

# Job Demand and Job Involvement among Employees in Construction and Manufacturing Industries: Mediating Role of Occupational Burnout

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**Abstract** Few empirical studies exist on the mediating role of occupational burnout on the relationship between job demand and job involvement among employees in construction and manufacturing industries. Using a cross-sectional-survey involving 360 employees (male=212; female=148) whose ages ranged between 17 and 54 years (mean=28.01; SD=7.31) were randomly selected. The participants were selected using purposeful and simple random sampling techniques. The instrument for data collections were perceived job demand scale ( $\alpha = .73$ ), occupational burnout scale ( $\alpha = .70$ ) consisting of four dimensions (emotional exhaustion, reduced personal accomplishment, cynicism and interpersonal strain) and job involvement scale ( $\alpha = .78$ ). Five hypotheses were formulated and tested using multiple regression and Sobel test analyses. The results revealed that occupational burnout significantly increased with job demand ( $\beta = 0.31$ ,  $p < 0.01$ ). Also, reduced personal accomplishment ( $\beta = 0.37$ ,  $p < 0.01$ ), cynicism ( $\beta = 0.16$ ,  $p < 0.01$ ) and interpersonal strain ( $\beta = 0.16$ ,  $p < 0.01$ ) significantly increased with job demand. On the contrary, job demand did not significantly predict emotional exhaustion while job demand negatively predicted job involvement ( $\beta = -0.22$ ,  $p < 0.01$ ). Lastly, the mediation analysis showed that occupational burnout significantly mediated the relationship between job demand and job involvement ( $\beta = -0.40$ ,  $p < 0.01$ ). However, it was indicated that only reduced personal accomplishment ( $Z = -4.72$ ,  $p < 0.01$ ) and interpersonal strain ( $Z = -2.45$ ,  $p < 0.05$ ) significantly mediated the relationship between job demand and job involvement. Conclusively, the results of the study revealed that job demand positively predicted occupational burnout and its dimensions, but negatively predicted job involvement, while dimensions of occupational burnout partially mediated the relationship between job demand and job involvement. Therefore, management of construction and manufacturing industries should take cognisance of job demand and occupational burnout in order to enhance employees' level of job involvement.

**Keywords** Job demand, Involvement, Burnout, Industries

## 1. Introduction

The trend of job involvement has assumed a crucial factor in determining the success of an organization. It is widely described as an important part of an employee's self-concept, such that the employee's job experiences are dependent on his mood and feelings. Within his daily dealings, his mental processes are always preoccupied by his job activities, thus making it a part of him [1]. More recently, researchers had not given much attention to job involvement. Concurrent research has concentrated largely on the possible ways and factors responsible for and required in improving job involvement, but these factors are majorly organizational and situational factors such as job control and job resources [2-4]. However, less has been given

to the possible emotional and psychological factors that could determine an employees' job involvement, such as the demanding nature and burnout within the job.

Emphasis has not also been given to the possible inter-role of burnout in job demand and involvement level within the organization. A likelihood of an increasing level of expected demands from the organizations management to meet with the economic standards, while less enabling factors are made available could end up burning out the workers. This could reduce the level of involvement rather than the desired increase.

The motivational strategies behind goal setting via increase in demand to achieve higher involvement boost for goal achievement and profitable outcomes [5] could go in negative direction. This is if the emotional and psychological depletion referred to as burnout is identified as a possible trigger in reducing the job involvement of employees, thereby leading to low productivity, turnover intentions, and work maladaptive behaviours [6], which could bring about the foldup of organizations. In order to

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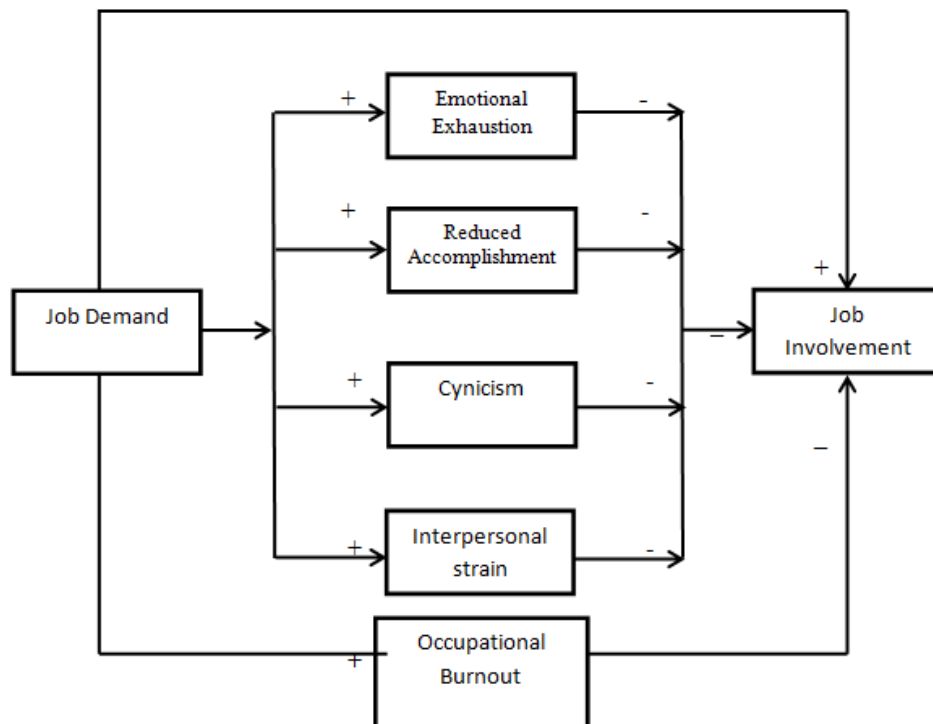
avoid such situations, it is important to identify the possible factors that could be helpful in improving the involvement levels of employees if properly managed.

In recent years, there have been incessant cases of collapsed buildings as a result of lapses in the quality of services and resources utilized (e.g. [7-12]). Also, the manufacturing companies experiences critics from end-users on the substandard nature of goods leading to easy and frequent damage (e.g. [13-15]). Workers in some instances lament on the demanding nature of their jobs within the manufacturing and construction companies, accustomed with high risk taking and complexity in the utilizations of machines which results in physical deform (e.g. [16-18]). These situations could be attributed to less concern for workers working conditions and jeopardy in their health status, physically and emotionally. Workers threatened by such kind of demanding work settings are likely to reduce their involvement level in order to maintain their job and their state of health at the same time.

Lodahl and Kenner [19] stated that job involvement is a function of the individual, the internalization of values about the importance or goodness of work by the individual. Workers high in job involvement believe that their personal and organizational goals are compatible, therefore tend to attribute positive work outcomes to internal and personal factors. In same vein, the perceptions of these factors could trigger the level of job demand and also affect job involvement either positively or negatively.

Researchers considering the determinants of job involvement envisage the role of organizational structure, organizational practice, work design and job content, with little concern on intrinsic factors [1]. After the demand-control model and demand-resource analogy, little emphasis has been placed on the employees themselves in the agitation to improve involvement level and thereby achieving effective and efficient goal target. The roles of job demand on involvement cannot be over emphasized without consideration of burnout dimensions. This research would be taking a critical view into the predicting influence of job involvement by job demand and occupational burnout with much emphasis on the mediating role of burnout dimensions.

Researches have been equivocal about the effect of job demand on job involvement. Some findings identified the possibilities of negative correlation between job demand and job involvement [6, 20] such that involvement reduces with an increase in demand. Also some research has noted positive relationship between job demand and job involvement [21, 22]. In similar vein, Moodie, Dolan and Burke [23] findings identified a positive relationship between job involvement-work overload and job involvement-emotional demand. This could be inferred on the bases that the increased workload does not lead towards strain for it to bring about an increased level of involvement. The present research would be bringing up an empirical explanation of these links specifically in the industrial setting.



**Figure 1.** Hypothesized Research Model on the Mediating role of Burnout on Job Demand predicting Job Involvement

Locke and Latham [5] found that people tend to perform better when they are assigned or choose difficult and specific goals than when they are assigned or choose easy goals or no goals. Although they have to accept and be committed to those goals before an improved performance could result. A situation where by challenges are increased for the achievement of certain goals, there is every tendency that there would be an increase in demand, but leading to higher level of involvement. In the case whereby job demand negatively predicts job involvement, it could be attributed to the presence of stress tendency or burnout. This is in concordance with Rothmann and Joubert [20] summits that job demand will only increase the level of involvement if job resources are available.

The importance of burnout has been widely acknowledged and operationalized with different conceptualizations [24-26]. The rising number of team-based organizations in which people are supposed to work interdependently and collaborate with co-workers to achieve common work goals and objectives [27], interacting with customers and colleagues makes the concept of burnout to be better redefined. This definition carries along every section of the various organizational work areas and sees burnout as a general crisis in the relationship with one's own work [28, 29]. Based on the recent conceptualization of the term, the present research would be looking into four subsections of burnout, which are; emotional exhaustion, reduced accomplishment, cynicism and interpersonal strain.

It has been widely ascertained that there is a positive link between job demand and burnout [30-32]. Demerouti, Bakker, Nachreiner and Schaufeli [30] investigation via series of structural equation modeling analyses suggested that demanding patients, high workload, time pressure, unfavourable environmental conditions and problems with shift work schedule was significantly related to emotional exhaustion. In contrast, an attitude of disengagement was primarily associated with a work environment lacking resources.

In Bakker, Emmerik and Riet [4] study, it was noted that work pressure significantly relates to exhaustion and cynicism positively. Emotional demand also was found to significantly relate to exhaustion positively, while emotional demand does not correlate significantly with cynicism. As stated above, positive relationship has been identified between job demand and burnout, but there has not been basic concern on interpersonal strain as a dimension of burnout with job demand. The present study will put this into consideration.

Correlating burnout with job involvement, Aslam, Ahmad and Anwar [33] explained that employees who experience burnout generally perceive the organization in an adverse relationship and tend to have psychological withdrawal from the job. On some related terms, Cordes and Dougherty as cited in Chauhan [34] proposed that burnout would lead to negative employee's attitude or behaviour towards customers, work and organization.

Aslam et al. [33] researched on burnout indicated that emotional exhaustion and lack of accomplishment had significant negative relationship with affective commitment, while depersonalization does not relates to affective commitment.

From the reviewed studies, the concept of job demand has been linked to job involvement in variety of theories and it has been noted that this relationship could either be positive or negative. Since the relationship between job demand and burnout is positive and the relationship between burnout and job involvement is generally perceived negatively, it is presumed that job demand could only affect job involvement negatively if burnout is involved and might possibly bring about a positive effect with the absence of burnout. On the basis of these, the following research model has been proposed to identify and confirm the relationships. It was also on these bases that the research hypotheses were formulated.

From the above figure, it was shown that job demand will lead to an increase in occupational burnout and its dimensions (emotional exhaustion, reduced personal accomplishment, cynicism and interpersonal strain), while occupational burnout and at all dimensions will further lead to a decrease in job involvement. The direct relationship between job demand and job involvement was such that job demand will lead to an increase in job involvement which is contrary to the situation whereby occupational burnout and its dimensions serves as a mediator. This implies that the mediating role of occupational burnout and its dimensions on the influence of job demand on job involvement will bring about an inverse influence on the predicted factor (job involvement) than what is expected in a direct influence.

### 1.1. Hypotheses

1. Job demand will significantly predict employees' occupational burnout.
2. Job demand will significantly predict employees' job involvement.
3. Occupational burnout will significantly predict employees' job involvement.
4. Job demand and Occupational burnout will jointly and significantly predict employees' job involvement.
5. Occupational burnout will significantly mediate the predicting influence of job demand on job involvement.

## 2. Method

### 2.1. Design and Participants

The study made use of a cross-sectional-survey involving 360 employees (male=212; female=148) whose ages ranged between 17 and 54 years (mean=28.01; SD=7.31). The participants were employees of construction and manufacturing industrial sectors within central Lagos metropolis; Ikeja, Njgeria and they were selected using purposeful and simple random sampling techniques. Based

on their marital status, it was noted that 202 of the respondents were single, 134 were married, 7 were widowed, while 17 were separated. For religion, 253 were Christians, 88 were Muslims, while 19 were worshipping with other forms outside the listed ones. On the respondents' educational attainment, it was noticed that 23 of the respondents were educated below West African School Certificate, WASC, 48 had WASC, 138 had either of 'Ordinary' National Diploma (OND), Nigeria Certificate in Education (NCE) or diploma certificates. Another 114 respondents had either Higher National Diploma (HND) or first degree, while 37 were postgraduate degree holders. While 163 of them were junior workers and 97 were intermediate workers with 88 who are senior staff. Twelve (12) of them did not indicate their job status. From the five organizations made use of in the collection of data, 62 were employees of Lad Chrislord Ltd, 75 from OK Foods Ltd, 65 from PWD, 67 from IPWA Company and 91 from Lafarge Cement. All are located in Ikeja, Lagos, Nigeria.

## 2.2. Measures

A 5-item adopted measure from Boyar, Carr, Mosley and Carson [35] perceived work demand scale was used to measure job demand. The scale was rated on a 5-point Likert format from 1-strongly disagree to 5-strongly agree. Sample item is, "my work requires a lot from me". Boyar et al [35] found an alpha of .89 for the 5-item scale and correlating it with work role overload (.68), work role conflict (.29) and work role ambiguity (.08) to obtain validity. Present study found a Cronbach alpha coefficient of .73. The scale was rated such that scores higher than the mean score implies high job demand while scores lower than the mean indicate low job demand.

Occupational burnout was measured with 30 items scale on a 6 point likert measure with 4 sub sections. 9 items (Items 1 to 9) were adopted from Maslach Burnout Inventory (MBI) [36] to measure emotional exhaustion with all items directly scored. Sample item is – 'I feel very burned out from my work'. 8 other items (Items 10 to 17) was adopted also from Maslach Burnout Inventory [36] to measure reduced personal accomplishment with all items reversely scored. Sample item is- 'I feel very energetic'. Maslach and Jackson [36] obtained a Cronbach alpha of between .71 to .90 and a test retest (one month) of .60 to .80. Coker [37] provided the Nigerian samples reliability with Cronbach alpha of .86 and a split half of .57. Maslach and Jackson [36] obtained convergent validity coefficient ranging from .20 to .56 by correlating MBI scores with the peer rating scores for different samples. The current study obtained a reliability coefficient of .71 for emotional exhaustion and .81 for reduced personal accomplishment. The scoring ranged from 1- 'a few times a year' to 6- 'everyday'. Borgogni, Consiglio, Alessandri and Schaufeli [29] six items (items 18 to 23) measure of interpersonal strain at work was adapted to measure interpersonal strain. Borgogni et al. [29] split half analysis indicated a confirmatory factor analysis with all

loading significantly ranged between .56 to .72 with a mean of .65 (SD= 0.06) in the first random half and ranging from .55 to .70 with a mean of .66 (SD= 0.58) in the second random half. Cronbach's alpha of .81 (first half) and .82 (second half) was found. A composite reliability of .81 was obtained for the first half and .82 for the second half. A coefficient of .77 was obtained in the present study. The scoring ranged from 1- 'a few times a year' to 6- 'everyday'. In the last sub-section an adopted 7-item measure of cynicism (items 24 - 30) from Cook-Medley [38] hostility scale was used. Sample item include, "believes people don't care what happens to others". Greenglass and Julkunen [39] found the items correlating with the full Cook-Medley scale in a Finnish sample at .77., while a Cronbach alpha coefficient of .40 was obtained in the present study. The scoring ranged from 1- 'absolutely not true' to 6- 'absolutely true'. Scores higher than the mean score on the scale suggest that individual is high in the measure of burnout or its sub scales, while scores lower than the norm indicate low level of burnout or its' sub scales. The Cronbach alpha coefficient obtained for occupational burnout as a composit scale was .70 within the present study.

Job involvement was measured with a 20-item inventory adapted from Lodahl and Kejner [19] measure of job involvement. The items are scored on a Likert format ranging from 1- strongly disagree to 4- strongly agree. 13 of the items were scored directly, while 7 were reversely scored. Sample items include; "I have other activities more important than my work." and "To me, my work is only a small part of who I am". Lodahl and Kejner [19] obtained Spearman-Brown internal reliability coefficient of .72 and .80 for females and males respectively. The coefficient of test-retest reliability obtained in an interval of 72 days was .90, while the present study found a Cronbach alpha coefficient of .78. The concurrent validity was obtained by correlating job involvement with the scale of Job Description Index [40]. The mean score is the basis for interpreting the scores, such that scores higher than the mean indicate adequate job involvement while scores lower than the mean indicate poor job involvement.

## 2.3. Procedure

Copies of the questionnaire were administered to employees in construction and manufacturing industries after approval and understanding has been made with the administrative heads of the organizations. Break periods were utilized while also complimenting it with after-work hours' time considering the busy schedule of employees within the organizations. Proper understanding of the purpose of the research was made with the employees, informing them about the confidentiality of their responses. The responding timing was for them to respond immediately, while those that choose to go with it and return it the following day due to their busy schedule were allowed. Out of the 400 questionnaire administered, 360 was retrieved, making a response rate of 90%.

## 2.4. Data Analysis

Pearson Product Moment Correlation was used to test the direction and extent of relationship that exists among the study variables. The formulated hypotheses were tested using regression analyses. Sobel test was further applied to confirm the significance of mediation and its strength. All analysis was conducted using SPSS 17.0 and the electronic interactive calculation tool for mediation tests (Calculation for the Sobel Test).

## 3. Results

The result in Table 1 shows that job demand had a significant negative relationship with job involvement [ $r(358) = -0.22, p < 0.01$ ], such that when employees job demand increases, their level of job involvement tend to reduce. Occupational burnout [ $r(358) = -0.40, p < 0.01$ ] and three of its dimensions; emotional exhaustion [ $r(358) = -0.21, p < 0.01$ ], reduced personal accomplishment [ $r(358) = -0.31, p < 0.01$ ] and interpersonal strain [ $r(358) = -0.22, p < 0.01$ ] all had significant negative relationship with job involvement. This implies that when the level at which employees experience occupational burnout or any of the mentioned three dimensions increases, their level of involvement with the job tend to reduce. Cynicism showed no significant relationship with job involvement [ $r(358) = -0.07, p > 0.05$ ]. The relationship between job demand and occupational burnout indicated that emotional exhaustion aspect of burnout do not have significant relationship with job demand [ $r(358) = -0.02, p > 0.05$ ], but reduced personal accomplishment [ $r(358) = 0.37, p < 0.01$ ], cynicism [ $r(358) = 0.16, p < 0.01$ ], interpersonal strain [ $r(358) = 0.16, p < 0.01$ ] and occupational burnout as a whole [ $r(358) = 0.31, p < 0.01$ ], had a positive significant relationship with job demand. This implies that when employees level of occupational burnout or any of the three dimensions increases, the employees' job demand also tends to increase. The result on the demographic factors revealed that age had a significant positive relationship with job involvement [ $r(358) = 0.28, p < 0.01$ ], but a negative significant relationship with job demand [ $r(358) = -0.14, p < 0.01$ ] and occupational burnout [ $r(358) = -0.18, p < 0.01$ ]. Gender indicated a significant relationship with job involvement [ $r(358) = -0.21, p < 0.01$ ] and occupational burnout [ $r(358) = 0.15, p < 0.01$ ], but had no significant relationship with job demand [ $r(358) = -0.02, p > 0.01$ ]. The relationship between marital status and occupational burnout was significant [ $r(358) = 0.12, p < 0.05$ ], but marital status was not significant with job involvement [ $r(358) = -0.04, p > 0.05$ ] and job demand [ $r(358) = 0.08, p > 0.05$ ].

The tests for the formulated hypotheses were carried out using regression analysis and it was tested serially. In the first step, simple regression analysis was used to test for the independent variable (job demand) on the mediator (occupational burnout). The results are presented in Table 2.

The result of the simple regression analysis revealed that

job demand significantly predicts occupational burnout ( $\beta = 0.31, p < 0.01$ ) such that an increase in employees' job demand will bring about an increase in their experience of occupational burnout. It was indicated that 9.8% variance noted in occupational burnout is explained by job demand ( $R^2 = 0.098$ ), thus, there are other variables which contribute towards occupational burnout among employees of industrial and manufacturing organizations. The findings on the dimensions of occupational burnout indicated that job demand do not significantly predict emotional exhaustion ( $\beta = -0.02, p > 0.05$ ). Job demand significantly predict reduced accomplishment ( $\beta = 0.37, p < 0.05$ ), cynicism ( $\beta = 0.16, p < 0.05$ ) and interpersonal strain ( $\beta = 0.05, p < 0.05$ ) in such a way that an increasing level of employees' job demand will lead to increase in their reduced personal accomplishment, cynicism or interpersonal strain. The result partially confirmed the formulated hypothesis 1 since it was not all the dimensions of occupational burnout that was significant.

The test for hypotheses 2 and 3 which include the second step in the mediation analysis was carried out using simple regression analysis to test the prediction of the dependent variable (job involvement) by the independent variable (job demand) and the mediator (occupational burnout) independently. The results are summarized in Table 3.

The result shows that job demand significantly predicts job involvement ( $\beta = -0.22, p < 0.01$ ), such that an increase in employees' job demand will lead to a reduction in their job involvement. It thus confirms hypothesis 2. Emotional exhaustion significantly predicts job involvement negatively ( $\beta = -0.21, p < 0.01$ ), reduced personal accomplishment significantly predicts job involvement negatively ( $\beta = -0.31, p < 0.01$ ), also interpersonal strain significantly predicts job involvement negatively ( $\beta = -0.22, p < 0.01$ ), but cynicism do not predicts job involvement significantly ( $\beta = -0.07, p > 0.05$ ). The test on occupational burnout generally indicated that occupational burnout independently and significantly predict employees' job involvement negatively ( $\beta = -0.40, p < 0.01$ ), in such a way that an increase in employees' occupational burnout will bring about a reduction in their job involvement level. Based on the results, hypothesis 3 was therefore partially confirmed. The result on cynicism in Table 3 and that of emotional exhaustion in Table 2 shows that both dimensions do not concur with the principles and steps requirement for mediation, although occupational burnout as a component is still in concord with the steps.

Hypothesis 4 on the joint prediction of job demand and occupational burnout on employees' job involvement was tested using multiple regression. The result is presented in Table 4.

The test for the joint prediction of the independent variables and the mediators on the dependent variable was significant [ $F(5, 354) = 15.451, p < 0.05$ ]. This implies that job demand and occupational burnout of employees would determine the level of their involvement with their job. The result confirms hypothesis 4. Indicated in the table was 18% variance contributed by the joint variables on the total variance observed in job involvement ( $R = 0.423, R^2 = 0.179$ ).

Thus, there are other related factors affecting industrial and manufacturing organizations' employees' job involvement level outside those examined in this study. The findings also confirm the third step of the mediation analysis. Based on that procedure, it is evident that occupational burnout mediate the relationship between job demand and job

involvement, while in the dimensions, reduced personal accomplishment and interpersonal strain mediate the relationship between job demand and job involvement, but emotional exhaustion and cynicism do not follow the causality process.

**Table 1.** Correlation Matrix Showing the Relationships among the Study Variables

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Job Involvement	52.94	6.61	1	-.22**	-.21**	-.31**	-.07	-.22**	-.40**	.28**	-.21**	-.04	.01	.16**
2. Job Demand	13.44	4.29		1	-.02	.37**	.16**	.16**	.31**	-.14**	-.02	.08	-.11*	-.08
3. Emotional Exhaustion	30.04	8.29			1	-.11*	-.25**	.58**	.63**	-.10	.07	.01	.03	-.20**
4. Reduced Accomplishment	24.04	8.85				1	.13*	.02	.54**	-.14**	.06	.13*	-.08	.02
5. Cynicism	25.06	5.25					1	-.115	.22**	.04	.12*	-.01	-.06	.00
6. Interpersonal Strain	17.42	7.31						1	.72**	-.13*	.11*	.10	-.01	-.11*
7. Occupational Burnout	96.56	16.3							1	-.18**	.15**	.12*	-.06	-.14*
8. Age	28.01	7.31								1	-.04	.53**	.32**	.39**
9. Gender	-	-									1	.06	.12*	.04
10. Marital Status	-	-										1	.37**	.31**
11. Highest Educational Qualification	-	-											1	.30**
12. Job Status	-	-												1

\*\* p < 0.01, \* p < 0.05, N= 360

**Table 2.** Simple Regression analysis Showing Job Demand Predicting Occupational Burnout and its' Dimensions

Independent Variable	Dependent Variables	$\beta$	t	R	R <sup>2</sup>	df	F
Job Demand	Occupational Burnout	.31	6.23**	.313	.098	1, 358	38.75**
	Emotional Exhaustion	-.02	-.36	.019	.000	1, 358	.13
	Reduced Accomplishment	.37	7.43**	.366	.134	1, 358	55.20**
	Cynicism	.16	3.12**	.162	.026	1, 358	9.70**
	Interpersonal Strain	.16	3.05**	.159	.025	1, 358	9.29**

\*\* p < 0.01

**Table 3.** Simple Regression analysis Showing Job Demand Predicting Occupational Burnout and its' Dimensions

Variables	$\beta$	t	R	R <sup>2</sup>	df	F
Job Demand	-.22	-4.27**	.220	.048	1, 358	18.24**
Emotional Exhaustion	-.21	-4.03**	.209	.043	1, 358	16.28**
Reduced Accomplishment	-.31	-6.20**	.311	.097	1, 358	38.47**
Cynicism	-.07	-1.36	.072	.005	1, 358	1.85
Interpersonal Strain	-.22	-4.18**	.216	.046	1, 358	17.44**
Occupational Burnout	-.40	-8.14**	.395	.156	1, 358	66.21**

\*\* p < 0.01

**Table 4.** Multiple Regression analysis Showing Joint Prediction of Job Demand and Dimensions Occupational Burnout on Job Involvement

Variables	$\beta$	t	R	R <sup>2</sup>	df	F
Job Demand	-.09	-1.74				
Emotional Exhaustion	-.22	-3.58**				
Reduced Accomplishment	-.29	-5.57**				
Cynicism	-.08	-1.62	.423	.179	5, 354	15.45**
Interpersonal Strain	-.08	-1.30				

\*\* p < 0.01

The present research further tested the mediation procedure using sobel test statistic to confirm the extent and strength of the mediation and also confirm the formulated hypothesis 5. The Z test formula would be applied to test the independent variables and each dimensions of the mediator on the dependent variables. The finding is summarized below in Table 5.

**Table 5.** Summary of Sobel Test Showing Mediation of the Relationship between Job Demand and Job Involvement by Occupational Burnout and its Dimensions

Variables	Test Statistic	Std. Error	p
1. Emotional Exhaustion	0.36	0.02	> .05
2. Reduced Personal Accomplishment	-4.72	0.04	< .01
3. Cynicism	-1.25	0.01	> .05
4. Interpersonal Strain	-2.45	0.02	< .05
5. Occupational Burnout	-4.91	0.04	< .01

The results from the Sobel table indicated that emotional exhaustion does not significantly mediate the relationship between job demand and job involvement ( $Z = 0.36, p > 0.05$ ). Cynicism does not significantly mediate the relationship between job demand and job involvement ( $Z = -1.25, p > 0.05$ ), but reduced personal accomplishment ( $Z = -4.72, p < 0.01$ ) and interpersonal strain ( $Z = -2.45, p < 0.05$ ) significantly mediate the relationship. Also, occupational burnout as a composite significantly mediate the relationship between job demand and job involvement ( $Z = -4.91, p < 0.01$ ). This implies that the prediction of job involvement by job demand was significantly mediated by occupational burnout as a composite and two of its dimensions (reduced personal accomplishment and interpersonal strain) among employees of construction and manufacturing industries. The dimensions of occupational burnout (emotional exhaustion and cynicism) do not mediate this relationship. The results partially support hypothesis 5.

## 4. Discussion and Conclusions

### 4.1. Discussion

The test on hypothesis 1 that says job demand will significantly predict employees' occupational burnout was partially confirmed. This was because the test on the dimensions of occupational burnout where not all significant. Employees' job demand was found to predict occupational burnout such that a positive link was noted between both variables. This was in consensus with previous findings [30, 31] which noted that an increase in the demanding nature of the job will bring about an increase in the burnout experience of the individual. The findings on burnout dimensions revealed that emotional exhaustion of employees' in industrial and manufacturing organizations is not determined by the level of their job demand. There could be the possibilities of other demanding or pressurizing factors aside the physically demanding nature of their job that could

affect their emotional exhaustion. The result negates some previous findings [31, 32] on emotional exhaustion aspect of burnout and job demand which noted a positive relationship between both construct. The other dimensions of occupational burnout -- reduced personal accomplishment, cynicism, and the less researched aspect; interpersonal strain had a significant positive relationship with job demand in such a way that employees' job demand predicts their experience of reduced personal accomplishment, cynicism and interpersonal strain positively. It could be inferred that the significant prediction of job demand by occupational burnout as a composite is from the three dimensions' positive and significant predictions.

The test for prediction of job involvement by employees job demand using regression analysis and testing the formulated hypothesis 2 indicated that job demand significantly predicts employees' job involvement negatively. These findings confirmed hypothesis 2. Also, it confirms the results of Rothmann and Joubert [20] who submits that job demand could reduce involvement levels especially if job resources are not available. This present result negates the findings of Abd Razak et al. [22] and Moodie et al. [23] that found a positive relationship between job demand and job involvement. Although, the findings of Abd Razah et al. [22] and Moodie et al. [23] were not carried out among employees of manufacturing and construction companies, but rather, health workers. Also it could be attributed to the absense of strain and emotional drain within the work setting. The significant relationship between job demand and job involvement confirms the second step of Baron and Kenny mediation process, thus making it possible to proceed into the third process.

The findings from the analyses of hypothesis 3 revealed that occupational burnout significantly predicted employees' job involvement negatively. This implies that job involvement of employees in construction and manufacturing organizations reduces with increase in occupational burnout. Previous findings in this area has be equivocal, such that the present result confirmed the findings of Chauhan [34] and Aslam et al. [33], while some researchers (e.g. [23]) did not notice any significant relationship. Both burnout and job involvement have characteristics and common component of emotions and feelings. The significant influence between occupational burnout and job involvement could thus be attributed to the aspect of burnout that emphasize more on mood and feelings towards the job.

Based on this, it is preferable to discuss the relationship between occupational burnout and job involvement via the dimensions of occupational burnout just as it is discussed by most researchers. Emotional exhaustion reduced personal accomplishment and interpersonal strain significantly predicts employees' level of job involvement, but cynicism does not. This implies that occupational burnout among employees of construction and manufacturing organizations can only lead to a reduced level of involvement if the aspect of emotional exhaustion, reduced personal accomplishment

while interpersonal strain are affected, but not determined by cynicism. These findings are similar to Aslam *et al.* [33] research that found emotional exhaustion and lack of accomplishment having negative, but significant relationship with affective commitment, while depersonalization does not relate to it. From a different point of view, the findings of Chauhan [34] research on managers revealed a negative relationship between depersonalization and emotional exhaustion with their job involvement, but positive correlation between personal accomplishment and job involvement. Thus Chauhan [34] found the three dimensions correlating with job involvement.

The findings in the current study, carried out among construction and manufacturing workers show that cynicism does not predict employees' job involvement. Job roles of construction and manufacturing workers is such that a gap in their duties cannot be tolerated, as it will reflect and delay other aspect of the team work since the work is team based. Due to these reasons, the employees might not be opportune to distance themselves from the job as expected in cynicism.

The test on the forth hypothesis which is the third process in Baron and Kenny mediation analysis shows that job demand and occupational burnout had a significant joint prediction on job involvement. This confirmed hypothesis 4 and also made the causality effect of the mediation clear. Since the independent variable and the mediator jointly predict the dependent variable, the earlier significant aspect of the mediation was therefore confirmed based on causality effect. It implies that the component of burnout in general mediate the effect of job demand and job involvement, while the dimensions; reduced personal accomplishment and interpersonal strain mediates the relationship between job demand and job involvement. However, emotional exhaustion and cynicism does not mediate this relationship. The result could be related to that of Rothman and Joubert [20] who concluded that increased level of workload that also indicates an increased level of exhaustion will invariably indicate an increase level of dedication. If cynicism was to be positive with workload, there is the possibility of experiencing negative relationship of workload with vigour and dedication. This implies that exhaustion alone do not make workload bring about negative change in dedication or involvement, but the presence of cynicism. It also proves that the role of emotional exhaustion on job involvement is subjected to some other aspect of burnout like the experience of cynicism. From a different perspective using health workers, Moodie *et al.* [23] found positive relationship between job demand and job involvement and this is probably only in situations where burnout was not significant with the job involvement of workers. This means that construction and manufacturing workers exposed to high job demand is likely to lead to occupational burnout, thereby resulting to a reduction in the level of their job involvement.

The Sobel test statistics confirmed the causality results by indicating that emotional exhaustion and cynicism do not significantly mediate the effect of job demand on job involvement. Other dimensions of occupational burnout

(reduced personal accomplishment and interpersonal strain) and occupational burnout as a composite significantly mediate the effect of job demand on job involvement. This therefore partially supports the formulated hypothesis 5 and confirms the partial mediation among the study variables.

## 4.2. Conclusions

In conclusion, the results of the study revealed that job demand positively predicted occupational burnout and its dimensions, but negatively predicted job involvement. This implies that employees in construction and manufacturing industries in Lagos, Nigeria reported low job involvement because of the high level of burnout experienced with high job demand.

This study was limited by its reliance on data sourced from employees within one specific geographical area (Ikeja-Lagos, Nigeria). This limits the findings to certain aspect of the industrial and organizational world, leaving the service providing and some other organizations out of the generalization strength of the research.

Managers of construction and manufacturing industries are encouraged to take cognizance of the interactions of the major construct in the study and their behavioural consequences in the specification of job roles and duties when designing jobs. They should also improve on their motivational tactics. They are advised to consider the implication of occupational burnout while formulating policies that will improve employees' involvement level with the job through increasing demanding nature of the job to meet up with competitive marketing strategies.

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