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The Influence of Intrapreneurial Behavior on Task and Contextual Performance of Employees in Healthcare Marketing Organizations: A LISREL Multigroup Modelling Study

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Abstract: Existing literature on the impact of intrapreneurial behavior on performance has been largely focused on individual and organizational-level performance. As a matter of conjecture, managers are assumed to display higher competence than their subordinates (operational staff) in marketing organisations. Empirical evidence is scanty on the comparison/s between managers and operational staff, on the influence of intrapreneurial behaviors on task and contextual performance in pharmaceutical marketing organisations. This paper builds on role theory to examine employee-level differences (managers vs operational staff) by testing the influence of intrapreneurial behaviors on task and contextual performance in a pharmaceutical marketing context. Covariance-based multigroup structural equation modelling in LISREL was used to develop the model and address this gap. Data was collected using a self-reported online questionnaire from 220 participants composed of managers (n=58) and operational staff (n=162) in the pharmaceutical marketing industry in Nigeria. Confirmatory factor analysis established the validity of constructs. Multigroup confirmatory factor analysis established configural invariance among the groups, justifying a multigroup analysis. Intrapreneurial behavior positively influenced task and contextual performance in the general path model. Risk-taking behavior had no impact on task and contextual performance. Managers showed stronger proactive behavior on task and contextual performance compared to operational staff, while the latter group had stronger innovative behavior impact on task performance only. The study identified the low risk-taking propensity of employees as a gap in intrapreneurial behavior. Therefore, it proposes risk management training for both managers and operational staff. The study concludes that intrapreneurial behavior aligns more with proactivity for managers, while operational staff tend to be more innovative toward their core responsibilities.

Keywords: task performance; role theory; contextual performance; intrapreneurial behavior; healthcare marketing; multigroup analysis; LISREL.

Introduction

Globally, employees are under immense pressure to deliver predetermined objectives in a highly competitive space. Organisations increasingly place premium value on existing and prospective employees with entrepreneurial capabilities. Therefore, they are expected to cultivate and apply intrapreneurial competencies expressed in innovative, proactive, and risk-taking behaviors in their work (Gerards et al., 2020; Mahmoud et al., 2018). Intrapreneurial behavior-risk-taking, innovative, and proactive behaviors are essential attributes for employees' enhanced task and contextual performance (Gawke et al., 2019). Several authors have acknowledged innovative behavior, proactive behavior, and risk-taking behavior as the three main dimensions of intrapreneurial behavior (Antoncic & Hisrich, 2001; Baczynska et al., 2016; Davis, 1999; Kollmann et al., 2017). They are called intrapreneurial behaviors because they are entrepreneurial attributes displayed by the employees within the organisation in which they work (Valsania et al.,

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2016). They differ from entrepreneurs who primarily own the businesses they operate. Intrapreneurial behavior is a characteristic or attribute that an employee is expected to display in alignment with his roles and responsibilities (Gerards et al., 2020; Haydon & Kelley, 2006; Woodruffe, 1993). Intrapreneurial behaviors are linked to role theory. Role theory conceptualises behavior as a consequence of the social status of the individuals involved (Anglin et al., 2022). This suggests that managers should display better levels than their subordinates from the individual behavior perspective. These intrapreneurial behaviors in pursuance of performance are, however, not the sole responsibility of managers alone, but also include subordinates and every stakeholder in the organisation (Antoncic & Hisrich, 2001; Matta et al., 2015). It is presumed as a matter of conjecture that due to managers' leadership and managerial functions, it is suggestive that they are predominantly more experienced, engaged, skilled, and proficient in appropriate intrapreneurial behaviors compared to sales executives. In the pharmaceutical marketing industry, the subordinates (operational staff) are primarily tasked with demand generation and distribution of pharmaceutical goods and services in the healthcare sector (Oamen, 2021).

Job performance management and evaluation is a highly dynamic and multidimensional construct often reported as a single unidimensional construct (Carlo & Rodrigues, 2015). The job performance of individuals in an organisation extends beyond the achievement of tasks or work roles; it involves several dimensions of performance (Arvey & Murphy, 1998; Carlo & Rodrigues, 2015). In a wide range of studies, job performance measurement has been shown to support self-reported measures rather than objective measurements of performance (Kock, 2017; Oamen, 2022; Pransky et al., 2006). The literature primarily expresses self-reported job performance as task and contextual performance. The task domain supports the key job functions and activities of the employee, while the contextual domain describes the personality and relational skills of the employee in the process of executing the job-related tasks (Motowidlo et al., 1997; Griffin et al., 2000; Pransky et al., 2006; Carlos & Rodriguez, 2015). Employees are managers and operational staff (sales and marketing) by a function that has effects based on a superior-subordinate relationship in a corporate setting (John et al., 1997; Kollmann et al., 2017; Oamen, 2021). Llopis et al. (2013) indicated the need for managers to translate their intrapreneurial behavioral skills to other employees (Liopis et al., 2013). A gap exists in the absence of empirical evidence in the pharmaceutical marketing industry relating to intrapreneurial behavioral differences between managers and field executives.

Consequently, no known study has investigated the effects or influence of innovative behavior, proactive behavior, and risk-taking behavior on performance domains (task and contextual). This is relevant as outcomes of the study would provide a baseline understanding of the impact of intrapreneurial behaviors on task and contextual performance and, secondly, provide an analysis of the differences based on work roles (managers vs subordinates) using the multigroup path analysis methodology.

Literature review and hypotheses development

In a highly competitive business environment, organisations maximise capital resources effectively and effectively through their valued human resource. Hence, there is a renewed call for intrapreneurship from employees to support proactivity, innovativeness, and new business opportunities (Hernandez-Perlines et al., 2022; Honig & Samuelson, 2020; Neessen et al., 2019). According to Blanka (2018), Chan et al. (2017), and Gawke et al. (2019), employees with requisite intrapreneurial behavior are essential to organisational success, as well as performance at the individual level. Therefore, as posited by Neessen et al. (2019), research has been scanty as to how intrapreneurial behaviors of employees (differentiated based on work roles-e.g. managers vs subordinates) impact their job performance. The authors conceptually based intrapreneurial behavior construct as comprised of innovative, proactive, and risk-taking behaviors according to de Jong et al. (2015), Rigtering and Weitxel (2013), and Moriano et al. (2014). Furthermore,

intrapreneurs can hold any role in the organisation- managerial or operational employees (Ma et al., 2016). Ma et al. (2016) suggested an assessment of the impact of intrapreneurial behavior on performance across employees (or operational subordinates) and managers instead of relying on single informant methods.

Role theory

Role theory is a psychological concept that explains the behavior of individuals in society or organisations based on their social roles (Anglin et al., 2022). A role typifies a set of behavioral expectations linked to an individual, which defines the behavior expected (Koseoglu et al., 2017). In marketing organisations, these roles are defined by their functions (operational staff, manager [supervisor] vs operational staff [subordinate]}, which influences their behavior and, consequently, their performance at work (Matta et al., 2015). In other words, role theory identifies an observable role (in this study, manager vs operational staff), which in turn assumes that intrapreneurial behaviors should be better in managers compared to subordinates (Anglin et al., 2022; Dierdorff et al., 2012). This theory provides a framework perspective to evaluate how intrapreneurial behavior-innovative, proactive, and risk-taking behavior exhibited by managers and subordinates influence their task and contextual performance at work.

Job performance - task and contextual performance

On a basic level, job performance (or work performance) refers to the delivery or achievement of targeted or designated outputs and outcomes by an employee in alignment with organisational goals. But, on a measurable level, according to Motowidlo et al. (1997), Griffin (2000), Pransky et al. (2006), as well as Carlos and Rodriguez (2015) posited that employee job performance across cultural contexts is made of two unique dimensions-task and contextual performance domains.

Task performance refers to work roles, core job responsibilities, or descriptions of an employee as prescribed by his or her organisation (Koopmans et al., 2011). Task performance measures focus on the employee's critical activities that generate key goods and services of economic interest to the organisation. Also, it includes all technical activities, roles, and functions centred on replenishing resources, coordination, supervision, and planning of human resources to support effective and efficient performance. On the other hand, contextual performance extends beyond job responsibilities and reflects the human resource aspects of performance (Befort & Hattrup, 2003; Motowidlo et al., 1997).

Contextual performance refers to social, relational, motivational, and psychological activities that support task performance (Griffin et al., 2000; Motowidlo et al., 1997). Task performance differs from contextual performance domains in that task activities vary with work roles and involve knowledge about the job, while contextual performance is primarily focused on the relational and personality attributes of the actors. Examples include enthusiasm, extra effort, volunteering, helping and cooperating with others, adherence to organisational norms, corporate image management, and supporting organisational goals and objectives (Borman & Motowidlo, 1997; Carlo & Rodrigues, 2015).

Generally, organisations with employees who display high intrapreneurial behavior tend to have better overall performance and profitability (Bierwerth et al., 2015; Zahra & Garvis, 2000). In terms of assessing employees' job performance, Allen and Bunn (2003) and Kock (2017) recommended using self-reported measures, which he empirically found to be more reliable than supervisor-driven assessment. Although Pransky et al. (2006) surmised that self-reported and subjective job performance scales measure different aspects of work function in medical bill auditors. Hence, subjective parameters should not be used as the only measure of job performance.

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However, this study applied self-reported performance measures to evaluate job performance among employees in pharmaceutical marketing organisations. To the authors' knowledge, no known research has addressed the influence of intrapreneurial behavior on task and contextual performance among employees in the healthcare marketing industry.

Innovative behavior and job performance

Innovativeness refers to the ability of an individual to search and discover ways and means of providing solutions to an existing or prospective problem using the available resources, including technologies (Heydari et al., 2023; Korucu & Olpak, 2015). Innovativeness is an integral part of intrapreneurship within an organisation and largely impacts performance as it instigates new ways of doing things and creative solutions to problems (Gawke et al., 2019; Gerards et al., 2020; Rigtering et al., 2019). Other features of innovativeness behavior include creative generation and the use of ideas in executing designated roles and responsibilities. Organisations are in dire need of employees who go beyond their basic tasks to create solutions that give a competitive advantage (Janssen, 2000; Parke et al., 2014). At the heart of innovation is the capacity to generate ideas for innovative products and services for identified needs in targeted consumers or markets and ensure the delivery of such products/services (Davidsson, 2015; Hayton & Cholakowe, 2012). Therefore, it is hypothetically implied that employees who exhibit innovative behavior should perform better at their jobs. Also, this study seeks to ascertain that employees who are managers have a significantly higher impact of innovative behavior on their job performance. Therefore, the following hypotheses were presented:

Hypothesis 1a: Innovative behavior has a positive influence on the task performance of pharmaceutical marketing employees.
Hypothesis 2a: Innovative behavior has a positive influence on the contextual performance of pharmaceutical marketing employees.

Proactive behavior and job performance

Proactivity refers to the initiative and activity of an individual to take steps toward creating situations and ensuring the suitability of the work environment to achieve a specific goal or objective (DeVaney, 2015). In the context of an organisation, employees are expected to exhibit proactive behavior by seeking ways to solve work problems, create opportunities, search for relevant information, and improve work processes (Gulyani & Bhatnagar, 2017; Jiang & Gu, 2015). Proactive behavior is a positive behavior that depicts an employee's adaptability, anticipatory behavior, and willingness to take actions beyond basic work requirements in a competitive business environment (Bolino et al., 2010; Crawshaw et al., 2012). Wongsuwatt and Suntrayuth (2019) asserted that the proactive behavior of managers tends to enhance firm performance. Therefore, proactive behavior employees should perform significantly well at their jobs. We proposed the following hypotheses:

Hypothesis 1b: Proactive behavior has a positive influence on the task performance of pharmaceutical marketing employees.
Hypothesis 2b: Proactive behavior has a positive influence on the contextual performance of pharmaceutical marketing employees.

Risk-taking behavior and job performance

Risk-taking is prevalent in all spheres of daily life, including health, finance, opportunity-taking, and decision-making (Sitkin & Pablo, 1992; Zhang et al., 2018). Risk-taking behavior refers to the actions of an individual towards venturing into unknown terrain and committing significant resources in time, energy, and finances in risky or uncertain environments (Zinn, 2019). The propensity to take risks is integral or fundamental to the success of entrepreneurs in private business and intrapreneurs employed in

organisations as it describes the tendency and willingness of an employee or business owner to take risks in uncertain work situations (Boyer, 2006; Okeke & Uche, 2021; Oscar, 2013). Studies have shown that risk-taking behavior increases the possibility of performance and success among entrepreneurs and firms (Leko-Simic & Horvat, 2006; Okeke & Uche, 2021). Welter (2012) asserted that employees with high-risk tendencies tend to identify business opportunities more easily. At the organisational level, employees' risk-taking behavior positively affects overall firm performance (Wambugu et al., 2015). However, Collins (2010) and Fabricius and Buttgen (2015) opined that employees should be wary of engaging in high-risk-taking behaviors with insufficient knowledge about risk on subjects or ventures of interest in a bid to maximise perceived opportunities. As a result, this study explored the relationship between risk-taking behavior and performance among employees in the pharmaceutical industry. By extension, the empirical test of the proposed path relationships differs between managers and operational staff as presented in the following hypotheses:

Hypothesis 3a: Risk-taking behavior has a negative influence on the task performance of pharmaceutical marketing employees.
Hypothesis 3b: Risk-taking behavior has a negative influence on the contextual performance of pharmaceutical marketing employees.

Multigroup path analysis model

The authors developed a multigroup path model to compare significant paths to ascertain if managers had better effects than sales executives. In the light of the above, the following hypotheses were developed.

Hypothesis 4a: The influence of innovative behavior on task performance is higher in managers compared to sales executives.
Hypothesis 4b: The influence of innovative behavior on contextual performance is higher in managers compared to sales executives.
Hypothesis 5a: The influence of proactive behavior on task performance is higher in managers compared to sales executives.
Hypothesis 5b: The influence of proactive behavior on contextual performance is higher in managers compared to sales executives.
Hypothesis 6a: The influence of risk-taking behavior on task performance is higher in managers compared to sales executives.
Hypothesis 6b: The influence of risk-taking behavior on contextual performance is higher in managers compared to sales executives.

Measurement and Internal reliability of constructs

The research instrument was developed as the survey instrument to obtain responses from the participants. Part A is composed of the participants' demographic variables such as gender (male or female), age (in years), educational qualifications (Bachelor of Science or Bachelor/Doctor of Pharmacy), type of pharmaceutical company (indigenous or multinational), work role (manager vs. operational sales or marketing staffs) and years of industry experience, were measured as nominal and continuous data as required.

Part B is composed of questions in alignment with the study's theoretical framework. Latent variables or constructs were developed, and Likert-type metrics with designated intervals were used to respond to the questionnaire items. Likert scales were used to measure the latent independent variables such as Innovative behavior (ranging from never=1 to most times=4), Proactive behavior (never=1 to always=5), and risk-taking behavior (not at all=1 to to-a-great extent=4) measured using the Likert scale questionnaire. The latent dependent variables task performance and contextual performances were measured using self-reported or self-rated measures on a 4-point Likert scale ranging from strongly disagree=1 to strongly agree=4 (Table 1).

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Table 1. The latent constructs indicators of the constructs, references, and Cronbach Alpha coefficient

Construct	Measurement items	Reference
Innovative Behavior	1. I seek out new ways of doing things	Gerards et al., 2020
(InnovB)	2. I improvise methods of problem-solving when an answer is not apparent	de Jong & Den, 2010
	3. I am creative and original in my thinking and behavior	Rigtering et al., 2019
Cronbach =0.804	4. I am an incentive kind of person	
CR=0.500	5. I find it stimulating to be original in my thinking and behavior	
	6. I am challenged by ambiguities and unsolved problems	
	7. I am receptive to new ideas	
Proactive Behavior	1. I suggest ideas for solutions to the company's problems	Gawke et al., 2019
(ProActB)	2. I try to apply new/effective ways of doing things at work	Jiang & Gu, 2015
	3. I make efforts to improve work methods in the organisation	Gulyani & Bhatnagar, 2017
Cronbach =0.885	4. I try to express my opinions where they might be useful to my organisation	
CR=0.741	5. I express my opinions about work issues even if they are different	
	6. I take on tasks that will benefit or further my career	
	7. I feel a personal sense of responsibility to bring about change in my work	
	8. I am great at tackling problems/challenges head-on	
	9. I am good at turning problems into opportunities	
	10. I try to learn new technologies, structures and approaches in my work unit	
Risk-Taking Behavior	1. My colleagues say I am a risk-taker	Zhang et al., 2018; Zinn, 2019
(RTB)	2. I enjoy taking risks in most aspects of my life	Boyer, 2006
	3. Taking risks is an important part of my life	
Cronbach =0.877	4. I commonly made risky decisions	
CR=0.770	5. I am a believer in taking chances	
Task Performance	1. I have the requisite skills and experience to do my job	Carlos & Rodrigues 2015
(TaskP)	2. I perform my job in line with company expectations	Pransky et al., 2006; Kock, 2017
CR=0.530	3. I complete given tasks before the deadlines	Borman & Motowidlo, 1997
Cronbach =0.866	4. I put a lot of planning/organisation into my work activities	Griffin et al., 2000
	5. I ensure I perform tasks with maximum output	
	6. I am an important member of my organisation due to my performance	
Contextual Performance	1. I put persistent effort into my job despite the challenges I faced	Carlos & Rodrigues, 2015
(ContxP)	2. I seek personal training even if not provided by my company	Pransky et al., 2006; Kock, 2017
	3. I perform tasks not directly related to my specific duties	Borman & Motowidlo, 1997
Cronbach= 0.862	4. I ensure that my activities align with the goals of my organisation	Griffin et al., 2000

Construct	Measurement items	Reference
CR=0.600	5. My personal goals align with organisational goals	
	6. I am a good communicator in my organisation	
	7. I have good working relationships at work	

Note. CR=Composite reliability

Source: own processing

As shown in Table 1, the internal consistencies of the constructs as expressed by the Cronbach alpha coefficient with acceptable values greater than 0.7 (Taber, 2018) and Composite reliability (CR) values greater than 0.6 (Fornell & Larcker, 1981); CA=0.804; CR=0.50 for innovative behavior with seven observed variables; CA=0.885; CR=0.741 for proactive behavior with ten measurement items; CA=0.877; CR=0.770 for risk-taking behavior with six items; CA=0.866; CR=0.53 for Task performance with six items, and CA=0.862; CR=0.60 for contextual performance with seven items. However, although CR for innovative behavior and risk-taking behavior constructs were below 0.6, Hinton et al. (2004) stated that CR of 0.5 to 0.7 may still be considered moderately reliable.

Methodology

Participants and study design

The study participants are composed of 58 (26.4%) managers and 162 (73.6%) operational staff (also known as field sales executives) (total sample size N=220) from the pharmaceutical marketing industry in Nigeria. Respondents were predominantly female (n=59, 26.8%) and male (n=161, 73.2%). Also, 130 (59.1%) work in local or indigenous pharmaceutical companies and others with multinational companies (n=90, 40.9%). The mean age of respondents was 33.62 years (SD=5.63); 132 (65%) are qualified pharmacists, while 49 (22.3%) and the remaining are university degree holders (n=171, 77%). The average level of experience is 6 years (SD=5.5). Furthermore, a cross-sectional study design was adopted. They were sampled using convenience sampling due to the diverse spread of respondents using online survey questionnaires for data collection. Consent was received from participants before administering the questionnaire. According to Strang (2015), we targeted a sample size equal to or above 200 to support a valid structural model. This is supported by the recommendations of Memon et al. (2020) of 160 to 300 for survey research involving variance or covariance-based structural equation modelling. A total of 220 valid responses out of 350 online questionnaire invitations were obtained, hence a 75% response rate, which is adequate for developing a structural model (Hair, 1998).

Data analysis

To develop and test the hypothesised model, we used covariance-based structural equation modelling (CB-SEM) in the statistical software Linear Structural Relations (Jöreskog & Sörbom, 2000; LISREL version 8.80). As recommended by Hair et al. (1998) and Hu and Bentler (1999), model fit indices were used to test the fit of the measurement (confirmatory factor analysis) and structural models; they include- $\chi 2/df$ (<3), root mean square error of approximation (RMSEA; value below 0.08), comparative fit index (CFI; value greater than 0.90), Tucker Lewis Index (TLI; values above 0.90) and standardised root mean square residual (SRMR; value below 0.05). The global fit index (chi-square test; $\chi 2$) is not applicable due to its sensitivity to sample sizes above 200. After the confirmatory factor analysis, the variables were operationalised into composites by computing mean latent scores. Multigroup analysis was only conducted after ensuring that the two groups (managers and subordinates) are invariant; in other words, establish that there is equivalence of understanding of the research instrument (Oamen, 2022). Therefore, configural invariance (similar factor structure) was computed using LISREL 8.80.

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Common Method Bias (CMB)

To avoid self-report bias and unreliable reports from self-administered or report surveys, especially if the variables of interest have been measured with the same, similar measurement scale or response method (Kock et al., 2021). Therefore, empirical data should be subjected to Harman's One Factor Test analysis to confirm the presence or absence of CMB (Fuller et al., 2015). A cumulative variance of 37.86% was computed, which is less than the benchmark of 50%. Therefore, CMB was not found in the dataset.

Multigroup (multi-sample) path analysis

A multigroup path analysis model (MGPA) was developed to test the overall model and the differences between managers and subordinates (sales executives). In LISREL, this difference between the two groups in a specified structural path is computed by constraining the path to be equal across groups (Jöreskog & Sörbom, 2000). A difference is determined when the constraint adversely affects model fit by a significant chi-square value. A p-value less than 0.05 indicates a difference between the two groups under consideration. Thus, the group with the stronger path coefficient for the specific path is significantly higher than the same path in the other group. Before the MGPA, configural and metric invariance tests using the CFA model were conducted to ascertain that there is equivalence in the measurement of the perception of respondents and not merely due to an error of measurement instrument (Jöreskog & Sörbom, 2000).

Findings

In Table 2, we presented the constructs' mean and standard deviations and zero-order correlations. As anticipated, significant correlations exist between all constructs (r values between 0.33 and 0.83). Furthermore, all correlational relationships apart from the correlations between Task and contextual performance (r=0.83) were below 0.7, suggesting the absence of multicollinearity and, hence, conforming to the constructs' distinctiveness (discriminant validity; Pallant, 2003). The high significance of the correlations between job performance domains (r=0.83, p<0.001) is attributed to the fact that they are domains of the same overall construct job performance.

Table 2. descriptive statistics and zero-order correlations between latent constructs

Constructs	Mean	SD	1	2	3	4	5
1. Innovative Behavior	3.58	0.39	1.00				
2. Proactive Behavior	4.41	0.50	0.56**	1.00			
3. Risk-Taking Behavior	3.06	0.63	0.43**	0.41**	1.00		
4. Task Performance	3.60	0.43	0.50**	0.55**	0.24**	1.00	
5. Contextual Performance	3.51	0.45	0.56**	0.64**	0.33**	0.83**	1.00

**p<0.01, SD=standard deviation, Pearson correlation coefficient=r

Source: own processing

Confirmatory factor analysis

A confirmatory factor analysis (CFA) was performed to examine the factor structure of the constructs used in the study. Due to the significant correlations between the constructs (greater than 0.3; Tabachnick & Fidell, 2007), we preferred the correlated factors model compared to other competing CFA models (Oamen, 2024). The correlated factors CFA model gave the following acceptable model fit measures- chi-square $\chi2=1239.81$ (degrees of freedom=584, p<0.001), $\chi2/df=2.122$, RMSEA=0.072 [confidence interval- 0.066; 0.077], SRMR=0.081, CFI=0.96, and TLI=0.95.

Measurement invariance using multigroup CFA

To justify conducting a multigroup analysis comparing managers and subordinates, it is required to establish that the factor structure of the model in both groups has the same baseline fit (configural invariance). The fit indices obtained were RMSEA=0.097 [0.012; 0.10], TLI=O.90, CFI=0.90. These indices fell within an acceptable range.

The general path model is presented in Figure 1, which shows that the intrapreneurial behavior constructs predicted 36% (coefficient of determination, R2=0.36) of Task performance and 47% (R2=0.47) of Contextual performance, respectively. This, according to Cohen (1988) and Chin (1998), for structural equation models (SEM) represents moderate to substantial predictive relevance of the independent variables to predict the variance in the main dependent variables. In the model, there is the presence of significant and positive effects or influence of Innovative behavior (t=4.23, p<0.01 on TaskP, (t=4.65, p<0.01 on ContxP), proactive behavior (t=6.11, p<0.01 on TaskP; t=7.82, p<0.001 on ContxP). However, risk-taking behavior did not have any significant influence on task performance or contextual performance. Also, significant correlations were found between job performance domains (t-value=8.89, p<0.01) and between the intrapreneurial behavior constructs, as presented in Table 3.

Table 3. Results of path model analysis and hypothesis testing

H	Path relationship	beta value	t-value	p-value	Inference
H1a	Innovative Behavior ------> Task Performance	0.31	4.23	< 0.05	supported
H1b	Innovative Behavior ------> Contextual Performance	0.33	4.65	< 0.01	supported
H2a	Proactive Behavior -----> Task Performance	0.35	6.11	< 0.01	supported
H2b	Proactive Behavior -----> Contextual Performance	0.43	7.82	< 0.001	supported
H3a	Risk-taking Behavior ------> Task Performance	-0.032	-0.77	> 0.05	not supported
H3b	Risk-taking Behavior -----> Contextual Performance	0.011	0.28	> 0.05	not supported

Note. t>1.96 (<0.05), t>2.56 (<0.01), and t> 6.65 (p<0.001)

Source: own processing

The general path model is presented in Figure 1, which shows that the intrapreneurial behavior constructs predicted 36% (coefficient of determination, R2=0.36) of Task performance and 47% (R2=0.47) of Contextual performance, respectively. This, according to Cohen (1988) and Chin (1998), for structural equation models (SEM) represents moderate to substantial predictive relevance of the independent variables to predict the variance in the main dependent variables.

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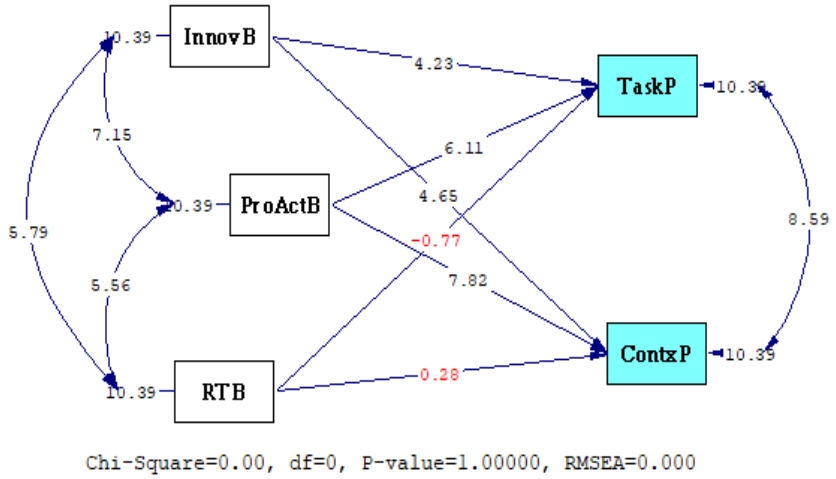

Note: InnovB=Innovative behavior; **ProActB**=proactive behavior; **RTB**=risk-taking behavior; **TaskP**=task performance; **ContxP**= contextual performance; Red-coloured T-values indicate non-significant paths (values below ±1.96 or p>0.05), Black coloured T-values indicate significant paths (values above ±1.96 or p<0.05)

Figure 1. General path model showing the influence of Intrapreneurial constructs on performance domains (T-values presented)
Source: own processing

In the model, there is the presence of significant and positive effects or influence of Innovative behavior (t=4.23, p<0.01 on TaskP, (t=4.65, p<0.01 on ContxP), proactive behavior (t=6.11, p<0.01 on TaskP; t=7.82, p<0.001 on ContxP). However, risk-taking behavior did not have any significant influence on task performance or contextual performance. Also, significant correlations were found between job performance domains (t-value=8.89, p<0.01) and between the intrapreneurial behavior constructs.

Figures 2a and 2b show the relationship between constructs based on managers' and operational staff's perceptions, respectively. A common feature of both path diagrams is the non-significant effect of risk-taking behavior on task and contextual performance. Path relationships using beta or regression coefficients are presented in the Appendix.

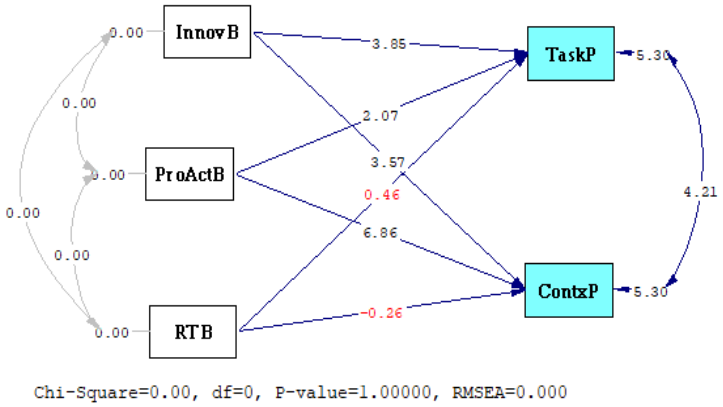

Figure 2a. Path model showing the influence of intrapreneurial constructs on performance for managers (T-values)
Source: output from LISREL software

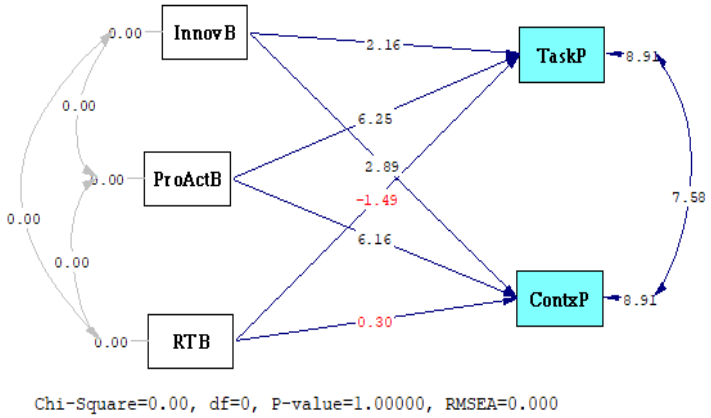

Figure 2b. Path model showing the influence of intrapreneurial constructs on performance for operational staff (T-values)
Source: output from LISREL software

The results of the multigroup analysis are presented in Table 4; operational staff had a stronger effect of innovative behavior on task performance than managers. Hence, hypothesis H3a was not supported. Also, hypothesis H3b was not supported since there was no difference between both groups on the influence of innovative behavior on contextual performance. However, hypotheses 5a and 5b were supported since managers had a stronger effect of proactive behavior on task and contextual performance.

Table 4. Results of Multigroup Path Analysis (Managers vs. Operational staff)

Path	Beta (Manager)	Beta (operational staff)	Beta (diff.)	p-value (diff.)	Inference
H4a; Innovative Behav -----> Task Performance	0.55	0.18	0.37	0.031*	Stronger in subordinates
H4b: Innovative Behav -----> Contextual Performance	0.29	0.38	0.09	0.342	Not significant
H5a: Proactive Behav -----> Task Performance	0.38	0.25	0.13	0.001***	Stronger in managers
H5b: Proactive Behav-----> Contextual Performance	0.73	0.38	0.35	0.007**	Stronger in managers

Note. Beta values correspond to t-values in Figures 2a and 2b, the beta difference in absolute values, *p<0.05; **p<0.01, ***p<0.001; risk-taking behavior was not included in the analysis since H3a and H3b were not supported.

Source: own processing

Discussion

This study examined the impact or influence of innovative, proactive, and risk-taking behavior on employees' task and contextual performance (with differentiating direct effects based on work role managers and operational staff) in healthcare marketing organisations in Nigeria. We applied covariance-based SEM in LISREL to develop and address the study hypotheses.

As a baseline, the results of the general oath model established that innovative and proactive behavior had a substantial impact on the task and contextual performance of pharmaceutical employees, irrespective of work role (Table 3, Figure 1). Thereby supporting hypotheses (H1a, H1b, H2a, and H2b). This finding aligns with studies (Bierwerth et al., 2015; Davidsson, 2015; Wongsuwatt & Suntrayuth, 2019), which showed that intrapreneurial behavior positively impacts employee performance. However, in this study, risk-taking behavior did not significantly impact performance,

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which is contrary to the assertion of Leko-Simic & Horvat (2006), Okeke and Uche (2021), as well as Welter (2012).

Furthermore, the non-significant effect of risk-taking behavior on task and contextual performance aligns with the empirical assertion of Martiarena (2013) and Covin & Lumpkin (2011), who proposed that Intrapreneurs in organisations tend to be risk-averse compared to typical entrepreneurs, who consider risk taking as integral to business growth. Hence, hypotheses 3a and 3b were not supported. Therefore, by inference, on a general note, employees involved in pharmaceutical marketing tend to make less risky decisions or, rather, are less willing to engage in firm activities that may not be guaranteed to succeed (Mohammed & Ahmad, 2016; Zinn, 2019). This is most likely due to the structured nature of pharmaceutical marketing organisations, which plays down risk-taking (Leko-Simic & Horvat, 2006). For instance, risk-averseness is expressed in the following behaviors such as taking a stance in favour of a particular plan or strategy (personal risk-taking), engaging in large value credit sales (debts), venturing into uncharted markets (business risk), and making substantial resource commitments (financial risk) without guarantee of expected returns.

The study's findings suggest that employees should be trained to take calculated and measured risks in alignment with specific organisational policies in their service delivery. Management staff should be specially tasked with identifying and averting potential negative risks in the business or organisation, which is integral to risk management (Henderson et al., 2021; Rosemann & vom Brocke, 2015). Therefore, appropriate risk-taking behavior should involve objective business risk assessment to improve performance outcomes, thereby stimulating more positive perceptions of risk (Adger et al., 2016; Wongsuwatt & Suntrayuth, 2019). This is expressed with increased proficiency in risk identification, assessment, and mitigation to limit losses and undue financial exposure.

The study used multigroup analysis to address the potential difference in perception in the structural relationship based on work role as manager or operational staff (Table 4 and Figures 2a and 2b). Interestingly, compared to managers, the operational staff displayed a stronger influence of innovative behavior on task performance (H4a not supported). This finding is supported by operational staff being more focused on improving output with the core activities related to their performance (Koopmans et al., 2011). In contrast, managers, despite their core tasks, typically tend to focus on providing an enabling, supportive, and conducive work environment for operational staff to function optimally (Carlo & Rodrigues, 2015). This partly explains the greater effect of operational staff compared to managers. Conversely, there was no disparity between managers and operational staff in the relationship between innovative impact on contextual performance (H4b was not supported). This suggests parity of perception by managers and operational staff (Innovative Behav -> Contextual Performance), possibly because innovativeness in marketing is central to enhancing performance.

Finally, the impact of proactive behavior on task and contextual performance (H5a and H5b supported) is better expressed by managers. This is consistent with studies (Gulyani & Bhatnagar, 2017; Wongsuwatt & Suntrayuth, 2019) which showed that managers tend to improve overall performance goals and objectives when they display behaviors such as seeking ways to solve work problems, create opportunities, search for relevant information, and improve work processes (Gulyani & Bhatnagar, 2017; Jiang & Gu, 2015).

Despite the interesting results obtained from the study, there are a few limitations. First, the study was cross-sectional, and thus, the direction of causality between latent constructs over time was not fully provided. Second, the study did not include other intrapreneurial behaviors, such as opportunity recognition and networking, in the model.

Conclusions

Based on the role theoretical framework, the study outcomes provided substantial insight into the behavioral focus that predominantly influences employees' task and contextual performance in health marketing organisations. For instance, managers tended to exhibit more proactive behavior toward job performance than operational staff. This is likely due to the need for managers to 1. anticipate opportunities in the task business environment, 2. anticipate and ensure that the work environment is conducive and communicative for operational staff to perform their key job roles, 3. the differences exposed by the multigroup analysis strengthen the need to identify the aspects of behavioral focus in employees, whether managers or subordinates, that impacts more on performance.

Also, the study outcomes identified a gap in the development of appropriate risk-taking behavior, and hence, employees should be trained in risk management. This is critical because of the potential of risk-taking behaviors to yield profitable returns for both the individual and the organisation. Using the multigroup framework, the study concludes that the intrapreneurial behavior of employees (managers and subordinates) tends to align with their designated work roles.

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Appendix 1

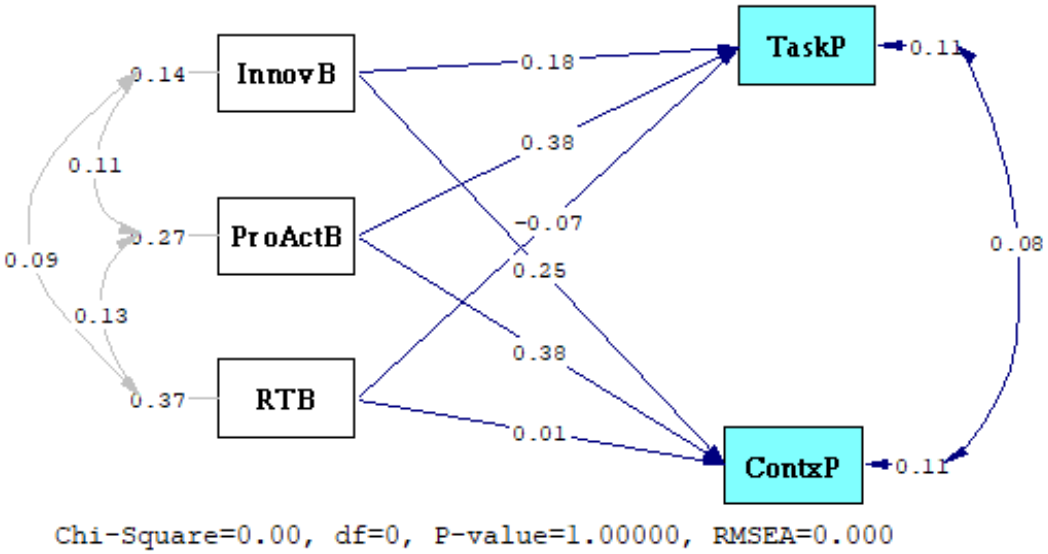

Figure 3. Path model showing the influence of Intrapreneurial constructs on performance for operational staff (beta coefficients)

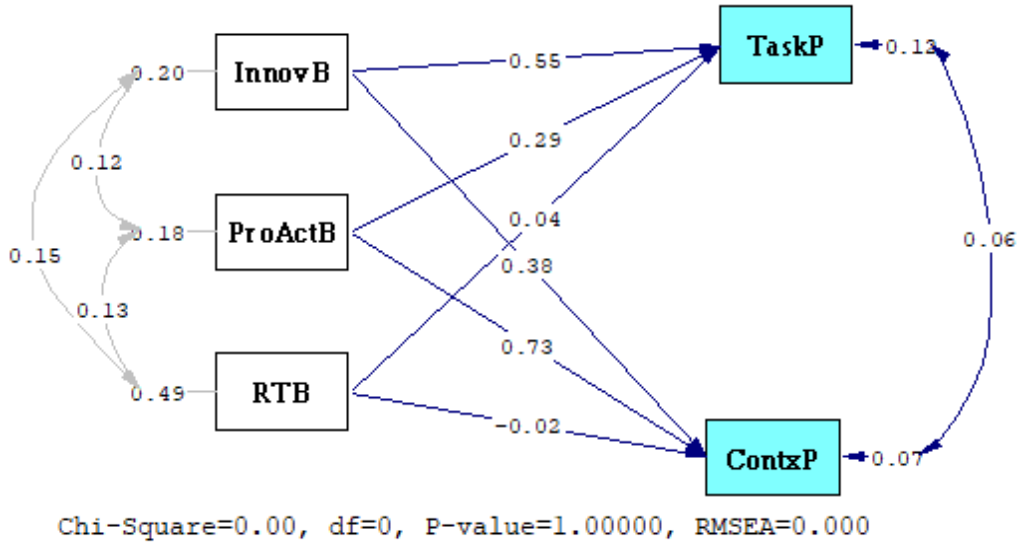

Figure 4. Path model showing the influence of Intrapreneurial constructs on performance for Managers (beta coefficients)