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## RELATIONSHIP BETWEEN PERCEIVED ORGANIZATIONAL SUPPORT AND WORK ENGAGEMENT: MODERATING EFFECT OF LEVEL OF EDUCATION

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### ABSTRACT

This study examines the moderating effect of educational qualification on the relationship between perceived organizational support (POS) and work engagement (WE) among private primary and secondary school teachers in Nigeria. Drawing on Organizational Support Theory (OST), the research highlights how individual differences, particularly educational attainment, influence the dynamics of the POS-WE relationship. While the theory emphasizes socio emotional needs and reciprocity as mechanisms through which POS impacts outcomes, it has yet to incorporate educational qualification as a moderating factor, despite its potential relevance in shaping employee perceptions and responses. The study is set within the unique socio-economic context of private school teachers in Nigeria, where challenging conditions such as poor remuneration, job insecurity, and resource constraints heighten the importance of organizational support. The research employs a cross-sectional survey design, utilizing validated scales for POS (Eisenberger et al., 1986) and WE (Schaufeli et al., 2006). Data were collected from 150 teachers using convenience sampling between August and October 2024. Structural Equation Modeling (SEM) was conducted to test the hypotheses, as it is suited for prediction-oriented objectives and models with multiple constructs. Findings reveal a significant positive relationship between POS and WE, moderated by educational qualification. Teachers with different levels of education displayed varying responses to POS, suggesting the need for tailored organizational strategies. This study validates and extends OST by integrating educational qualification as a moderator, offering theoretical enrichment and practical insights. Recommendations emphasize the importance of customized engagement approaches to maximize employee performance and enhance teacher effectiveness in challenging environments.

**Keywords:** Perceived Organizational Support, Work Engagement, Educational Qualification, Organizational Support Theory.

## INTRODUCTION

A common understanding of human behavior is that they seek to maintain relationships where the perceived benefits outweigh the costs. This basic tenet applies to the organizational context in which the relationship between employees and the organization is largely built on mutual perception of value and care. Specifically, Eisenberger et al. (2020), notes that employees develop a general perception of the extent to which their organization values their contributions and cares about their well-being, a concept known as 'perceived organizational support' (POS). Positive perception of organizational support has been reported to have far reaching positive outcomes for both employees and the organization. Studies have reported that POS influences employees well-being (Wang, 2023), career commitment, success and satisfaction (Hadi & Johan, 2023; Abuzaid 2023; Oubibi et al., 2022), and work engagement (Harunavamwe & Kanengoni, 2023; Saeed & Hussain, 202; Imaran et al., 2020), positive orientation towards organization in form of performance, commitment, citizenship behaviors, engagement and trust (Eisenberger et al., 2020). However, it has been noted that employees POS depends on past perceived treatment (favorable or unfavorable) by the organization, as such organizational attributes such as fairness, human resources practices and work conditions as well as leadership style are antecedents to POS (Eisenberger et al., 2020).

Specifically, in the education sector, particularly among private school teachers, POS play a crucial role given that teaching profession demands high levels of dedication, and continuous engagement in order to foster a positive learning environment. According to Wang (2024), Work engagement is an essential aspect of an educator's professional life, as teachers with high levels of work engagement exhibits resilience, passion, and a sense of purpose in their roles, which shapes a productive learning environment for learners. Often times in developing nations like Nigeria, private school teachers' work under resource constraints and face unique challenges such as, poor remuneration, job insecurity, heavy workloads, and limited career advancement opportunities. As reported by Aniunlopo et al. (2024), a lot of private school teachers earn monthly salaries weigh below the national minimum wage. They further reported that while the Nigerian Labor Congress (NLC) and other trade unions consistently advocate for a wage review due to the high cost of living, most proprietors habitually withhold salaries, particularly during holidays reflecting the state of affairs in the private primary education in the country. Similarly, reports by Osayande, (2024) reveals the grim reality of teachers in Nigeria with

many earning less than the national minimum wage, enduring irregular payments, long hours of work, and minimal recognition amidst the difficult economic challenges. However, while studies have established the relationship between POS and work engagement (Tian et al., 2023; Thai et al., 2023; Saeed & Hussain, 2021), this relationship may not be uniform across all individuals. On a broad level, organizational support theory (OST) acknowledges that those perceptions of support arise from employees' interpretation of their organization's actions and resources. Although OST emphasizes that employees' perceptions of support are shaped by their interpretations of organizational actions and resources, it does not explicitly identify educational qualification as a determinant. Therefore, this study serves as an extension of OST by exploring how this individual difference, particularly educational qualification might moderate the relationship between POS and work engagement in the unique context of Nigerian private school teachers. Additionally, it is plausible to assume that higher levels of education often enhance critical thinking and analytical skills, which can influence how individuals interpret and evaluate information and experiences, in other words, perceive organizational support. Therefore, educational qualification, a key individual difference, is likely to play a moderating role in the dynamics between POS and Work engagement. Teachers with varying levels of educational attainment may perceive and respond to organizational support differently, which could influence the extent of their work engagement. Surprisingly, this aspect remains underexplored in existing research thereby creating a gap in understanding the role of educational qualification in the relationship between POS and WE. Therefore, it is against this background that this study seeks to fill this gap by exploring the moderating effect of educational qualification on the relationship between POS and work engagement among private school teachers in Nigeria.

## **LITERATURE REVIEW**

### **Perceive Organizational Support (POS)**

According to Eisenberger et al (1986), POS is an employee's overall belief in the degree to which an organization values the contribution and shows interest in their wellbeing. Generally, the perception employees' form about their organization is influenced by several factors. For instance, Eisenberger et al (2020) notes that factors such as fairness, human resource practices and work conditions of the organization, as well as leadership styles are all antecedents to perceived organizational support. They added that POS through the mechanism of gratitude, anger, felt obligation,

fulfillment of socioemotional needs and performance-reward expectations results in certain orientation to the organization and work such as commitment and engagement, as well as behavioral outcomes and employee well-being such as performance, citizenship behavior, and reduced stress and enhance positive affect. Kurtesis et al. (2017) states that POS leads to in-role performance (employees stated job responsibilities) and extra-role behaviors that contributes to the organizations welfare. It reduces counterproductive behaviors, increased employee well-being, overall job satisfaction and work family balance. A nuanced determinant of POS, as noted by Eisenberger et al. (1997), is whether employees perceive favorable treatment as a voluntary choice made by the organization or as compelled by external factors. Favorable treatment attributed to the organization's choice is more likely to enhance POS compared to treatment perceived as externally driven.

### **Work Engagement (WE)**

The most popular conceptualization of work engagement indicates that it is a construct with three dimensions, including a behavioral-energetic component, an emotional component and a cognitive component i.e. vigor, dedication, and absorption respectively. (Decuyper & Schaufeli, 2019). Work engagement is described as a positive, work-related state of fulfillment characterized by vigor, dedication, and absorption. Vigor refers to high levels of energy and mental resilience, a willingness to invest effort, and persistence even in the face of challenges at work. Dedication encompasses experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge in one's work. Absorption involves being fully concentrated and happily engrossed in one's work, where time seems to pass quickly, and detaching oneself from work becomes difficult (Schaufeli et al., 2006). Additionally, schaufeli et al. (2006) added that engagement entails a more persistent and pervasive affective-cognitive state that is not focused on any particular object.

### **Theoretical Framework: Organizational Support Theory (OST)**

The relationship between organizational support and work engagement has been explained via several theories in literature including organization support theory (OST), social exchange theory (SET), Job-Demand Resources (JD-R), and Conversion of Resources (COR), and Social Identity theory (SIT). However, Organizational Support Theory (OST) provides the theoretical foundation for this study as it explicitly identifies work engagement as an outcome of perceived organizational support

(POS). According to this theory, employees develop a perception of organizational support based on their belief that the organization values their contributions and cares about their well-being. This perception of support is critical in fostering positive employee attitudes and behaviors. According to OST, POS is a valued resource, the receipt of which employees are obliged to reciprocate because of the reciprocity norm (Eisenberger et al., 2020). Similarly, Imran et al (2020) notes that when employees assume that their organizations provide them with intangible and tangible support, it results in a norm of reciprocity. This norm creates a feeling of obligation in the employees to help their organizations achieve its goals by being more engaged in their work. Essentially, the mechanism through which POS impacts work engagement is through the feeling of reciprocity or indebtedness to the care and value received from the organization. On the one hand, as described by Rhoades and Eisenberger (2002), Organizational Support Theory explains the psychological mechanisms through which perceived organizational support (POS) influences outcomes. The first mechanism is based on the reciprocity norm as POS creates a sense of obligation in employees to prioritize the organization's well-being and contribute to achieving its goals. The second mechanism is through emotional care, approval, and respect associated with POS which satisfies the socioemotional needs of employees and encourages them to integrate their organizational membership and roles into their social identity. The last mechanism is that POS influences employees' expectations that the organization recognizes and rewards their increased performance, thereby yielding positive outcomes for both employees and the organization. On the other hand, POS reduces counterproductive work behaviors and fosters employee well-being, including job satisfaction and work-life balance (Kurtessis et al., 2017).

According to Eisenberger et al. (2020), Organizational Support Theory (OST) posits that POS fulfills employees' socioemotional needs, such as affiliation, esteem, and emotional support. These needs, however, are not uniform and vary across individual differences, including educational levels. For less educated employees, socioemotional fulfillment may center on emotional support and a sense of belonging, as these align with their potential need for reassurance in workplace settings. In contrast, highly educated employees are more likely to value esteem and professional affiliation, which reflect their advanced roles and career goals. Consequently, it is plausible to assert that educational level moderates the strength of the relationship theorized by OST, as the degree to which POS

meets these distinct needs will influence its impact on outcomes like work engagement. In summary, OST provides a robust theoretical basis for exploring the impact of POS on employee engagement. It explains how the fulfillment of socioemotional needs and reciprocity contribute to favorable employee outcomes. By addressing the antecedents and consequences of POS, OST underscores the central role of organizational support in fostering engagement, making it a suitable framework for this study.

## **Hypothesis Development**

### **Perceived organizational support and work engagement**

Theoretically, OST notes the consequences of POS among others are positive work behaviors such as work engagement. According to Eisenberger et al (2020), there exists established substantial relationships of POS with diverse attitudinal outcomes such as engagement and commitment; behavioral outcomes such as performance and turnover; well-being outcomes such as positive mood and reduced strain. For instance, Park and Kim (2024) evaluated the mediating effect of work engagement on the relationship between Perceived organizational support, organizational citizenship behavior (OCB) and customer orientation (CO). The authors collected data from 305 employees using a convenience sampling method and employed structural equation modeling for data analysis. Findings of the study are consistent with several other studies, confirming a significant and positive relationship between POS and work engagement. Similarly, Saeed and Husain (2021) examined the relationship between perceived organizational support (POS) and work engagement among secondary school teachers in Punjab, Pakistan. This study aligns with primary tenet of OST on the positive impacts of POS on employee outcomes. The researchers gathered data from 935 teachers using a multi-stage sampling technique and found a significant effect of perceived organizational support on work engagement. Their result conforms to those of other studies presented in table one which consistently demonstrates the relationship between POS and WE, leading to the following hypothesis of the study.

H1: Perceived organizational support has a significant positive effect of work engagement.

**Table 1**  
**Summary of Empirical Literature on POS and WE Relationship**

No	Author/year	Theory	Independent Variable	Dependent Variable	Mediating Variable	Moderating Variable	Methodology	Major Findings
1	Vinahapsari et al. (2024)	JDR and OST	Naturally Felt emotions	Work Engagement	-	Perceived Organizational Support	Survey of 321 lecturers in central java, Indonesia, and SEM analysis	NFE directly impact all dimensions of Work Engagement; POS did not moderate any of the paths.
2	Park and Kim (2024)	SET	Perceived Organizational Support	Organization Citizenship Behaviour (OCB) and Customer orientation (CO)	Work Engagement	-	Survey of 248 employees of Public sport organization, South Korea, using AMOS SEM analysis	POS has direct impact on WE, but not on OCB and CO; WE has direct positive impact on OCB and OC.
3	Wang and Yonggang (2023)	-	Workload, and Organizational Support	Well-being	Work Engagement	-	Survey of 572 secondary school teachers in China, using SEM analysis	All direct and indirect impacts were significant
4	Hadi and Johan (2023)	SET and OST	Perceived Organizational Support	Career Commitment	Work Engagement	-	Survey of 125 employees of digital startups, west java province using SEM	All direct relationships were positive and significant; mediating effect was also significant

5	Tian et al. (2023)	JDR and COR	Perceived Organizational Support	Work engagement (WE)	Psychological Capital	-	analysis and interviews Survey of 7382 infection control nurses in China, utilizing Univariate analysis and spearman correlation	POS and Psychological Capital directly increase WE, while POS indirectly influence WE
6	Harunavame & Kanengoni (2023)	SET	Technostress, POS, Work-family conflict	WE	POS and Work-family conflict (dual roles)	-	Survey of 302 academic and support staff of South African Universities and SEM analysis	All mediation roles were significant and all direct effects were significant
7	Abuzaid 2023	SET	POS	Career success	Work Engagement	-	Survey of 459 health care workers in Jordan, using AMOS SEM	All direct and indirect effects were statistically significant
8	Thai et al 2023	-	POS, Autonomy	WE	relational crafting, task crafting, cognitive crafting	-	Survey, 255 service employees in Vietnamese retail companies, SEM	All direct and indirect paths were statistically significant
9	Li et al 2022	-	POS and Employee Care	Turnover Intention (TI)	Work Engagement	Age	Survey, 533 medical workers in china, SEM	All direct paths were significant, and only EC-WE-TI was not supported.
10	Mascarenhas et al	SIT	POS, and Identification	Job satisfaction	-	-	survey, 171 professors and	Only the effect of identification with Org on



	2022		with the org.	and WE			support staff,	Job satisfaction was not significant
11	Inam et al 2021	SET	POS	Employee Creativity	Work Engagement	hindrance stressors, and challenge stressors	SEM, Survey marketing personnel, Telcom sector Pakistan, AMOS, SEM	324 all direct relationships were significant, all moderators were significant
12	Aldabbas et al 2021	-	POS	Employee Creativity	Work Engagement	-	survey, employees in UK, PROCESS Macro	492 Both direct and mediation effect were significant
13	Imran et al 2020	OST	POS	Work Engagement	Thriving and Flourishing	-	Survey, employees, PROCESS Macro, bank employees, Lahore, Punjab, Pakistan	638 all direct and indirect relationships were significant
14	Zulfikar and Putra 2020	-	POS and PE	Satisfaction	Work Engagement	-	survey, hospital staff, Indonesia, SEM	230 all direct and indirect effects were statistically significant

Source: Abdulrahman and Usman (2024)

**Moderating effect of educational qualification** :Drawing on insights from OST, logical deductions, As well as the unique socio-economic context of Nigerian private school teachers, where educational qualifications often contrast sharply with societal treatment and remuneration, educational qualification is included as a moderator in the POS-WE relationship. While OST does not explicitly mention education level, it acknowledges that employees' perceptions of support are shaped by their interpretations of organizational actions and resources. Specifically, OST emphasizes that employees interpret organizational actions through attribution processes, determining whether favorable treatment stems from voluntary organizational intent or external mandates (Eisenberger et al., 1997). However, it is plausible that higher levels of education enhance critical thinking and analytical skills, which can influence how individuals interpret and evaluate information and experiences. Additionally, OST notes that POS meets employees 'socioemotional needs (e.g., approval, affiliation, esteem, and emotional support) and indicates the potential benefits of exhibiting greater efforts on the organization's behalf (Eisenberger et al., 2020). The importance of these needs is likely to vary based on education level, as more educated individuals might prioritize support for professional development, recognition of expertise, and opportunities for career advancement than less educated employees who may prioritize job security and emotional support. Therefore, theoretical mechanisms of OST, combined with logical deductions about individual differences, and the unique context of Nigeria private schools, support the proposition that educational qualification will moderate the relationship between POS and WE in teachers. Therefore, this results in the hypothesis below. H2: The relationship between perceived organizational support (POS) and employee engagement is moderated by employees' level of education.

## Research model

Fig 1 Research Model for POS effect on WE.

Source: Abdulrahman and Usman (2024)

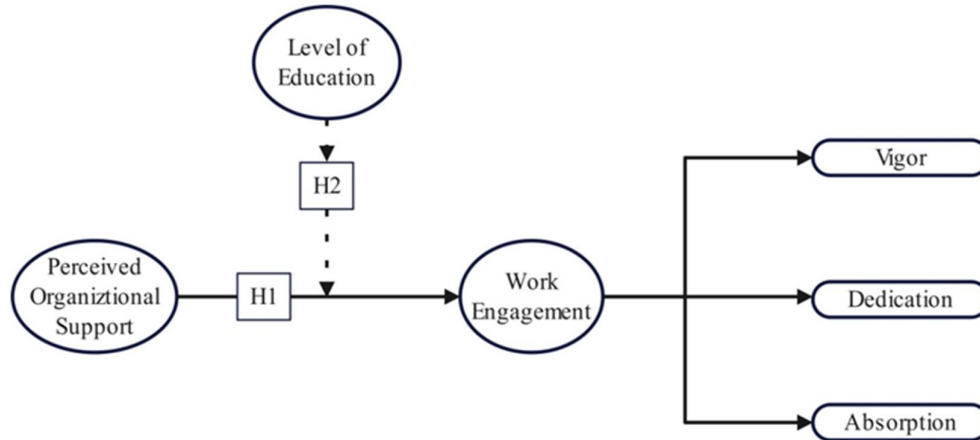


Table 2  
 Demographic profile of respondents

Category	Frequency	Percentage
<b>Sex</b>		
Male	52	34.67%
Female	98	65.33%
<b>Educational Qualification</b>		
National Diploma/Nigeria certificate in Education	55	36.67%
Higher National Diploma /First Degree	77	51.33%
Master's Degree	18	12.0%
<b>Age</b>		
21 to 30 years	73	50.0%
31 to 40 years	55	37.67%
41 to 50 years	17	11.64%
51years and above	1	0.68%
<b>Marital Status</b>		
Single	67	44.67%
Married	80	53.33%
Divorced	1	0.67%
Widowed	2	1.33%

Source: Abdulrahman and Usman (2024)

The demographic profile of the respondents reveals a diverse group of private primary and secondary school teachers in Jigawa State, Nigeria. Gender distribution shows that the majority of the respondents are female, comprising 65.33% (98 respondents), while males make up

34.67% (52 respondents). This suggests a higher representation of female teachers within the sampled population, reflecting trends commonly observed in the education sector at this level. In terms of educational qualification, most respondents hold Higher National Diploma /First Degree degrees, accounting for 51.33% (77 respondents), followed by those with National Diploma/Nigeria certificate in Education (the minimum teaching qualification in Nigeria) at 36.67% (55 respondents). A smaller proportion of the participants, 12% (18 respondents), possess Masters Degrees. This distribution indicates a significant number having obtained tertiary-level qualifications. The age distribution of the respondents is skewed towards younger individuals suggesting predominantly young teachers among the sampled respondents. 56.59% (73 respondents) aged between 21 to 30 years, 42.64% (55 respondents) aged 31 to 40 years, 41 to 50 years age bracket, accounting for 13.18% (17 respondents), while only one respondent (0.78%) is aged 51 years or above. Distribution of respondents on the basis of marital status shows that 53.33% (80 respondents) are married, 44.67% (67 respondents) are single, 0.67%, (1 respondent) is divorced, and 1.33% (2 respondents) is widowed. This demographic reflects cultural or societal norms within the northern region of Nigeria, where a significant portion of adults are married. Generally, a predominance of female teachers, balanced distribution of young, educated, and married teachers in the private school sector is observed, reflecting a diverse background which provides a meaningful context for exploring perceptions and attitudes within this population.

### **Measurement Model Assessment**

The two-stage approach was used to validate the construct of work engagement since it is a second order reflective construct. This approach validates the first order constructs first, and then uses their latent scores to represent the higher order construct. Additionally, in validating the first order constructs, indicators with loadings between 0.40 and 0.708 should be considered for removal only when deleting the indicator leads to an increase in the internal consistency reliability or convergent validity (Hair et al., 2021).

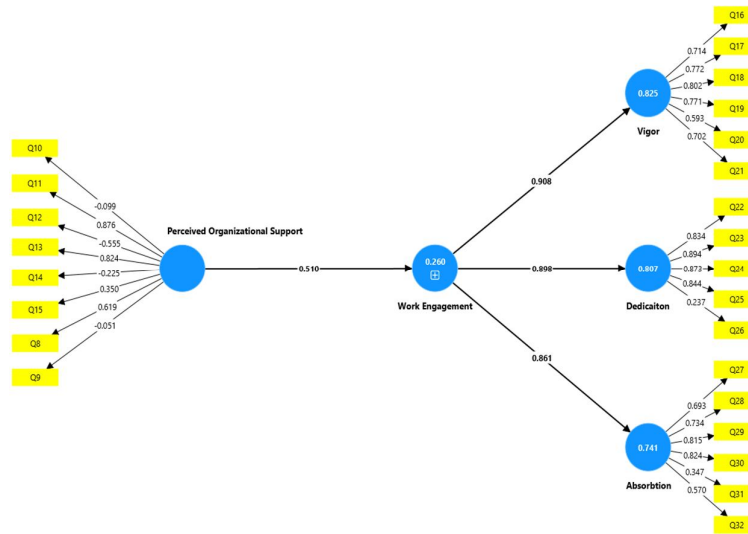


Fig 2 Initial Measurement model for validating lower order constructs  
 Source: Abdulrahman and Usman (2024)

For POS, items Q9, Q10, Q12, Q14, and Q15 were all removed due to low factor loadings. Also, item Q20 for vigor, Q26, for Dedication, and Q31, Q32, for Absorption were removed for the same reason. The removal of these improved the Cronbach alpha, rho\_c and AVE for POS, and AVE for Absorption which did not initially meet the threshold of 0.7 for cronbach's alpha and 0.5 for AVE initially.

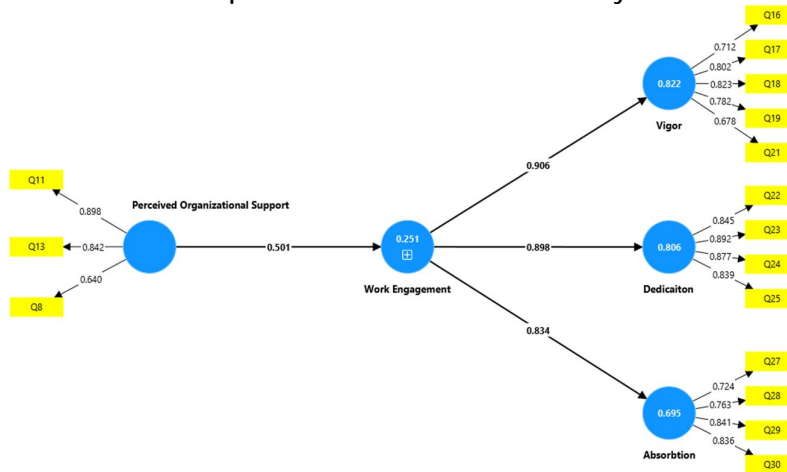


Fig 3 Modified Model for Validating Lower Order Constructs  
 Source: Abdulrahman and Usman (2024)

Having modified the model by removing poorly loaded items for the constructs, the lower-order constructs (LOCs) were adequately validated, as depicted in Tables 3, 4, and 5. For all the LOCs, the Cronbach's alpha for internal consistency ranged between 0.717 and 0.886, which is above the recommended threshold of 0.7 (Hair et al.,

2021). Similarly, Dillon-Goldstein's rho (rho\_c) for composite reliability ranged between 0.84 and 0.92, exceeding the recommended minimum threshold of 0.7, further confirming the constructs' internal consistency. Additionally, the Average Variance Extracted (AVE) values ranged from 0.58 to 0.746, this entails that each construct explained more than 50% of the variance in its indicators, thereby establishing convergent validity. This aligns with the recommendations of Fornell and Larcker (1981)..

Table 3  
*Construct Validity and Reliability (Lower Order Constructs)*

Constructs	Cronbach's alpha	rho_a	rho_c	AVE
Absorption	0.802	0.819	0.870	0.628
Dedication	0.886	0.888	0.921	0.746
POS	0.717	0.772	0.840	0.641
Vigor	0.817	0.825	0.873	0.580

*Source:* Abdulrahman and Usman (2024)

The discriminant validity (HTMT), as proposed by Henseler et al. (2016), all fell below the conservative threshold of 0.85, except for Vigor-dedication which was 0.858 (slightly above the threshold). This further validating the distinction between constructs. For instance, the HTMT values between Absorption and Dedication (0.725), Absorption and POS (0.410), and Dedication and POS (0.632) were well within acceptable limits.

Table 4  
*Discriminant Validity: HTMT*

Constructs	Absorption	Dedication	POS	Vigor
Absorption				
Dedication	0.725			
POS	0.410	0.632		
Vigor	0.785	0.858	0.643	

*Source:* Abdulrahman and Usman (2024)

Furthermore, the Fornell and Larcker Criterion, reported in Table 5, confirms the discriminant validity of the constructs as the square root

of the AVE for each construct (diagonal values) is greater than its correlations with other constructs.

Table 5  
*Discriminant Validity (Fornell and Larcker Criterion)*

Construct	Absorption	Dedication	POS	Vigor
Absorption	0.792			
Dedication	0.628	0.864		
POS	0.345	0.517	0.801	
Vigor	0.651	0.735	0.494	0.762

Source: Abdulrahman and Usman (2024)

Overall, the combination of internal consistency metrics (Cronbach's alpha and rho\_c), convergent validity metrics (AVE), and discriminant validity measures (Fornell and Larcker Criterion and HTMT) demonstrates that the LOCs in the modified model were robustly validated, ensuring reliability and construct validity. These results provide a strong foundation for further analysis using the validated constructs, and further validate the higher order construct of WE as shown in Table 6.

Table 6  
*Higher Order Construct Validation*

Constructs	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
POS	0.717	0.767	0.841	0.642
WE	0.86	0.894	0.913	0.779

Source: Abdulrahman and Usman (2024)

### Structural Model assessment

When assessing the structural model, Hair et al. (2019) suggested scrutinizing the significance of the path coefficients, the coefficient of determination ( $R^2$ ), predictive relevance ( $Q^2$ ) and the effect sizes ( $f^2$ )

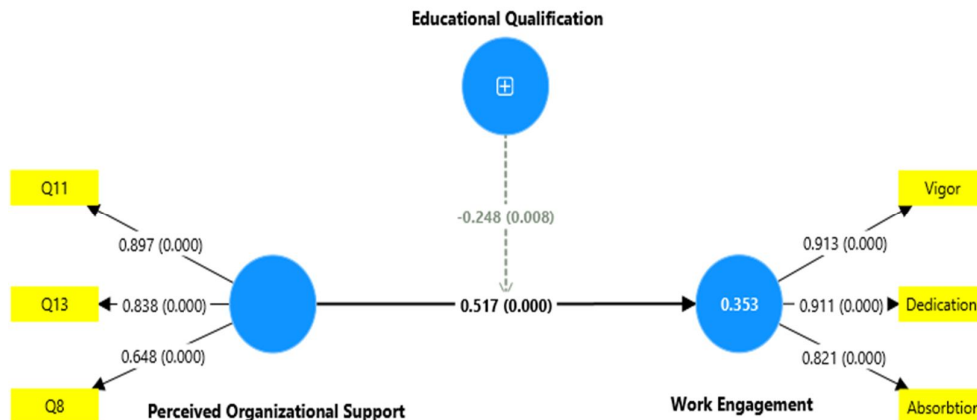


Fig 4 structural model for POS, WE, and Educational Qualification  
 Source: Abdulrahman and Usman (2024)

### Path coefficients

The bootstrapping results for the structural model, is presented in the table 6. The results provide insights into the relationships between POS, WE, and educational qualification, as well as tests the hypotheses under investigation. Standardized path coefficients, t-statistics, and p-values were used to determine the significance of the relationships.

The study first hypothesized that Perceived organizational support has a significant positive effect on work engagement. The path coefficient for Perceived Organizational Support (**POS**) to Work Engagement shows a **t**-statistic of **7.452** and a **p**-value of **0.000**. These results indicate a strong and statistically significant positive relationship between POS and work engagement, as the t-statistic exceeds the threshold of **1.96** (for a 95% confidence level) and the p-value is below the significance level of **0.05**. Thus Hypothesis One is supported. The finding that Perceived Organizational Support (POS) positively and significantly impacts Work Engagement (WE) aligns well with the Organizational Support Theory (OST). OST posits that the perceived support developed by employees fosters a sense of obligation and commitment, which in turn enhances engagement. Additionally, this finding is consistent with several empirical studies such as research by Park and Kim (2024), Abuzaid (2023) and Zulkifar and Putra (2020) who all reported a positive influence of POS on WE. Collectively these findings validate the robustness of the relationship between POS and WE and situate the current study's results within a broader empirical context. The findings also strengthen the applicability of OST in explaining how POS drives



employee engagement in contexts such as private primary and secondary schools in Jigawa State, Nigeria.

Table 7

*Path coefficients (bootstrapping result)*

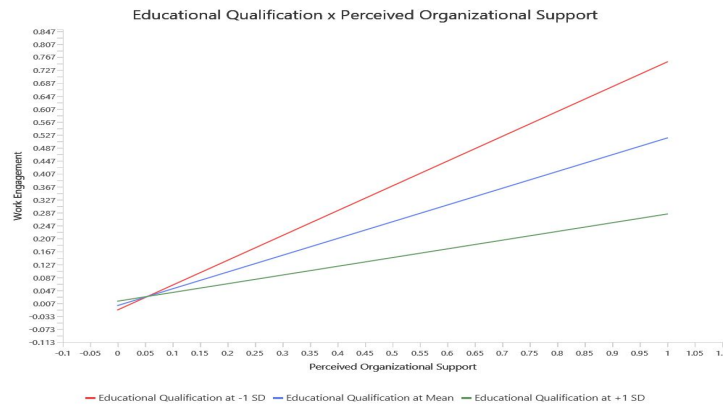
	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values
Perceived Organizational Support -> Work Engagement	0.517	0.542	0.069	7.452	0.000
Educational Qualification x Perceived Organizational Support -> Work Engagement	-0.248	-0.228	0.093	2.668	0.008

*Source:* Abdulrahman and Usman (2024)

The study also hypothesized that the relationship between perceived organizational support (POS) and work engagement is moderated by employees' level of education. The interaction effect (Educational Qualification x Perceived Organizational Support to Work Engagement) has a t-statistic of 2.668 and a p-value of 0.008. The significant t-statistic (above 1.96) and p-value (below 0.05) indicate that educational qualification significantly moderates the relationship between POS and work engagement. However, the negative coefficient of -0.248 suggests that higher educational qualifications weaken the positive effect of POS on work engagement. This provides evidence to support Hypothesis Two, although the hypothesis was not directional. The negative moderation effect suggests that higher educational qualifications weaken the positive impact of POS on WE. This finding can still be viewed through the lens of OST. Although it did not explicitly state educational qualification as a moderator, it acknowledged individual interpretation of perceived organizational support. Thus, employees with higher educational qualifications may have different expectations or reduced sensitivity to organizational support, potentially because they rely more on intrinsic motivators or external career prospects. Empirically, this relationship is less commonly studied. However, partial alignment with empirical insights from studies that evaluated other individual differences in the POS-WE relationship can be observed. For instance, Harunavamwe and Kanengoni (2023) explored work-family conflict as a moderator in POS-WE relationship. Similarly, Inam et al. (2021) demonstrated how stressors moderated similar relationships. These

studies supports the idea that the POS-WE dynamic is not uniform and can be influenced by individual characteristics.

### Simple Slope Analysis for Moderation Analysis



*Fig 5 Simple Slope analysis*  
 Source: Abdulrahman and Usman (2024)

Fig 5 depicts the simple slope analysis for examining the moderating effect of educational qualification on the relationship between perceived organizational support and work engagement among private primary and secondary school teachers in Dutse, Jigawa state Nigeria. Firstly, the red line sloping upwards represents the positive moderation effect of educational qualification at 1 standard deviation below the mean. The steepness of the slope is an indication of the positive effect of educational qualification on work engagement for individuals with lower educational qualification. Secondly, the blue line which is also upward sloping represents individuals with mean level of Educational Qualification. A visual inspection suggests that the slope is moderately steep, indicating that POS positively influences Work Engagement, but the effect is weaker compared to those with lower Educational Qualifications. Lastly, the green line, also upward sloping depicts the moderating effect of educational qualification at 1 standard deviation above the mean. Since the slope is the flattest on this line, it implies that POS has the weakest positive effect on Work Engagement for this group with higher Educational Qualifications. In a nutshell, fig 5 shows that Educational Qualification moderates the relationship between POS and Work Engagement such that the higher the Educational Qualification, the weaker the effect of POS on Work Engagement. By implication, it is plausible that employees with lower Educational Qualifications are more influenced by POS, whereas, employees with higher Educational

Qualifications, POS is less impactful, possibly because they rely on other factors such as intrinsic motivation or career opportunities for their engagement.

### Coefficient of Determination (R<sup>2</sup>)

Table 8 shows the R<sup>2</sup> value of 0.353 with a statistically significant P value of 0.000, and a T statistics of 3.861. According to Heir et al. (2019), the R<sup>2</sup> value reflects the explanatory power of the inner model, as it specifies the amount of variation in dependent variables accounted for by independent variables. Therefore, this implies that 35.3% of variations in teachers work engagement can be accounted for by their level of perceived organizational support.

Table 8  
*R square*

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values
WE	0.353	0.386	0.091	3.861	0.000

Source: Abdulrahman and Usman (2024)

### Effect Size (f<sup>2</sup>)

Table 9 provides the f-square values depicting the effect sizes of the variables within the model. The direct effect of Perceived Organizational Support (POS) on Work Engagement (WE) indicates a large effect size with the f-square value of 0.412 (as described by Cohen 1988). This highlights that POS makes a substantial contribution to explaining the variance in WE, underscoring its importance as a predictor in the model. Conversely, the interaction term of Educational Qualification and POS has a small to medium effect size with f-square value of 0.117. These findings emphasize the crucial role of POS and also recognize the nuanced effect of educational qualification as a moderator.

Table 9

### *F Square*

	f-square
Perceived Organizational Support -> Work Engagement	0.412
Educational Qualification x Perceived Organizational Support -> Work Engagement	0.117

*Source:* Abdulrahman and Usman (2024)

**Predictive Relevance (Q<sup>2</sup>):** Table 10 presents the predictive accuracy of the model, assessed through the Q<sup>2</sup> predict. The Q<sup>2</sup> predict value for WE is 0.292, which is above the threshold of 0 (Hair et al., 2021) and suggests that the model has acceptable predictive relevance for WE.

Table 10  
*Q Square*

	Q <sup>2</sup> predict	RMSE	MAE
Work Engagement	0.292	0.862	0.649

*Source:* Abdulrahman and Usman (2024)

## CONCLUSION

### Theoretical and Practical implication

On the one hand, this study validates the core tenet of OST that perceived organizational support (POS) positively influences work engagement (WE). It also extends OST by identifying educational qualification as a significant moderator, demonstrating that individual differences can influence the strength of relationship between perceived organizational support and work engagement. The findings of the study highlight the need for theoretical refinements to incorporate individual-level variables, such as educational attainment, into OST. By contextualizing the study among private primary and secondary schools in Jigawa State, Nigeria, the research demonstrates the application of OST to diverse cultural and occupational settings. On the other hand, the findings underscore the crucial role of recognizing individual differences, such as educational qualification, when designing organizational support strategies for optimal benefit. Additionally, Organizations should prioritize support mechanisms for employees with lower educational qualifications, giving the identified influence POS has on their level of engagement compared to those with higher educational qualification. However, organizations should provide employees with higher educational qualifications, alternative engagement strategies such as providing challenging roles, career advancement opportunities, or intrinsic rewards as these may be more effective in complementing organizational support. Therefore, a tailored approaches is required if

organizations are to maximize the engagement of their workforce across diverse educational levels.

### **Limitations and Future Research**

This study is not without limitations. The first is attributable to the use of a cross-sectional design which implies that the findings only capture relationships at a single point in time, limiting the ability to infer causality. Therefore, future studies should adopt longitudinal designs to explore the intricate relationships between POS, WE, and educational qualification. The second limitation pertains to the study sample which is drawn from private primary and secondary school teachers in Jigawa State, Nigeria. While this provides rich context-specific insights, it limits the generalizability of the findings to other sectors or regions. Future research could expand the sample scope in order to strengthen external validity. Lastly, educational qualification was measured as an ordinal variable, its use as a single-item measure is pragmatic but might not capture some nuances of its influence. However, despite these limitations, the study highlights the moderating role of educational qualification in the POS-WE relationship, providing a foundation for further exploration and contributes to literature.

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