success or events), as indicated in Ononye, Ofili, Ndudi, and Agbim (2022). PsyCap is beneficial to both employees and organizations in fostering valued work attitudes and behaviors (e.g., job satisfaction, employee commitment, and EE) (Kotzé, 2017; George *et al.*, 2021; Saleem *et al.*, 2020; Yan *et al.*, 2021) and can help in mitigating the influence of undesirable outcomes (Yan *et al.*, 2021). Furthermore, research has shown that PsyCap can establish relationships between various contextual variables, such as leadership and supportive organizational climate, and attitudinal and behavioral constructs (Luthans, Norman, Avolio, & Avey, 2008; Slåtten, Lien, Horn, & Pedersen, 2019). Therefore, the significance of PsyCap to this study is evident.

Arguably, LMX and RC, as job resources, could increase EE. Still, studies have yet to explore the correlation between LMX and RC and their potential to influence specific psychological variables to increase EE. The logic is that a change in one of the job resources has the potential to influence the other, thereby impacting EE directly and/ or indirectly. Arguably, the changes in specific job characteristics could be a function of the relational work context (de Villiers & Stander, 2011; Wagner & Koob, 2022). This suggests that LMX could determine RC to influence other variables. Furthermore, researchers have not fully explored and understood the explanatory psychological mechanisms (i.e., PsyCap) that account for these relationships. This is because studies often ignore employees' internal state and well-being as social actors (Yan *et al.*, 2021). It is important to confirm whether PsyCap can serve as a mediating variable in a simple and sequential research paradigm. To the best of the researchers' knowledge, the sequential effect of LMX on EE through RC and PsyCap has yet to be tested in a single study and presents an original contribution to research.

Given the above, the study focuses on the hospitality industry because studies (Codling *et al.*, 2022; Dogru, McGinley, Sharma, Isik, & Hanks, 2023) have mentioned that this industry has one of the leading turnover rates compared to other productive sectors. Han (2022) states that turnover rates often range from 60 to 120 percent annually, suggesting that the problem of poor work attitude is evident in this industry. Li *et al.* (2022) and Yan *et al.* (2021) establish a link between work attitudes and turnover intentions and decisions, which forms the basis of this argument. Even so, EE lowers the experience of voluntary turnover among employees (Bellamkonda, Santhanam, & Pattusamy, 2021). Turnover triggers changes in an employee's work environment due to personnel shortages, which may lead to role overload, especially when recruitment efforts are slow. Under such circumstances, Verlinden, Wynen, Kleizen, and Verhoest (2022) expect employees to encounter uncertainty and ambiguity regarding work roles, demands, and expectations. Consequently, stress and disengagement ensue from the trigger of the resource depletion process. LMX can address this challenge by providing relational opportunities that deplete the hindering effect of role overload (Tang & Vandenberghe, 2021).

The study aimed to investigate several specific objectives. They include: (1) the nature and strength of the relationship between LMX and EE; (2) the nature and strength of the relationship between RC and EE; (3) the mediating role of PsyCap in the relationship between LMX and EE; (4) the mediating effect of PsyCap in the relationship between RC and EE; and

(5) the sequential mediation of RC and PsyCap in the relationship between LMX and EE.

Leader-Member Exchange (LMX)

One of the essential job resources is LMX, as indicated in Tummers and Bakker (2021). It depicts the relationships formed between leaders and employees, which can be good or bad (Sutanto & Hendarto, 2020), high-quality or low-quality. This relationship is a critical component of the work environment because it creates the social conditions and support systems that make the demonstration of certain attitudes and behaviors possible (Ononye, 2023). Jian, Shi, and Dalisay (2014) argue that conversation and interaction form the foundation of LMX, a dynamic construct. The communication dynamics can change as circumstances progress and as managers and employees continue to interact and work in their respective roles (Graen & Uhl-Bien, 1995). Interactional relationships characterized by a high level of respect, trust, loyalty, competence, support, and role expectation or negotiation latitude indicate a high-quality LMX, while a low-quality LMX is limited to economic, transactional exchanges based on the employment contract. LMX aims to assess the conversational quality of the relationship established between managers and employees in the workplace. Effective and strong communication underscores the quality of leadership guiding employees' efforts toward goal attainment.

Role Clarity (RC)

Role clarity denotes the extent to which an employee is aware of and knowledgeable about his or her expected work roles, responsibilities, and behaviors within the organization (Vullingsh, de Hoogh, den Hartog, & Boon, 2020). RC reduces role-related stress and frustration among employees by providing them with useful information to effectively guide their efforts or actions in a given role. Lang, Thomas, Bliese, and Adler (2007) argue that employees who are knowledgeable about their tasks and performance expectations are better equipped to handle elevated levels of job demands. RC, especially under effective leadership, manages the cognitive overload that causes burnout to manageable levels (Vullingsh *et al.*, 2020). RC fosters positive psychological conditions, such as psychological safety and empowerment (de Villiers & Stander, 2011; Towsen, Stander, & van der Vaart, 2020). Studies have consistently found a positive link between RC and a wide range of positive employee dispositions, including EE, job satisfaction, job involvement, and employee commitment (Bellamkonda *et al.*, 2021; de Villiers & Stander, 2011; ul-Hassan *et al.*, 2021;

Kundu *et al.*, 2020; Mukherjee & Malhotra, 2006; Hassan, 2013). Role ambiguity arises from a lack of RC and has adverse consequences for the potency of desirable outcomes for work organizations (Hassan, 2013).

Psychological Capital (PsyCap)

Psychological capital is a positive state-like strength, resource, or capability that integrates hope (i.e., the motivation to attain goals and find new pathways to achieve them), efficacy (i.e., the confidence an individual has in his or her abilities to achieve a determined goal), resilience (i.e., the ability to anticipate, adapt, and persist to overcome challenging work contexts), and optimism (i.e., the ability to have a positive outlook on different work situations). The commonalities of these resources are intentionality, a sense of control, and agentic goal pursuit (del Castillo & Lopez-Zafra, 2022). In addition, individuals can develop and manage these resources by investing in cognitive and job resources to improve performance (Lorenz, Beer, Putz, & Heinitz, 2016). The probability of attaining certain goals under challenging work conditions can be a function of employees' PsyCap. Ononye *et al.* (2022) argue that the employees' cognitive properties and functioning shape their perspectives. This implies that PsyCap could have productive consequences at the individual, team, and organizational levels.

Employee Engagement (EE)

Employee engagement is a motivation concept that demonstrates the extent to which employees express themselves physically (vigor), cognitively (dedication), and emotionally (absorption) in the performance of different roles and assignments. Engaged employees achieve high in-role and extra-role performance, indicating their ability to meet role expectations and willingness to perform additional tasks. The outcomes of EE include better employee performance (Cesário & Chambel, 2017), reduced turnover intention (de Villiers & Stander, 2011), job satisfaction, organizational commitment, organizational citizenship behavior, and staying intentions (Akingbola & van den Berg, 2019).

Hypotheses Development

WC and job resources in particular, have a direct effect on EE, but what is unclear is whether certain job resources could be more significant for EE than others (Hakanen *et al.*, 2021). The expression and articulation of job resources in various ways contribute to the uncertainty surrounding the relative importance of certain job resources for EE compared to others. Job resources

may exist in the organization of work roles (e.g., RC) and social relationships at work (e.g., LMX) (Bakker & Demerouti, 2007). The study focuses on the influences of LMX and RC, and they have been found to predict high EE (see de Villiers & Stander, 2011; O'Rourke, 2021; Towsen *et al.*, 2020). Drawing from self-determination theory [SET], RC and LMX are reflective of the quality of the work environment that engenders the innate tendency to exert and sustain efforts towards the attainment of goals. This intrinsic motivational force guides the formation of certain work attitudes and behaviors to enhance an employee's functionality in the workplace (Ononye, 2023). Arguably, fostering WC that facilitates the satisfaction of basic psychological needs (competence, relatedness, and autonomy) can serve as a catalyst for EE. Using the Job Demands-Resources (JD-R) theory, Bellamkonda *et al.* (2021) noted that the job resources (e.g., LMX and RC) within a work environment are important determinants of work outcomes, as these resources satisfy the fundamental needs of the employees. Employees with higher levels of job resources are more likely to demonstrate valued outcomes. Positive evaluations closely relate these resources to the enhancement of employees' ability to manage their environment. Based on this, two hypotheses were developed:

H₁: The relationship between LMX and EE is positive and significant.

H₂: The relationship between RC and EE is positive and significant.

Scientific studies lack an examination of the personal resources that intervene in the relationship between LMX, RC, and EE. Following the conservation of resources (COR) argument, employees provided with job resources can invest in the development of other critical personal resources necessary for the constructive change of human attitude and behavior. The provision of adequate job resources may drive the enactment of PsyCap as a personal resource. When employees strive to obtain adequate job resources, they negate the consequences of resource depletion, leading to reduced stress. According to the social exchange perspective, employees feel obligated to reciprocate psychologically empowering conditions provided by their leaders with EE to achieve mutual interest (Park & Jo, 2017). EE serves as a currency in the social exchange process and fulfills obligations for reciprocity (Cheng, Lu, Chang, & Johnstone, 2013).

Besides, PsyCap mediates the influence of contextual variables on employee-related attitudinal and behavioral outcomes (del Castillo & Lopez-Zafra, 2022). For instance, Luthans *et al.* (2008) reported that PsyCap mediated the supportive organizational

climate and employee performance relationship. Slåtten *et al.* (2019) demonstrated the link between social capital measures (i.e., leadership and supportive organizational climate) and work-related outcomes (i.e., innovative behavior, job engagement, and work performance). A recent study (Lee, Kim, & Shin, 2022) also found the same positive and significant mediation effect in the work environment and innovation behavior link. Given the mediational significance of PsyCap, the study expects this personal resource to mediate the influences of LMX and RC on EE. Thus, the study formed the following hypotheses:

H₃: PsyCap mediates the relationship between LMX and EE.

H₄: PsyCap mediates the relationship between RC and EE.

To extend prior research, we also argue that WC factors can interact to improve their influence on specific work-related variables. This appears true because LMX fosters socialization and communication practices, which improve clarity and understanding of the roles played by leaders and employees. Additionally, it allows organizations to incorporate a social exchange system to effectively communicate variations in roles and responsibilities in response to changing work demands or requirements. The exchange of role-related information energizes the learning process and reinforces productive behaviors (ul-Hassan *et al.*, 2021; O'Rourke, 2021). Leadership improves RC by creating and maintaining a clear communication pathway between them and subordinates. This appears to be significant for unfolding PsyCap effects on EE due to better supportive relationships and resources (Lang *et al.*, 2007; Carter & Harper, 2016). Jian *et al.* (2014) pointed out that although low LMX may not necessarily lead to role ambiguity (i.e., low RC) because the terms and conditions of economic exchange are well specified and defined, the tension and uncertainty about one's role in high LMX can be addressed by managers through improved communication, information, and support over time. de Villiers and Stander (2011) found that LMX predicts RC, and RC mediates the influences of LMX on psychological empowerment, EE, and turnover intention. This suggests that organizations that foster interacting resource-rich WC (i.e., LMX and RC) can strengthen the reciprocity of employees in the form of improved PsyCap and EE. Therefore, we anticipate that RC and PsyCap will sequentially mediate the LMX effect on EE.

H₅: The relationship between LMX and EE is sequentially mediated by RC and PsyCap.

Figure 1 summarizes and depicts the hypothesized relationships among LMX, RC, PsyCap, and EE.

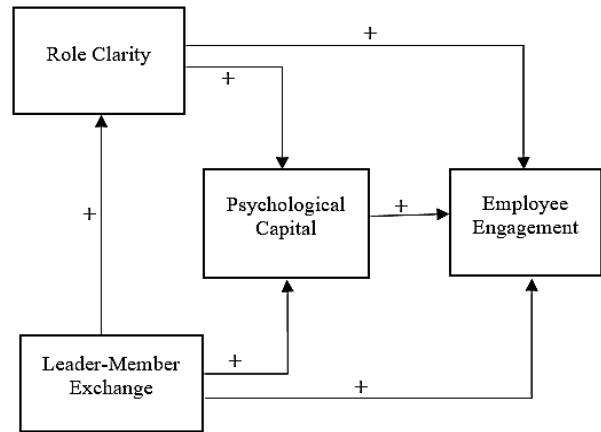


Figure 1. The research framework

Research Methods

The study made use of the cross-section survey research design for data collection and randomly sampled employees working in hotels located in two major cities, Asaba and Warri, in Delta State, Nigeria. Upon receipt of a formal request to carry out research in their hotels, the managers granted permission for the survey. From the list of hotels provided, the study recruited 234 participants. The targeted participants were customer-contact employees (e.g., marketing managers, front desk officers, porters, waiters and waitresses, room attendants, bar attendants, parking attendants, housekeepers, etc.). The data collection was done using a structured paper and pencil questionnaire with an expected completion time of seven minutes. The questionnaire had two sections: one for bio-data and the other containing questions on the constructs under investigation. The administration and collection of the questionnaire took place between August and September 2023. In order to reduce common method bias resulting from data obtained from a single source, we administered and collected the questionnaire over two time periods. At time 1, the respondents filled in questions measuring RC and LMX. In Time 2, about three weeks later, the respondents filled out the question items measuring PsyCap and EE. Both questionnaires were coded to identify and facilitate matching responses from times 1 and 2.

Prior to administering the questionnaire, the researchers asked the participants to properly read and understand the contents of the cover letter and give their informed consent to participate in the research. The cover letter included the research aim and significance, a statement assuring the anonymity of responses, and the publication of aggregated data (and not individual data). The researchers were accessible and provided clarifications about the questions when needed. A total of 231 responses, accounting for 97.8

percent, were considered valid after excluding 3 responses due to missing answers to certain questions out of the initial 234 responses collected. The demographic profile of the respondents revealed that females accounted for 55.4 percent (128), whereas 44.6 percent (103) were males. The mean age and tenure of the respondents were 28.3 and 4.9 years, respectively. This showed that the respondents were relatively young adults and had low-level experience. The Senior School Certificate (SSC) was the minimum academic qualification.

Table 1
Demographic Profile of Respondents

	Freq.	%
Gender		
Male	103	44.6
Female	128	55.4
Age		
18–23	40	17.3
24–29	107	46.3
30 and above	84	36.4
Educational Qualification		
First School Leaving Certificate	-	-
Senior School Certificate	88	38
Diploma	97	42
Bachelor's Degree	46	20
Tenure of Employment		
1–3 years	83	25.9
4–6 years	109	34
6 years and above	39	12.1
Employment Status		
Permanent	188	81.4
Contract	43	18.6

The study made use of previously validated scales to ensure content validity. Three question items for RC were taken from Shahidul (2013), who adopted them from the Task-Goal Attribute Scales. A sample item includes “I know exactly what I am supposed to do on my job.” Nine question items for LMX were adapted from Jian *et al.* (2014), who developed the Leader-Member Conversational Quality (LMCQ) scale, an instrument for measuring the quality of conversations between managers and subordinates in the workplace. A sample item includes “When discussing work-related matters, my supervisor and I can convey a lot to each other, even in a short conversation.” The nine-item EE scale was from Schaufeli, Bakker, and Salanova's (2006) work. This scale is a shortened version of the initial 17-item Utrecht Work Engagement Scale (UWES). Because of the strong correlations between the three factors of EE (i.e., vigor, dedication, and absorption), it is recommended that studies use the scale as a composite measure of EE instead of estimating the scores of each factor (Bouckenoghe &

Menguç 2018). A sample item includes “I am immersed in my work.” The CPC-12 scale was from Lorenz *et al.* (2016). A sample item includes “If I should find myself in a jam, I could think of many ways to get out of it.” The 5-point Likert scale, ranging from strongly agree ‘5’ to strongly disagree ‘1’, was adopted for the RC, LMX, and PsyCap scales. The EE scale ranged from always ‘5’ to never ‘1’.

The study performed a pilot test on 10 respondents randomly sampled to ascertain the quality of the questionnaire. This was conducted in the last week of July 2023. Some questions were rephrased slightly to improve their clarity and comprehension. Given these modifications, the study excluded these responses from the final sample to avoid possible contamination of the data. The Cronbach alpha test, performed with the Statistical Package for Social Science (SPSS) 20.0, achieved satisfactory construct reliability for all the constructs (RC = 0.789; LMX = 0.771; PsyCap = 0.808; EE = 0.794).

The partial least squares (PLS) approach to structural equation modeling (SEM) was used for data analysis. In this study, we also utilized Anderson and Gerbing's (1998) two-step process. The first step was confirmatory factor analysis of the measurement model, which means determining the reliability and validity of the constructs and the measurement items. The second step was structural model estimation, which means testing and confirming the links among the constructs. The study adhered to the rules of thumb outlined in Hair, Hult, Ringe, and Sarstedt (2017) for the interpretation of results.

Results and Discussion

Before the study advanced to the two-step procedure of SEM, the factorability of the dataset was tested to confirm the data could be subjected to PLS analysis. The applicability of the factor analysis procedure was confirmed with the Kaiser-Meyer-Olkin measure of sampling adequacy, which demonstrated that all the values (LMX = 0.691, RC = 0.664, PsyCap = 0.758, EE = 0.783) exceeded the minimum value of 0.60, and Bartlett's test of sphericity, which showed that the values of the constructs were all significant at $p < 0.05$. The confirmatory factor analysis of the measurement model was then applied to determine its validity and reliability. Factor loadings (FLs), composite reliability (CR), average variance extracted (AVE), and the Fornell-Larcker criterion (FLC) were used to check item reliability, construct reliability, convergent validity, and discriminant validity, respectively. Table 2 shows that

the constructs' FLs were above the minimum value of 0.707, indicating acceptable item reliability. The constructs' CR values were greater than the recommended threshold value of 0.70, proving CR was adequate. The constructs' AVE scores were higher than the cut-off limit of 0.50, indicating satisfactory convergent validity was established. In Table 3, the FLC showed that the constructs are distinct from each other, as the constructs' correlations were greater than their respective inter-construct correlations. Taken together, the quality of the measurement model's psychometric properties was satisfactory.

Table 2
Measurement Model Results

Construct	FLs Range > 0.707	CR > 0.70	AVE > 0.50
LMX	0.737–0.812	0.760	0.603
RC	0.804–0.848	0.799	0.684
PsyCap	0.729–0.826	0.758	0.526
EE	0.783–0.866	0.771	0.668

Table 3
Discriminant Validity (FLC)

Constructs	1	2	3	4
LMX	0.777			
RC	0.134	0.827		
PsyCap	0.179	0.025	0.725	
EE	0.120	0.151	0.095	0.817

Consequently, the study tested the structural model to determine the direction and strength of the relationships among LMX, RC, PsyCap, and EE. The beta values, *p*-values, and the coefficient of determination (*R*²) were used to estimate the relationships. The bootstrap method using 5000 subsamples was used to determine the significance of the specific indirect effects (Hair *et al.*, 2017). Table 4 illustrates the structural model estimates. The *R*² depicted the explanatory power of the direct effect (LMX and RC on EE), mediation effect (LMX and RC on EE through PsyCap), and sequential mediation effect (LMX on EE through RC and PsyCap). The *R*² values for these effects were 0.351, 0.587, and 0.589, respectively.

The first hypothesis predicted that the relationship between LMX and EE was positive and significant. The PLS result ($\beta = 0.264, p = 0.000$) is in agreement with this prediction, which confirms the position of previous research findings (Volmer *et al.*, 2012; Cheng *et al.*, 2013; Park & Jo, 2017) that high LMX triggers a positive change in employees' work attitude. Therefore, improving the conversational quality between managers and employees in social exchange is necessary to develop and sustain EE in productive activities.

Table 4
Structural Model Results

H	Paths	β (<i>p</i> -value)
1	LMX → EE	0.264 (0.000)
2	RC → EE	0.167 (0.000)
3	PsyCap → EE	0.449 (0.000)
	LMX → PsyCap	0.342 (0.000)
	LMX → EE	0.265 (0.000)
	LMX → PsyCap → EE	0.193 (0.000)
4	RC → PsyCap	0.187 (0.000)
	RC → EE	0.163 (0.000)
	RC → PsyCap → EE	0.121 (0.000)
5	LMX → RC	0.126 (0.000)
	LMX → RC → PsyCap → EE	0.094 (0.000)

Note: *H* = Hypothesis, *p* < 0.05, β = beta values

The second hypothesis argued that the relationship between RC and EE was positive and significant. The PLS result ($\beta = 0.167, p = 0.000$) also found this argument true. This supports past findings (de Villiers & Stander, 2011; Bellamkonda *et al.*, 2020), who found that RC is foundational for engaging employees cognitively, emotionally, and physically in their jobs. Therefore, improving the specificity, certainty, and understanding regarding employees' roles will likely increase their engagement levels significantly, as they can cope with the job demands, display more vitality, and show greater involvement. The changes in WC factors comprising LMX and RC explained 35.1 percent of the total variance in EE, suggesting a weak predictive power. However, LMX is a stronger determinant of EE than RC.

The third and fourth hypotheses examined the mediation effects of PsyCap in the LMX-EE and RC-EE relationships. As expected, the PLS result indicates that PsyCap and EE have a significant and positive relationship ($\beta = 0.449, p = 0.000$), which is in parallel with prior research (Kotzé, 2017; George *et al.*, 2021; Saleem *et al.*, 2020). Further, both LMX ($\beta = 0.342, p = 0.000$) and RC ($\beta = 0.187, p = 0.000$) have significant and positive relationships with PsyCap. There were slight reductions in the correlations of LMX and RC after introducing the mediating variable, PsyCap; however, they remained positive and significant. The indirect estimates for PLS show that PsyCap played a role in the LMX-EE ($\beta = 0.193, p = 0.000$) and RC-EE ($\beta = 0.121, p = 0.000$) relationships. The partial mediation role indicated the presence of unaccounted factors in this study. The findings support the views of past research that PsyCap mediates relationships between contextual variables and attitudinal outcomes (Luthans *et al.*, 2008; Slåtten *et al.*, 2019; del Castillo & Lopez-Zafra, 2022; Lee *et al.*, 2022). Therefore, an improvement in the psychological strength of employees can enhance the LMX and RC stimulation of EE optimally.

Elevating PsyCap can better manage the variability of WC factors, leading to significant implications for demonstrating EE in the workplace. It is important for organizations to leverage the higher correlational value PsyCap provides to EE to generate stronger influences on such an outcome variable. In other words, job resources contribute more to the development and maintenance of EE indirectly through the personal resources of employees than directly. Introducing PsyCap as a mediating variable in the research framework observed a 58.7 percent variance in EE, further reinforcing its importance. Therefore, LMX, RC, and PsyCap moderately explained the changes in EE.

The fifth hypothesis proposed that the sequential mediation of RC and PsyCap in the relationship between LMX and EE was significant and positive. The PLS results showed that WC factors, LMX, and RC can relate to each other to influence other important employee constructs ($\beta = 0.126, p = 0.000$). This aligns with de Villiers and Stander (2011), who obtained evidence that LMX predicts RC, and RC mediates the effects of LMX on psychological empowerment, EE, and turnover intention. Also, the specific-indirect estimate shows that RC and PsyCap play a positive and significant role in mediating the LMX-EE relationship ($\beta = 0.094, p = 0.000$). The strong association between specific job resources creates the enabling conditions that strengthen PsyCap and EE significantly. Specifically, LMX influences many positive constructs in the workplace, and these outcome constructs play different roles in improving the effectiveness of LMX in a specified context. In this case, LMX shapes employees' perceptions about RC; a heightened sense of coherence strengthens PsyCap levels and EE. The introduction of the sequential pathway in the framework made LMX, RC, and PsyCap explain 58.9 percent of the total variance in EE, which also suggests moderate predictive power.

Conclusion and Implications

The study presented a research framework demonstrating the relationships among specific WC factors (i.e., LMX and RC), PsyCap, and EE. The study obtained data from employees working in hotels in two major cities, Asaba and Warri, in Delta State, Nigeria. It subjected the same data to the PLS procedure. The findings of this study conclude that WC factors, consisting of LMX and RC, affect EE, with PsyCap partially mediating this effect. Furthermore, RC and PsyCap mediate the sequential effect of LMX on EE.

Theoretically, the study operationalized WC using LMX and RC, which differed markedly from those

used in past research (e.g., Raziq & Maulabakhsha, 2015; Irawan & Ie, 2021; Li *et al.*, 2022; Pawirosumarto *et al.*, 2016; Saleem *et al.*, 2020; Vohra *et al.*, 2022). Thus, it expands the existing literature on the WC construct by substantiating its dimensions and significance in the integrative research framework. More so, George *et al.* (2021) mentioned that EE has received comparatively little attention in empirical research despite its higher significance for performance and behavioral outcomes. This study is a response to this observation and contributes to understanding the antecedents of EE. The study extended the applicability of social exchange theory to elucidate the relationships among LMX, RC, PsyCap, and EE. It also showed how important RC and PsyCap are for improving the effectiveness of LMX in the hospitality industry, which has a high turnover rate and the attitude problems that come with it. This offers useful empirical information to understand the mechanism of the LMX-EE relationship. The empirical information contained herein contributes to literature in an African and developing country context, specifically drawing from the Nigerian experience.

From a practical perspective, organizations should develop the conversational quality of the exchange relationship to convey clarifications or new role-related information and foster mutual understanding of the roles performed by employees. The roles' clarity is highly beneficial to PsyCap and EE in business environments characterized by uncertainties and evolving challenges. The learning and development of managers' conversational skills can be accomplished through participation in leadership training and periodic assessments of the quality of their interactions with employees. Managers and employees can improve interactional quality by adopting certain practices, such as implementing an open-door policy, providing feedback, and engaging in transparent and respectful communication. Given the centrality of PsyCap, organizations should invest in its development and maintenance so as to foster EE in productive activities critical to goal attainment. In this line, organizations can invest in PsyCap training interventions. It would also be significant for organizations to use adequate PsyCap as a recruitment criterion for new employees.

The study had several limitations. First, the study collected cross-sectional data from a single Nigerian state, which may have applicable value. However, it is important to exercise caution when generalizing the findings to other hotels, especially those classified as five-star in Nigeria. Future research can exploit the benefits of a longitudinal dataset to draw concrete, causal inferences. Second, the study only considered the relationships among WC factors (LMX and RC),

PsyCap, and EE. Future studies should examine the influence of demographic variables and other WC factors.

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