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Innovative Work Behaviour among Employees of Selected Manufacturing Firms in Plateau State: Do Psychological Empowerment and Job Satisfaction Matter?

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ABSTRACT

Evidences have shown that innovative work behaviouris critical to business success. Unfortunately the level of innovation is still low among Nigerian manufacturing firms. This study explores the role of psychological empowerment and job satisfaction on innovative work behaviour among employees of manufacturing firms in Plateau State. The study analyses the data the responses obtained from 200 employees using structural equation modeling. The results established a significant and positive link between psychological empowerment, job satisfaction and innovative work behaviour. Job satisfaction was also found to associate significantlywith innovative work behavior. In addition, the mediating role of job satisfaction between psychological empowerment and innovative work behaviour was established. Top management could utilize our framework when executing organizational design interventions that can engender and shape innovative work behaviour.

KEYWORDS: *Psychological Empowerment, Job Satisfaction, Innovative Work Behaviour*

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1.0 Introduction

The Nigerian economy, especially the manufacturing sector has remained unimpressive in terms of growth and competitiveness in the global arena. The sector contracted by -0.13% in second quarter of 2019 from 2.35% in fourth quarter of 2018 contributing less to the nation's gross domestic product (GDP). In terms of competitiveness and innovativeness, Nigeria was ranked in position 114 out of 129 countries surveyed on innovativeness in 2019 lower than other African countries such as Ghana, Namibia and Kenya in Africa (Schwab, 2019; World Intellectual Property Organization, (WIPO), 2019). In addition, Nigeria dropped in the global competitiveness ranking from 115 in 2018 to 116 in 2019 out of 141 countries (Schwab, 2019). Worst is the Global manufacturing competitiveness index which ranked Nigeria 38th out of 40 countries on competitiveness (Deliotte& US Council on Competitiveness, 2016). These statistics are indicators underscoring the level of innovativeness among the firms operating within Nigerian manufacturing industry.

Practically, the rhetoric on innovation emanates from organizations' relentless search fora novel idea that may results to innovative performance. Innovation being an inspiration that occurs as momentary flash, which process involve what Anderson,Potočnik and Zhou (2014,p.3) describe as “messy reiterative, and that often involves two steps forward for one step backwards plus several side steps” requires the right structure that supports its thriving. According to Kwon and Kim (2020, p.1), innovative behaviour“ involves intense cognitive, psychological, and physical exertions on the part of the individual, which requires that a conducive condition is put in place for it to occur.”In view of the role of innovation in business model, it is imperative to examine the factors and dynamics affecting employees' innovative behaviorino rganizations.

Studies have revealed that, innovative work behavior (IWB) is an important and most preferred management practice for the survival of business organizations (King & Anderson, 2002;De Jong & Den Hartog, 2008; Anderson, Potočnik, & Zhou, 2014;Razmus and Laguna, 2018).Thus, manufacturing companies in Nigeria can be competitive if they develop a critical workforce that value creativity, and possess the right knowledge, skills and ability, and directed same in pursuance of successful in their business activities. Hence, it is imperative to understand and isolate critical factors that could enhance employees' propensity to exhibit innovative work behavior to engender competitiveness and a strong manufacturing sector. It must also be noted that innovative behaviors stem not only from an individual's natural traits but also from an individual's job attitudes, which is why scholars have begun to pay greater attention to the attitudinal factors that help induce innovative behavior. This study leverage on psychological empowerment as advanced by (Yuan & Woodman, 2010; Sangar & Rangnekar, 2014) to predict IWB among employees, and job satisfaction as an intervening factor.

The rationale for the choice of these constructs is based on the argument that psychological empowerment stimulates one's

meaningfulness at work task identity, autonomy and sense of responsibility (Hackman & Oldham, 1973). A psychologically empowered individual that is satisfied exhibits more innovative work than one that is dissatisfied hence job satisfaction is proposed as a trigger of IWB as a result of employees' psychological empowerment.

Psychological empowerment which deals with intrinsic task motivation reflecting a sense of self-control in relation to one's work and an active involvement with one's work role is crucial in determining employees' work outcome. Studies have linked itto innovative work behaviour (Scott & Bruce 1994; Yuan & Woodman 2010; Li *& Zheng*, 2012; Xerri, 2013; Luoh, Tsaur, & Tang, 2014; Cingoz& Kaplan, 2015 Singh, & Sarkar, 2019; Ayoub, Al-Akhras, Na'anah, & Al-Madadha, 2018). Suggesting that psychological empowerment evokes organizational commitment as a result of the fit between the requirements and objective of an individual-organizational expectation. As such, it contributes positively to innovative work behavior. However, studies have also reveal that psychological empowerment associates insignificantly with work behaviour such innovativeness and commitment (Kmieciak et al.,2013;Asag-Gau, & Van Dierendonck, 2011;Wong, Humborstad, & Perry, 2011), hence the need to further examine this relationship. In addition, documented evidences have indicated the positive relationship between psychological empowerment and job satisfaction and ultimately employee IWB (Yuan & Woodman, 2010;Li, Shi, Li, Xing, Wang, Ying, & Sun, 2018; Alagarsamy, Mehrolia, & Aranha, 2020). A study has explored the mediating role of job satisfaction in the relationship being examined in this research (Cingoz& Kaplan, 2015) but at the dimensional level. This study differs from theirs in the sense that it considers psychological empowerment as a uni-dimensional construct.

In addition, these studies were conducted in developed countries where job satisfaction is relatively high compared to the Nigerian settings where the perception of job satisfaction is low (Onyebuenyi, 2016). In addition, most of the IWB studies were conducted in the service sector where evidence of innovative behaviouris well established. Thus, conducting this study in the Nigerian manufacturing setting will further explain the unique contextual differences that abound between economies and industries. There fore, the study proposes that the relationship between psychological empowerment and IWB in Nigerian manufacturing industry is mediated through job satisfaction.

1.1 Theoretical Foundation

This study is hinged on the self-determinationand social exchange as underpinning and supporting theories respectively. Self-determination theory posits that people must continually satisfy three basic psychological needs for autonomy, competence, and relatedness throughout their lifetime in order to reach optimal functioning levels and to experience ongoing personal growth and well-being (Deci & Ryan, 2000). The theory examines the extent to which a person's behavior is self-motivated or self-determined. When people satisfy their basic needs, they tend to have higher levels of performance, health, and well-being compared

to when they feel unsatisfied. While the need for autonomy refers to people believe that they can choose their own actions, the need for competence refers to individuals wanting to accomplish difficult and challenging tasks in order to obtain desired outcomes. Likewise, the need for relatedness refers to people's desire to establish mutual respect and connectedness with others. The theory presupposes that when all these needs are met then such individuals experience a personal sense of freedom, mastery, success, and control and a sense of social support from others (Ryan & Deci, 2000).

On the other hand, the major idea in social exchange theory is that parties enter into and maintain exchange relationships with others with the expectation that doing so will be rewarding (Blau, 1968). The theory is limited to examining actions that are contingent on rewarding reactions from others (Blau, 1968) and examines two-sided, mutually contingent, and mutually rewarding processes called “transactions” and relationships called “exchanges” (Emerson, 1976). The theory assumes that self-interested parties transact or exchange with self-interested others in order to accomplish outcomes that neither could achieve on his or her own (Lawler, 1995) and that these exchanges would cease as soon as they are not perceived to be mutually rewarding by both parties (Blau, 1960). According to the theory, each party has something of value that the other wants, the two parties then decide what to exchange and in what quantities. The resources exchanged can be economic or social or both.

Drawing from self-determination theory and social exchange theory we argue the hypotheses that link psychological empowerment, job satisfaction and IWB. Thus, individual who are in a work relationship believe that the work environment will provide them with rewards to satisfy their autonomy, competence and relatedness needs. They therefore believe that being in work relationship provides them with rewards that can facilitate the satisfaction and attainment of basic needs. If the work environment provide opportunities to meet these needs such employee will be satisfied with their job and ultimately, exhibiting behaviours that are favourable towards the organization.

In relation to this study, employees working in Nigeria's manufacturing industries do so with the expectation that their relationship with the companies will provide rewarding benefits for them in terms of satisfying their basic needs of competence, autonomy and relatedness. When their basic needs are satisfied, those employees will be satisfied in the job and will therefore, develop IWB that will ultimately affect their companies positively. Such a relationship is built on trust and a mutually beneficial social exchange. It is this proposed theoretical exposition that is tested in this study using a sample of employees working in selected manufacturing companies in Nigeria.

1.2 Conceptual Framework and Hypotheses Development

The proposed framework in this research paper was based on existing literature that examined the link psychological empowerment to IWB of employees through the intervening effect of job satisfaction so as to extend literature. As figure1 shows, psychological empowerment is the independent variable; job satisfaction is the mediating variable andIWB is the dependent

variable. Extant studies have shown that psychological empowerment and job satisfaction are directly related (Cingoz& Kaplan, 2015). That is the more employees are empowered, the more satisfied they will be. Creative and satisfied staffs are the most important asset of an organization(Taherkhani, 2015). Thus, it is important to scrutinize the mentioned relationship for managers to enrich their understanding on the practices that boost staffs' satisfaction and thus their Innovative behaviors.

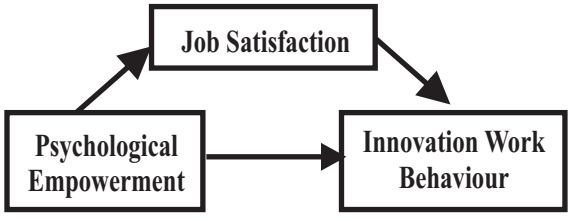

Figure 1 Research Model

Psychological Empowerment and Innovative Work Behaviour

Psychological empowerment is defined as 'intrinsic task motivation reflecting a sense of self-control in relation to one's work and an active involvement with one's work role' (Seibert, Wang & Courtright, 2011). Psychological empowerment as intrinsic task motivation is manifested in a set of four cognitions reflecting an individual's work role: *meaning*, *competence*, *self-determination*and*impact*(Thomas & Velthouse, 1990). *Meaning* refers to the needs of the work role and its compatibility with personal values, beliefs and behaviours. When the work is important and valuable, an employee senses its importance (Hackman and Oldham, 1980). *Competence*, also called self-efficacy, refers to the self-belief of an employee who knows that he or she has the capacity to accomplish the assigned tasks (Bandura, 1989) while s*elf-determination*refers to autonomy in the initiation and regulation of behaviours and processes such as making decisions about work tasks. Lastly, i*mpact*refers to the degree to which employees can influence strategic, administrative, or operating outcomes.

The concept of innovative work behavior derives from the general concept of innovation. Innovation is the main source of an organization's competitive advantage (Drucker, 1999). Organizational innovation originates from the expression of innovative behaviour in members toward their jobs, which includes creativity, sensitivity in problem discovery and taking advantage of opportunities to evoke proactive creative thinking and also implementing creative ideas to develop new products, services, or even create new markets. The fascination with the innovative process has encouraged organizational innovation researchers to delve intoand understand the approaches to evoke the creativity of organizational members or to encourage them to implement their creative ideas (Amabile, 1986; Scott & Bruce, 1994; Yuan & Woodman, 2010).

Using the SDT theoretical lens, when employees perceive that their work is meaningful and important to themselves, they expend more effort in understanding problems from various perspectives, adopting multiple sources of information to identify solutions (Gilson &Shalley, 2004). This feeling

encourages employees to transcend existing thinking styles, thus, displaying a high level of innovative behaviour. In addition, employees who are confident in implementation and have sufficient self-determination to complete their tasks may expend more effort and continue to solve any problem that they may encounter (Deci & Ryan, 1991; Spreitzer, 1997). They are also willing to undertake more risks andgenerate new ideas (Amabile, 1986). Therefore, psychologically empowered employees are more confident in their work and can strengthen their creativity and problem-solving abilities resulting in the display of a higher degree of innovative behaviour. A number of empirical studies have established a significant effect of psychological empowerment on IWB using a diverse population of employees in different research contexts (Wang & Lee, 2009; Singh & Sarkar, 2012; Afsar & Badir, 2016; Nikpour, 2018;Rehman, Ahmad & Allen, 2019; Zhu, Yao & Zhang, 2019). Based on the following theoretical argument and empirical findings, the following hypothesis is proposed;

H1: *Psychological empowerment has a significant effect on innovative work behavior.*

Psychological Empowerment and Job Satisfaction

Employee empowerment can have significant consequences for both individuals and their organizations. When individuals are empowered, they tend to attach more importance and value to their work. Such individual's level of job satisfaction is likely to increase and their contribution to work productivity and success is greater (Koberg, Boss, Senjem & Goodman, 1999; Spreitzer, 1995). Job satisfaction is therefore, one of the key outcomes of psychological empowerment. This proposition has been tested with a sample of 341 working adults by Avey, Hughes, Norman and Luthans (2008) with the results showing that psychological empowerment emerged as a potential and important predictor of employee job satisfaction.

This submission has been established in empirical studies confirming the positive effect of psychological empowerment on job satisfaction (Bowen & Lawler, 1992; Bordin, Bartram & Casimir, 2007; Gazzoli, Hancer & Park, 2010; Nikpour, 2018).Carless (2004) on his part explored the different aspects of psychological empowerment on job satisfaction and found that meaning and competence were more significant in predicting job satisfaction. Based on the empirical evidence, the following hypothesis is proposed;

H2:*Psychological empowerment has a significant positive effect on Job satisfaction.*

Job Satisfaction andInnovative Work Behavior

Job satisfaction connotes the feelings or affective responses of an employee regarding factors such as the job itself, work experience and the working environment (Robins, Fraley & Kureger, 2007). It is the general attitude of employee's satisfaction or dissatisfaction with their jobs. An employee may feel more positive about their work if they are satisfied. Despite job satisfaction not being the only factor determining the behaviour of organizational members, it is a crucial factor affecting their behavior such as innovative work behavior. This proposed effect of job satisfaction on

innovative work behaviour has generated research interest. In an organization, an employee's satisfaction with his or her job often affects their degree of work engagement and innovative work behavior. An employee with a high job satisfaction has less turnover intentions contributing positively towards behaviors that can be termed innovative (Sangar & Rangnekar, 2014; Bos-Nehles&Veenendaal, 2019).In order words, employees that rate high as highly satisfied with their jobs are more prone to exhibiting innovative work behavior than those that are highly dissatisfied with their job. Summarizing the discussions above, the following hypothesis is proposed for this study;

H3: *Job satisfaction has a significant positive effect on innovative work behavior.*

2.0 ***Mediating Role of Job Satisfaction***

Job satisfaction is a psychological, behavioural and occupational response by employees towards fulfillment at their job(Asif, Mirza, Khan, Asif, & Riaz, 2017). Satisfied employees are believed to be more productive, perform better, and are more likely acts innovatively to promote organizational performance and customer satisfaction (Riaz, Xu & Hussain, 2018). A handful of studies have established the direct link between psychological empowerment, job satisfaction and innovative work behavior (Cingoz& Kaplan, 2015; Ayoubet.al, 2015; Nikpour, 2018; Li et.al, 2018).

Most of these studies did not consider explaining the intervening role of job satisfaction in the established relationship between psychological empowerment and IWB from the theoretical perspective. In this study, we draw on the tenets of the social exchange the oryas the underlying theory toexplain the mechanism behind the relationship. We argue that how people feel about a given interaction or relationship depends fundamentally on the outcomes that they perceive in relation to their input. This is fundamental because employees believe that the work environment will provide them with rewards to satisfy meaningfulness of their work, by providing opportunities for development thus impact heir autonomy.

Consistent with the norm of reciprocity, if employees' employees perceive their work conditions negatively, dissatisfaction will occur therefore engage in psychological withdrawal as against being psychologically empowered to exhibit innovative behavior (Alias, Rosdi, & Khan, 2017).Individuals who are satisfied with their jobs bring innovation to products, services and processes in the organization (Sabir & Kalyar, 2013). Consequently, indirect effect of psychological empowerment through increased satisfaction will increase employee's innovative behavior. We therefore hypothesized that; *H4: Job satisfaction significantly mediates the relationship between psychological empowerment and innovative work behavior.*

3.0 Methods

Population and Sampling Procedures

This research adopted a cross-sectional survey design using structured questionnaire as data collection instrument. The population of the study consisted of employees of selected five (5) manufacturing companies operating in Jos Metropolis (Golden Penny Limited, Dangote Industries Limited, NASCO Groups, Grand Cereal Limited, and De United Prima Foods Industries).Sample size was determined using the table provided by Krejcieand Morgan (1970), which produced a minimum sample size of 200 for an estimated population of 1000 employees of the manufacturing firms in JosBukuru metropolis, Plateau State.

In line with the sample requirement, 211 questionnaires were self-administered at random to the selected employees.A total of 200 questionnaires were retrieved from the respondents representing 95% response rate. The returned questionnaire was fully completed with minimum error because it was self-administered by the researcher who cross check the returned questionnaires at the point of collection as a measure to curtail the number of incomplete responses.

Measures

Existing scales were used to measure psychological empowerment, job satisfaction and innovative work behavior. Psychological empowerment was measured using the validated measures developed by Fields (2002), which consisted of 7-items with a cronbach alpha value of 0.794. Job satisfaction was used to measure using a scale developed by Cammann et al. (1983), it is a 7-item measure with a Cronbach alpha value of 0.789.Lastly, IWB was measured using the7-item scale developed by Jong and den Hartog (2010) with a Cronbach alpha value of 0.716.The Cronbach alpha coefficients of all the constructs in the study were more than the threshold of 0.7 indicating that all measures demonstrated good reliability. All the constructs were measured on a 5-point likert-typed scale ranging from 1 (strongly disagree) to 5 (strongly agree).

4.0 *Data analysis*

LISREL software a version of covariance-based structural equation modelling CB-SEM was used in testing the relationship between psychological empowerment, job satisfaction andIWB. The LISREL software enables the performance two basic operations namely, evaluation of measurement and structural models(Hair, Hult&Sarstedt, 2013). The evaluation of measurement model as designed in this study involved the assessment of average variance extracted (AVE) and composite reliability (CR) while the structural model evaluation involved first tested for collinearity among the constructs, evaluation of coefficient of determination (R^2) and assessment of the path coefficients.

5.0 Results

Respondents' Characteristics

The result of the descriptive statistics Table 1show that 16% of the respondents have been with the company for less than 1 year, 28% from 1 – 3 years, 29% from 4-6 years while the remaining 27% have stayed for more than 7 years. The result also showed that 43.5% of the respondents were female while the remaining 56.5% were males. Concerning the age range, 11.5% were found to be within the range of 18-29 years, 18% were between 30-39 years, 54.5% were between 40-55 years while the remaining 15.5% were 55 years and above. Lastly, for the educational attainment, 2.5% of the respondents were ND holder, 32.5% were HND holders, 25.5% were NCE holders, and 29% were B.Sc. holders, while the remaining 10.5% were master's degree holders.

Table 1: Respondents' Characteristics

Factors	Particulars	Frequencies	Percentage %
Duration of service	Less than 1 year	32	16
	1-3 years	56	28
	4-6years	58	29
	7 and above	54	27
Gender	Female	87	43.5
	Male	113	56.5
Age range	18-29 years	23	11.5
	30-39years	36	18.0
	40-55years	109	54.5
	55 and above	31	15.5
Educational Attainment	ND	5	2.5
	HND	65	32.5
	NCE	51	25.5
	Degree	58	29.0
	Masters	21	10.5

Assessment of Measurement Model

The result of the validity test is presented in Table 2.The evaluation of the reflective measurement model validity involved assessing the composite reliability and discriminate validity otherwise known as the Average Variance Extracted (AVE) and Discriminate validity. Based on the result of the factor loading, items less than the minimum threshold value of 0.60 (Hair, et al., 2010) were removed. One item from the psychological empowerment scale 'I have a great deal of control over what happens in my department'; two items from the IWB scale' Overall, I consider myself a creative member of my team in this department' and 'While working in this organization, I came up with innovative and creative notions'; and another item from the job satisfaction scale 'When I do a good job I received recognition' were therefore, removed. The final scale consisted of a 6-item scale each to measure psychological empowerment and job satisfaction while a 5-item was used to measure IWB as presented in Table 2.

Table 2: Measurement Model Assessment

Variable	Indicators	Factor Loading	CR	AVE
Psychological Empowerment	Psych. Emp. 1	0.71	0.79	0.70
	Psych. Emp. 2	0.69		
	Psych. Emp. 3	0.87		
	Psych. Emp. 4	0.66		
	Psych. Emp. 5	0.74		
	Psych. Emp. 6	0.81		
Innovative WorkBehavior	IWB 1	0.74	0.72	0.81
	IWB 2	0.64		
	IWB 3	0.82		
	IWB 4	0.78		
	IWB 5	0.76		
Job Satisfaction	JS 1	0.71	0.79	0.66
	JS 2	0.67		
	JS 3	0.72		
	JS 4	0.79		
	JS 5	0.86		
	JS 6	0.74		

Results in Table 3 indicate that discriminant validity requirement is not violated among theconstructs since the square root of the AVE represented by the bolded diagonal value is greater the correlation of each construct, (Hair Jr, Hult, Ringle, &Sarstedt, 2016).

Table 3: Assessment of Discriminates Validity, Fornell-Larcker Criterion

	Variables	1	2	3
1	Psychological Empowerment	**0.704**		
2	Innovative Work Behaviour	0.204	**0.811**	
3	Job Satisfaction	0.132	0.326	**0.663**

Note:AVEs bold as highlighted diagonally

Assessment of Structural Model

Table4 shows the fit-statistics of structural model. Hooper, Coughlan and Mullen (2008) suggest that the chi-square ≤ 5.00. Also, Hu and Bentler (1999);Bentlerand Bonnet (1980) recommended a minimum value of 0.95 for the Comparative Fit Index (CFI), 0.90 for the Normed Fit Index (NFI), Goodness of Fit Index (GFI)and Tucker-Lewis Index (TLI). Table 4shows that all the criteria have values that satisfy the minimum threshold. These fit indexes indicate that the structural model reasonably fit the sample covariance matrix.

Table 4: Fit Indices

Fit Statistic	Obtained value	Model fit
Relative Chi-square (CMIN/df)	2.206	Good
RMSEA	0.051	Good
GFI	0.971	Good
CFI	0.970	Good
NFI	0.937	Good

Results of Path Coefficient

The hypotheses formulated for this study were tested at 5% level of significance and the results presented in Table 5. H1 explored the effect of psychological empowerment on IWB. This hypothesis was supported as psychological empowerment had a significant effect on IWB ($\beta = 0.613, t = 6.315, p < 0.001$) as shown in. In H2, psychological empowerment had a significant effect on job satisfaction ($\beta=0.44, t = 4.412, p <$ 001) providing support for hypothesis two. H3 which proposed an association between job satisfactions and IWB was also supported. The result reveals ($\beta=0.58, t = 8.341, p < 01$). Lastly, the mediation result, also shows that job satisfaction mediates the relationship between psychological empowerment and IWB ($\beta=0.269$, SE = 0.06, $p < 01$) confirming the proposed indirect effect of psychological empowerment and IWB through Job satisfaction (H_4).

Table 5: Path Coefficient

Hypotheses	Relationships	B	SE	T-Stat	p-value	Decision
H1	IWB <--- PE	0.61	0.21	6.22	0.000	Supported
H2	JS <--- PE	0.44	0.21	4.41	0.001	Supported
H3	IWB <--- JS	0.58	0.06	8.34	0.011	Supported
H4	IWB<--- JS <--- PE	0.26	0.06		0.014	Supported

Note: PE=psychological empowerment; JS=job satisfaction; IWB=innovative work behavior

5.0 Discussion of Finding

This study was carried out using employees of selected manufacturing companies in Plateau State, Nigeria to explore the mediating role of job satisfaction on the relationship between psychological empowerment and IWB. This section discusses the findings of this study. The first hypothesis stated that psychological empowerment has a significant effect on IWB. Based on the findings as reported, this hypothesis is confirmed indicating that psychological empowerment has a significant positive effect on IWB. This finding has been confirmed by earlier research conducted by Wang and Lee (2009), Singh and Sarkar (2012),AfsarandBadir (2016), Nikpour (2018),

Rehman et al. (2019)and Zhu et al. (2019). This implies that employees working in manufacturing companies in Nigeria who have a sense of self-control over their work and actively involved in their job will positively contribute towards innovative work behavior. Likewise evidence also indicates that such employees would be satisfied with their job or job roles. This conclusion derives from a significant effect of psychological empowerment on job satisfaction as reported in this study confirming hypothesis two. A similar research conclusion has been reported in empirical studies conducted by Bowen and Lawler (1995)andGazzoli et al. (2010).

The study had also hypothesized that job satisfaction will have a significant effect on IWB, proposed as hypothesis three. Going by the result of this study, this hypothesis was also supported and confirmed indicating that indeed job satisfaction contributes significantly towards IWB. This finding has been reported in earlier studies by scholars such as Luoh et al. (2014). The implication of this finding is that when employees in the manufacturing sector in Nigeria are satisfied with their job, then they will contribute positively towards behavior that is innovative. This finding makes sense given that an employee that derives satisfaction from work will contribute his or her best towards the growth and success of the organization by way of imbibing IWB in the discharge of its role.

Lastly, the study hypothesized that job satisfaction will mediate the relationship between psychological empowerment and IWB. This hypothesis was also confirmed going by the result of this study. Such evidence has been reported in earlier research studies (Cingoz& Kaplan, 2015;Ayoub, Al-Akhras, Na'anah& Al-madadha, 2015;Nikpour, 2018). This implies that employees working in manufacturing industries in Nigeria do so in the hope of deriving benefits (such as satisfying their basic needs) such that if they experience a sense of self-control and are actively involved in their work, then they will experience job satisfaction and ultimately be innovative in their work behavior. In order words, job satisfaction is the mechanism through which psychologically empowered employees can influence IWB positively.

5.1 Implications

Theoretical Implication

This study has contributed to the empirical literature psychological empowerment, job satisfaction and IWB. The study also established the mediating role of job satisfaction on the relationship between psychological empowerment and IWB. The study has also confirmed the positive effect of psychological empowerment on IWB and job satisfaction on the one handand job satisfaction and IWB on the other. The findings of this study has given deeper insight on the critical role job satisfaction plays in enhancing innovative work behavior hence an addition to the human resource literature.

Practical Implication

The practical implication is that manufacturing industries should focus on building psychological empowerment for their employees as this contributes positively towards the experience of job satisfaction and IWB. Manufacturing industries should also understand the importance that employee

satisfaction with their job has on IWB and also how important job satisfaction strengthens psychological empowerment and IWB. Strategies targeted at ensuring job satisfaction should be implemented in manufacturing industries as it is important and a fundamental factor if innovative work behavior is to be imbibed in employees.

5.2 Limitations and Direction for future Research

This study is limited in the following ways. Firstly, because this study is cross-sectional in nature, the limitations inherent in cross-sectional research designs apply in this study, which is primarily lack of the establishment of causality. Future studies could explore this relationship using a longitudinal research design. Secondly, job satisfaction was the only considered mediating mechanism. Future studies could consider using other mediators in the attempt to explore the relationship between psychological empowerment and IWB. Thirdly, the study was limited to selected manufacturing companies in Plateau State. In future research studies, manufacturing companies outside Plateau State could be considered. Also, the model developed in this study could be tested in populations other than employees in the manufacturing sector to better understand the relationship between psychological empowerment, job satisfaction and IWB. Despite these limitations, this study has established the mediating role of job satisfaction on the relationship between psychological empowerment and IWB as explored through the theoretical lens of self-determination theory and social exchange theory.

5.3 Conclusion

The present study proposes antecedence for innovative work behavior through psychological empowerment and the mediating role of job satisfaction. The results indicates that psychological empowerment has significant effects on employee innovative work behavior, just as job satisfaction was found to be the mechanism in the relationship between psychological empowerment and innovative work behavior. This underscores the need for manufacturing companies to let go of the tight control system characterized by rigid job design to a more flexible and creative system. This gives employee sense of meaningfulness, task identity and sense of responsibility as embedded in psychological empowerment.

REFERENCES

Afsar, B. & Badir, Y. (2016).The mediating role of psychological empowerment on the relationship between person-organization fit and innovative work behavior. *Journal of Chinese Human Resource Management*, *7*(1), 5-26.

Afolabi, A., & Laseinde, O.T. (2019).Manufacturing Sector Performance and Economic Growth in Nigeria. *Journal of Physics. International Conference on Engineering for Sustainable World.*

Alagarsamy, S., Mehrolia, S., &Aranha, R. H. (2020). The Mediating Effect of Employee Engagement: How Employee Psychological Empowerment Impacts the Employee Satisfaction? A Study of Maldivian Tourism Sector. *Global Business Review*, 0972150920915315.

Alias, M., Rosdi, I.S., & Khan, N. (2017). Examining the mediating effect of job satisfaction on individual characteristics and deviant behavior among support staff in a civil service organization. *International Journal of Academic Research in business and Social Sciences. Proceedings at the 7th International Conference on educational Research and Practice.*

Amabile, T. M. (1986). A model of creativity and innovation in organizations. In: B. M. Stew and L. L. Cummings (Eds.), *Research in organizational behavior,*123–167, Greenwich, CT: JAI Press.

Anderson,N.,Potočnik,K.,&Zhou,J.(2014).Innovationandcreativityinorganizations:Astate-of-the-sciencereview,prospectivecommentary,andguidingframework.JournalofManagement,40(5),1297–1333.

Asag-Gau, L., & Van Dierendonck, D. (2011). The impact of servant leadership on organisational commitment among the highly talented: the role of challenging work conditions and psychological empowerment. *European Journal of International Management*, *5*(5), 463–483.

Asif, M.F., Mirza, U.K., Khan, A.H., Asif, M.Z., Riaz, S. &Ahmed, S. (2018). Job Satisfaction Antecedents and Consequences.*Bulletin of Business and Economics. Research Foundation for Humanity, 6*(4), 185-194.

Avey, J. B., Hughes, L. W., Norman, S. M. &Luthans, K. W. (2008).Using positivity, transformational leadership and empowerment to combat employee negativity. *Leadership and Organization Development Journal*, *29*(2), 110-126.

Ayoub, D., Al-Akhras, D., Na'anah, G. & Al-Madadha, A. (2018). The relationship between psychological empowerment and creative performance of employees: mediating effect of job satisfaction in international non-governmental organizations. *European Scientific Journal*, *14*(20), 217-239

Bandura, A. (1989). Human agency in social cognitive theory.*American Psychologist*, *44*, 1175-1184

Bentler, P. M. &Bonett, D. G. (1980).Significance tests and goodness of fit in the analysis of covariance structures.*Psychological Bulletin*, *88*, 588-606

Blau, P. M. (1960).A theory of social integration.*The American Journal of Sociology*, *65*, 545-556

Blau, P. M. (1968). Interaction: social exchange. *International Encyclopedia of the Social Sciences*, *7*, 452-458

Bordin, C., Bartram, T. & Casimir, G. (2007).The antecedents and consequences of Bowen, psychological empowerment among Singaporean IT employees.*Management Research News*, *30*(1), 34-46.

Bos-Nehles, A. C. &Veenendaal, A. A. R. (2019). Perceptions of HR practices and innovative work behavior: the moderating effect of an innovative climate. *The International Journal of Human Resource Management*, *30*(18), 2661-2683

Bowen, D. E. & Lawler, E. E. (1992). The empowerment of service workers: what, why, how*and when. Sloan Management Review, 33(3),* 31-39.

Camman, C., Fishman, M. &Klesh, J. R. (1983).*Assessing the attitudes and perceptions of organizational members.* New York: Wiley.

Cingoz, A. & Kaplan, A. (2015).An examination of the mediating role of job satisfaction on the relationship

between psychological empowerment and innovative behavior. *International Review of Social Sciences*, *3*(2), 60-72

Deci, E. L. & Ryan, M. (1991). A motivational approach to self: integration in personality. In: R. A. Dienstbier (Ed.). *Current theory and research in motivation, 38. Nebraska Symposium on Motivation, 1990: Perspectives on motivation* (237-288). University of Nebraska Press.

De Jong, J., & Den Hartog, D. (2007). How leaders influence employees' innovative behaviour. *European Journal of Innovation Management*, *10*(1), 41–64.

De Jong, J. & Den Hartog, D. (2010).Measuring innovative work behavior. *Creativity and Innovation Management*, *19*(1), 23-36.

Deliotte Touche Tohmatsu Limited & US Council on Competitiveness (2016). Global Manufacturing Competiveness Index Ranking.

Drucker, P. F. (1999). Knowledge-worker productivity: the biggest challenge. *California Management Review*, *41*(2), 79-94

Emerson, R. M. (1976). Social exchange theory. *Annual Review of Sociology*, *2*, 335-362

Fields, D. (2002). *Taking the measure of work: a guide to validated scales for organizational research and diagnosis*. London: SAGE Publications.

Gazzoli, G., Hancer, M. & Park, Y. (2010). The role and effect of job satisfaction and empowerment on customers' perception of service quality: A study in the restaurant industry. *Journal of Hospitality and Tourism Research*, *34*(1), 56-77

Hackman, J. R. & Oldham, G. R. (1980).*Work Redesign*. Rading: Addison-Wesley

Hair, J. F., Black, W. C., Babin, B. J. &Anderson, R. E. (2010).*Multivariate Data Analysis* (7th ed.). USA: Pearson Prentice Hall

Hair Jr, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016).*A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage Publications.

Hooper, D., Coughlan, J. & Mullen, M. R. (2008). Structural equation modeling: guidelines for determining model fit. *Electronic Journal of Business Research Methods*, *6*(1), 53-60

Hu, L-T.&Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*(1), 1-55

King, N. & Anderson, N. (2002). *Managing innovation and change: a critical guide for organizations*. *London: Thomson Publishers*

Kmieciak, R., Michna, A., Meczynska, A., Kmieciak, R., Michna, A., & Meczynska, A. (2013). Innovativeness , empowerment and IT capability? evidence from SMEs. *Industrial Management & Data Systems*, *112*(5), 707–728.

Knol, J., & Van Linge, R. (2009). Innovative behaviour: The effect of structural and psychological empowerment on nurses. *Journal of Advanced Nursing*, *65*(2), 359-370.

Koberg, C. S., Boss, R. W., Senjem, J. C. & Goodman, E. A. (1999). Antecedents and outcomes of empowerment empirical evidence from the health care industry. *Group and Organization Management*, *24*(1), 71-91.

Krejcie, R. V. & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, *30*(3), 607-610

Kwon, K., & Kim, T. (2020). An integrative literature review of employee engagement and

innovative behavior: Revisiting the JD-R model. *Human Resource Management Review*, *30*(2), 100704.

Lawler, E. E. (1995). Empowering service employees.*Sloan Management Review*, *36*(4), 73-84

Li, X.Y. & Zheng, Y.S. (2014) The Influential Factors of Employees' Innovative Behavior and the Management Advices. Journal of Service Science and Management, 7, 446-450. http://dx.doi.org/10.4236/jssm.2014.76042

Li, I.C., Chen, Y.-C.&Kuo, H.T. (2008).The relationship between work empowerment and work stress perceived by nurses at long-term care facilities in Taipei city.*Journal of Clinical Nursing*, *17*(22), 3050-3058

Li, H., Shi, Y., Li, Y., Xing, Z., Wang, S., Ying, J., & Sun, J. (2018). Relationship betweennurse psychological empowerment and job satisfaction: A systematic review and meta analysis. *Journal of Advanced Nursing*, *74*(6), 1264-1277.

Luoh, H. F., Tsaur, S. H., &Tang, Y. Y. (2014). Empowering employees: job standardizationand innovative behavior. *International Journal of Contemporary HospitalityManagement*.

Miao, S. Fayzullaev, A.K.U., &Dedahanov, A.T. (2020). Management Characteristics as determinants of Employees Creativity: The Mediating Role of Employees Job satisfaction. *Sustainability.*

Nikpour, A. (2018). Psychological empowerment and organizational innovation: mediating role of job satisfaction and organizational commitment. *International Journal of Organizational Leadership*, *7*(2), 106-119

Niu, H. J. (2014). Is innovation behavior congenital? Enhancing job satisfaction as a Moderator.*Personnel Review*.*43* (2), 288-302.

Nunnally, J. C. (1978). *Psychometric theory* (2nd ed). New York: McGraw-Hill

Onyebuenyi, K.C. (2016). Factors affecting job satisfaction in Nigerian International oil companies. *Doctoral Dissertation, Walden University, Nigeria*

Philip, H.P., Uchechukwu, & Obiekwe, A.D. (2016). The Role of Innovation in Economic Development of Nigeria.*International Journal of Innovative Research and Development. 5(6), 500-518.*

Purc, E., & Laguna, M. (2019).Personal Values and Innovative Behavior of employees.*Frontier in Psychology.*

Rank, J., Pace, V. &Frese, M. (2004). Three avenues for future research on creativity, innovation and initiative. *Applied Psychology: an International Review*, *53*(3), 617-635

Rehman, W. U., Ahmad, M. & Allen, M. M. C. (2019). High involvement HR systems and innovative work behavior: the mediating role of psychological empowerment, and the moderating roles of manager and co-worker. *European Journal of Work and Organizational Psychology*, *28*(4), 525-535

Riaz, S., Xu, Y., & Hussain, S. (2018). Understanding Employees Innovativee Behavior and Thriving at Work: A Chinese Perspective. *Journal of Administrative Sciences, 8*(46).

Robins, R. W., Fraley, R. F. and Krueger, R. F. (2007).*Handbook of research methods in personality psychology*. New York: Guilford Press

Ryan, R. M.&Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation,

social development, and well-being.*American psychologist*, *55*(1), 68.

Sangar, R. &Rangnekar, S. (2014). Psychological empowerment and role satisfaction as determinants of creativity.*Asia Pacific Journal of Management Research and Innovation*, *10*(2), 119-127.

Scott, S. G.& Bruce, R. A. (1994). Determinants of innovative behavior: a path model ofindividual innovation in the workplace. *Academy of Management Journal*, *37*(3), 580–607.

Schwab, K. (2019). *Global Competitiveness Report*.World Economic Forum.

Seibert, S., Wang, G. &Courtright, S. H. (2011). Antecedents and consequences of psychological and team empowerment: a meta-analytic review. *Journal of Applied Psychology*, *96*(5), 981-1003

Shalley, C. E. &Gilson, L. L. (2004). What leaders need to know: a review of social and contextual factors that can foster or hinder creativity.*The Leadership Quarterly*, *15*, 33-53

Singh, M. &Sarkar, A. (2012). The relationship between psychological empowerment and innovative behavior: a dimensional analysis with job involvement as mediator. *Journal of Personnel Psychology*, *11*(3), 127-137

Singh, M., & Sarkar, A. (2019). Role of psychological empowerment in the relationship between structural empowerment and innovative behavior. *Management Research Review*, *42* (4), 521-538

Spreitzer, G. M. (1995). Psychological empowerment in the workplace: dimensions, measurementand validation. *Academy of Management Journal*, *38*(5), 1442-1465.

Spreitzer, G. M. (1997). *Toward a common ground in defining empowerment*. Paper presented at the National Academy of Management Meetings, Vancouver, Canada.

Thomas, K. W. &Velthouse, B. A. (1990). Cognitive elements of empowerment: An interpretive model of intrinsic task motivation. *Academy of Management Review*, *15*(4), 666-681.

Wong Humborstad, S. I., & Perry, C. (2011). Employee empowerment, job satisfaction and organizational commitment: An in-depth empirical investigation. *Chinese Management Studies*, *5*(3), 325–344.

World Intellectual Property Organization (2018).Global Innovative Index Report.

Xerri, M. J. (2013). Are committed employees more likely to exhibit innovative behavior: a social exchange perspective(*PhD thesis). Southern Cross University, Lismore, NSW.*

Yuan, F., & Woodman, R. W. (2010). Innovative behavior in the workplace: the role of performance and image outcome expectations. *Academy of Management Journal*, *53*(2), 323-342.

Zhu, J., Yao, J. & Zhang, L. (2019).Linking empowering leadership to innovative behavior in professional learning communities: the role of psychological empowerment and team psychological safety.*Asia Pacific Education Review*, *20*, 657-671