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**EXPLORING THE IMPACT OF WORKLOAD ON EMPLOYEE  
INNOVATIVE BEHAVIOR IN NIGERIAN MANUFACTURING SECTOR:  
THE ROLE OF PSYCHOLOGICAL CAPITAL**

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**Abstract**

This study develops and tests a conceptual model of the impact of workload on employee's innovative behavior in manufacturing companies in Nigeria and the role of psychological capital. Specifically, the study hypothesizes that workload negatively affects employee's innovative behavior. Psychological capital positively affects employee's innovative behavior and has a moderating role in the relationship between workload and employee's innovative behavior. Using a sample size of 315 which was borne out of questionnaires administered online to employees in Nestle Nigeria Plc, Unilever Nigeria Plc, Nigerian Breweries Company, and Nigeria Bottling Company, the correlation, multiple regression, and hierarchical moderated multiple regression were used to analyze the relations. Results show that workload produces a negative and significant impact on employee's innovative behavior whereas psychological capital produced a positive and significant impact on employee innovative behavior. Results also indicate that the relationship between workload and employee innovative behavior was positively and significantly moderated by psychological capital. The study contributes to the JD-R theory where the outcome presents workload as job demand which could be mitigated by psychological capital which is presented as job resources with the view of promoting employee innovative behavior. Management should ensure workload is fairly managed to empower employees psychologically to ensure innovativeness.

**Keywords:** workload, employee innovative behavior, psychological capital.

**1. Introduction**

In the era of globalization, the competitive pressure that organizations are under to develop novel services and products in order for them to maintain and enhance their position has undoubtedly increased due to the fast-pacing competitive business environment (Searle & Ball, 2003). Many CEOs, managers, and academics claim that innovation is critical in achieving competitive strategic advantage now and in the future (Higgins, 1996). Organizations see their employees as vital assets because they are needed to innovate the organization's processes to stay competitive

in the dynamic environment (Anderson, Potočnik, & Zhou, 2014). As Amabile, Barsade, Mueller, and Staw (2005) posited, "All innovation as we know it, begins with creative ideas. Motivating employee creativity is now more challenging because employees face enormous workloads, which leads them to prioritize certain events rather than creative actions that they cannot control (Elsbach & Hargadon, 2006; Ford, 1996).

Organizations are struggling hard to maintain their position in the market, consequently influencing organizations' overall operational structure, practices, and working environment. While dealing with competitive pressure, they tend to resort to cutting costs by employee reduction (Reid & Ramarajan, 2016). Now, working hours are increased, more tasks are demanded, workload pressure is a fact in many modern organizations (Reid & Ramarajan, 2016). It is quite sad because those are traditional approaches that do not produce distinct advantages over competitors (Fournier, Montreuil, & Brun, 2011). According to Luthans, Youssef, and Avolio (2007), competitive strategies that rely on raising entry barriers are no longer useful and insufficient in attaining distinct sustainable advantages.

The million-dollar question for scholars and managers is how organizations can create the right pro-innovation working conditions and human resource policies for their employees? While existing studies have clearly established that organizational climate directly affects employee innovative behavior (Li & Zheng, 2014). There is, however, limited research on the effect of workload pressure on innovation, even though it is becoming an increasing source of concern to many organizations and employees (Fournier, Montreuil, & Brun, 2011). This is a gap that this article intends to fill.

Employees tend to participate in innovative activities closely related to their psychological characteristics (Li & Zheng, 2014). Most organizations do not realize their human resource's true potential, which is a first step approach towards competitive advantage (Luthans et al., 2005). The increasing concern towards employee's positive psychological characteristics has drawn attention to psychological capital. Psychological capital may develop competition in achieving organizational advantage by identifying the full potential of their human resources. Hope, efficacy, resilience, and optimism are variables that form a higher-order construct known as psychological capital when combined (Luthans, Avolio, Walumbwa, & Li, 2005). Luthans, Youssef, et al. (2007) proposed that sustainable competitive advantage can be achieved through leveraging, investing, developing, and managing psychological capital. According to several studies, there is a positive relationship between Psychological capital and performance, job satisfaction, employee attitudes, and creativity (Avey et al., 2011; Luthans, Youssef, et al., 2007). From previous research, in order to sustain and initiate creativity, individuals need to feel confident in their ability to succeed in creative activities Tierney and Farmer (2002); this is self-efficacy. Research has shown that creative self-efficacy is a predictor of innovative work behavior (Farmer & Tierney, 2017; Tierney & Farmer, 2011).

Findings from existing research raise many questions about psychological capital (PsyCap) is a joint boundary condition between workload and employee innovative behaviour, and also the role of PsyCap under conditions of high workload pressure. This research tries to clarify the

relationship between workload, innovative behaviour, and PsyCap in employees in the manufacturing companies in Lagos, Nigeria with a focus on the Job Demand-Resource Theory.

## **2. Theoretical and Literature Review**

### ***2.1 Job Demand-Resource Theory***

According to the job demand-resource model (JDR), job demands and job resources may have different effects on individuals' job attitudes and behavioral performance (Demerouti et al., 2001). The researcher also made the assumption that work motivation and learning opportunities would occur if job demands are high but not overwhelming and there is high decision-making power given to employees; but in a situation in which neither is available, would lead to a passive work situation and negative learning (Demerouti et al., 2001). If employees are experiencing high job demands, there must be sufficient resources to buffer the effect on employee's behavior. Researchers have also shown that job resource has a positive effect on work engagement, which is essential because it serves as a motivational tool for employees when confronted with work demands thereby enhancing innovative behaviour (Schaufeli & Bakker, 2004). When employees face increased demands and high workload, they prioritize activities that they can control rather than uncontrollable activities such as creative actions (Elsbach & Hargadon, 2006; Miron-Spektor et al., 2018). In this study, we examine the relationship between PsyCap and innovative behavior under conditions of workload pressure.

### ***2.2 Workload***

The earliest conceptualizations of workload defined workload in terms of physiological exertion because they only focused on the physical efforts required to complete a task; rather than the behaviors and responses of the individual performing the task, the foundation of this approach was based on objective task demands (Fournier et al., 2011). The contemporary broader approach examines workload holistically, which considers the overall work activity, including the psychological and physiological work situation (Fournier et al., 2011; Hart, 2006). While the concept of workload is not new, it has become one with renewed interest for researchers and a source of concern for organizations. To increase productivity, profitability, and competitiveness, organizations are continually evolving by making changes in the workplace (De Coninck & Gollac, 2006). These changes may include increasing the workload borne by their employees Askenazy and Gianella (2000), which could be in form of job rotations, reassignments, flexibility, job autonomy, length of work hours (St-Onge, Audet, Haines, & Petit, 2004).

In psychology, there have been further deliberations on the definition of workload. It is a multi-dimensional concept based on many factors, including time, mental tasks, physical tasks, and stressors (Wickens et al., 2015). Workload pressure is the extent to which individuals are required to work fast and how much work is to be done within a specified period of time (Bakker, Demerouti, & Verbeke, 2004; Spector & Jex, 1998; Voydanoff, 2005). It is the intensity of employees' efforts to meet job demands under specific conditions and mechanisms (Teiger, Laville, & Duraffourg, 1973). Workload has been closely associated with time pressure because it concerns the quantity and speed of work within a certain period of time. It is the efforts undertaken by employees to achieve prescribed objectives taking into account work conditions,

the resources available, and organizational characteristics (Guérin et al., 2006). Guerin proposed a model that presented workload as a result of combining work situation factors, which would generate physiological and psychological consequences for the individual. Overall, workload is a dynamic process that is formed through an employee's daily activities in the workplace where constraints as in 'performance objectives to be reached' and resources are key factors.

### ***2.3 Innovative Behavior***

Innovation research has continued to emphasize that innovation is not just about creativity but is itself wider than creativity and also encompasses the application of ideas (King & Anderson, 2002). Thus, innovative behavior is not just about the generation of the ideas but also the behaviors necessary to apply and implement those ideas to boost individual and organization performance. Innovation is different from creativity, though often confused; creativity is about introducing fresh ideas or the uniqueness of generating ideas, while innovation encompasses much more than that. It includes the socio-psychological process involved with the realization and execution of those ideas (Anderson, Potočnik, & Zhou, 2014). There are many factors affecting employees' innovative behavior; among them are intrinsic motivation and character of employees, which impact their innovative performance (Grant & Merry, 2011; Shalley, Gilson, & Blum, 2009). According to research, innovative behaviour is the intention to create, apply new ideas to improve organizational performance and achieve organizational goals (West & Farr, 1990). Innovation is not a simple step process but a multistage process, and different researchers have come up with different stages or dimensions such as idea exploration, idea generation, promotion of ideas, and idea realization (de Jong & den Hartog, 2010; Scott & Bruce, 1994). These activities are psychologically and cognitively demanding (Janssen, 2004). Yet, according to some studies, these stages are thought to provide some sort of relief and help employees cope with high workload (Bunce & West, 1994). Some research see innovation as a type of performance. Unlike regular job performance, innovation requires employees to invest resources in every stage of the innovation process (Montani et al., 2019). During the idea promotion stage, after the ideas have been generated, sustained emotional efforts are required to obtain investors' support and overcome potential resistors to new ideas (Janssen, 2004). Also, employees may need to allocate extra cognitive energy because innovation is full of uncertainties in order to solve any problems from unforeseen circumstances (Bledow et al., 2009). Therefore, employees need to maintain a high level of resources in order to produce the required innovative results.

### ***2.4 Psychological Capital***

Psychological Capital has been associated with beneficial outcomes such as positive energy, emotions, attitudes, and behaviors (Fredrickson, 2001). PsyCap consists of characteristics that can influence work efficiency, influencing innovative thoughts and achievements (Goldsmith, Darity, & Veum, 1998). PsyCap highlights a series of strengths that individuals possess. Luthans analyses PsyCap by exemplifying it to other comparable constructs; economic capital is what you have, which could include but not limited to Finances and tangible assets. Human capital is what you know in the form of education and skills, Social capital is the relationships and networks created, which is whom you know, and psychological capital is who you are (Fred, Carolyn, & Bruce, 2007). Psychological capital is defined as the positive psychological state of

development of a person, and it is depicted by self-efficacy, optimism, hope, and resilience (Luthans et al., 2007). Avolio et al., (2004) pointed out that these characteristics can lead to the high performance of employees, and they are resilience, optimism, self-confidence, and self-efficacy. Resilient self-efficacy is necessary when pursuing creative thinking in challenging situations (Bandura & Locke, 2003). Creative self-efficacy has been seen as a predictor of innovative behaviour and having a mediating effect between various factors and innovative behaviour (Gong, Huang, & Farh, 2009; Shin & Zhou, 2007). The employees with more psychological capital will have more innovative behaviour (Han & Yang, 2011).

However, few studies have looked at how leaders can fuel PsyCap in challenging, demanding situations. This is important because employees must work under challenging situations due to the intensified job demands and high time pressure (Reid & Ramarajan, 2016). Ironically, the global flow of products, services, and labour in the free market has increased the pressure for businesses to be more competitive and has created a strong need for innovative employees, which may be negatively affected by workload pressure (Amabile et al., 1996).

### **3. Hypothesis Development**

#### ***3.1 Workload Pressure and Innovative Behaviour***

Employee creativity is the key to a competitive advantage that can cause organizations' rise or fall (Anderson et al., 2004). From limited research on workload and innovative performance, the effect of workload on innovative behaviour has been inconsistent (Gutnick et al., 2012). Amabile et al. (1996) found a negative relationship between workload pressure and innovative behaviour whereas, Janssen (2000) found a positive relationship between the two variables. Work contexts involving high workload is harmful to professional creativity (Amabile et al., 1994). Research has shown that individuals who perceive a situation as threatening tend to suffer from thoughts interference, distractions, reduced working memory capacity, low-performance expectancies, and inability to engage with tasks (Cadinu et al., 2005). Gutnick et al. (2012) found that employees feel threatened by high workload pressure, which reduces their cognitive flexibility, therefore, diminishing employee creativity. The reason for the lack of creativity amongst professionals is the increase in workload pressure, which has undermined the traditional work design (Elsbach & Hargadon, 2006). Organizations focus on increasing shareholders' value by downsizing, which upturns workload for employees with less time and minimal resources (Ciulla, 2000; Fraser & Sweat-Shop, 2001). Elsbach and Hargadon (2006) noted that one consequence of high workload is that the employees move from a state of mindful work, which increases creativity, to a state of relentlessly mindful work that decreases creativity. In support of this, frequent work interruptions, workload pressure, and time pressure are synonymous, leaving professionals half as innovative as they should be (Amabile et al., 2002). Leung et al., (2011), in their research on the relationship between workload and innovative behaviour concluded that it is only when role stress as a result of workload pressure reaches a moderately high level that people begin to engage in coping responses and which leads to innovative behaviour. The study examines the possibility that high and low workload pressure levels restrict creativity, whereas the intermediate pressure enhances it. Based on the above evidence, this study proposes that; the

relationship between workload and innovative behaviour is not as linear as other studies have suggested.

H1: Workload would have a negative and significant impact on Employee innovative behavior.

### ***3.2 The Role of Psychological Capital***

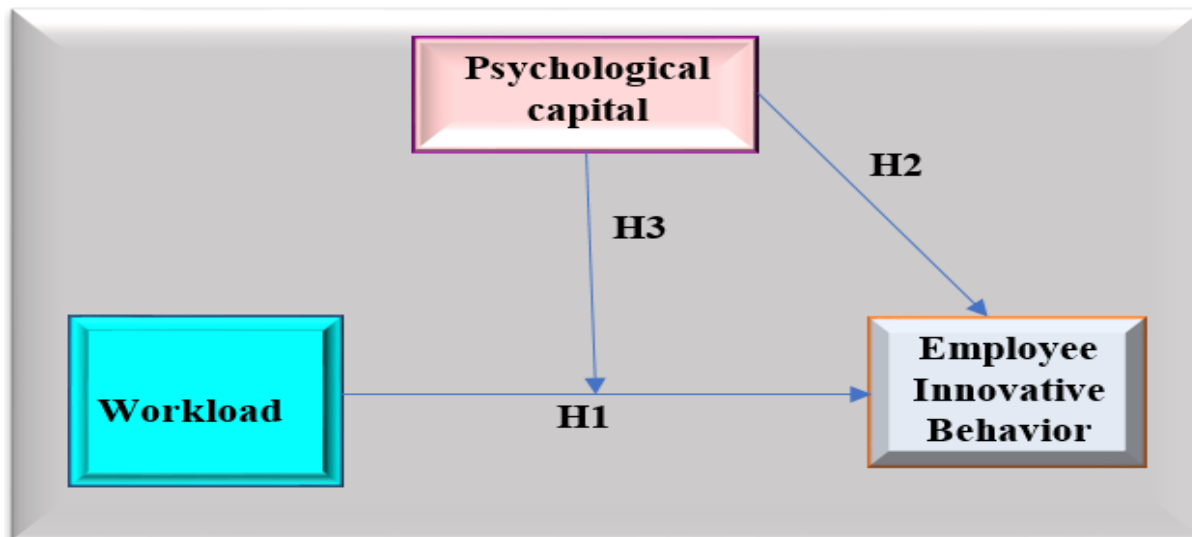
Psychological capital is useful in activating human resources' full potential to increase organizational innovation and competitive advantage (Luthans et al., 2007). Organization and managers are becoming increasingly aware that it is advantageous to focus on employees' strengths rather than focusing on weaknesses (Avey et al., 2009).

Numerous research has been conducted on the relationship between PsyCap and Innovative behaviour. There is a multi-dimensional relationship among each of the elements of Psychological capital. In a situation where all four elements are present within the right organizational context, an employee's motivational level to accomplish a task is heightened beyond motivation derived from the elements alone (Luthans, 2002). Research suggests that the positive psychological variables efficacy, hope, resilience, and optimism can activate innovative behaviours amongst employees. However, they do not act alone but support each other through shared means (Fredrickson, 2001; Hobfoll, 2002; Magaletta & Oliver, 1999).

When employees have a higher PsyCap, they would be optimistic about the future, more confident in themselves, and eager to take on challenging tasks and innovation as we know it is a challenging task (Janssen, 2004). Based on the empirical studies on innovative organizations, research found that PsyCap is positively correlated with innovative performance (Xiang et al., 2017). Hinging on the JDR theory, employees need resources to carry out job demands effectively. There are situations when individuals' resources are not sufficient to carry out demands or produce innovative behavior, especially in overwhelming situations such as high workload, thus leading to decreased levels of innovative behavior. Liu et al., (2012) In their study suggested that in order to help employees cope with various stressors as a result of workload, developing employees' PsyCap is important as it provides a pool of psychological resources. This psychological repository of resources contains motivational, decisional, and affective elements (Bandura & Locke, 2003). Thus, PsyCap provides a psychological resource that acts as a buffering mechanism to preserve the motivational effect of a moderate workload on employee innovative behaviour. From the characteristics of psychological capital, employees with higher PsyCap are less likely to experience stress and job burnout because they can confidently meet challenge stressors as a result of workload and achieve positive outcomes. However, employees with low PsyCap would more likely doubt their capability and possess a pessimistic attitude, which would cause them to experience stress and burnout leading to little innovative behaviour. Based on the above evidence, this research posits that PsyCap strengthens the relationship between workload and employee innovative behaviour

H2 Psychological capital would have a positive relationship with employee innovative behaviour

H3 Psychological capital moderates the negative relationship between workload and employee innovative behaviour



*Figure 1. Hypothesized Theoretical Model for the Study*

#### 4. Methodology

This portion of the research presents the mode of data collection, the population of the study, sampling approach, sample size, and the data analysis.

##### 4.1 Data Collection

Using a cross-sectional research approach, which is mostly used by researchers in the field of social sciences, the study used a questionnaire as the research instrument for the study to gather information from the employees of the selected manufacturing companies in Nigeria. The questionnaire was divided into two sections, with the first part covering information on the socio-demographics of participants and the latter capturing questions on the variables of the study, i.e., workload, employee innovative behaviour, and psychological capital. The survey was conducted online, i.e., through digital platforms and mails with the help of management of the manufacturing companies engaged. The data was collated using 9 weeks. A total of 360 questionnaires were sent out, 315 usable questionnaires were obtained after administration, and the same adopted for the study. This represents a response of 87.5%.

##### 4.2 Measurement of variables

This study used two first-order constructs, namely, workload and employee innovative behaviour, and one second-order construct, psychological capital (self-efficacy, hope, optimism, and resiliency). The workload was measured using 7 items adopted from (Hart, 2006). Employee innovative behaviour assessed using 6 items adopted from (Scott & Bruce, 1994). The 24 items were adopted from (Fred et al., 2007). Recently used is (Huynh The & Hua Nguyen Thuy, 2020) 12 items that measures psychological capital and argued that an earlier 6-point Likert scale could

be measured on a five-point Likert scale rating (1= "strongly disagree", 5= "strongly agree"). The authors found the 0.671 Cronbach's Alpha (CA) of overall psychological capital, while on individual level self-efficacy, CA= 0.754, hope CA=0.788, optimism CA=0.768, and resiliency CA=0.777. Based on (Huynh The & Hua Nguyen Thuy, 2020) this study used a 5-points Likert scale for all the variables.

**4.3 Research Population, Sampling Approach and Sample Size**

The population of a research is regarded as a group of persons or objects who are the main focus of a study. The population of this study are employees selected from four main manufacturing companies in Abuja State, Nigeria. These companies are Nestle Nigeria Plc, Unilever Nigeria Plc, Nigerian Breweries Company, and Nigeria Bottling Company. The researcher opted for these manufacturing companies because they were the only ones that were accessible with the help of some managers of these companies.

The sampling approach defines the means through which individuals' items of a population could be chosen to represent the entire population. This helps to make statistical connotations and establish the socio-demographic features of the population. This study opted for the random sampling approach to gather responses from the employees in the selected manufacturing companies. This approach was to give all employees equal opportunity. The total sample size for the study is 315 employees with 98 from Nestle Nigeria Plc, 115 from Unilever Nigeria Plc, 55 from Nigerian Breweries Company, and 47 from Nigerian Bottling Company. These employees have been with their respective organization more than a year.

**Table 1. Unit of analysis, sampling size and sampling approach**

<i>Name of Company</i>	<i>Unit of Analysis</i>	<i>Sampling Size</i>	<i>Sampling Approach</i>
Nestlé Nigerian PLC	Employees	98	Random
Unilever Nigerian Plc	„	115	„
Nigerian Breweries	„	55	„
Nigerian Bottling Company	„	47	„

**Total Sample Size-315**

**4.4 Data Analysis**

The data obtained from the responses was coded and processed using the Statistical Package of Social Sciences (SPSS version 26). To ensure proper presentation and clarity, the outcome was presented in tables and charts. This enabled the researcher to test for the reliability of the study through Cronbach Alpha. Correlation and multiple regression analysis were undertaken to establish the relationship between the independent variables and the dependent variable. Furthermore, the hierarchical moderated multiple regression to establish the moderation role of the study.



**4.4.1 Model specification**

The multiple linear regression model used for this study is shown below in mathematical terms:

$$EIB = \beta_0 + \beta_1WL + \beta_2PC + \varepsilon \dots\dots\dots \text{Equation (1)}$$

Where EIB = is employee innovative behaviour (EIB), WL = workload, and PC = psychological capital (PC),  $\beta_0 - \beta_2$  = coefficients of the model,  $\varepsilon$  = error term

**5. Results presentation**

**5.1 Respondent profile**

**Table 2. Demographics of respondents**

Respondents		Frequency	Percentage
Gender	Female	135	42.9
	Male	180	57.1
Age (years)	18–25	99	31.4
	26–33	72	22.9
	34–40	90	28.6
	Over 40	54	17.1
Education	Basic	27	8.6
	Secondary	36	11.4
	Polytechnic	54	17.1
	University	135	42.9
	Other	63	20
Experience	Up to 2 years	99	31.4
	3–5 years	81	25.7
	6–10 years	63	20
	11–16 years	27	8.6
	Over 16 years	45	14.3
Department	Administration/HR	81	25.7
	Finance	54	17.1
	Information technology	27	8.6
	Logistics	45	14.3
	Marketing	72	22.9
	Packaging	36	11.4
Marital status	Single	99	31.4
	Married	126	40
	Divorced	54	17.1
	Widow/Widower	36	11.4
	Separated	0	0

As shown in Table 2, out of 315 participants, 57.1% (180) were male, and the remaining 42.9% were female. This implies that the manufacturing companies selected are dominated by males. Additionally, nearly one-third of respondents were aged between 18–25 years, 40% (126) of respondents reported them they married as their marital status. Regarding education, most participants 135 (42.9%) had a university-level education (i.e., bachelor or master degree). Approximately 32% of participants had up to 2 years' experience. One-quarter of them working in administration and human resource departments in their respective organizations.

**5.2 The reliability statistics**

**Table 3. The Cronbach Alpha table**

Variable	Cronbach Alpha	No. of Items
Workload	0.947	13
Psycap	0.968	30
EIB	0.879	6

In order to ascertain the validity and reliability of the model, a reliability statistical test was taken. This was done to determine the authenticity of data collected. Various tests are used to determine the reliability of data; such as the Cronbach alpha, Bartlett test, KMO test amongst others (Kothari, 2004). For this study, the Cronbach Alpha test was adopted. If the Cronbach Alpha is more than 0.7, the model is said to be acceptable and reliable. Table 3 shows the Cronbach alpha values for the study; For workload, 13 items were measured with a Cronbach alpha of 0.947, 30 items were measured for Psycap with a Cronbach alpha of 0.968 and EIB had 6 items measured with a Cronbach alpha of 0.879. In conclusion, the measurement model for this study displays consistency and is reliable.

**5.3 Correlation Analysis**

The study resorted to the Pearson Correlation Analysis to establish the relationship that exist between the variables of the study. Hair et al, (2010) indicate that a researcher could ascertain the strength of a relationship through the Pearson Correlation. The same study stated gave the following rules to guide the explanation of relationships. Where  $r = 0$ , there is no correlation,  $r = 1$ , the correlation is perfect,  $r = -1$ , the correlation is negative. The strength of the relationship is determined by the rule: where  $r = 0.10$  to  $0.29$  or  $r = -0.10$  to  $-0.29$ , correlation is small,  $r = 0.30$  to  $0.49$  or  $r = -0.30$  to  $-0.49$ , correlation is medium and  $r = 0.5$  to  $1$  or  $r = -0.5$  to  $-1$ , correlation is strong (Hair et al., 2010). As shown in the table 4, workload had a negative and strong correlation with employee innovative behavior ( $r = -0.742$ ,  $p < 0.05$ ). Furthermore, psychological capital had a positive and strong correlation with employee innovative behavior ( $r = 0.807$ ,  $p < 0.05$ ).

Table 4. Correlation Matrix

		EIB	Workload	PsyCap
Pearson Correlation	EIB	1.000		
	Workload	-.742	1.000	
	PsyCap	.807	.789	1.000

Correlation is significant at 0.05 level (1-tailed)

5.4 Multiple regression analysis

Table 5. Model Summary

Model	R	R Square	Adjusted R Square	Standard Error of The Estimate	R Square Change	Sig
1	.825 <sup>a</sup>	.681	.678	.41028	.681	.000

Predictors: (Constant), PsyCap, Workload

Dependent Variable: Employee Innovative Behavior

To determine the extent to which the independent variables affect the dependent variable, a multiple regression analysis was undertaken. The regression analysis explains the extent to which a model explains the dependent variable of a study. The model summary in table 5 shows that R=0.825 and R<sup>2</sup> = 0.681. This means that the predictors explain the variations in the dependent variable about 68.1%. The outcome also suggests that the 31.9% of the variations in the dependent variable are accounted for by other factors not indicated in this study.

Using a confidence interval of 95% and a significant level of 5%, the study determined the impact of the independent variables on the dependent variable through the coefficient of determination as shown in table 6. The regression model indicated that assuming all determinants is zero, (workload and psychological capital), employee innovative behavior will be 0.403 (40.3%). Furthermore, the regression coefficient of workload ( $\beta_1$ ) is -0.239 which is significant at  $p < 0.05$ . This means that the construct workload affects the dependent variable (employee innovative behavior) negatively of 0.239 (-23.9%). By implication, a 1% change in workload results in a -23.9% reduction in employee innovative behavior. Workload had a negative and significant impact on innovative behaviors of employees in the manufacturing companies. Additionally, psychological capital ( $\beta_2$ ) regression coefficient value of 0.626 and significant at  $p < 0.05$  suggests that psychological capital affects the dependent variable (employee innovative behavior) of 0.626 (62.6%). This also implies an additional unit of psychological capital would result in a positive increase of 62.6% in employee innovative behavior. The outcome proves psychological capital of employees in the manufacturing companies contributes positively to their innovative behavior.

**Table 6. Coefficient of Determination Between the Predictors and the Dependent Variable**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.403	.139		2.895	.004
	Workload	-.239	.044	.280	-5.432	.000
	PsyCap	.626	.056	.586	11.179	.000

**5.5 Moderation Analysis**

Table 7 summarizes the results of the moderated hierarchical regression analysis and a change in R squared significance that is used to test the hypothesis 3 where the study posits that psychological capital would moderate the inverted U-curve relationship between workload and innovative behavior. The researcher in step 1 introduced into the regression model control variables such as gender, age, work experience and educational level. In step 2, the main effects variables i.e., workload (independent variable) and psychological capital (moderating variable) was introduced into the regression equation. In step 3, the interaction term or product term of the independent and moderating variable was also introduced.

As presented in table 7, the coefficient associated with workload was negative but statistically significant with  $B = -.172, p < .05$ . This outcome negative relation and impact confirms the inverted relationships between workload and employee innovative behavior. On the other hand, the coefficient associated with psychological capital was positive and statistically significant with  $B = 0.523, p < .05$ . Moreover, the coefficient of the interaction term (workload\*psychological capital) was positive and statistically significant with  $B = 0.071, p < .05$ . This implies the introduction of psychological capital into the inverted relationship between workload and employee innovative behaviors duly ascertained to be true as the effect result in about 7.1% variations in employee innovative behavior. Furthermore, to determine whether psychological capital was actually moderating, the change in R squared provided evidence to support this claim. The first R squared in the first model was 0.568 which was also significant at  $p = 0.000$ . Introducing the independent variable and the moderating variable caused a change in R square of 0.134, this was also significant at  $p = 0.000$ . Lastly, introducing the interaction term resulted to a change in R square of 0.002 which was also significant at  $p = 0.000$ . The consistent changes in the R squared which is also significant after the introduction of the respective variables as shown in table 6 is a proof that moderation is taking place.

*Table 7. Hierarchical moderated multiple regression analysis*

Employee Innovative Behaviour as an outcome			
Variables	Step 1	Step 2	Step 3
Gender	-.166	-.188	-.140
Age	-.034	-.027	-.023
Educational level	-.363	.135	-.141
Work Experience	.318	.041	.045
Workload		-.172	-.045
Psychological Capital		.523	.713
Workload* PsyCap			.071*
Total R <sup>2</sup>	.568*	.838	.839
Change in R <sup>2</sup>		.134*	.002*

Note. N = 315. Except for the total R<sup>2</sup> and change in R<sup>2</sup> row, the values are unstandardized regression coefficients. \* P < .05. \*\* P < .01 (two-tailed).

Based on the outcome of the study, the research makes conclusions on the hypothesis proposed for the study. This captured in the table 8 below.

*Table 8. Summary of hypothesis*

Hypothesis		Result
H1	<i>Workload would have a negative and significant impact on Employee innovative behaviour</i>	Accepted
H2	<i>Psychological capital would have a positive relationship with employee innovative behaviour.</i>	Accepted
H3	<i>Psychological capital moderates the negative relationship between workload and employee innovative behaviour</i>	Accepted

### 6. Discussion and Conclusions

The study posits to determine the impact of workload on employee innovative behavior among employees in the manufacturing companies in Lagos, Nigeria, and also establish the moderating role of psychological capital (PsyCap) on the said relationship. The results of the study ascertained the hypothesis of the study. The outcome revealed that workload had a negative and significant impact on employee innovative behavior. This outcome is consistent with the results of Montani et al., (2020); Bear et al., (2006); De Clercq et al., (2016) where the workload was determined as a negative antecedent of employee innovative behavior. According to De Clercq et

al., (2011), workload creates dissatisfaction among employees and hence makes it challenging for employees to initiate any entrepreneurial thoughts or new ideas central to their work or related jobs. Additionally, psychological capital was established to have a positive and significant impact on employee's innovative behavior. The results of the study are in tandem with the results of Sameer, (2018); Sun & Huang, (2019); Wang et al., (2021); Li & Zheng, (2014) where psychological capital was discovered to have a positive and significant effect on employee innovative behavior. Psychological capital is regarded as a positive and important cognitive resource that causes employees to be creative, innovative and develop active work behavior (Mohamad et al., 2019). More so, the moderating role of psychological capital on the negative relationship between workload and employee innovative behavior was established as the interaction term produced by the study indicated a positive and significant effect on employee innovative behavior. This outcome is in line with the results of studies such Wang et al., (2021); Zhu & Mu, (2016) where it was established that the introduction of psychological capital on the inverse relationship between workload and employee innovative behavior was significant and positive. It is believed that the resilience, efficacy, hope, and optimism demonstrated by employees can limit the effect of workload on how they become innovative (Li et al., 2020). On these bases, the hypothesis H1, H2, and H3 are all accepted as evidence from this study and other literature support same. The study concludes that the innovative behavior of employees in the manufacturing companies in Nigeria is affected by their workload. In another breath, their psychological capital tends to inspire their innovation and mitigate against the impact of their workload.

## **7. Theoretical and practical contributions**

The outcome of the study has some theoretical implications on workload, employee innovative behavior, and psychological capital. It has been indicated that by previous studies that workload has adverse consequences on work outcomes because it presents elements that hinder individuals (Montani et al., 2020). Eatough et al., (2011) had identified workload as a form of job demand that has dire consequences on employee innovative behavior if not managed properly. In light of the Job Demand-Resource Theory (JD-R), the demands of a job can affect the employee negatively and produce negative work outcomes if not corrected with equal job resources (Demerouti et al., 2014). As such, the outcome of this study confirms the job demand aspect of the JD-R theory such that workload was duly ascertained to have a negative impact on employee innovative behavior. Previous studies reveal that job demands of work produces attitudes such as absenteeism, high turnover, poor commitment, and expunge the desire to be innovative (Schaufeli & Taris, 2014; van Woerkom et al., 2016). The workload can then be described as part of job demands as produced by the JD-R theory which can limit employee innovativeness and produce other negative related work outcomes. Furthermore, the outcome related to the psychological capital and its moderating role extends the JD-R theory by indicating the important role of personal resources in optimizing employee's innovative behaviors under demanding work conditions. Previous research has provided the grounds that from the perspective of the JD-R theory, personal resources mitigate the impact of job demands and inspire the latter's motivational potential (Bakker & Demerouti, 2017). Bakker & Demerout,

(2017) is of the view that the JD-R theory posits that job demands which trigger issues such as stress, anxiety among others could be offset by the resources attached to the job. Psychological capital based on the outcome of the study posits to be a personal resource that encourages employee innovative behavior and limits the impact of workload. The outcome then means that the study throws weight behind the job resources component of the JD-R theory that in the event workload (job demand) is having a negative effect on employee innovative behavior, psychological capital (job resource) could be evoked to offset the impact of the workload.

The present results suggest some practical implications for practice by organizational and sector actors. Firstly, the management of the manufacturing companies should focus on tracking the amount of workload laid and performed by employees. This would help promote a reasonable level of demands that do not stifle employee progress. Controlling the level of workload experienced by employees is a way of mitigating against the negative impact associated with the workload and in this instance encourages employee innovativeness. It would also be appropriate if management would undertake a periodic survey on the issue of workload and have hand sight information about how employees perceive their workload. This would provide appropriate feedback that would necessitate resources that could mitigate the adverse effects of workload. Furthermore, as the result, present psychological capital as a positive element that promotes innovative behavior management could constitute programs and policies that augment employee's psychological capital as the companies stand to gain from such as action through the innovation behavior produced by the employees.

### **8. Limitations and suggestions for future research**

Like any other study, this study also has some limitations. Firstly, the sample size was small and it also consists of employees in the selected manufacturing companies in Lagos, Nigeria only. Based on this, it is challenging to generalize the outcome of the study to mean all manufacturing companies. Expanding the sample size could result in a different result. Future research could attempt to determine the elements presented in this study across different samples and settings. Additionally, the study presented psychological capital as a single variable even though it has been determined to have four components i.e., hope, efficacy, optimism, and resilience. Measuring the moderating role of these specific components may produce a different outcome for which future researchers could offer to do so. More so, other antecedents that of employee innovative behavior such as work characteristics, social capital, leadership, and organizational innovative atmosphere could be considered by future studies.

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