

RESEARCH ARTICLE

Is intrinsic motivation a consequential factor in the causal relations between innovative work behavior and task performance among marketing professionals?

Theophilus Ehidiamen Oamen^{1,2}

¹Department of Clinical Pharmacy and Pharmacy Administration, Obafemi Awolowo University, Osun State, Nigeria

²School of Business and Management, University of Central Nicaragua, Nicaragua

Abstract - Employee innovativeness is a desired intrapreneurial behavior based on employers' expectations of task performance. This is prevalent in the healthcare marketing industry, especially in developing countries where operational work resources are not optimal and may reduce employee motivation. Whilst extrinsic motivation relies on rewards, fear of punishment, or separable outcomes, intrinsic motivation draws from innate desire and drive within the individual employee. Therefore, organizations seek employees who are innovative, resourceful, and intrinsically motivated in pursuance of organizational goals. Grounded on the self-determination theory, this study aims to investigate the intervening role of intrinsic motivation in the causal relations between innovative behavior and task performance among healthcare marketing professionals. Survey data were collected using an online Google Forms questionnaire from a convenient sample of 135 operational-level healthcare marketing professionals, comprising of 41 females and 94 males. Data analysis was done using the covariance-based structural equation modeling software. The results showed that the measurement model had an adequate model fit to the data and acceptable construct validity. Correlation analysis revealed significant positive and discriminant associations between the three constructs. Innovative behavior and intrinsic motivation had a significant impact on task performance, while the total effect of innovative behavior on task performance was substantial. Mediation analysis revealed that intrinsic motivation accounted for a statistically significant proportion of the total effect of innovative behavior on performance. The study's implications are two-fold. First, managers should stimulate intrinsic motivation in employees to maximize their innovativeness, especially when resources are not fully available. Second, managers and employers should target self-motivated and innovative individuals during recruitment. Therefore, human resource managers should develop recruitment strategies that can identify these capabilities or traits in potential employees. The study concludes that managers should encourage and train innovative employees to cultivate intrinsic motivation as a necessary criterion for sustaining task performance.

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1. Introduction

The competitive nature of the business environment and the demanding nature of the workplace require a lot of resilience and motivation from the average employee. Therefore, the task environment requires highly innovative and motivated employees to generate sustainable performance. Innovative work behavior is a desired intrapreneurial attribute that supports task performance in a challenging work environment. This quality of innovativeness cannot be maximally utilized for organizational benefit when there is a dearth of employee motivation, especially in developing countries where operational work resources are not always optimal. Whilst extrinsic motivation relies on rewards and remuneration, intrinsic motivation comes from within the individual employee who derives fulfillment and joy to work and deliver results (Ryan & Deci, 2000a; Fishbach & Woolley, 2022; Rigtering et al., 2024). Therefore, organizations seek employees who are innovative, resourceful, and intrinsically motivated in pursuance of organizational goals. This means that the desired performance and output from an employee may not be feasible if he or she is not intrinsically motivated to use his or her abilities and innovative capabilities for the good of the company or organization.

According to Deci & Ryan (2008), Oh & Farh (2017), and Yu & Meng (2021), direct causal relationships have been established between intrinsic motivation and employee innovative behavior in terms of the initiative to do things differently and efficiently, with flexibility and adaptability to changes in the business environment and task environment, and willingness to face challenges. Motivation is not necessarily a transferable quality from one individual to another as it is specific to an individual. Generally, employers and managers, irrespective of industry and organization, are in dire need of self-motivated employees (Ryan & Deci, 2000a). However, drawing an inquiry from the self-determination theory, it is proposed that a self-motivated (or intrinsically motivated) employee must willingly, freely, interactively, and consistently use his or her creativity and innovativeness to enhance the performance of tasks. In the pharmaceutical marketing industry, especially in a developing country like Nigeria, marketing professionals are tasked with the responsibility of creating awareness demand for pharmaceutical products and business engagement with healthcare providers. These operations are oftentimes performed with minimal resources available to meet set organizational targets and goals (Oamen, 2021, 2022). As a result, the motivation (extrinsic and intrinsic) to solve problems innovatively in designated work roles may be adversely affected, thereby aggravating turnover rates that are prevalent in the industry (Sinsakjarungdej & Khanchanapong, 2024). According to Oamen (2023), extrinsic motivation needs are largely satisfied

with adequate remuneration and reward systems among pharmaceutical managers. A systematic study by Albalawi et al. (2024) revealed that intrinsic motivation is a valuable asset required from nurses in the delivery of services. To the best of the author's knowledge, the role of intrinsic motivation in the innovative work behavior of healthcare marketing professionals as they relate to delivering on tasks has not been explored.

This paper seeks to answer the following research questions: Does innovative work behavior significantly influence task performance among healthcare marketing professionals? What proportion of the total effects of innovative behavior on task performance is mediated or accounted for by intrinsic motivation? The rationale for this study is based on the argument that intrinsic motivation is the key ingredient that harnesses the benefits of resource availability, positive and/or adverse work conditions, organizational support, and preparation to ensure employee performance (Zimmerman et al., 1992; Morgeson et al., 2005). This suggests that intrinsic motivation is a mechanism that links innovative behavior displayed by employees to a positive impact on performance. Intrinsic motivation is different from extrinsic motivation because it is not influenced or triggered by externalities or conditions such as remuneration, fear of punishment, fear of failure, and career progression (Ryan & Deci, 2000a; Dabas & Pandey, 2015). Although innovative employees perform reasonably better in the workplace, this effect could be better explained if the individual is intrinsically motivated irrespective of the challenges faced at work. This perspective has not been explored in the context of healthcare marketing professionals based on the theory of self-determination. The objective of this study is to investigate the role of intrinsic motivation in the causal relationship between innovative behavior and task performance among operational employees in the healthcare marketing industry in Nigeria. The findings will provide further evidence of the role of intrinsic motivation in the relationship between innovative work behavior and execution of tasks within the pharmaceutical marketing industry. The evidence provided will be applicable in industries where services and products are exchanged for economic value, especially since they require adequately self-driven and self-motivated employees to perform critical roles.

The paper is organized as follows: first, the introduction section gives a brief introduction and context of the study. Second, the literature review section presents the theoretical and conceptual frameworks of the study, including the hypotheses. Third, the methods section introduces the study design and rationale for covariance-based structural equation modeling (CB-SEM) for inferential analysis. Fourth, the combined results and discussion section provides details of the measurement and structural models and discusses the results obtained in the context of established literature. Finally, the limitations and conclusion of the study are presented.

2. Literature Review

2.1 Self-Determination Theory

Self-determination theory (SDT) is the theoretical framework for understanding the role of intrinsic motivation in human behavior in all spheres of human endeavor (Ryan & Deci, 2000b; Ryan & Vansteenkiste, 2023). This theory infers that an individual's capacity to attain their goals is premised on three psychological needs or elements: autonomy (being able to perform tasks of one's own volition willingly), competence (having the ability to execute the tasks), and relatedness (being able to work, relate, and communicate with others). According to Deci & Ryan (2014), SDT refers to the willing actions taken by a person based on volition and clear intention. In the context of an organization, the determination to undertake a task or activity influences the level of motivation, the ability of the individual to exert control over actions, and the capability to attain goals with a sense of connection with people. In other words, SDT defines an employee's likelihood to be intrinsically motivated and satisfied with work (Hui & Tsang, 2012; Rigby & Ryan, 2018; Sansone & Tang, 2021). The three psychological domains of SDT—autonomy, competence, and relatedness—create a premise for employees to exhibit intrinsic motivation while executing their designated roles. According to Fishbach & Woolley (2022), employees with high levels of innovative behavior may not necessarily yield expected performance without being intrinsically motivated (Fishbach & Woolley, 2022). On the contrary, Chowdhury & Alam (2025) surmised that intrinsic motivation has a substantial impact on employees, unlike extrinsically motivated employees. Based on SDT, this study proposes that intrinsic motivation significantly explains (or mediates) the impact of employees' innovative behavior on task performance in the context of healthcare marketing professionals.

2.2 Task Performance

Task performance refers to the measurable outcomes attained by an employee in line with organizational objectives (Carlos & Rodriguez, 2016; Oamen & Lawal, 2024; Rigtering et al., 2024). In practical terms, task performance constitutes the activities and outputs prescribed or stipulated by the organization where the employee works, which are of economic relevance (Koopmans et al., 2011; Bhardwaj & Kalia, 2021). Task performance differs from contextual performance because it focuses on the in-role, job-specific, and measurable outcomes expected from the employees while forming the core of the organization's performance (Oamen & Lawal, 2024; Bhardwaj & Kalia, 2021). On the other hand, contextual performance relates to the extra role activities that support the actualization of task performance activities (Oamen & Lawal, 2024). As a result, employees must deploy their maximum effort and capabilities to attain the desired output by engaging in day-to-day operational activities. Like typical sales organizations, the pharmaceutical marketing industry places an emphasis on achieving set organizational targets in sales, profitability, operational efficiency, and market development (Muhammad et al., 2015). These job or task characteristics form the basis of performance measurement and evaluation (Koopmans, 2014).

According to Kock (2017), Pransky et al. (2003), and Oamen & Lawal (2024), these outcomes and activities are best measured as self-reported measures by the individual employee. Measures of task performance include employee's estimation of skill and experience applied to the job [JP1], performance of tasks in line with companies stipulation [JP2],

task completion with agreed timelines [JP3], planning and organization applied to task [JP4], delivery of maximum output on tasks [JP5], and relevant to the organization due to high-performance outputs [JP6] (Oamen & Lawal, 2024; Koopmans et al., 2011; Carlos & Rodriguez, 2016).

2.3 Hypotheses Development

2.3.1 Innovative behavior or innovative work behavior

In organizations, innovative work behavior describes the intrapreneurial ability exhibited by an employee, which is typified by traits such as looking for better, creative, resourceful, and new ways of doing things (or tasks) to improve performance and/or output (Korucu & Olpak, 2015; Gawke et al., 2019; Gerards et al., 2021; Rigtering et al., 2019; Oamen & Lawal, 2024). According to Salam & Senin (2020), innovative behavior extends beyond an employee's display of creativity; it also incorporates idea creation and execution as well as skillful utilization or modification of methods and technologies for the ultimate good of the organization. Several studies have shown that innovative employees generally deliver higher on-task performance (Bierwerth et al., 2015; Oamen & Lawal, 2024). Due to increased competition from other companies, employees rich in innovativeness are of value to companies seeking to enhance their competitiveness. Davidsson (2015) and Oamen & Lawal (2024) postulate that healthcare marketing professionals who display innovative behavior often deliver given tasks better because they look for improved ways to deal with challenges and proffer solutions to work-related problems. Chowdhury & Alam (2025) added that healthcare marketing professionals deliver better work outcomes when they derive meaning and enjoy their job.

Researchers believe that the key attributes of innovative work behavior include looking for new and better ways to execute tasks, ability to improvise when faced with a challenge, being creative and original in thinking and actions, creativity, stimulated when original in approach, triggered by challenges and problems, and open to new ideas and ways of solving problems in the workplace (Korucu & Olpak, 2015; Gawke et al., 2019; Gerards et al., 2021; Rigtering et al., 2019; Oamen & Lawal, 2024). However, despite the known influence of innovative behavior on task performance, there is a need to investigate the causal explanatory role of intrinsic motivation in the relationship. This prompts the present study to explore whether intrinsic motivation influences innovative employees to achieve desired task goals, to the extent that they find meaning and purpose in their work and job-specific roles. It seeks to uncover the effect of innovativeness on task performance, which is explained through the agency of intrinsic motivation among healthcare marketing professionals. Therefore, the following hypotheses are proposed:

- Hypothesis 1: Innovative work behavior has a positive effect on task performance.
- Hypothesis 2: Innovative work behavior has a positive effect on intrinsic motivation.

2.3.2 Intrinsic motivation

Motivation refers to the drive or desire of a person to do something or engage in a task. The level of motivation may vary across different people. For example, while some employees do their work to build positive social relationships, others may be motivated by rewards or the fear of losing their jobs or positions. According to Rego et al. (2012) and Fishbach & Woolley (2022), employees' creativity and innovativeness require motivation to actualize targeted objectives. In other words, a person is said to be motivated if he or she is energized when funneling his or her efforts toward a given task consistently (Steers et al., 2004). As a psychological process, motivation stands as an integral part of employee behavior in the workplace because it directly refers to the inner drive or impetus an individual derives from engaging in an activity or task (Kreitner, 1995). Its construct encompasses both intrinsic and extrinsic. Intrinsic motivation is expressed when an individual derives inherent satisfaction or enjoyment when engaging in an activity, while extrinsic motivation refers to the impetus to do something because of the possible benefits or external rewards or separable outcomes accrued from the engagement (Ryan & Deci, 2000a; Dabas & Pandey, 2015; Hannam & Narayan, 2015). According to Antoni (2009), motivated employees tend to engage more in organizational planning, decision-making, and social relationships in and outside the workplace, aside from the willingness to take necessary actions toward a given goal.

In organizational settings, intrinsic motivation has been directly associated with enhanced performance and improved ability to face challenges in the workplace (Patall et al., 2008; Moneva et al., 2020; Sansone & Tang, 2021). A qualitative study of employees in a Bangladesh factory showed that intrinsic motivation enables them to withstand workplace challenges and constraints (Asadullah et al., 2019). They are also more engaged and confident in addressing the issues or challenges that may infringe on their ability to channel their abilities into performance. The study is unique because it underscores the role intrinsic motivation plays in translating abilities to outcomes, irrespective of the challenges in the workplace environment.

According to Ryan & Deci (2000a), intrinsic motivation can be measured using self-reports of interests and derived satisfaction from engaging in an activity. It can be assessed using a number of indicators, such as convincing colleagues and co-workers to support innovative ideas, taking active responsibility for new ideas and products, willingness to take other responsibilities if the opportunity arises, strong sense of participation in product and service development, actively pursues activities that create organizational value, and willingness to improve things in the organization (Ryan & Deci, 2000a; Dabas & Pandey, 2015; Hannam & Narayan, 2015; Morris et al., (2022). Therefore, it is relevant to explore the impact of intrinsic motivation and task performance among marketing professionals in the healthcare industry. Hence, the following hypotheses are proposed:

- Hypothesis 3: Intrinsic motivation has a positive effect on task performance.
- Hypothesis 4: Intrinsic motivation partially mediates the effect of innovative behavior on task performance.

2.4 Conceptual Framework of The Study

The SDT stipulates that an employee is primed to attain work expectations with a specific focus on given roles or tasks. Task performance is the basic requirement of an employee and may not be fully attained if the employee is not motivated to execute it. Hence, in line with the argument of Fishbach & Woolley (2022) and Sansone & Tang (2021), innovative employees should be intrinsically motivated to face challenges in the workplace and deliver expected results or outcomes. Conceptually, a self-determined employee refers to one who is intrinsically motivated, psychologically positioned, or able to use his or her innovative ideas and abilities to successfully execute work roles or attain desired performance goals in the organization. It suggests that intrinsic motivation is a critical link explaining the effects of innovative behavior on task performance. This framework is depicted in the conceptual diagram in Figure 1. At face value, the connecting impact of intrinsic motivation in the relationship between innovative behavior and performance assumes a direct, positive effect with a substantial mediating role. However, this presumption has not been explored in the context of healthcare marketing personnel.

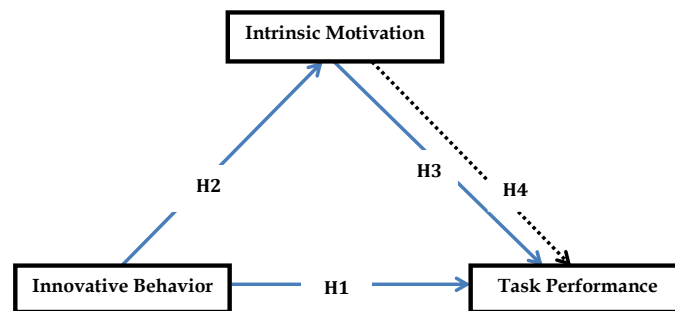


Figure 1. Conceptual diagram of the relationships between study variables

3. Materials and Methods

3.1 Source of Data

This cross-sectional study used an online Google Forms questionnaire to obtain data from 135 conveniently selected healthcare marketing professionals in the Nigerian pharmaceutical industry. Healthcare marketing professionals are operational-level employees tasked with marketing and selling services and products to patients and healthcare institutions. They were selected as the target audience since recent research has examined employee behavior and performance (Oamen, 2021, 2022). Furthermore, marketing professions are often emotionally and physically demanding with high expectations on sales performance. In developing countries, marketing professionals are faced with the challenges of resource inadequacy (inadequate work tools and marketing resources) and remuneration, which affect employees' turnover, morale, work satisfaction, and overall motivation (Oamen, 2021, 2022; Chowdhury & Alam, 2025). Based on this context, this study examines the role of intrinsic motivation in translating innovative work behavior into task performance among employees in the healthcare industry. The data were collected between April and May 2024 in Nigeria. A recommended sample size of 107 was determined via G*Power analysis based on effect size = 0.15, alpha value = 0.05, power = 0.95, and 2 independent predictors. The final sample obtained was 135, which supports a simple model involving the covariance-based structural equation modeling technique (Faul et al., 2007; Kline, 2023; Rahman, 2023).

CB-SEM was used for this study because it is a robust multivariate analytical method that takes measurement error of variables into account and is suitable for theory testing and confirmation (Dash & Paul, 2021; Zhang et al., 2021). It is based on the common factor principle in which its reflective measurement items are assumed to be caused by the common factor (Zhang et al., 2021). The measurement model was first assessed for model fit using confirmatory factor analysis with the following parameters: model fit indices, root mean square error of approximation (RMSEA < 0.08), standardized root mean square residual (SRMR < 0.05), comparative fit index (CFI > 0.90), and Tucker Lewis Index (TLI > 0.90), as recommended by Hu and Bentler (1999). Discriminant validity measures, such as Fornell & Larcker and Heterotrait Monotrait criteria, were used to evaluate the independence and uniqueness of each construct in the model (Fornell & Larcker, 1981; Henseler et al., 2015). The correlation analysis provided evidence for a possible association between the study constructs and the absence or presence of multicollinearity by assessing the risk of losing the independence of each construct when the correlation coefficient is greater than 0.8 (Ronkko & Cho, 2022; Cheung et al., 2024).

3.2 Measurement of Variables

The measurement of constructs used in the structural equation modeling was done using Likert scales (see Table 1). Intrinsic motivation was measured using 6 indicators on a 4-point Likert scale ranging from 1 (Strongly Disagree) to 4 (Strongly Agree). Innovative work behavior was measured using 7 indicators on a 4-point Likert scale ranging from 1 (Never) to 4 (Most Times). Finally, task performance was measured using 6 indicators on a 4-point Likert scale ranging from 1 (Strongly Disagree) to 4 (Strongly Agree).

3.3 Data Analysis Technique

The data were analyzed using Linear Structural Relations (LISREL) version 8.80 (Jöreskog et al., 2001; Joreskog & Sorbom, 2022). Statistical significance was set at a probability less than 5% ($p < 0.05$) and/or t-value equal to or greater than ± 1.96 . A mediation analysis test was conducted using LISREL to investigate the causal mechanism (intrinsic

motivation) underlying the relationship between innovative work behavior and task performance. Three possible or likely effects are expected: (i) zero or no mediation, in which the path coefficient of the direct and indirect effects are not significant; (ii) full mediation, in which there is no significant direct effects, and presence of significant indirect effects, and (iii) partial mediation, in which the direct effect is significant as well as the indirect effect (Henseler, 2021). Based on the proposed hypotheses, the researcher anticipates partial mediation as the most plausible outcome. In this case, two forms of partial mediation are expected:

- i. Competitive mediation, in which the signs (positive or negative) of the path coefficients of the direct and indirect effects are different or opposing. In this case, they cancel each other, and the estimation of the total effect (summation of direct and indirect effects) is not warranted.
- ii. Complementary mediation is a partial mediation type, in which the signs of the direct and indirect paths are the same, thereby complementing each other (Henseler, 2020). Therefore, it is only in the case of evidence of complementary mediation that the Variance Accounted For (VAF) Index should be computed to express the indirect effect relative to the total effect (Shrout & Bolger, 2002; Hair et al., 2022; Henseler, 2020). This is expressed in Eq. (1).

$$VAF = \frac{\text{Indirect effect}}{\text{Total effect}} \quad (1)$$

where *VAF* values of 0 = no mediation, ≤ 0.2 = not significant mediation, 0.2 to 0.8 = partial mediation, and 1 = full mediation. *VAF* Index can also be expressed as percentages.

4. Results and Discussion

4.1 Demographic Characteristics of Sample

The research participants were predominantly male ($n=94$, 69.8%) than female ($n=41$, 30.4%), with the mean age of 31.98 years. All of them were degree holders in science ($n=109$, 80.7%) and pharmacy ($n=26$, 19.3%). Many of the participants worked in indigenous Nigerian pharmaceutical companies ($n=72$, 53.3%) and multinational firms ($n=63$, 46.7%). Their average experience of working in pharmaceutical marketing was 4.57 years ($SD=3.29$).

4.2 Assessment of Model Fit of Measurement Model

Before further assessment of the model, the model fit to the data was first evaluated using absolute and comparative model fit parameters. The values of $RMSEA = 0.075$; 90% confidence interval [0.059; 0.090], $SRMR = 0.023$, $CFI = 0.94$, and $TLL = 0.93$ were all within acceptable limits (Hu & Bentler, 1999). Therefore, the specified model is adequate for further analysis and inference.

Table 1. Descriptive statistics and correlation analysis of latent variables

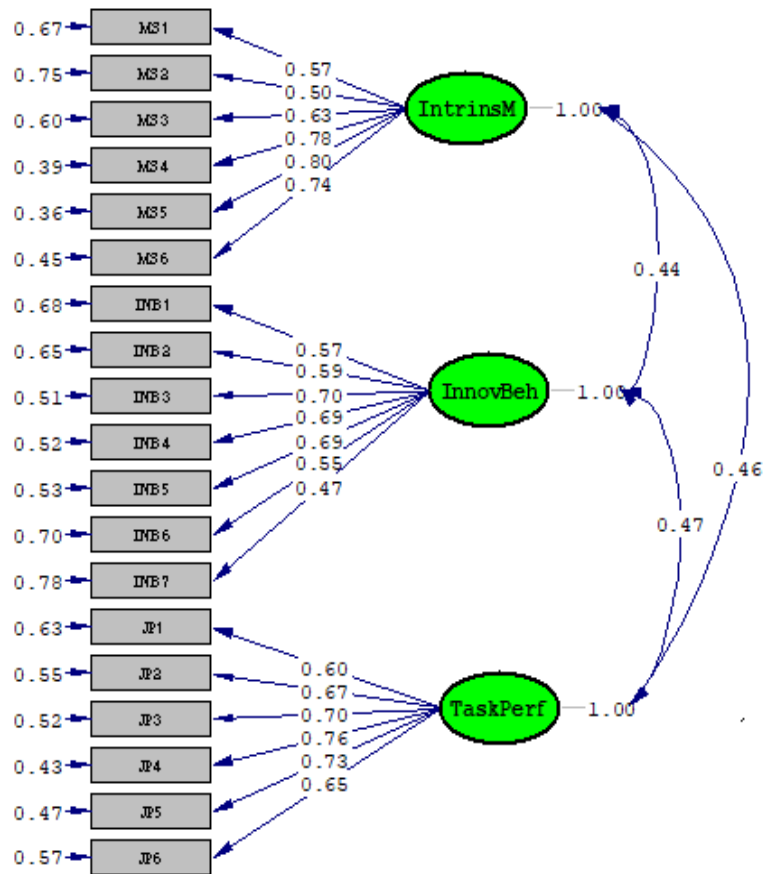
Construct	Mean	SD	1	2	3
1. Innovative Work Behavior	3.58	0.37			
2. Intrinsic Motivation	3.47	0.45	0.44**		
3. Task Performance	3.60	0.38	0.47**	0.46**	

Note: ** $p < 0.01$

The correlation matrix (Table 1 and Figure 2) denotes significant associations between the constructs. It implies a positive relationship, whereby an increase in the value of one construct is associated with an increase in the other construct. Despite these positive correlations, the correlation coefficients are not beyond the 0.8 threshold to avoid potential collinearity problems (Ronkko & Cho, 2022; Cheung et al., 2024). Hence, they are deemed to be distinct and separate constructs.

As presented in Figure 2, the standardized factor loadings of the measurement items or indicators of the constructs exceeded 0.4 (lowest value = 0.47, highest value = 0.80) based on the recommendations by Costello & Osborne (2005). Thus, the confirmatory factor analysis affirmed that the indicators were appropriate measures and descriptions of the constructs. Table 2 provides further convergent validity measures of the model. It includes the reliability coefficients (Cronbach's alpha and composite reliability) of the constructs, which exceeded the baseline value of 0.7 (Hair et al., 2022). Also, the AVE values were generally below the 0.5 benchmark (0.37 to 0.47). However, the overall reliability of the constructs was not violated because the composite reliability of the constructs is higher than 0.7 (Fornell & Larcker, 1981; Malhotra, 2010). This affirms that the indicators are reliable and valid measures of the construct in the confirmatory factor analysis model.

Table 3 shows the measures of discriminant validity of the latent variables or constructs using the Fornell & Larcker and Heterotrait Monotrait (HTMT) criteria. For the Fornell & Larcker criteria, the square root of AVE for each construct (Innovative behavior = 0.37, Task performance = 0.47, Intrinsic motivation = 0.44) should be greater than the value of the intercorrelations between them (Fornell & Larcker, 1981). For this study, the AVE values along the diagonal are greater than the correlations between them. Furthermore, the HTMT values of the constructs were below the strict benchmark of 0.85 (Henseler et al., 2015). The adequacy of the discriminant measures suggests that the constructs are sufficiently unique and distinct from each other.



Chi-Square=260.26, df=149, P-value=0.00000, RMSEA=0.075

Figure 2. Measurement model of the study

Table 2. Assessment of indicators and latent variables with reliability coefficients

Constructs	Indicators	Factor loadings	CA	CR	AVE
Innovative Behavior	INH1	0.57	0.80	0.81	0.38
	INH2	0.59			
	INH3	0.70			
	INH4	0.69			
	INH5	0.69			
	INH6	0.55			
	INH7	0.47			
Intrinsic Motivation	MS1	0.57	0.82	0.83	0.46
	MS2	0.50			
	MS3	0.63			
	MS4	0.78			
	MS5	0.80			
	MS6	0.74			
Task Performance	JP1	0.60	0.84	0.84	0.47
	JP2	0.67			
	JP3	0.70			
	JP4	0.76			
	JP5	0.73			
	JP6	0.65			

Note: CA=Cronbach's alpha, CR=Composite Reliability, AVE=Average Variance Extracted

Table 3. Discriminant validity measures (Fornell & Larcker and Heterotrait Monotrait ratios)

Constructs	Fornell & Larcker			Heterotrait Monotrait		
	InnovB	TaskP	IntrinsM	InnovB	TaskP	IntrinsM
InnovB	0.37					
TaskP	0.24	0.47		0.48		
IntrinsM	0.25	0.26	0.44	0.48	0.51	

Note: The square root of AVE along the diagonal in bold letters

4.3 Hypotheses Testing

As presented in Table 4 and Figure 3, the full structural model revealed that innovative behavior and intrinsic motivation variables predicted 30% (coefficient of determination; R^2 value) of the variance in task performance. It was based on Cohen’s (1988) operationalization of R-squared value of ≥ 0.1 (small or weak), ≥ 0.3 (medium or moderate), and ≥ 0.5 (large or substantial). The R-squared coefficient is also a measure of effect size conveying the practical relevance of a relationship. As a result, innovative behavior and intrinsic motivator constructs moderately predict the dependent variable of task performance. Furthermore, innovative behavior predicted 22% of the variance in the mediator variable of intrinsic motivation. This means that innovative behavior has a small predictive or explanatory relevance in its structural relationships with task performance (Cohen, 1988; Hair et al., 2022).

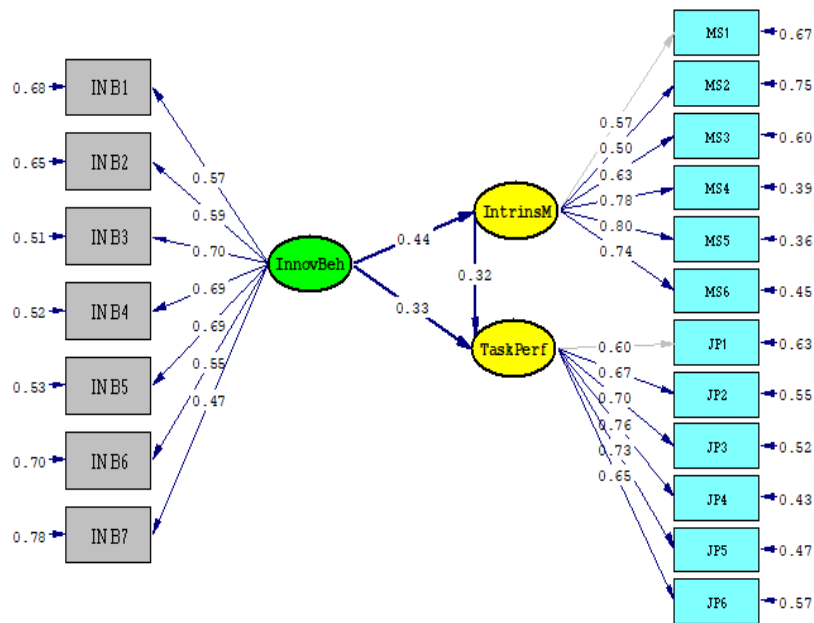
Consequently, the hypotheses of direct causal relationships were examined, and hypothesis H1 was supported since innovative behavior had a direct impact or influence on task performance. The result is corroborated by the findings of Bierwerth et al. (2015), Davidsson (2015), and Oamen & Lawal (2024), whereby employees who are innovative and creative in their tasks tend to perform better at work. Hypothesis H2 was also accepted since innovative behavior had a significant influence on intrinsic motivation. This implies that innovative employees tend to show or have higher levels of intrinsic motivation because they enjoy expressing their creativity compared to less innovative employees. The finding is corroborated by Antoni (2009) and Moneva et al. (2020). Finally, hypothesis H3 was also accepted because as anticipated, intrinsic motivation had a positive and significant influence on task performance. This means that intrinsically motivated employees naturally deliver work roles with positive outcomes. It suggests that employees perform better if they derive enjoyment and fulfillment from performing designated work roles. The finding agrees with those reported by previous research (Patall et al., 2008; Moneva et al., 2020).

Table 4. Direct path relationships between variables (hypothesis testing)

Paths	Coefficient	t-value	p-value	Inference
Innovative Behavior → Task Performance	0.330	2.900	<0.01	H1 accepted
Innovative Behavior → Intrinsic Motivation	0.440	3.900	<0.01	H2 accepted
Intrinsic Motivation → Task Performance	0.320	2.650	<0.01	H3 accepted

Note: R^2 values for Task Performance = 0.30 and Intrinsic Motivation = 0.22

Figure 3 illustrates the Full structural diagram showing relationships between variables.



Chi-Square=260.26, df=149, P-value=0.00000, RMSEA=0.075

Figure 3. Full structural diagram showing relationships between variables

As shown in Table 5, the total effect of innovative behavior had a significant regression coefficient on task performance ($\beta=0.47$, $p<0.01$). Total effect refers to the summation of the direct and indirect effects of an independent variable (innovative behavior) on a dependent variable (task performance) (Jöreskog & Sorbom, 2022). Therefore, the total effect of 0.47 and the direct effect of 0.33 imply that the indirect effect of innovative behavior (mediated by intrinsic motivation) is 0.14.

Table 5. Total effect of innovative behavior on task performance

Path (Total Effect)	Coefficient	t-value	p-value
Innovative Behavior \rightarrow Task Performance	0.470	4.16	<0.01

Table 6 shows that the mediation effect is significant ($\beta=0.14$, $p<0.01$). Mediation effect describes the proportion of impact of the independent variable (innovative behavior) on the dependent variable (task performance), which is explained by the mediator (i.e., intrinsic motivation) (MacKinnon et al., 2007). As presented in Tables 5 and 6, the standardized regression coefficient ($\beta=0.14$) of the mediator (intrinsic motivation) refers to the proportion of the total effect ($\beta=0.47$) of innovative work behavior on task performance. Therefore, hypothesis H4 was supported. The mediating effect is partial because the direct causal effect of innovative behavior on task performance is significant ($\beta=0.33$, $p<0.01$). This partial mediation is complementary because the coefficient signs of the direct and indirect effects are similar (positive) with a VAF value of 0.30 or 30% [$0.14/0.47$]. The mediating effect of intrinsic motivation shows that innovative employees exert their creativity when they derive internal energy, drive, and inspiration from performing their tasks, which in turn improves their work outcomes. This is supported by Demircioglu & Andretsch (2017) and Chowdhury & Alam (2025), who argued that employees improve their performance when they are motivated.

Table 6. Mediation (indirect) relationship between variables (hypothesis testing)

Mediation Effects	β	t-value	p-value	Inference
Innovative Behavior \rightarrow Intrinsic Motivation \rightarrow Task Performance	0.14	2.48	0.01	H4 accepted

5. Conclusions

Grounded on the framework of the SDT, this study examined the direct relationship between innovative work behavior and task performance as mediated by intrinsic motivation among marketing personnel in the Nigerian healthcare marketing industry. Several hypotheses were tested using a structural equation model. The key findings revealed that innovative behavior and intrinsic motivation have a direct impact on task performance. Furthermore, intrinsic motivation emerged as a partial mediator of the relationship. This suggests that the innovative work behavior of employees substantially improves task performance when they are intrinsically motivated. It also affirms that intrinsic motivation is an essential characteristic among marketing employees, which stems from the fact that they are more capable of facing challenges and using limited resources in the workplace. Therefore, such employees are more likely to go beyond expectations and complete tasks successfully with a sense of accomplishment.

The findings of this study provide insights for both employers and human resource managers on the need to identify and maximize performance from intrinsically motivated employees. It offers two main implications. First, human resource managers should intentionally build relationships and capabilities for their subordinates, which will intrinsically motivate and stimulate them to use their initiative and talents for organizational benefits. Second, human resource managers should be deliberate and creative in their recruitment process. This includes incorporating strategies that can help uncover innovativeness and intrinsic motivation among potential employees. A natural consequence, especially in resource-challenged jobs, is that employees pursue the attainment of personal and organizational goals primarily due to derived satisfaction, meaning, purpose, and fulfillment rather than fear of punishment and/or rewards. The study adds to the existing literature by offering useful insights into the importance of intrinsic motivation as a medium to support employee performance in organizations. Furthermore, it is of practical relevance for managers to invest in employees' capacity development through training and workshops to increase innovative thinking and self-belief in their approach to facing challenges in the workplace. It also advocates for a supportive work environment that engenders employee-employee and/or employer-supervisor work relationship building and rewards good performance.

There are several limitations to the study. First, although the sample size used was moderately. There is a need for a larger sample size to support the generalizability of the findings. Second, intrinsic motivation was considered the only mediating variable in the study model. Hence, studies incorporating other employee behavioral traits should be considered. Finally, the study focused on operational-level staff in the healthcare marketing industry. Therefore, future studies should explore the model in other industries.

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Declaration of Competing Interest

The authors declare no conflicts of interest.

CRedit Authorship Contribution Statement

Theophilus Ehidiamen Oamen (Writing - original draft)

Availability of Data and Materials

The data collected for this research can be made available upon request and will be shared in accordance with applicable data protection and privacy regulations.

Ethics Declarations

The study was conducted in accordance with the Declaration of Helsinki and approved by the Obafemi Awolowo University. Informed consent was obtained from all participants involved in the study.

Generative Artificial Intelligence Declarations

The authors claim that artificially intelligent-assisted technologies in the form of generative AI were not used to generate content, ideas, or theories. We have just utilised AI to enhance readability and refine the language. This was used with extreme human control and oversight. The authors take full responsibility for reviewing and approving the content.

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