

Mediating Effect of Intrapreneurship on Psychological Ownership and Teachers' In-Role Performance

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Abstract

This paper investigated the mediating effect of intrapreneurship on the relationship between psychological ownership and teachers' in-role performance in private secondary schools in Kano, Nigeria. The data for the study was collected through the use of questionnaire. A total of 338 teachers from selected private secondary schools in Kano metropolis were used for the study. The study used Statistical Package for Social Science (SPSS) Version 22 and PLS-SEM Version 3 for data screening and path structuring modelling, respectively. The study reveals positive significant effect of psychological ownership on teachers' in-role performance. Importantly, the study findings provided empirical evidence that intrapreneurship mediates the relationship between organisational-based psychological ownership and teachers' role performance. The study recommends that the in-role performance of teachers can be enhanced when the teachers have the feeling of psychological ownership of their respective schools. Similarly, if teachers have psychological ownership for their respective schools, they would be motivated to be more innovative which consequently could improve performance of their basic responsibilities in the school. Direction for future study was also discussed.

Keywords: Intrapreneurship, Psychological ownership, & Employee performance, In-role performance.

1 Introduction

Organisations exist for a goal achievable through utilization of organisational resources including men, machine and money. However, among the main key economic resources in an organisation, employees were identified and proved to be the main key resources that could be used for achieving organisational goals and objectives (Kassa & Raju, 2015). Since, employees are the heart of any organization, then there is a direct relationship between their performance and that of the organization (Nabi, 2018). Employee performance is described as the degree to which an individual helps the organization to reach its goals (Zhang, 2012). Employee performance is seen as actions and behaviours that are under the control of the individual that contribute to the goals of the organization. Intrapreneurship as a concept has lately been mentioned in the management literature, and it has its roots in entrepreneurship. Unlike the term 'entrepreneur', which has a long and rich history in the literature. Increased consensus has been attained on the concept of intrapreneurship as the process of uncovering and developing an opportunity to create value through innovation and seizing that opportunity without regard to either resource (human and capital) or the location of the entrepreneur in a new or existing company (Churchill, 1992). Perhaps the broadest definition of intrapreneur-

ship is that it is entrepreneurship within an existing organisation or entrepreneurial activities inside existing organisations.

The concept of employee performance has been receiving attention in many fields of study including Human Resource Management, Organisational Behaviour and Organizational Psychology. However, for quite some time employee performance is an issue that many organizations are now grappling with all over the world (Jafri, 2016; Kura, Shamsudin, & Chauhan, 2013b). For instance, employee's motivation, commitment and performance were found to be decreasing at the global level. Importantly, Gallup Inc. (2013) stated that 13% of employees across 142 countries worldwide were not emotionally involved and focused on creating value for their organizations as expected. Similar trend was observed in the Nigeria's educational sector, statistics shows that 68 per cent of secondary school teachers teach without passion, motivation, interest and no feeling of attachment to the job (Akpan, 2017). Preliminary investigations of the work related behaviours among secondary school teachers in Kano showed low levels of engagement, high rate of late coming to class, absenteeism and brain drain. In a related development, UNESCO (2016) reported that there has been a wide public concern to save Nigerian educational sector from total collapse especially the post primary schools.

Among the proposed solution to Nigeria's education sector is developing a feeling of ownership (psychological ownership) for the schools among the secondary school teachers (Mustafa, Ramos, & Man, 2015). Most empirical studies established that employees who feel and act like owners of the organization would, in addition to performing their mandatory duties (in-role performance), be willing to perform citizenship behaviours (Bambale, Shamsudin, , & Subramaniam, 2012). Psychological ownership, is largely, viewed as a vital predictor of employee attitudes, behaviours and excellent performance (Bambale et al., 2012; Dyne & Pierce, 2004). As such, a few studies recognized the importance of the construct and have tested it as a mediating variable between different individual outcomes predictor variables and employee positive behaviors (in-role and extra-role). For example, psychological ownership was found to be a good mediator between servant leadership and organizational citizenship behaviors (extra-role behavior).

Previous studies have shown positive relationship between psychological ownership and intrapreneurship (Mustafa, 2016). Similarly, positive relationship between intrapreneurship and employee performance were demonstrated in different studies (Acar, 2013; Ahmad, 2012; Amo, 2005; De Jong, 2011; Franco & Pinto, 2016; Mohammad, 2012; Nabila, 2013; Ogidi, 2014). Accordingly, it is expected that intrapreneurship could act as a mediator between psychological ownership and employee job performance. From the previously reviewed literatures, this study represents a first attempt to examine the mediatory power of intrapreneurship on the relationship between psychological ownership and employee job performance using sample from private owned secondary schools in Kano. Based on the existing literature that indicated absence of an integrative model comprising of psychological ownership, intrapreneurship and employee job performance, this study has examined the mediating effect of intrapreneurship on the relationship between psychological ownership and teachers' in-role performance in private secondary schools in Kano metropolis.

2 Literature review

2.1 Employee performance

Performance is conceptualized as the act of performing; carrying into execution or action, achievement, accomplishment, representation by action such, as the performance of an undertaking or a duty (Atuhire, 2011). On one hand classical view holds that only behaviours associated with the production of goods or the provision of a service, will be referred to as performance (Rotundo, 2002). On the other hand, modern theorist argued that it is not all the time that employees will be pre-occupied performing activities that are strictly related to task

performance. But rather employees may sometimes engage in some behaviour outside their job specifications (contextual performance) which are helpful towards achieving the set objectives (Borman & Motowidlo, 1997; Motowidlo, 2003; Johnson & Meade, 2010; Pradhan & Jena, 2017). Abdullah and Wan (2013) were of the view that job performances are “behaviours or actions that are relevant to the goals of the organization”. It is the degree to which an individual helps the organization reach its goals (Borman & Motowidlo, 1997). While Kappagoda, Zainul, Othman, and Alwis (2014) viewed performance as the observable behaviours that employees do in their jobs that are relevant to the goals of the organization. Similarly, Viswesvaran and Ones (2000) viewed job performance as scalable actions, and outcomes that an employee engage in or bring about that are linked with and contribute to the organisational goals.

2.2 Psychological ownership (PO) and employee performance

Ownership (the state of being an owner and having the right of possession) is found in almost all societies. When people have a sense of ownership, they experience a connection between themselves and various tangible and intangible ‘targets’ (Avey, Avolio, Crossley, & Luthans, 2009). The term ‘target’ in the psychological ownership literature refers to whatever the object of attachment represents to an individual or group. These targets may be something as small as a preferred seat in the company cafeteria, or as large as the organisation or industry as a whole. Such targets of ownership can become so deeply rooted within people’s self-identity that they can become viewed as an extension of the self (Brown, Pierce, & Crossley 2014). Indeed these feelings of ownership towards a target has been described as psychological ownership, which is a feeling that results from the psychological tie and feelings of possessiveness towards a target (Bambale, 2013; Wang, Battocchi, Graziola, Pianesi, Tomasini, Zancanaro, & Nass, 2006). It describes a situation in which individuals feel that the target (physical or non-physical) of ownership is ‘theirs’. The feeling of psychological ownership can also arise towards objects that are not legally owned by the person feeling possession and, therefore, can also be felt towards one’s organisation or job (Pierce, Kostova, Dirks, & Pierce, 2001).

Lu and Zhao (2017) argued that those employees who have developed a sense of psychological ownership come to perceive themselves as “owners”, and the possessions become part of his or her self-concept. Thus, employees are psychologically intertwined with their organizations, and the awareness of being owners is also accompanied by a feeling of responsibility and a sense of burden sharing for the functioning and success of the organization (Pierce, 2001). Such feelings are believed to cause individuals to protect their object, to take care of it, to nourish it, and to seek more information about it (Bernhard & Driscoll, 2011). Similarly, Erkmén and Esen (2012) stated that researchers have identified two distinct types of psychological ownership; organisation-based and job based. Organisation-based psychological ownership is concerned with individual member’s feelings of possession and psychological connection to an organisation as a whole. Job-based psychological ownership is related to individual’s feelings of possession toward his particular jobs (Olckers, 2011; Van Dyne & Pierce, 2004).

Fewer studies linked the relationship between psychological ownership (PO) and employee performance and the possible outcomes (Bambale et al., 2012; Han et al., 2015; Jafri, 2015). Among the studies that investigated this relationship between the mentioned constructs includes a study by Bernhard and Driscoll (2011) who reported that enhancing psychological ownership (job and organisation) is a mechanism for motivating nonfamily employees to perform without the family having to relinquish formal ownership. Similarly, Buchem (2012) in their findings indicated positive links between psychological ownership for the organisation and employee work behaviour (performance). In the same vein, Dyne and Pierce (2004) did an exploratory study in the United States, which demonstrated positive

links between psychological ownership for the organisation and employee performance (in-role and extra role behaviours). Using a different context in Nigeria, Bambale et al., (2012) indicated strong positive relationship between psychological ownership and organizational citizenship behaviour.

Additionally, Jon and Pierce (2012) did a research that investigated the relationship between psychological ownership and two employee performances (in-role and OCB) among IT workers in the U.S.A. As expected, the findings of the study revealed positive relationship in the two hypothesized relationships. Correspondingly, a study conducted in China by Wang et al., (2006) concerning psychological ownership for digital entities in the context of collaborative working environments show that psychological ownership was found to have a significant impact on employee performance. Moreover, Md-Sidin, Sambasivan, and Muniandy (2010) investigated the impact of psychological ownership, job performance, job commitment, and job satisfaction among business school lecturers of public universities in Malaysia. It was found that psychological ownership had significant and positive relations with job commitment, job satisfaction, and employee performance.

Positive extra-role performance as a consequence of psychological ownership was also found by Ramos and Mustafa (2014) in their study among 101 employees of small business firms in Malaysia. More recently, Han, Chiang, Mcconville, and Chiang (2015) did a study in Taiwan multinational pharmaceutical company to get an insights into the relationships surrounding employees' feelings of psychological ownership (PO) at work and the resulting effects on contextual performance. The findings indicated that person-job fit was significantly related to psychological ownership, and psychological ownership was significantly related to contextual performance. Peng, and Pierce (2015) did another study on four high-tech companies located in Shanghai, China in order to determine the relationship between job-based psychological ownership, job satisfaction, and organizational citizenship behaviours. The study found out that there is a statistically significant relationship between job-based psychological ownership and job satisfaction, organizational citizenship behaviours. Another study by Divya and Srinivasan (2014) on psychological ownership: it's relationship with interpersonal trust and work outcomes in Asian Countries. The study establishes that employees with higher level of psychological ownership were likely to engage in extra role behaviour that will ultimately benefit the organisation.

In Nigeria, two separate studies (Bambale et al., 2012; Onogwu, 2010) examined the relationship between psychological ownership and organizational citizenship behaviours. While Bambale et. al. (2012) test the model among workers of utility industry in Kano, Onogwu (2010) have used bank workers. Interestingly, all studies established positive relationship between the variables.

2.3 Psychological ownership and intrapreneurship

Intrapreneurship as a concept has lately been mentioned in the management literature and it has its roots in entrepreneurship (Taştan, Güçel, Bal, & Güçel, 2014). The concept of intrapreneurship was described using other terms including (Pinchot, 1985); corporate entrepreneurship (Burgelman, 1983; Guth & Ginsberg, 1986; Hornsby, Naffziger, Kuratko, & Montagno, 1993; Stopford & Baden-Fuller, 1994) corporate venturing (Macmillan, Block, & Narasimha, 1986; Vesper, 2000), and internal corporate entrepreneurship (Jones & Butler, 1992; Schollhammer, 1981). A few studies show that there exist a relationship between psychological ownership and intrapreneurship (Mustafa et al., 2016).

On the mediatory role of psychological ownership, only a few studies were conducted (Bambale, 2013; Mohamed & Ibrahim, 2016)). In Nigeria's utility companies, Bambale (2013) established that psychological ownership was a mediator between servant leadership and citizenship behaviors. In a different context (Saudi Arabia), Mohamed and Ibrahim (2016) shows that psychological ownership plays a partial mediation between both ethical

leadership and organizational justice, and the multiple forms of employee performance behaviours (in- role performance behaviours and organizational citizenship behaviours).

2.4 Intrapreneurship and employee performance

A few studies examined the relationship between intrapreneurship and employee performance (Acar et al., 2013; Ahmad et al., 2012; Åmo, 2005; De Jong et al., 2011; Franco & Pinto, 2016; Mohammad et al., 2012; Nabila et al., 2013; Ogidi, 2014). Stewart (2009) examines the propensity of individual employees to behave entrepreneurially at work place. The study found out that an intrapreneurial orientation have a considerably effect on employee performance. In the same way, Dorner (2012) examines how of innovative work behaviour relates to task performance. The results from a survey of 350 employees and their direct supervisors in a Swiss insurance company show that innovative work behaviour positively influences task performance. From similar perspective Ahmad, Nasuridin, Rohaida, Zainal, & Zainal (2012b) examines the effects of five dimensions of intrapreneurial behaviour which was then regressed to the job performance. A sample of 263 employees consisting of engineers and managers working in multinational companies participated in the study. The findings were tested using structural equation modeling procedure. In general, the results indicate that intrapreneurial behaviour is found to be positively related to job performance. In short, it can be surmised forming an internal ecosystem that is conducive for the workforce to behave entrepreneurially is a wise step to foster innovativeness culture that could subsequently be translated into a long-term growth and sustainability of the organization.

Furthermore, in a recent study by Gawke, Gorgievski, & Bakker (2018) on the benefits of intrapreneurship on employees job demands, the results of moderated mediation analyses confirmed that employee intrapreneurship related positively to work engagement for employees high (vs. low) in sensitivity to rewards (behavioural approach system), which subsequently related positively to innovativeness and in-role performance. In a similar view, Findik and Altındağ (2017) conducted a survey in the services sector in Turkey, data collected from a total of 229 staff, including first-stage managers. In the framework of the research, correlation test and regression test were applied to investigate whether organizations' internal entrepreneurial activities have an effect on employee performance. According to the results, entrepreneurial activities have a positive impact on employee job performance and commitment.

Also, Ahmad et al., (2012b) did a study to examines the effects of intrapreneurship on the employee job performance. The result of the study indicates that intrapreneurial behaviour is positively related to employee job performance. Moreover, Hasimah, Nik, Ismail, Rosli, and Roslan (2012) conducted a study on the relationship between intrapreneurial orientation (IO) and job performance to identify the level of IO and its relationship to job performance among academicians in Malaysian public universities. The study adopted a quantitative approach through survey instruments design and the population of the study was the academicians of 20 Malaysian public universities. Data collection was made through questionnaires, and the constructs used were adapted from prior research and already tested for reliability. The findings showed that intrapreneurship (innovativeness and Proactiveness) had significant and positive relationship with job performance.

2.5 Mediation role of intrapreneurship between psychological ownership and employee job performance

Previous studies have shown positive relationship between psychological ownership and intrapreneurship (Mustafa, 2016). Similarly, positive relationship between intrapreneurship and employee performance were demonstrated in different studies (Acar, 2013; Ahmad, 2012; Åmo, 2005; De Jong, 2011; Franco & Pinto, 2016; Mohammad, 2012; Nabila, 2013; Ogidi, 2014). Accordingly, it is expected that intrapreneurship could act as a mediator between psy-

chological ownership and employee job performance. From the previously reviewed literatures, this study represents a first attempt to examine the mediatory power of intrapreneurship on the relationship between psychological ownership and employee job performance using sample from private owned secondary schools in Kano.

2.6 Theoretical framework

Self-determination theory, was used to explain the model of this study. The theory is a macro theory of human motivation that evolved in the 70s from research on intrinsic and extrinsic motivations and expanded to include research on work organisations and other domains of life (Deci, Olafsen, & Ryan, 2017). However, it was not until the mid-80s that the SDT theory is formally accepted as a sound empirical theory, and applied to different areas of social psychology (Deci & Ryan, 2008). It is a very influential macro theory of human motivation that has been implemented across many life domains including parenting, education, healthcare, sports and physical activity, psychotherapy, and virtual worlds, as well as the fields of work motivation and management (Visser, 2010). It is concerned with the motivation behind choices people make without external influence and interference. Thus, it is concerned with people's inherent growth tendencies and innate psychological needs that are the basis for; self-motivation, personality, and integration, as well as for the conditions that foster positive work behaviour (Ryan & Deci, 2000). Self-determination theory examines the degree to which an individual's behaviour is self-motivated and self-determined (Broeck, Ferris, Chang, & Rosen, 2016).

According to SDT theory, degrees of motivation vary on a continuum represented roughly three motivational states (Ryan & Deci, 2000). One end of the continuum represents a motivation, which is defined as an absence of motivation for an activity. When motivated, people either do not act at all or act without intent-they go through the motions. A motivation results from not valuing an activity (Ryan, 1995), not feeling competent to do it (Bandura, 1986), or not expecting it to yield the desired outcome (Visser, 2010). The other end of the continuum represents intrinsically motivated behaviours. When people are intrinsically or internally motivated they engage in activities because doing so is interesting and spontaneously satisfying for the person doing the activity.

At the centre of the continuum lies extrinsic motivation or external motivation, which refers to performing an action because it will result in some outcome that is separate from the activity itself, such as getting a reward or avoiding punishment. SDT subdivides extrinsic motivation into four types namely including external regulation, introjected regulation, identified regulation, and integrated regulation.

The first type of extrinsic motivation is external regulation, which refers to performing the behaviour because one is seduced, pressured or forced by external factors like punishments or rewards. The second type of extrinsic motivation is introjected regulation in which case the external reason for performing the activity has been partially internalised by the person. It is taken in but not fully endorsed or assimilated (Deci & Ryan, 2002). This may be the case, when for instance a person does something out of guilt, shame, anxiety or to bolster his self-worth (Vansteenkiste, Niemiec, & Soenens, 2010). The third type of extrinsic motivation is identified regulation, which means that the behaviour is more congruent with his personal goals, values and identity such that the person experiences a greater sense of freedom or choice (Pelletier, Tuson, & Haddad, 1997). The fourth type of extrinsic motivation is integrated regulation. With integrated regulation, the activity is perceived as not only personally meaningful to the individual, but has become an integral part of his/her system of values and convictions. The activity is a reflection of whom a person is and hence is experienced as highly volitional (Lam, 2011).

This theory is important in explaining the relationship between psychological ownership and employee performance concepts. The theory explains that the most desirable condi-

tion in the organisation is one in which employees perform a task because they have internalised the essential aspects of the job and have made that task a part of themselves (Visser, 2010). Under those conditions, employees perform a task because it is exciting and enjoyable. Hence, to improve internal motivation, it is important to show to employees how specific tasks contribute to meeting the vision, mission, strategies, and goals of the organisation. The more the employees can internalise why and how they need to do their jobs, the more they can find the tasks themselves exciting and satisfying, which can lead to higher levels of performance.

The following conceptual model (Figure 1) is consistent with SDT theory, where psychological ownership (PO) with two variables job psychological ownership and organisational psychological ownership will have a significant positive relationship with the dependent variable of Employee Performance. The model also, supposes that intrapreneurship will mediate the relationship between the independent variables; job-based psychological ownership, organisational psychological ownership and the dependent variable of employee performance.

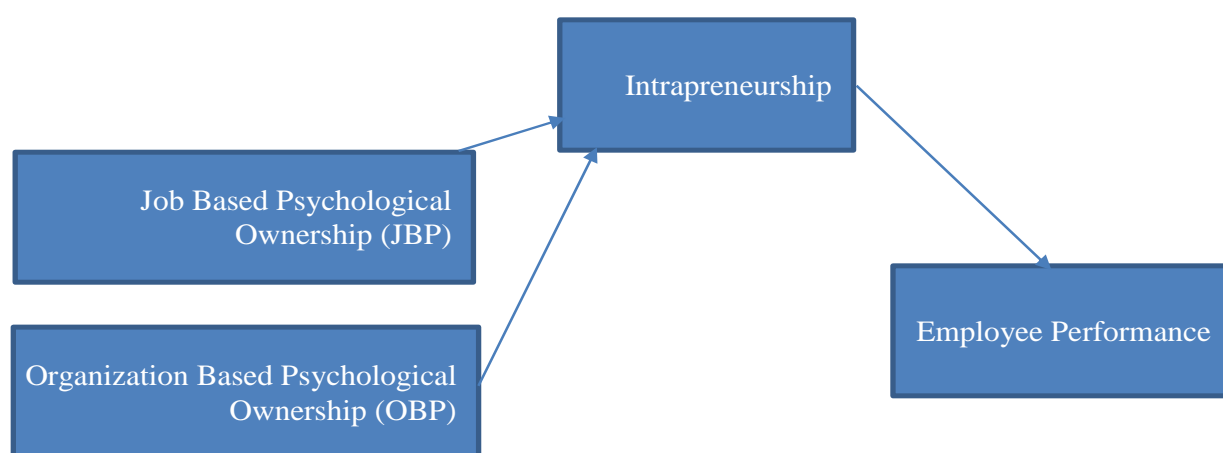


Figure 1
Conceptual Model of the Study

3 Method

3.1 Research design and participants

Research design for this study is cross-sectional survey design. This method is cost effective and saves a lot of time (DePoy & Gitlin, 2016). Based on Kano State annual census report (2015/16) there are three thousand six hundred and even (3,607) teachers in Kano metropolis to which a sample size of 351 was selected. The PLS (partial least square) approach was used in the analysis of the data. Specifically, the choice of PLS Path modelling technique used in this study is regarded as appropriate because it has the advantage of estimating the relationships between the constructs (structural model) and relationships between indicators and their corresponding latent constructs (measurement model) simultaneously (Chin 2003).

3.2 Measures

Psychological Ownership: Psychological ownership is a state of mind that employees have toward a specific object of the organization that the object or organization is “his” (Bambale, 2013; Erkmen & Esen, 2012). Hence a 5-point Likert scale with 16 questions developed by Avey et al., (2009) was adopted for this study. Accordingly, the measure tests individual employees’ feelings of possession toward the organization (e.g., “This is MY organization”), but in this study, it is reworded to test teachers’ feelings of possession towards their school (e.g., “This is MY School”). A similar set of items were adopted from Michael (2006) to assess the

feeling of ownership for the job. (e.g., “This is MY job,” “I sense that this job is MY job”) and the coefficient alpha for job-based psychological ownership in that study was .92. 16 items were used in the measurement of the constructs (the dependent variable) on a 5-point likert scale.

Intrapreneurship: In this study, intrapreneurship was conceptualised as entrepreneurship within an existing organization. It is a spirit of entrepreneurship exhibited by employees within the existing organization (Antoncic & Hisrich, 2001). In addition, it refers to the effort made by employees (teachers) to exhibit entrepreneurial disposition inside an existing organisation, which leads to innovative activities and orientations towards the development of a new approach to teaching, effective and efficient service delivery by the teachers, and creativeness in teaching methods and techniques. The construct was measured using 22-item scale developed by Scott and Bruce (1994).

Job Performance: Job performance is conceptualised as actions and behaviours that are under the control of the individual employee and contribute to the goals of the organisation (Dorner, 2012). Hence, individual performance is something organisations want to enhance and optimize. Among the performance ratings, e.g. self, peer ratings and supervisor ratings are the most frequent way of measuring performance (Sonnentag et al., 2008). Other scholars who use individual performance rating includes (Campbell et al., 1990) and (Viswesvaran & Ones, 2000). Fifteen items (15) are used to measure the performance of teachers.

4 Results and discussion of findings

4.1 Measurement Model

Reliability and validity are the two main criteria used in PLS-SEM analysis to evaluate the measurement or outer model (Hair, 2014; Ramayah, & Lee, 201; (Umrani, Kura, & Ahmed, 2018)). The suitability of the outer model can be ascertained by looking at: individual item reliability, internal consistency reliability, content validity, convergent validity and discriminant validity (Hair et al., 2014; Hair et al., 2011; Henseler et al., 2009).

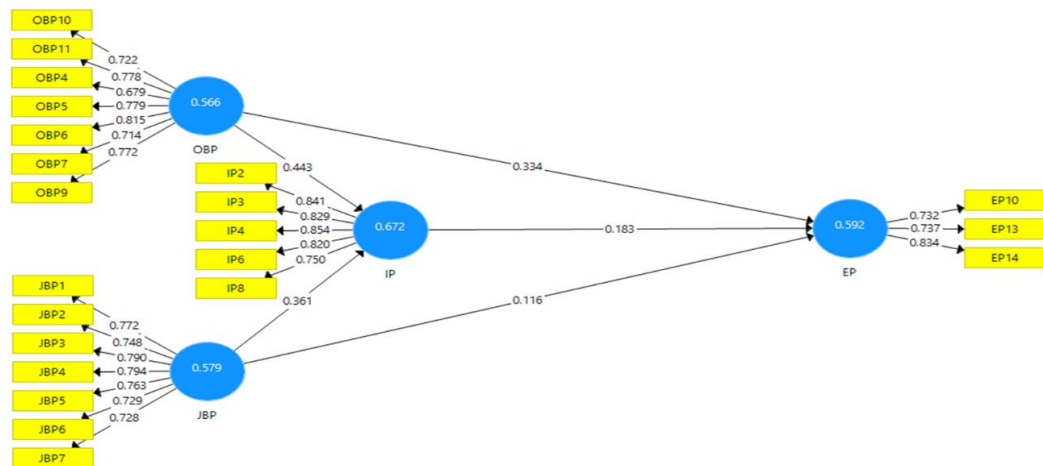


Figure 2
Measurement model

Individual item reliability was assessed by examining the outer loadings of each construct's measure (Duarte & Raposo, 2010; Hair et al., 2014; Hair et al., 2012; Hulland, 1999). Only 22 items out of the total of 66 were retained. The retained items had loadings between 0.72 and 0.85 (see Table 1 & Figure 2) above the recommended threshold of between 0.40 and 0.70 (Hair et al., 2014).

Table 1: Individual Item Loadings, Construct Reliability and Validity

| Items | Loadings | Cronbach's Alpha | (CR) | (AVE) | Discriminant Validity |
|------------------|----------|------------------|-------|-------|-----------------------|
| EP10 | 0.732 | 0.654 | 0.812 | 0.592 | YES |
| EP13 | 0.737 | | | | |
| EP14 | 0.834 | | | | |
| IP2 | 0.841 | | | | |
| IP3 | 0.829 | 0.877 | 0.911 | 0.672 | YES |
| IP4 | 0.854 | | | | |
| IP6 | 0.820 | | | | |
| IP8 | 0.750 | | | | |
| JBP1 | 0.772 | 0.879 | 0.906 | 0.579 | YES |
| JBP2 | 0.748 | | | | |
| JBP3 | 0.790 | | | | |
| JBP4 | 0.794 | | | | |
| JBP5 | 0.763 | 0.872 | 0.901 | 0.566 | YES |
| JBP6 | 0.729 | | | | |
| JBP7 | 0.728 | | | | |
| OBP10 | 0.722 | | | | |
| OBP11 | 0.778 | 0.872 | 0.901 | 0.566 | YES |
| OBP4 | 0.679 | | | | |
| OBP5 | 0.779 | | | | |
| OBP6 | 0.815 | | | | |
| OBP7 | 0.714 | 0.772 | 0.901 | 0.566 | YES |
| OBP9 | 0.772 | | | | |
| Survey Data 2018 | | | | | |

Note: IP = Intrapreneurship, EP = Employee Performance, JBP = Job-based Psychological ownership, OBP = Job-based Psychological ownership.

As shown in Table 1, and Figure 2 the composite reliability coefficient of each latent construct ranged from .812 to .872, with each exceeding the suggested minimum acceptable level of 0.70 (Bagozzi & Yi, 1988; Hair et al., 2011). Convergent validity refers to the extent to which items truly represent the intended latent construct and indeed correlate with other measures of the same latent construct (Hair, 2006). Convergent validity was assessed by examining the Average Variance Extracted (AVE) of each latent construct, as suggested by Fornell and Larcker (1981). To achieve adequate convergent validity, Chin (1998) recommends that the AVE of each latent construct should be not less than 0.50. All the AVE values (see Table 2) exhibited high loadings (>.50) on their respective constructs, indicating adequate convergent validity.

Discriminant validity refers to the extent to which a particular latent construct is different from other latent constructs (Duarte & Raposo, 2010). All the indicator loadings should be higher than the cross-loadings (Chin (1998). As suggested, all the indicator loadings were greater than the cross-loadings, suggesting adequate discriminant validity for further analysis. Additionally, as argued by Hair (2014), discriminant validity can be assessed by Fornell-Larcker criterion (Hair 2014). Discriminant validity is established when the value of the square root of AVE of each construct is higher than the construct's highest correlation with any other latent construct (Hair, 2014). Consequently, in this study, discriminant validity was assessed by comparing the square root of the AVE for each construct with the correlations

presented in the correlation matrix. Table 2 shows the results of Fornell-Larcker Criterion assessment with the square root of the constructs. Looking at the square root of AVE in bold, it is greater than its highest construct's correlation with any other constructs. Therefore, based on the above-mentioned observation it can be concluded that discriminant validity on the construct has been established (Hair Jr. et al., 2013; Henseler et al., 2009).

Table 2 Discriminant Validity (Fornell-Larcker Criterion)

| Construct | EP | IP | JBP | OBP |
|-----------|--------------|--------------|--------------|--------------|
| EP | 0.769 | | | |
| IP | 0.503 | 0.820 | | |
| JBP | 0.496 | 0.696 | 0.761 | |
| OBP | 0.553 | 0.716 | 0.755 | 0.752 |

Source Field Survey, 2018

Note: The bold values represent the square root of Average Variance Extracted (AVE)

4.2 Structural Model

The present study applied the standard bootstrapping procedure with 5000 bootstrap samples and 338 cases to assess the significance of the path coefficients (Hair et al., 2014; Hair et al., 2011; Hair et al., 2012; Henseler et al., 2009; Kura, 2016a, 2016b; Kura, Shamsudin, & Chauhan, 2015; Kura, Shamsudin, Umrani, & Salleh, 2019)). Figure 3, therefore, shows the estimates for the full structural model, which includes mediator variable (i.e. Intrapreneurship). At the onset, hypothesis 1 predicted that job-based psychological ownership does not have a significant effect on teachers' performance in private secondary schools in Kano metropolis. Table 3 indicated that job-based psychological ownership and employee performance had a significant relationship ($\beta = .116$, $t = 1.683$, $p < 0.092$), hence does not support Hypothesis 1.

Table 3 Results of Structural Model

| | Beta Value | SD | T Statistics | P Values | Decision |
|-----------------|------------|-------|--------------|----------|----------|
| JBP -> EP | 0.116*** | 0.069 | 1.683 | 0.092 | Reject |
| JBP -> IP | 0.361* | 0.069 | 5.264 | 0.000 | Reject |
| OBP -> EP | 0.334* | 0.079 | 4.242 | 0.000 | Reject |
| OBP -> IP | 0.443* | 0.070 | 6.361 | 0.000 | Reject |
| IP -> EP | 0.183** | 0.075 | 2.454 | 0.014 | Reject |
| JBP -> IP -> EP | 0.066** | 0.028 | 2.344 | 0.019 | Accept |
| OBP -> IP -> EP | 0.081** | 0.038 | 2.120 | 0.034 | Accept |

Source: Research Analysis (2018)

Note: * Indicates the item is significant at the $p < 0.01$ level. ** Indicates the item is significant at the $p < 0.05$ level, *** Indicates the item is significant at the $p < 0.1$

Likewise, in examining the Hypothesis Ho2 which predicted that Job-based psychological ownership does not have a significant effect on teachers' intrapreneurship in private secondary schools in Kano metropolis, Table 3 indicated that job based psychological ownership had significant relationship with intrapreneurship ($\beta = .361$, $t = 5.264$, $p < 0.000$), thus not supporting the hypothesis. Thirdly, hypothesis Ho3 predicted that organisational-based psychological ownership does not have a significant effect on employee performance of teachers in private secondary schools in Kano metropolis. Table 3, indicates that organisational based

psychological ownership had a significant relationship with employee performance ($\beta = .334$, $t = 4.242$, $p < 0.000$), thus not supporting the hypothesis 3. Regarding the hypothesis 4, which predicts that, job-based psychological ownership does not have a significant effect on intrapreneurship of teachers in private secondary schools in Kano metropolis. Table 3 indicated that organisational based psychological ownership had significant relationship with intrapreneurship ($\beta = 0.443$, $t = 6.361$, $p < 0.000$). Hence, the hypothesis 4 was not supported. Fifthly, hypothesis 5 predicted that intrapreneurship does not have a significant effect on teachers' performance in private secondary schools in Kano metropolis Table 3 revealed that this hypothesis is not supported ($\beta = 0.183$, $t = 2.454$, $p < 0.014$) hence does not support the hypothesis.

Also hypothesis 6 predicted that intrapreneurship mediates the relationship between job-based psychological ownership and employee performance Table 3 indicates that intrapreneurship has a no mediating effect on the relationship between job based psychological ownership and employee performance ($\beta = 0.066$, $t = 2.344$, $p < 0.019$), hence, hypothesis 6 is supported. Finally, with respect to hypothesis 7 which predicted that intrapreneurship has a mediating effect on the relationship between organisational based psychological ownership and employee performance, Table 3 indicated that intrapreneurship has a significant mediating effect on the relationship between job-based psychological ownership and employee performance ($\beta = 0.081$, $t = 2.120$, $p < 0.034$), therefore, hypothesis 7 is supported.

4.3 Mediation Effect

Specifically, the indirect effect size was first evaluated on the relation between job-based psychological ownership and employee performance when mediated by intrapreneurship.

$$VAF = \frac{.361 \times .183}{.361 \times .183 + .116}$$

$$VAF = 0.36 = 36\%$$

The results indicate that 36% of the total effect is explained by the mediating latent variable (intrapreneurship) on the relationship between psychological ownership and teacher's performance. Accordingly, it can be deduced that the mediating effect of intrapreneurship is partial. This is in line with Hair et al. (2013) classification, that VAF value that is less than 20% indicates the absence of mediation, while 20% to less than 80% indicates partial mediation and 80% and above indicates full mediation. (see also Kura, Shamsudin, & Chauhan, 2016). Similarly, the indirect effect size on the relation between organisational-based psychological ownership and employee performance when mediated by intrapreneurship was evaluated as follows:

$$VAF = \frac{.443 \times .183}{.361 \times .183 + .334}$$

$$VAF = 0.195 = 20\%$$

The results indicate that 20% of the total effect is explained by the mediating latent variable (intrapreneurship) on the relationship between organisational-based psychological ownership and teachers' performance. Accordingly, it can be deduced that the mediating effect of intrapreneurship is also partial. This is in line with Hair et al. (2013) classification, that VAF value that is less than 20% indicates an absence of mediation, while 20% to less than 80% indicates partial mediation and 80% and above indicates full mediation. Another important criterion for assessing the structural model in PLS is the R-squared value, which known as the coefficient of determination (Hair et al., 2011; Hair et al., 2012; Henseler et al., 2009; Kura, Shamsudin, & Chauhan, 2013a). The R-squared value represents the proportion of variation in the dependent variable(s) explained by one or more predictor variable (Elliott & Woodward, 2007; Hair et al., 2010; Hair et al., 2006). Although the acceptable level of R^2 value depends on the research context (Hair et al., 2010), Falk and Miller (1992) propose an R-

squared value of 0.10 as a minimum acceptable level. Meanwhile, Chin (1998) suggests that the R-squared values of 0.67, 0.33, and 0.19 in PLS-SEM can be considered as substantial, moderate, and weak, respectively. Table 4 presents the R-squared values of the endogenous latent variables.

Table 4: R Square, R Square Adjusted and F Square

| | | R Square | R Square Adjusted |
|-----|-----------------|----------|-------------------|
| EP | | 0.341 | 0.335 |
| | <i>f Square</i> | | |
| EP | | | |
| IP | 0.20 | | |
| JBP | 0.19 | | |
| OBP | 0.37 | | |

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As indicated in Table 4, the research model explains 33.5% of the total variance in employee performance. This suggests that the three sets of exogenous latent variables (i.e., intrapreneurship, job-based psychological ownership, and organisational-based psychological ownership) collectively explain 33.5% of the variance of the employee performance. Hence, following Falk and Miller's (1992) and Chin's (1998) the criteria, the three endogenous latent variables showed acceptable levels of R-squared values, which were considered to be as moderate value.

4.4 Effect Size (f2) and Predictive Relevance

Effect size indicates the relative effect of a particular exogenous latent variable on endogenous latent variable(s) using changes in the R-squared (Chin, 1998). It is calculated as the increase in R-squared of the latent variable to which the path is connected, relative to the latent variable's proportion of unexplained variance (Chin, 1998). Cohen (1988) describes the f2 values of 0.02, 0.15 and 0.35 as small, medium, and large effects respectively. Table 5 shows the respective effect sizes of the latent variables of the structural model. As indicated in Table 4, the effect sizes for the intrapreneurship, job based psychological ownership and organisational based psychological ownership were 0.02, 0.008, and 0.067 respectively. Hence, following Cohen's (1988) guideline, the effects sizes of these three exogenous latent variables on employee performance can be considered to have a small effect. The present study also applied Stone-Geisser test of predictive relevance of the research model using blindfolding procedures (Geisser, 1974; Stone, 1974).

Table 5 Predictive relevance of the research model

| | SSO | SSE | Q ² (=1-SSE/SSO) |
|------------|-----------|-----------|-----------------------------|
| EP | 1,014.000 | 830.749 | 0.181 |
| IP | 1,690.000 | 1,085.441 | 0.366 |
| JBP | 2,366.000 | 2,366.000 | |
| OBP | 2,366.000 | 2,366.000 | |

In this study, a cross-validated redundancy measure of predictive relevance (Q²) was applied in order to assess the predictive relevance of the research model (Chin, 2010; Geisser, 1974; Hair et al., 2013; Ringle, Sarstedt, & Straub, 2012b; Stone, 1974). The Q² is a criterion to a measure of how well a model predicts the data of omitted cases (Chin, 1998; Hair et al., 2014). According to Henseler et al. (2009), a research model with a Q2 statistic (s) greater than zero is considered to have predictive relevance. Additionally, a research model with higher positive Q2 values suggests more predictive relevance. In this study the Q2 are 0.181 and 0.366 for all endogenous latent variables which were all above zero, suggesting the predictive relevance of the model (Chin, 1998; Henseler et al., 2009).

4.5 Degree of mediating effects

Hypothesis one (Ho1) states that there is no significant relationship between organisational based psychological ownership and employee performance. The hypothesis (Ho1) was found to be significant and therefore not supported. The current findings have found support from the previous studies (Bambale, 2013; Dyne & Pierce, 2016; Pierce & Jussila, 2011). While the second hypothesis (Ho2) which states that there is no significant relationship between job-based psychological ownership and employee performance was found to be also significant and therefore not supportive of the proposed hypothesis. Previous studies showed that jobs that provide greater autonomy will increase the likelihood that feelings of ownership toward the job will emerge (Brown, 2014). In contrast, in the absence of job autonomy employees will have the feeling that nothing is "owned" and consequently it will lead to poor performance. The third hypothesis was found to be significant and therefore does not support the proposed hypothesis. The hypothesis receives empirical support, indicating that when employees have strong feelings of psychological ownership (organisational based) toward their organizations they are more likely to develop feelings of attachment and belonging towards it, which can lead to the adoption of a more caring and protective attitude resulting in more willingness to nurture the organisation so it can prosper. This could result in increasing investments of time and energy, a willingness to take greater personal risks (Pierce, 2001). While the fourth hypothesis was also found to be significant and therefore does not support the proposed hypothesis. Literature shows that jobs that provide greater autonomy imply higher levels of control and, thus, increase the likelihood that feelings of ownership toward the job will emerge (Brown et al., 2014). Moreover, hypothesis five (Ho5) states that there is no significant relationship between intrapreneurship and employee performance. The hypothesis was found to be significant and therefore does not support the proposed hypothesis. The hypothesis receives empirical support, indicating that by nature, people who are proactive (intrapreneurial) believe that they can create change in their environment (Crant, 2000). This trait predict career success, but it also leads to greater career initiative such as voluntary skill development for the betterment of the organization (Mustafa & Ramos, 2016; Toftoy et al., 2001), hence, Intrapreneurial orientation, will contribute to employees performance. On the sixth hypothesis (Ho6), which states that intrapreneurship does mediate the relationship between psychological ownership and job-based teachers' performance was found to be significant and strongly validated. Likewise, the hypotheses seven (Ho7) which state that intrapreneurship does mediate the relationship between organisational-based psychological ownership and teachers' performance was found to be significant and strongly established. Because results regarding the mediating effects represent the major contributions of this study, the questions regarding why and how the mediation of intrapreneurship take place can only be answered by theoretical explanation rather than past studies. Therefore, an important theory that could explain it is self-determination theory (Blau, 1964). The theory is based on the argument that when employees have the feeling that they own their organisations or their jobs (psychological ownership) they will feel obligated to demonstrate a sign of intrapreneurial behaviours such as creativeness and innovativeness that will improve their performances which will consequently benefit students and the school in general.

4.6 Limitations and directions of future research

This study was limited to private secondary schools in Kano, therefore, future studies may consider public secondary schools in Kano, and other parts of Nigeria. Importantly, future studies may extend the study to institutions of higher learning. Also, a cross-sectional survey was adopted for this study to which data were collected within only two months. The problem of using the cross-sectional survey is that the studied variables (i.e., psychological ownership, intrapreneurship and employee performance) might change over time as well as the manage-

ment policy, leadership style or economic situation, which could have an impact on the research variables. Specifically, future research may use longitudinal research designs to assess causality. Similarly, the attention of this study is only on the positive aspects of psychological ownership. However, in some situations, psychological ownership may produce detrimental behaviour such as non-cooperation, alienation, and even sabotage to organisational goals and objectives (Olckers, 2011). Hence, there is the need for further studies to investigate the negative aspect of psychological ownership. Finally, it is important to note that up till now little is known about the mechanisms through which psychological ownership affect employee performance in organizations. Therefore, there is urgent need for future researchers to investigate constructs including job satisfaction, co-worker support, citizenship behaviors and psychological empowerment as possible mechanisms through which psychological ownership can significantly affect employee performance.

Conclusively, the mediating effect of intrapreneurship on the relationship between psychological ownership and employee performance was found to be partial. Similarly, the indirect effect size on the relation between organisational-based psychological ownership and employee performance when mediated by intrapreneurship was also partial.

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