

Job Demand-Control-Support Model: A Study of Nigerian Contract Bank Employees

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Abstract: Job Demand-Control-Support (JDCS) model, a theoretical approach applied across Europe and Asia to explain relationship between job factors, occupational health, and job outcomes, is applied to the Nigerian work context to investigate the causal relationships between precarious employment and work conditions of contract bank employees and the effects on their work outcome. Cross-sectional design and stratified random sampling were adopted to collect quantitative data from 420 contract bank employees across four banks in Lagos, Nigeria. Hypotheses were tested with SPSS/Process Macro v. 3.5. Findings showed that job demand, job control and social support have significant main causal relationships with job performance of contract bank employees, with job demands negatively and job control and social support positively relating to their job performance. While social support was found to buffer the negative effect of job demands on their job performance, job control alone and in combination with social support did not show any buffer effect. Study provides partial support for the relevance and applicability of the JD-C-S model in the Nigerian banking work settings, particularly with respect to the contract employees in the industry. Limitations and implications of study for theory and practice are further discussed.

Keywords: Job-demands-control-support model; job performance; contract bank employees

JEL Classification: M12

1. Introduction

In the last few decades, the banking sector around the world has witnessed considerable changes in response to the globalised economy and deregulated markets. New technology and new work structures adopted have resulted in changes to the organisation and execution of work (Giorgi et al., 2017; Kaur et al., 2017). Major consequence of this in the banking sector in Nigeria is the ongoing widespread retrenchment and adoption of contract employment resulting in severe effect on the

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working lives of the employees. With a significant number of the total workforce of the Nigerian banks being contract employees (about 44.3 per cent) (National Bureau of Statistic, Q4 2019), the implication of this on the psychological health and performance of this category of employees deserve some attention.

Contract employment, as an informal and temporary work arrangement, is characterised by degraded and precarious work condition. ILO listed some challenges faced by employees of financial service sector to include pressure on time, problems with ergonomics, conflicting roles, work demands that are considered excessive, difficult relationships with customers, and a rising number of cases of stress and violence (Giga & Hoel, 2003). Contract bank employees in Nigeria also face worries of unrealistic deposit targets, uncertain wages, job insecurity, and uncertain career path with inconsistent promotion and incentive system which exert additional pressures on their psychological and physical health, work-life balance, low career engagement, lower job satisfaction and commitment than the regular staff with the tendency that their performance is affected, and quality of work suffer (cf. Umar et al., 2017).

Efforts to explain the relationships of job characteristics with workers' well-being, job satisfaction and productivity and how the negative effects of stressful work situation on the psychological wellbeing and performance of employees can be mitigated have widely adopted the Job Demand-Control (JD-C) model (Karasek, 1979) and the Job Demand-Control-Support (JD-C-S) model (Johnson & Hall, 1988; Karasek & Theorell, 1990). While the JD-C Model integrates 2 main job characteristics: job demands (i.e., such as a high pace and amount of work) and job control (i.e., autonomy and independence at work) whereby employees have high workloads but relatively little autonomy in completing their assigned tasks, the JD-C-S model integrates social support (i.e., extent to which employees receive support from supervisors and work colleagues) whereby employees also have low social support in addition to having high job demands and low job control. High job demands, low job control and low social support play a significant role in perception of stress at work which translate to negative consequences on employee job satisfaction and performance (Valente et al., 2016; Sakuraya et al., 2017). JD-C-S model therefore asserts that job stress which results in poor job performance manifests among workers who experience a high isolation-strain job, that is, those exposed to high job demands with low job control and low social support work contexts (strain hypothesis) (Karasek & Theorell, 1990; Johnson & Hall, 1988; Rodriguez, Bravo, Peiros & Schaufeli, 2001; Pozo-Antúnez et al., 2018).

With the JD-C-S model successfully applied and tested particularly in Europe and Asia among financial workers, including bankers and accountants (e.g., Pozo-Antúnez, 2018; Giorgi et al. 2019; Giorgi et al., 2017; Rehman et al., 2010), the model provides a good framework to investigate how the employment and work

situations of contract employees in Nigerian banks affect and moderate their job performance. The JD-C-S model is therefore applied in this study to examine: (1) the causal relationships of job demand, job control and social support to job performance of contract bank employees in Nigeria, with the assumption that job demands is negatively causally related and job control and social support positively causally related to their job performance, and (2) if the assumed negative causal relationship of job demands to job performance is moderated by job control and social support.

2. Theory and Hypotheses

2.1. Job Demand-Control-Support Model

Job Demand-Control-Support Model (JD-C-S) (Karasek & Theorell, 1990) first developed as Job Demand-Control model (JD-C model) by Karasek (1979) provides a comprehensive and integrated set of theories which help to explain the relationships of job demand, job control, and social support to job strain and performance. The JD-C model identified two main factors which predict job stress as job demands and job control. The model proposes that job stress is produced in jobs with high job demands and low job control. These are known as 'high strain' jobs. The model was extended by Karasek and Theorell (1990) when new findings provided evidence that in high job demand situation with low job control, social support (supervisor and co-worker supports) has buffering effect on the negative impact of high strain jobs. The general formulation of the JD-C-S model is that job demands cause a strain but may be moderated (or intensified) depending on the degree of control that the employee has on their work and the social support available. The JD-C-S model is based on two hypotheses: iso-strain hypothesis (main/additive effects) and buffering hypothesis (multiplicative/interaction effects).

2.1.1. Iso-Strain Hypothesis.

The iso-strain hypothesis refers generally to the increased risk of reduced well-being associated with high job demands, low job control and low social support where the three job factors may exert independent main effects that impact employee outcomes, including performance. The JD-C-S model proposes that the greatest risks to physical and mental health are manifested among workers who experience a high isolation-strain (iso-strain) job, that is, jobs that are subject to high demands in a context of low control or decision latitude and low social support (iso-strain hypothesis) (Karasek & Theorell, 1990; Pozo-Antúnez et al., 2018). High job demands manifest in excessive workloads which employees cannot finish within a specified period and the work objectives are difficult and beyond the current capacity of workers requiring additional efforts to achieve (Peeters *et al.*, 2005). High job

demands and low job control and low support therefore play a role in perceived psychological distress and, as a consequence, the workers who experience a combination of these three domains are considered more exposed to occupational stress (Valente et al., 2016; Petarli et al., 2015; Sakuraya et al., 2017) which will likely negatively impact their performance. However, where employees have the autonomy to organize their work and adopt their own methods and initiatives (high job control) and receive positive or helpful social interaction and needed work support from management, supervisors, and coworkers (high social support) (Iqbal, 2014; Karasek & Theorell (1990), they are likely to experience low job stress which will likely positively impact their performance. While job control gives employees the ability to exert influence over work and work environment to establish a less threatening or a more rewarding work situation (Iqbal, 2014), social support plays vital role in promoting their work behaviour and outcomes, as it helps to protect the worker from the adverse effects of unpleasant job situation (Chen et al, 2013).

According to the strain hypothesis, high job demands and high job control (active job) lead to average psychological strain and low job demands and low job control (passive job) results in intermediate psychological strain. In high demands and low control context ('high strain' jobs) employees will experience the most adverse reactions of psychological strain like fatigue, anxiety, depression, and physical illness. In low job demands and high job control ('low strain' jobs), employees will experience the least psychological strain. Workers in low strain jobs are both happier and healthier than average by work (Karasek & Theorell, 1990). In all the work situations, social support plays moderating role in reducing the effects of stress.

2.1.2. Buffering Hypothesis

Buffering hypothesis asserts that interaction of job controls and social support with job demands in a two-way interaction (job demands x job control and job demands x social support) and three-way interaction (job demands x job control x social support) can moderate the stress effect of job demands resulting in enhanced occupational health and job performance (Hausser et al., 2010). Spector (2002) argues that job resources (control and support) may modify how the work environment is perceived as a stressor, how perceived stressors provoke negative emotions, and how negative emotions lead to strain. Thus, job control and social support reduce the perception and feeling of stress at work. Bakker and Demerouti (2017) also argue that buffering resources function to reduce the tendency of organizational properties to generate specific stressors, alter the perceptions and cognitions evoked by such stressors, moderate response that follow the appraisal process, or reduce the health-damaging consequences of such responses.

Since Van der Doef and Maes' (1999) meta-analysis where they found only 15 studies out of 31 partially supporting the buffering hypothesis, several studies have

tested the strain and buffering hypotheses simultaneously with the general picture indicating consistent strong support for the strain hypothesis, but weak and inconsistent support for two-way and three-way buffering hypotheses (Broughton, 2010; Edimansyah et al., 2008; Gerich & Weber, 2020; Hausser et al., 2010; Pelfrene et al., 2002; Pomaki & Anagnostopoulou, 2003; Pozo-Antúnez et al., 2018; Rehman et al., 2010). Specifically, with respect to the strain hypothesis, Gerich and Weber (2020) found among private employees in Austria that social support is positively related to work satisfaction and negatively related to burnout and job control is positively related to work satisfaction and negatively related to burnout. Rehman et al. (2010) found job demands to be negatively related to employee job performance, job participation and consideration and job control and social support to be individually positively related to the work outcomes of private and public sector commercial bank employees in Pakistan.

With respect to two-way interaction effect, Adil and Baig (2018) found job autonomy to negatively moderate the relationship of job demands and burnout among pharmaceutical employees in Karachi and Pozo-Antúnez et al. (2018) found job autonomy to negatively and supervisor support to positively moderate the relationship between job demands and occupational health of accounting professionals in Europe. With respect to three-way interaction effect, van Yperen and Hagedoorn (2003) found a significant three-way interaction between job demands, job control and social support on intrinsic motivation of employees. Macklin et al. (2006) also reported insignificant three-way interaction effect of the three job factors on employees' psychological distress and job satisfaction. While Gerich and Weber (2020) found job control and social support to positively relate to work satisfaction and job control to relate to burnout partially negatively, their results show evidence of weak interaction of social support and job control in moderating the effects of demand intensity on burnout.

With this evidence, the level of demands placed on employees and the degree of control and social support available to them are significantly related to the level of job stress and their work performance. High job control and social support can buffer the negative effects of stressful job demands, increase work motivation and satisfaction, promote prosocial work behaviours and positive moods on the job (Humphrey et al., 2007), and enhance employee performance. Having applied the JD-C-S model in the investigation of perceptive occupational health of professional accountants and stress among bank employees and their job outcomes in Europe and Asia (e.g., Pozo-Antúnez et al., 2018; Rehman et al., 2010), the model is applied in this study to investigate how the precarious work situation of contract employees in Nigerian banks affect their job performance and how this is moderated by their work boundaries like job control and social support. The strain and buffering hypotheses of the model are applied and stated as follows:

Hypothesis 1: Job demands-control-support have significant main causal relationships with the job performance of contract bank employees in Nigeria, with the relationship between job demands and job performance being negative and the relationships between job control, social support and job performance being positive.

Hypothesis 2: The negative causal relationship between job demands and job performance of contract bank employees in Nigeria is significantly moderated by job control and social support in a two- and three-way interactions.

3. Methods

3.1. Design

Survey design with a cross sectional variant was adopted to enable the use of self-report survey instruments to collect large quantitative data on job demand, job control, social support, and job performance from contract bank employees across different departments in four major Nigerian banks and for the findings to be generalisable. The design is also appropriate for adoption of descriptive and inferential statistics to analyse the data and test the hypotheses.

3.2. Participants

Sample for this study comprised of employees drawn mainly from across Operations (cashiers/tellers and customer care/service officers), Marketing and Credit (marketers/relationship and credit officers), and Control (control officers) departments of 16 branches of four Nigerian banks across all Local Government Areas of Lagos State. This state has the largest concentration of banks in Nigeria. The sampled employees perform the day-to-day basic operations of the banks. Two each of the four banks are old and new generation banks. Stratified sampling technique was adopted to select a total of four hundred and twenty (N=420) contract employees comprising 273 males (65%) and 147 females (35%) from the different departments. Their job experience range from 2 to 15 years and their average age is 28 years. Minimum educational qualification is first degree and equivalent. Because of their busy schedules, they could only be contacted to collect data after the day's banking operations. List of the contract employees in each branch of the banks was obtained on which stratified sampling technique was applied to select the appropriate sample.

3.3. Measures

Job demand, job control and social support are measured with an adapted version of Psychological Demand subscale of Demand-Control-Support Questionnaire (DCSQ) (De Aguiar et al., 2010) and the Job Demands Resources Scale (Rothmann et al., 2006). The 10-item job demand subscale is made up of 5-item each adapted from the job demands subscale of Demand-Control-Support Questionnaire (DCSQ) scale with Cronbach alpha of 0.75 (De Aguiar et al., 2010) and the workload subscale of Job Demands Resources Scale (Rothmann et al., 2006) with Cronbach alpha of 0.76. Job control subscale is made up of the 6-item Decision Latitude subscale on the Demand-Control-Support Questionnaire (DCSQ) with Cronbach alpha of 0.50 (other users reported higher alphas). The social support scale is a 12-item scale with 6 items each from Social Control subscale of the Demand-Control- Support Questionnaire (DCSQ) with Cronbach alpha of 0.82 and Orgnisational Support subscale of Job Demands Resources Scale with Cronbach alpha of 0.92. The reason to combine scales in the study is to explore the different dimensions of the constructs examined by the two different scales and to benefit from the strengths of both.

Job performance: Measure of job performance was obtained with Individual Work Performance Questionnaire (IWPQ) (Koopmans *et al.*, 2014). IWPQ was developed to measure individual work performance in a general population (Koopmans, 2015). It is suitable for studies involving workers from different types of jobs. It consists of 18 items measuring three dimensions of work performance, namely, *Task Performance* (5 items with Cronbach alpha 0.79), *Contextual Performance* (8 items with Cronbach alpha 0.83), and *Counterproductive Work Behaviour* (5 items with Cronbach alpha 0.89).

Likert response scale ranging from 1 to 5 (Never-Rarely-Sometimes-Often-Always) was adopted for all scales.

4. Results and Findings

4.1. Descriptive and Correlations Analyses

Table 1 shows the results of the descriptive and correlation analyses. The contract bank employees have high job demands (x = 3.84, approx. 4 = Often), somewhat job control (x = 2.55, approx. 3 = Sometimes) and social support (x = 3.17, approx. 3 = Sometimes), and average job performance (x = 2.52, approx. 3 = Sometimes). The variables are significantly interrelated, with the least and highest correlation coefficients between job demands and job control (.226, p < .001) and between social support and job performance (.965, p < .001).

Table 1. Descriptive Statistics and Correlations among Variables

SN	Variable	Means	SD	1	2	3	4	5
1	Demo	2.93	0.72	1.00				
2	JD	3.84	0.50	.470**	1.00			
3	JC	2.55	1.35	060	.226**	1.00		
4	SS	3.17	1.06	022	.296**	.807**	1.00	
5	JP	2.52	1.18	060	.264**	.866**	.965**	1.00

**p < .01, *p < .05, N= 420

Notes: Demo (Demographic Variables), JD (Job Demand), JC (Job Control), SS (Social Support) and JP (Job Performance).

4.2. Hypotheses Testing

The hypotheses were tested by running multiple moderated regression analysis using Model 3 of the Process Macro v3.5 for SPSS (Hayes, 2018). In the regression equation, job demands, and job performance were entered as predictor (X) variable and outcome (Y) variable, and job control and social support as moderator variables W and Z, respectively. All variables were mean centred and sample bootstrapping (bootstraps set at 5,000) was applied, which is considered an appropriate approach to making inferences about direct and moderated effects (Hayes, 2013). Confidence interval of 95% is adopted. Heteroscedasticity was assumed and the estimator set at HC4. The results are presented in Table 2.

Hypothesis 1

To test hypothesis 1, the overall model (job demand, job control and social support) was first estimated, then the direct causal relationships (strain hypothesis) of job demands, job control and social support to job performance were examined. The results in Table 2 show that the overall model explained 95.7% of the variance in job performance, indicating that all the job factors together have strong positive causal relationship with job performance. For the strain hypothesis, while job demand has significant negative causal relationship with job performance (b = .035, p < .05), job control (b = .758, p < .001) and social support (b = 1.166, p < .001) have significant positive causal relationship with the outcome variable. This implies that job demands decrease job performance, but job control and social support increase it. Social support however shows stronger positive causal relationship with job performance than job control. Thus, as predicted, job demand is negatively causally related to job performance of the contract bank employees in Nigeria, but job control and social support are positively causally related to their job performance. Hence, hypothesis 1 is largely supported.

Hypothesis 2

Hypothesis 2 which predicted that the negative causal relationship between job demands and job performance is significantly moderated by job control and social support was tested with two-way and three-way interaction analyses. In the two-way interaction, job demands x job control and job demands x social support were interacted and regressed on job performance. In the three-way interaction, job demand was interacted with job control and social support jointly and regressed on job performance. The results in Table 2 show insignificant negative two-way interaction between job demands and job control (b = -.014, ns), a significant positive interaction between social support and job demands (b = .020, p < 0.05) and an insignificant three-way interaction among three job factors ($\Delta R^2 = .000$, b = -.001, ns). These results show that only social support moderates the negative effects of job demands on job performance among the contract bank employees. Job control neither individually in a two-way interaction, nor in conjunction with social support in a three-way interaction moderate the negative effects of job demands on job performance of the employees. Hypothesis 2 is therefore only partially supported with only one moderation effect found (i.e., social support) out of the three expected.

Table 2. Moderated Regression Analyses for the Effects of JD, JC, and SS on JP

Predictor	b	se	t	LLCI	ULCI
Constant	44.135**	.460	96.010	43.230	44.930
JD	035*	.097	359	225	.156
JC	.758**	.078	9.759	.605	.811
SS	1.166**	.066	17.606	1.035	1.296
JDxJC	014	.018	776	050	.022
JDxSS	.020*	.013	1.505	006	.045
JCxSS	.012	.004	2.580	.003	.020
JDxJCxSS	001	.001	-1.151	002	.001
\mathbb{R}^2	.957**				
F	2275.821**				
ΔR^2	.000				
F	1.325				

Notes: **p < .001, *p < .01, N = 420

JD (Job Demand), JC (Job Control), SS (Social Support) and JP (Job Performance)

5. Discussion

Finding of this study for hypothesis 1 is consistent with the strain hypothesis of the JD-C-S model (Johnson & Hall, 1988; Karasek & Theorell, 1990) that employees experience job strain and low-level psychological wellbeing when working under high job demands, low job control and low social support, which then negatively impact their job performance. First, the overall model shows a high predictive value, explaining large variance in job performance. Second, all three job factors behaved in the hypothesised direction with job demand showing negative causal relationship

with the job performance of the contract bank employees, but job control and social support positively causally relate to their job performance. By implication, job demand induces unhealthy pressures that negatively impact job performance of the contract bank employees, but job control and social support may assist the employees to reduce and cope with the attendant negative effects of high-work pressure on their job performance. When employees have job control or autonomy and feel they have the support of their superiors and coworkers, they feel less job stress which provides healthy condition and motivating environment to perform.

These findings align with the general pattern of previous studies. In a review of studies on JD-C and JD-C-S models between 1979 and 1997, Van der Doef and Maes (1999) found majority of the studies to support the strain hypothesis and more recent studies found similar trend (e.g., Rehman et al., 2010; Adil & Baig, 2018; Pozo-Antúnez et al, 2018; Gerich & Weber, 2020). While few other studies failed to find support for the strain hypothesis (e.g., Edimansyah et al., 2008; Pomaki & Anagnostopoulou, 2003), the weight of evidence is generally in support of the strain hypothesis. However, some studies found support for only one job factor. For example, Pozo-Antúnez et al. (2018) found evidence for the positive effect of supervisor support on the occupational health of professional accountant but did not find the same effect for job control. With the evidence of the present study, the strain hypothesis of the JD-C-S model is fully supported and has practical implication for promoting conducive work environment that facilitates stimulating work experience, occupational health, and job outcomes of contract bank employees in Nigeria.

With respect to the buffering hypotheses, results show only social support to moderate the negative effects of job demands on job performance of the contract bank employees. Job control individually, in two-way interaction, or jointly with social support, in three-way interaction, does not buffer the negative effects of job demands. The failure of job control either alone or jointly with social support to moderate the negative effect of job demand is particularly unexpected and this is probably because banking operation is highly structured and contract employees have little opportunity to use their initiative on the job (low job control) but are expected to consult with their superiors and experienced work colleagues to resolve work issues (high social support).

These findings are consistent with the literature which found social support, but not job control or a combination thereof to buffer the negative effect of job demands on outcome variables. For example, literature deems social support to offer protection against perceived occupational stress and seen to moderate the negative effect of work pressures and reduce the amount of stress reactions occasioned by high job demands (Petarli et al., 2015). As Giorgi et al (2017) explained, support of colleagues and superiors when performing tasks, protect health of bank workers against job stress and its effects on their work outcomes, Pozo-Antúnez et al. (2018) found the

relationship between job demand and perceived occupational health to reduce among accounting professionals who can practice their professional skills (a measure of job control) and have the support of their superiors (social support). Gerich and Weber (2020) also found linear interaction between demand intensity and job control and social support on job satisfaction and burnout among Austrian employees and a weak curvilinear association between responsibility (one of the three components of job demand) and work satisfaction moderated by social support. In contrast, other studies found negative or no moderating effects of social support. In their meta-analysis, Luchman and González-Morales (2013) found negative interaction between job demands and social support in many of the studies. For example, social support did not buffer the negative effect of job strain on psychological distress, nor the negative effect of job characteristics on the respondents' wellness and between stressors (i.e., role conflict and workload) and psychological wellbeing (Fujishiro, 2005; Pelfrene et al., 2002; Pomaki & Anagnostopoulou, 2003).

Lack of support for the moderation of job demands by job control in this study also aligns, on the one hand, with and on the other controverts many previous studies. Studies aligning with this finding include Niedhammer et al. (2008) and Pelfrene et al. (2002) which failed to find evidence for interaction between job demands and job control on psychological distress and health outcomes of workers. Van der Doef and Maes (1999) also reported 15 out of 31 studies to partially find support for the moderating role of job control on job demands and employee well-being. Studies by Macklin et al. (2006) and Meier et al (2008) however did not find job control to buffer the negative effect of job demands on job strain/wellbeing.

Three-way interaction among the three job factors is also less consistently found in the literature (Hausser et al., 2010). For example, consistent with the finding of this study, Macklin et al. (2006) reported insignificant joint interactive effect of job demands x job control x social support on employees' psychological distress and job satisfaction. While Rodriguez et al. (2001) and Van der Doef and Maes (1999) also did not demonstrate the three-way interaction effect, Pisanti et al. (2016) found a small but significant three-way interaction effect between the three job factors on personal accomplishment among nurses of an Italian academic hospital. Rehman et. al. (2010) and Van Yperen and Hagedoorn (2003) also reported similar finding.

Inconsistencies in findings among studies on the JD-C-S model have been explained to be due to heterogeneity among samples, and differences in the work contexts and contents of the measurement instruments used by various studies. Among other authors, Janssen, Bakker and De Jong (2001) affirm that samples used to test the JDCS model should be homogeneous and have similar characteristics as much as possible, although they may be heterogeneous with respect to the level of exposure of workers to the labour environment variables. In addition, not all professions are subject to the same degree of strain, but some occupations tend to combine certain

conditions that make workers in those jobs more vulnerable in terms of their physical and mental health (Eurofound, 2014). Pisanti et al (2016) also suggested that the discrepancies in findings may be due to a lack of match between the kind of occupational stressors examined in combination with a specific form of job resource (job control and/or social support). De Jonge and Dormann (2006) argued that stressors and resources need to address similar domains of functioning (i.e., cognitive, emotional, physical) to interact in the prediction of domain specific strains.

6. Conclusion

This study is premised on the relevance of the JD-C-S model (Karasek & Theorell, 1990) to the precarious work situation and the negative impact on the job performance of contract bank employees in Nigeria. Relevance of the model has been demonstrated in many studies across professions in Europe and Asia, albeit with inconsistent results. Drawing from the postulations of the strain and buffering effects of the model, it was hypothesised that: (1) job demands-control-social support are directly causally related to the employees' job performance, with the causal relationship of demands being negative and control and support being positive, and (2) the negative causal relationships of job demands with the employees' job performance will be positively moderated by job control and social support. Consistent with the literature, the results fully support the strain hypothesis, but only partially support the buffering hypothesis. While job demands adversely affect job performance of the contract bank employees, job control and social support enhance it. In addition to social support contributing larger variance in job performance than job control, only social support buffers the negative effect of job demands on the employees' job performance. This suggests that the contract bank employees probably prefer and consider social support from their superiors and co-workers to be more important than job control and this aligns with the views of Petarli et al. (2015) that social support is the most important and best situational variable against occupational stress. Social support could also promote positive affect and a sense of belonging that positively influence the employees' work behaviours.

6.1. Implications of Study

This study suggests that the JD-C-S model is relevant and applicable to the Nigerian work context, particularly the work condition of the contract bank employees who daily contend with precarious work demands which take a high toll on their occupational health and work performance. This study therefore fills an important gap in literature by extending the cross-cultural and cross-work context validity of the model as advocated by Verhoeven et al (2003) and Ibrahim and Ohtsuka (2012)

that studies testing the JDCS model be carried out in non-western settings. The inconsistent findings for the buffering effects in literature, including this study, therefore suggests the need for a review of the model with further studies to explore and account for these inconclusive findings.

The study also has implication for human resource policies and management intervention to help contract bank employees mitigate the negative consequences of their employment and work situations. Job redesign with a focus on giving employees some leverage to use their initiatives and providing supportive work environment and improving the work support system in the banks will help stimulate the employees' work experience and enhance their occupational health and performance.

6.2. Limitations and Suggestion for Future Studies

First, the scope of the study is limited to contract bank employees in Nigeria, which implies that the findings may not be generalisable to the entire workforce in the Nigerian bank industry. So, caution is advised when applying the findings. Second, the study adopted a cross-sectional design which may be limited in its validity. Though, longitudinal studies take more time, it may produce more valid results. Longitudinal study may provide some insight into whether the relationship among the job factors vary over time. Therefore, using the model, future studies should adopt longitudinal design to investigate the permanent bank employees whose terms of engagement and conditions of work differ from those of contract employees. Studies can also consider the demographic and personality implications of the model in the Nigerian banks and other work settings. Differences in demographic and personality factors may differently influence perception of and reaction to job demands. Differences in gender, age, work experience, and workers' resilience and emotional labour may differently determine coping of employees with job demands.

References

Adil, M.S. & Baig, M. (2018). Impact of job demands-resources model on burnout and employee's well-being: Evidence from the pharmaceutical organisations of Karachi. *IIMB Management Review*, 30(2), pp. 119-133. https://doi.org/10.1016/j.iimb.2018.01.004.

Bakker, A. B. & Demerouti, E. (2017). Job demands-resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology*, 22(3), pp. 273–285. https://doi.org/10.1037/ocp0000056

Broughton, A. (2010). Work-related stress. Luxembourg: Office for Official Publications of the European Communities.

Chen, W.; Liu, Y. & Yang, T. (2013). How can HRM help organisations build the supportive "work-life/family" balance culture? http://www.ijbssnet.com/journals/Vol_4_No_9_August_2013 /9.pdf.

De Aguiar, O. B.; Da Fonseca, Mendes, M. J. & Valente, J. G. (2010). Reliability (test-retest) of the Swedish "Demand-Control- Support Questionnaire" scale among industrial restaurants workers, state of Rio de Janeiro, Brazil. Review of Brazil Epidemiology, 13(2), pp. 1-10.

- de Jonge, J. & Dormann, C. (2006). Stressors, resources, and strain at work: A longitudinal test of the triple-match principle. *Journal of Applied Psychology*, 91(6), pp. 1359-1374. https://doi.org/10.1037/00219010.91.5 .1359.
- Edimansyah, B. A.; Rusli, B. N.; Naing, L.; Rusl, B. A. M.; Winn, T. & Ariff, R. H. T. (2008). Self-perceived depression, anxiety, stress and their relationships with psychosocial job factors in male automotive assembly workers. *Industrial Health*, 46(1), pp. 90-100. http://doi.org/10.2486/indhealth.46.90.
- Eurofound (2014). Occupational Profiles in Working Conditions: Identification of Groups with Multiple Disadvantages. https://www.eurofound.europa.eu/publications/report/2014/working-conditions/occupational-profiles-in-working-conditions-identification-of-groups-with-multiple-disadvantages.
- Fujishiro, K. (2005). Fairness at work: Its impact on employee well-being. Doctoral dissertation. The Ohio State University. http://etd.ohiolink.edu/send-pdf.cgi/Fujishiro%20Kaori.pdf?Osu111714 2039.
- Gerich, J. & Weber, C. (2020). The Ambivalent Appraisal of Job Demands and the Moderating Role of Job Control and Social Support for Burnout and Job Satisfaction. *Social Indicators Research*, pp. 148, pp. 251-280. https://doi.org/10.1007/s11205-019-02195-9.
- Giga, S.I. & Hoel, H. (2003). Violence and stress at work in financial services. Geneva: International Labor Office.
- Giorgi, G.; Arcangeli, G.; Perminiene, M.; Lorini, C.; Ariza-Montes, A., Fiz-Perez, J. & Mucci, N. (2017). Work-Related Stress in the Banking Sector: A Review of Incidence, Correlated Factors, and Major Consequences. *Frontiers in Psychology*, 8(2166), pp. 1-17. http://doi.org/10.3389/fpsyg.2017.02166.
- Giorgi, G.; Arcangeli, G.; Ariza-Montes, A.; Rapisarda, V. & Mucci, N. (2019). Work-Related Stress in the Italian Banking Population and its Association with Recovery Experience. *International Journal of Occupational Medicine and Environmental Health*, 32(2), pp. 255–265. https://doi.org/10.13075/ijomeh.1896. 01333
- Hausser, J. A.; Mojzisch, A.; Niesel, M. & Schulz-Hardt, S. (2010). Ten years on: A review of recent research on the Job Demand-Control (-Support) model and psychological well-being. *Work Stress*, 24(1), pp. 1–35. https://doi.org/10.1080/02678371003683747.
- Hayes, A. F. (2013). *Methodology in the social sciences. Introduction to mediation, moderation, and conditional process analysis: A regression-based approach.* New York: Guilford Press.
- Hayes, A. F. (2018). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach (2nd Ed.) New York: The Guilford Press.
- Humphrey, S. E.; Nahrgang, J.D. & Morgeson, F.P. (2007). Integrating motivational, social, and contextual work design features: A meta-analytic summary and theoretical extension of the work design literature. *Journal of Applied Psychology*, 92(5), pp. 1332-1356. https://doi.org/10.1037/0021-9010.92.5.1332.
- Ibrahim, R. Z. A. R. & Ohtsuka, K. (2012). Review of the job demand-control and job demand-control-support models: Elusive moderating predictor effects and cultural implications. *Southeast Asia Psychology Journal*, 1, pp. 10–21.

Iqbal, M. (2013). Job control mediates between workplace stress and organisational performance: A case study of Air Traffic Controllers of Pakistan. *Journal of Contemporary Management*, 2, pp. 89-98.

Janssen, P. P.; Bakker, A. B. & De Jong, A. (2001). A test and refinement of the Demand–Control–Support Model in the construction industry. *International Journal of Stress Management*, 8(4), pp. 315–332. https://doi.org/10.1023/A:1017517716727.

Johnson, J. V. & Hall, E. M. (1988). Job strain, workplace social support, and cardiovascular disease: A cross-sectional study of a random sample of the Swedish working population. *American Journal of Public Health*, 78(10), pp. 1336–1342. https://doi.org/10.2105/ajph.78.10.1336

Karasek, R. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, 24(2), pp. 285-308. https://doi.org/10.2307/2392498.

Karasek, R. A. & Theorell, T. (1990). Healthy work: Stress, productivity, and the reconstruction of working life. New York: Basic Books.

Kaur, K.; Kaur, P. & Kumar, P. (2017). Stress, coping mechanisms and its socioeconomic impact on organisations: A review. *Indian Journal of Economics and Development*, 13(2a), pp. 744–751. https://doi.org/10.5958/2322-0430.2017.00163.9.

Koopmans, L. (2015). *Individual Work Performance Questionnaire - Instruction manual*. Amsterdam: TNO Innovation for Life- Vrije Universiteit University Medical Center.

Koopmans, L.; Bernaards, C. M.; Hildebrandt, V. H.; De Vet, H. C. W. & Van der Beek, A. J. (2014). Construct Validity of the Individual Work Performance Questionnaire. *Journal of Occupational and Environmental Medicine*, 56(3), pp. 331-337. https://doi.org/10.1097/JOM.0000000000000113.

Luchman, J. N. & González-Morales, M. G. (2013). Demands, control, and support: A meta-analytic review of work characteristics interrelationships. *Journal of Occupational Health Psychology*, 18(1), pp. 37–52. https://doi.org/10.1037/a0030541.

Macklin, D. S.; Smith, L. A. & Dollard, M. F. (2006). Public and private sector work stress: Workers compensation, levels of distress and job satisfaction, and the demand-control-support model. *Australian Journal of Psychology*, 58(3), pp. 130–143. https://doi.org/10.1080/00049530600940190

Meier, L. L.; Semmer, N. K.; Elfering, A. & Jaconshagen, N. (2008). The double meaning of control: Three-way interactions between internal resources, job control and stressors at work. *Journal of Occupational Health Psychology*, 13(3), pp. 244-258. https://doi.org/10.1037/1076-8998.13.3.244

National Bureau of Statistics (NBS) (Q4, 2019). Selected Banking Sector Data: Sectorial Breakdown of Credit, ePayment Channels and Staff Strength. Retrieved from https://nigerianstat.gov.ng/elibrary.

Niedhammer, I.; Chastang, J.-F. & David, S. (2008). Importance of psychosocial work factors on general health outcomes in the national French SUMER survey. *Occupational Medicine*, *58*(1), pp. 15-24. https://doi.org/ 10.1093/occmed/kqm115.

Peeters, M. C.; Montgomery, A. J.; Bakker, A. B. & Schaufeli, W. B. (2005). Balancing work and home: How job and home demands are related to burnout. *International Journal of Stress Management*, 12(1), pp. 43-61. http://doi.org/10.1037/1072-5245.12.1.43

Pelfrene, E.; Vlerick, P.; Kittel, F.; Mak, R. P.; Kornitzer, M. & De Backer, G. (2002). Psychosocial work environment and psychological well-being: Assessment of the buffering effect on the job demand-control (-support) model in BELSTRESS. *Stress and Health*, 18(1), pp. 43-56. https://doi.org/10.1002/smi.920.

Petarli, G. B.; Zandonade, E.; Salaroli, L. B. & Bissoli, N. S. (2015). Assessment of occupational stress and associated factors among bank employees in Vitoria, State of Espírito Santo, Brazil. *Cien Saude Colet*, 20(12), pp. 3925–3934. https://doi.org/10.1590/1413-812320152012.01522015.

Pisanti, R.; van der Doef, M.; Maes, S.; Violani, C. & Lazzari, D. (2016). Psychosocial job characteristics and psychological distress/well-being: the mediating role of personal goal facilitation. *Journal of Occupational Health*, 58(1), pp. 36-46. https://doi.org/10.1539/joh.15-0117-OA.

Pomaki, G. & Anagnostopoulou, T. (2003). A test and extension of the Demand/Control/Social support model: Prediction of wellness/health outcomes in Greek teachers. *Psychology & Health*, *18*(4), pp. 537–550. https://doi.org/10.1080/0887044031000147256.

Pozo-Antúnez, J. J.; Ariza-Montes, A.; Fernández-Navarro, F. & Molina-Sánchez, H. (2018). Effect of a Job Demand-Control-Social Support Model on Accounting Professionals' Health Perception. *International Journal of Environmental Research and Public Health*, 15(11), pp. 1-16. https://doi.org/10.3390/ijerph 15112437.

Rehman, S.; Khan, M. A., Afzal, H.; Akhter, W. & Ali, I. (2010). Stress in banker's life: Demands-control model as predictors of employee's activity participation. *African Journal of Business Management*, 4(9), pp. 1679-1690. http://www.academicjournals.org/AJBM.

Rodriguez, I.; Bravo, M. J.; Peiro, J. M. & Schaufeli, W. (2001). The Demands-Control-Support Model, locus of control and job dissatisfaction: a longitudinal study. *Work and Stress*, 15(2), pp. 97-114. https://doi.org/10.1080/02678370110066968.

Rothmann, S.; Mostert, K. & Strydom, M. (2006). A psychometric evaluation of the job demands resources scale in South Africa. *SA Journal of Industrial Psychology*, 32(4), pp. 76-86. https://doi.org/10.4102/sajip.v32i4.239.

Sakuraya, A.; Shimazu, A.; Eguchi, H.; Kamiyama, K.; Hara, Y.; Namba, K. & Kawakami, N. (2017). Job crafting, work engagement, and psychological distress among Japanese employees: A cross-sectional study. *BioPsychoSocial Medicine*, 11(6), pp. 1-7. https://doi.org/10.1186/s13030-017-0091-y.

Spector, P. E. (2002). Employee control and occupational stress. *Current Directions in Psychological Science*, 11(4), pp. 133-136. https://doi.org/10.1111/1467-8721.00185.

Umar, M.; Sitorus, S. M.; Surya, R. L.; Shauki, E. R. & Diyanti, V. (2017). Pressure, Dysfunctional Behaviour, Fraud Detection and Role of Information Technology in the Audit Process. *Australasia Accounting Business Finance Journal*, 11(4), pp. 102–115. http://dx.doi.org/10.14453/aabfj.v11i4.8.

Valente, M.; Menezes, P.; Pastor-Valero, M. & Lopes, C. (2016). Re: Response to "Depressive symptoms and psychosocial aspects of work in bank employees". *Occupational Medicine* (Lond.), 66(5), pp. 421–422. https://doi.org/10.1093/occmed/kqw058.

van der Doef, M. & Maes, S. (1999). The job-control (-support) model and psychological well-being: A review of 20 years of empirical research. *Work & Stress*, 13(2), pp. 87-114. http://dx.doi.org/10.1080/026783799296084

Van Yperen, N. W. & Hagedoorn, M. (2003). Do high job demands increase intrinsic motivation or fatigue or both? The role of job control and job social support. *Academy of Management Journal*, 48(3), pp. 339-348. https://doi.org/10.2307/30040627_

Verhoeven, C.; Maes, S.; Kraaij, V. & Joekes, K. (2003). The job-demand-control-social support model and wellness/health outcomes: A European study. *Psychology and Health*, 18(4), pp. 421-440. https://doi.org/10.1080/0887044031000147175.

Zis, P.; Anagnostopoulos, F. & Sykioti, P. (2014). Burnout in medical residents: A study based on the job demands-resources model. *The Scientific World Journal*, 2014, pp. 1-10. http://dx.doi.org/10.1155/2014/673279.