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Transposing Continuance and Normative Organizational Commitment to Affective Commitment among Pharmaceutical Executives: Mediating Role of Herzberg's Hygiene-Motivation Factors

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ABSTRACT

Purpose— Employee Organizational Commitment (OC) is a critical asset for any organization as it guarantees enduring job satisfaction, reduced turnover intention, and purposeful attainment of organizational objectives. Although affective commitment (OCA) is the most desirable domain compared to continuance (OCC) and normative commitment (OCN), linkages between the domains have not been empirically tested through the lens of Herzberg's hygiene-motivation theory and the three-compartment model of organizational commitment.

Aim(s) - The study explored the mediating influence of hygiene and motivation factors on the relationship between OCN, OCC, and OCA.

Design/methodology/approach- An online questionnaire-based cross-sectional survey of 369 randomly selected pharmaceutical marketing executives from 30 indigenous and multinational pharmaceutical marketing companies in Nigeria. OCN and OCC were operationalized as independent variables, hygiene and motivation factors as mediators, while OCA was the main dependent variable. Covariance-based structural equation modeling and ANOVA techniques were used to develop and test hypotheses.

Findings— The results revealed low and non-significant correlations between OCN and OCC. Participants perceived OCA as more desirable compared to OCC and OCN. The direct effect of OCN on OCA compared to OCC was positive and significant. From the study results, the direct effects of OCN on hygiene, motivator factors, and OCA were positive and significant (hypotheses fully supported) while the direct effects of OCC were negative and non-significant (partially supported). Hygiene and motivator factors mediated the effects of OCN on OCA, unlike OCC. The study's findings showed that hygiene and motivators were partial mediators for OCN to OCA. Interestingly, the mediating effect of the motivator factor from OCN to OCA was negative. OCN behavior positively transposed to the desired behavior-OCA when hygiene factors are optimal for employees.

Limitations of the study- The study primarily focussed on the pharmaceutical marketing sector; hence, it should be replicated in other healthcare sectors.

Practical implications- Managers should routinely evaluate employee dissatisfiers (hygiene factors) and satisfiers (motivator factors) to identify key improvement areas for individual and organizational benefit.

Originality/value- The study adds to the literature on OC by expounding the facilitating role of Herzberg factors to stimulate desired behavioral change underlying employee commitment in the workplace.

KEY WORDS
Organizational Commitment; Normative Commitment; Affective Commitment; Continuance Commitment; Herzberg's Hygiene-Motivation Theory; Structural Equation Model

JEL Code: C51, I31, J24, J28, J50

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1 INTRODUCTION

Globally, firms in a bid to secure and retain the services of effective, skilled, and productive employees need to routinely evaluate the satisfiers and motivators (enshrined in Herzberg's hygiene-

Motivation theory) that influence employees' commitment to the organization. The concept of organizational commitment (hereafter referred to as OC) is a widely studied and researched theme in the social and management sciences (Meyer & Allen, 1991; Meyer, 2016) as espoused in the three-compartmental model of OC. The components of this model include affective, normative, and continuance organizational commitment (that is, OCA, OCN, and OCC respectively). This model is relevant due to the impact of OC on employee behavior, attitude, and performance in their organizations coupled with the dynamic nature of employee-employer relationships (Meyer & Allen, 1991; Meyer, 2016; Beigi & Lajevardi, 2020). In the same vein, researchers have applied Herzberg's two-factor theory to explore the satisfiers (hygiene) and dissatisfiers (motivators) that influence employee behavior-motivation and job satisfaction (Arfat, 2018; Alrawahi et al, 2020; Ibrahim et al, 2023). The pharmaceutical marketing industry is a key sector in ensuring medicine availability and source of information about new drugs and technologies in the healthcare industry. The marketing of drugs entails the activities of trained marketing personnel to ensure acceptance by healthcare professionals. In recent times, a few studies situated in developing economies like Nigeria, have explored several human resource issues and challenges facing the industry such as high turnover, job security, job satisfaction, and motivation (Oamen, 2012; Oamen et al., 2022). Consequently, this necessitated the development and validation of an employee work assessment tool to ascertain employee perception of the key resources made available to them by management (Oamen, 2021; Oamen & Omorenuwa, 2021). High and low scores obtained from the instrument respectively are indicative of positive and negative perceptions of their work conditions (Oamen et al., 2022; Oamen, 2024).

Despite the abundance of literature on OC, it is pertinent to routinely evaluate how OC expressed by employees evolves in the light of the ever-changing work environment. In essence, OC reflects the psychological state of mind of the employee in terms of intention to remain involved and engaged with his or her organization (Greenberg & Baron, 2008; Mercurio, 2015; Culibrik et al., 2018; Bodjrenou et al., 2019). This behavior tends to influence other attitudes and behaviors in organizations- job satisfaction, turnover intention, quiet quitting, work engagement, and organizational citizenship behaviors (Mercurio, 2015). Behavioral construct scholars have stated that the psychological state of commitment expressed by an employee stems from actions taken by the individual based on the state (Meyer & Allen, 1991; Mercurio, 2015).

OC is generally presented in three behavioral domains- Affective commitment-OCA, Normative-OCN, and Continuance-OCC (Allen & Meyer, 1990; Allen & Meyer, 1996). OCA refers to the emotional attachment or feeling an employee has towards his or her organization. This behavior is based on positive experiences, benefits, and ease of work experienced by the employee (Ficapal-Cusi et al., 2020; Oamen & Ihekoronye, 2022). OCA is a major factor responsible for positive organizational citizenship behavior, high job satisfaction due to acceptable work environments, positive work attitudes, emotional involvement, and attachment to the organization. Many researchers have asserted that OCA is the most desirable, productive, and acceptable form of commitment expected from the employee (Meyer & Allen, 1997; Mercurio, 2015; Ahmad, 2018).

On the other hand, OCC implies that the employee remains in the organization because of fear or anxiety about loss of job or earnings, loss of benefits, loss of membership of the organization, fear of the unknown, or possibly because he or she has stayed for a long time in the organization and is concerned about employability elsewhere (Allen & Meyer, 1991; Reza et al., 2010; Ullah et al., 2021).

OCN, when displayed by an employee, considers the fact he or she has worked and benefited (in the form of training, bonuses, or salaries from working in an organization, and hence feels that it is the right thing or obligated to remain with the organization (Meyer & Allen, 1997; Mercurio, 2015; Ahmad, 2018). OCN behavior, however, does not preclude the existence or presence of work conditions that are unacceptable or perceived to be unsuitable for the employee. The sense of loyalty or obligation to remain with the organization may be due to the value system of the employee or due to a sense of reciprocation for benefits received from the organization in the past (Arfat & Riyaz, 2013). Furthermore, most management scholars in person-centered studies tend to lean towards OCA and OCN as preferred mindset for employees, in organizations (Meyer et al., 2012; Meyer, 2016).

According to Meyer et al (2002), the commitment displayed by an employee to his or her organization is premised on perceived satisfaction and motivation with the work itself. This instigates psychological states of emotional attachment (OCA), a sense of obligation (OCN), and/or a sense of compliance due to the risk of leaving (OCC). This influences the relationship of employees with their employers or organizations. These psychological states present as attitudes that influence consequent employee behavior based on the presence and absence of resources such as optimal working conditions (hygiene), and enhanced work itself (motivators) (Lee et al., 2022; Ibrahim et al., 2023).

According to Lee et al (2022) and Ibrahim et al (2023), Herzberg's Hygiene-Motivation theoretical framework has been applied to evaluate the effect of job satisfaction, motivation, and turnover intentions on the psychological states of OC (OCC, OCN, and OCA) displayed by an employee at any point in time (Lee et al., 2022; Ibrahim et al., 2023). Meyer et al (2012) and Meyer (2016) have argued that the most motivated and satisfied employee is the one who is effectively (OCA) inclined or vested in the organization where he or she works. From the employee perspective, it is argued that because OCA is hinged on positive work experiences, OCN and OCC are premised on perceived obligation and perceived costs respectively (Meyer et al, 2002; Ficapal-Cusi et al., 2020). However, extant literature shows that most research conducted in various industries (health, hospitality & Tourism, construction, insurance, marketing, etc.) or climes directly relate or show relationships between Herzberg's factors and OC in influencing job satisfaction and motivation among employees (Ruthankoon et al, 2003; Lee et al, 2009; Hsiao et al, 2016; Rahman et al, 2017; Alrawahi et al, 2020; Lee & Lee, 2022).

To the best of the authors' knowledge, there is a scarcity of empirical evidence to show the recursive relationship between OCC and OC (independent variables), and OCA (dependent) using the explanatory linkage of hygiene and motivation factors inherent in Herzberg's theory. In other words, can the presence or absence of hygiene (satisfiers) and motivators (dissatisfiers) have any effect in translating OCC, OCN to OCA psychological state of commitment among pharmaceutical executives in the Nigerian context?

This present study, which was situated in the pharmaceutical marketing industry, the authors expect to derive employee-centered implications that can be extended theoretically to the global human resource management space due to the critical impact of such employee-centered policies that improve employee OCA through the instrumentality of targeted motivators and satisfiers in the workplace.

The novelty of the study lies in the fact that it utilized two models- Herzberg's factors and three-compartmental models of OC to predict behavioral change in the pharmaceutical marketing industry in Nigeria.

1.1 THEORETICAL FRAMEWORK OF THE STUDY

Herzberg propounded the Hygiene-Motivation Theory in an attempt to explore the dissatisfiers (hygiene), and satisfiers (motivators) prevalent or existing among employees in the workplace (Herzberg et al., 1959; Herzberg, 1966). This theory has been used as a mechanism to explain job satisfaction and motivation in the workplace. A study by Alrawahi et al., (2020) among respondents from hospitals in Oman revealed that hygiene and motivation factors play a critical role in explaining dissatisfaction among workers. Koncar et al. (2020) successfully used hygiene and motivation factors to explain customer satisfaction across 4 countries and over 40 industries using an internet-based feedback platform. The hygiene factors were directly related to the work environment (extrinsic to the job) including contextual factors with attributes such as company and administrative policies, supervision, salary and remuneration, interpersonal relations, job security, and general working conditions. He asserted that the absence of these attributes in the workplace can trigger feelings of dissatisfaction among employees (Herzberg et al., 1959; Herzberg, 1966).

On the other hand, Motivator factors are related to the work itself and work content (intrinsic to the job) and are characterized by responsibility, achievement, recognition, work activities, and room for job growth and enhancement. Thus, the presence of these motivators directly elicits satisfaction among employees (Herzberg et al., 1959; Herzberg, 1966). Herzberg argued that the hygiene and motivator factors are mutually exclusive concepts and should be provided to enhance overall employee satisfaction

with the job. However, other management theorists posited that hygiene and motivator factors practically co-exist in a dynamic interactive continuum in the workplace as the employees who are dissatisfied with their jobs lack reasons to be satisfied (Robbins & Judge, 2013; Kaplan & Kaplan, 2018).

The three-compartment model of organizational commitment refers to the three domains of employee commitment to their organization namely- OCA, OCN, and OCC which occur simultaneously (Allen & Meyer, 1990; Allen & Meyer, 1996). They basically constitute the overall construct OC which predicts employee job satisfaction, motivation, turnover rate, citizenship behavior, and performance at work (Meyer et al, 2002; Beigi & Lajevardi, 2020). A lot of organizational behavior studies have been devoted to the study of OC among employees and have associated it with reduced turnover rates, low employee turnover; enhanced productivity, and citizenship behavior (Meyer et al, 2002; Dizgah & Yusefi, 2011).

Although studies have shown links between both models (Herzberg's model & Three-compartment model), the linkage between OCC and OCN to OCA using the mediating mechanism of Herzberg's motivation and hygiene factors has not been empirically investigated in the pharmaceutical marketing sector in Nigeria, and perhaps, globally.

1.2 CONCEPTUAL FRAMEWORK OF THE STUDY

Despite the widespread literature on the subject of OC, little research has been done to examine the possible change in employee behavior in the workplace through the mechanism or agency of hygiene and motivation resources. Hence, it is important to explore whether OCC and OCN behaviors translate to more productive OCA when work conditions (hygiene factors) and work terms (motivator factors) mediate the relationship in the context of the pharmaceutical marketing industry.

A large number of studies have drawn confirmed links between OC and job performance, and job satisfaction, in a variety of industries or organizations such as services, education, and recreation (Culibrk et al., 2018; Arfat & Riyaz, 2013; Fantahun et al., 2023). They affirmed that OC domains largely influence employee behavior in the workplace. Shore and Wayne (1993) affirmed from their findings that OCA, OCN, and OCC are predictors of employee behavior in an organization. A study among business employees based in Turkey revealed that only OCA positively influenced work performance compared to OCN and OCC (Kaplan & Kaplan, 2018). Conversely, the absence of a better job situation or alternative in the form of hygiene and motivator factors in the present organization is central to OCC (Meyer & Allen, 1997).

Studies by Robinson (1996) and Herrera and De Las Heras-Rosas (2021) have asserted that OC is directly attributed to the psychological contract between the employee and his employer. The psychological construct assumes an understanding of reciprocal exchanges between the individual and the organization he or she works for. Therefore, any perceived breach negatively affects OC (Robinson, 1996).

A study by Beigi and Lajevardi (2020) in Malaysia discovered that OCA and OCN were more indicative of job satisfaction compared to OCC despite the positive correlations between the general construct-OC and job performance. However, it is relevant to explore how OCN and OCC can be positively transposed to OCA via benefits accrued through hygienic and motivational factors as suggested by Arfat (2018). This gap in the literature presupposes the need for empirical evidence that Herzberg's factors translate OCC and OCN to OCA. This scenario sets the stage or foundation for evaluating how these states can translate from less desirable traits (OCC and OCN) to more desirable behaviors (OCA).

This is arguably the first study to empirically explore the relationship between OCC and OCN (independent variables) and OCA (dependent variable) using the mechanism of hygiene-motivation framework of Herzberg's Theory among pharmaceutical executives in a developing country like Nigeria.

1.3 RESEARCH MODEL AND HYPOTHESES OF THE STUDY

The study of organizational behavior enables researchers to understand the mechanisms by which

employees display behaviors that reflect their psychological states of mind while working in the organization. The psychological states inherent in OC are expressed as OCA, OCN, and OCC behaviors in the workplace are in constant flux as employees transit in and out of them while engaged within their organizations (Allen & Meyer, 1991; Arfat, 2018). While OCA is indicative of the emotional state of attachment to the organization by the individual, OCC and OCN both typify a state of fear of the unknown and a sense of obligation to the organization respectively (Allen & Meyer, 1990; Ficapal-Cusi et al., 2020; Meyer & Allen, 1997).

The novelty of the study lies in the fact that it utilizes two models (Herzberg's factors) and three compartmental models of organizational commitment to explain behavioral change in the context of the pharmaceutical marketing industry In Nigeria. Therefore, based on Herzberg's theory, it is relevant to explore using empirical data how the psychological states expressed as OCN and OCC can translate to OCA using hygiene and motivator factors as mediators depicted in Figure 1.

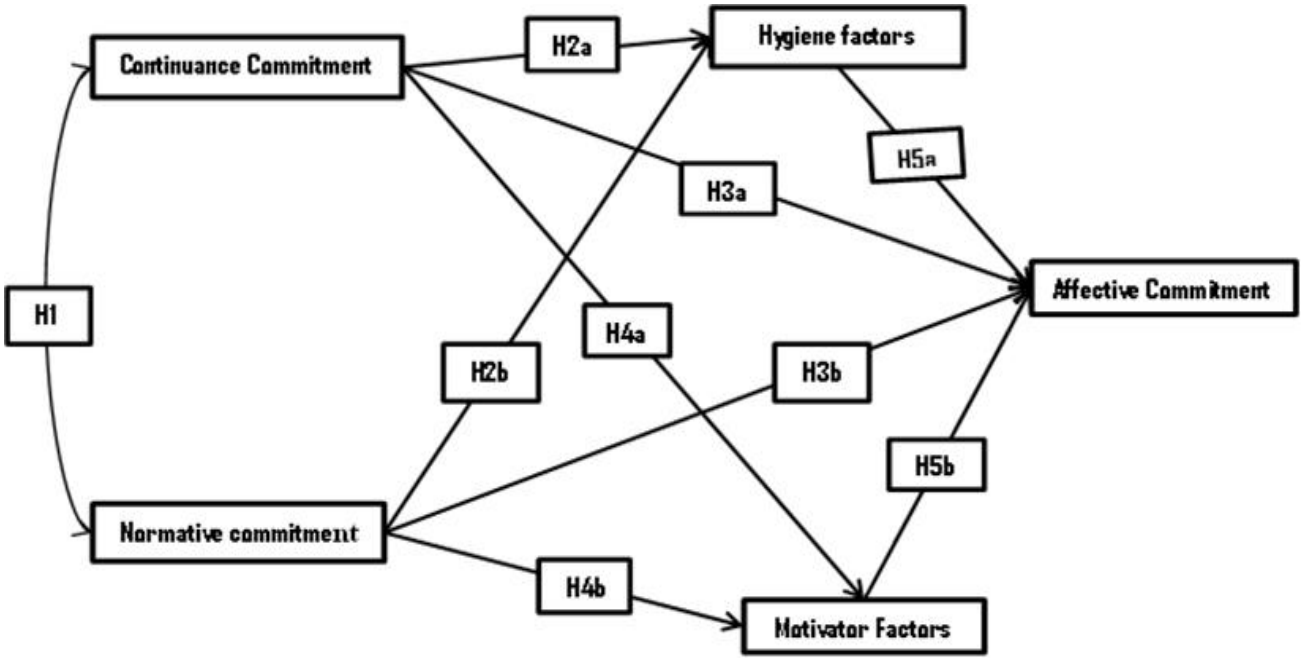

Fig 1. Conceptual diagram of the study

Source: Author's Computation

Based on theory, we presented the hypotheses of the study under two headings- correlational/direct effects and indirect (mediation) effects depicted in Figure 1.

Hypotheses-Correlational and Direct Effects

According to Meyer et al (2002), Bergman (2006), Devecea et al, (2016), and Arfat (2018). OCC and OCN have been empirically proven to be closely related albeit depending on the environment and context of the study. Therefore, the following hypothesis was developed to test the hypothesized relationship in the pharmaceutical marketing context in Nigeria as follows:

H1: OCC has a significant correlation with OCN

Also, an employee exhibiting OCC behavior in an organization tends to remain with an organization primarily due to perceived constraints, cost of leaving, or lack of better job opportunities or alternatives (Allen & Meyer, 1991; Reza et al., 2010; Ullah et al., 2021). This behavior is suggestive of the employee's low rating of his or her working conditions (hygiene factors). Accordingly, we generated the hypothesis below;

H2a: OCC has a negative relationship with Hygiene factors

Similarly, the tendency of an employee to feel obligated to an organization may denote a certain level of satisfaction with the condition of service and indicates appreciable, if not optimal, resource availability (hygiene factors) and some level of benefit received from the organization (Mercurio, 2015; Meyer & Allen, 1997; Ahmad, 2018). In light of this, we propose the following hypothesis:

H2b: OCN has a positive relationship with Hygiene factors

From the literature, although they are two closely related constructs, it is apparent that OCN and OCC appear to be on the extremes of the same spectrum of intention to stay or remain with the organization. That is, OCN is considered to have a more positive disposition by the employee in comparison to OCC (Arfat & Riyaz, 2013; Meyer, 2016). Thereby, the following hypothesis was developed to address this in the pharmaceutical marketing context.

H3a: OCC has a negative relationship with OCA

According to Meyer et al (2012), Meyer (2016), Arfat (2018), and Ahmad (2018), OCN and OCA are considered to be positive and more loyal dimensions of OC compared to OCC. Therefore the following hypothesis was developed to examine this relationship in the pharmaceutical marketing context.

H3b: OCN has a positive relationship with OCA

According to Meyer et al (2002) and Ficapal-Cusi et al (2020), OCC is linked to negative feelings of dissatisfaction and low motivation among employees, which is indicative of the absence of motivators such as responsibility, achievement, recognition, and room for job growth and enhancement. We seek to empirically test this relationship in the context of the pharmaceutical marketing sector. Thereby the following hypothesis was developed as follows:

H4a: OCC has a negative relationship with Motivator factors

Based on the literature, appreciable levels of OCN among employees are shown to be closely related to improved motivations (if absent can cause dissatisfaction) characterized by responsibility, achievement, recognition, work activities, and room for job growth and enhancement among employees (Meyer, 2016; Ficapal-Cusi et al, 2020). Thereby the following hypothesis was developed to examine this relationship in the pharmaceutical marketing context

H4b: OCN has a positive relationship with Motivator factors

OCA psychological state is more associated with better working conditions of employees than OCC and OCN (Mercurio, 2015; Meyer & Allen, 1997; Ahmad, 2018). Thereby the following hypothesis was developed to affirm this expected positive relationship in the pharmaceutical marketing context

H5a: Hygiene factors have a positive effect on OCA

Similarly, we considered that employee perceptions of motivator factors have an established effect on positive and emotional feelings toward the organization (Mercurio, 2015; Meyer, 2016). We propose that the presence of motivator factors will elicit a positive effect on OCA. Therefore, the following hypothesis was presented:

H5b: Motivator factors have a positive effect on OCA

Hypotheses-Indirect or Mediation effect of Hygiene and Motivator factors

The proposed mediating effect of hygiene and motivator factors in the relationship between OCA (dependent variable), and motivator factors (OCC and OCN) is premised on the fact that the presence of satisfiers and presence of dissatisfiers can influence behavioral change in the commitment of employees (Meyer et al, 2012; Meyer, 2016; Lee et al., 2022; Ibrahim et al., 2023; Jung & Moon, 2024). As a result, we linked the instrumentality of Herzberg's factors to mediate the relationships between OCC and OCN constructs to OCA. Therefore, we present the following hypotheses:

H6a: The relationship between OCC and OCA is mediated by Hygiene factors
H6b: The relationship between OCC and OCA is mediated by Motivator factors
H7a: The relationship between OCN and OCA is mediated by Hygiene factors
H7b: The relationship between OCN and OCA is mediated by Motivator factors

Finally, we explored the presumption that the level of the domains of organizational commitment may not be equivalent among pharmaceutical executives. Hence, we proposed the following hypothesis:

H8; There is a significant difference in mean scores in OC states of pharmaceutical executives

2 METHODS

2.1 PARTICIPANTS AND PROCEDURE

The respondents recruited for the study were full-time employees of pharmaceutical marketing companies (both indigenous and multinational) in Nigeria. The Nigerian pharmaceutical industry represents one of the largest markets in Africa with a numerically large workforce and huge commercial interest in pharmaceutical companies across the globe (McKinsey, 2017; Oamen, 2021). This underlies the operational and strategic importance of pharmaceutical sales employees in drug distribution, hence the focus on this group of employees for this study. To obtain an adequate study sample, the sample size was computed using the gamma exponential method by Kock and Hadaya (2018) at a set minimum path coefficient of 0.2 at a statistical power of 80% with a *p*-value set at 0.05. The calculation gave a minimum requirement of 234 respondents sufficient for structural equation models. 500 random invitations were sent out using Google Forms questionnaires, to professional group platforms representing pharmaceutical sales and marketing professionals across the six geopolitical zones in Nigeria. Data were collected over three months (July to September) in 2022. A final sample of 369 was obtained representing a 73.8% return rate. Informed consent was obtained from respondents before filling out the questionnaire.

2.2 DATA ANALYSIS

Data analysis was conducted using covariance-based structural equation modeling (CB-SEM) in the Analysis of Moment Structures software-AMOS, (Arbuckle, 2016). CB-SEM was used because it considers measurement error of variables in computing parameter estimates; hence it gives robust values, unlike multiple regression models that may produce biased estimates (Zhang et al., 2021). Analysis of Variance (ANOVA) was used to compare mean scores of OCA, OCC, and OCN. Mean or composite scores were computed by averaging the measurement items of each validated construct. OCA was used as a reference construct compared to OCC and OCN because OCA is the dependent variable in the hypothetical structural model.

2.3 MODEL DEVELOPMENT

The study model was stipulated using the framework recommended by Burnham and Anderson (2013) which includes model formulation, specification, estimation, and evaluation. The maximum likelihood estimation method and user-defined estimands function were used for computing path coefficients of direct and indirect or mediation effects in the hypothesized model.

2.4 MEASUREMENT OF VARIABLES

As shown in Table 1, affective, continuance, and normative organizational commitment constructs (OCA, OCC, and OCN) were measured by six measurement items on a polytomous Likert-type scale of

1 to 5 (strongly disagree to strongly agree). Hygiene and Motivator factors were measured using an ordinal scale of 1=poor, 3=fair, and 5=good.

Table 1. Measurement of Variables

Construct	Measurement items	CD	Reference
Hygiene Factors (HF)	Availability of work tools	WT	Herzberg et al., 1959; Herzberg, 1966
	Adequacy of Incentive Scheme	IR	Oamen, 2021; Oamen, et al., 2022
	Adequacy of Marketing support	MS	
	Work-Life Balance	WL	
	Adequacy of Reward system	RS	
	Job security	JS	
Motivator Factors (MF)	Career growth opportunities	CO	Herzberg et al., 1959; Herzberg, 1966
	Adequacy of Training for Performance	AT	Oamen, 2021; Oamen et al., 2022
	Impactful Training for Performance	IT	
	Employer/Management support for work Improvement	ER	
	Satisfaction with work life	SL	
Continuance	It would be difficult for me to leave my organization	OCC1	Allen & Meyer, 1990; 1997
Commitment (OCC)	My life will be disrupted if I leave my organization	OCC2	Oamen & Ihekoronye, 2022
	Staying with my job is a matter of necessity	OCC3	
	I have few options if I leave my organization	OCC4	
	There is a scarcity of available job alternatives	OCC5	
	Leaving will involve significant personal sacrifices.	OCC6	
Normative	I feel obliged to remain with my organization	OCN1	Allen & Meyer, 1990; 1997
Commitment (OCN)	I do not feel it is right to leave	OCN2	Oamen & Ihekoronye, 2022
	My organization deserves my loyalty.	OCN3	
	I would feel guilty if I left my organization	OCN4	
	I would not leave my organization right now	OCN5	
	I owe a great deal to my organization	OCN6	
Affective	I would happily spend the rest of my career in my present organization	OCA1	Allen, & Meyer, 1990
Commitment (OCA)	I feel my company's problems are my own	OCA2	Oamen & Ihekoronye, 2022; Ficapal-Cusi et al., 2020
	I feel emotionally attached to my organization	OCA3	
	My organization has a great deal of personal meaning to me	OCA4	
	I feel a strong sense of belonging to my organization	OCA5	
	I feel like a part of a family in my organization	OCA6	

Source: Author's computation

2.5 MODEL SPECIFICATION

The measurement model was developed based on the variables- Hygiene, Motivator, OCA, OCC, and OCN. The structural model was developed thus- OCN and OCC were operationalized as independent variables, hygiene, and motivator variables as mediators, while OCA was the main dependent variable.

2.6 COMMON METHOD BIAS

To prevent the occurrence of respondent bias inherent in surveys involving ordinal data due to the measurement instrument, Harman's single factor method in Statistical Package for the Social Sciences was used to ascertain the presence of common method bias. Harman's single-factor calculation

generated a common factor variance of 26.87% which is far less than the recommended cut-off of 50%. Hence, it confirms the absence of common method bias (Aguirre-Urreta & Hu, 2019; Kock, 2020).

3 RESULTS

3.1 DEMOGRAPHIC ATTRIBUTES OF RESPONDENTS

369 valid responses were obtained from the 500 online questionnaire invitations representing a 73.8% return rate. 243 were males (65.9%), and 34.1% represented 126 females. Age-wise, 133 (36%) were within the age bracket of 20 to 30 years, 206 (55.8%) were within the 31 to 40 years age bracket while a minority (12.6%) representing 30 respondents were within 41 to 50 years. Also, 86 (23.3%) are trained pharmacists while a majority 283 (76.7%) are non-pharmacists. Based on the company affiliation of respondents, 234 (63.4%) work with locally owned or indigenous companies while 135 (36.6%) work with multinational companies. Finally, in terms of industry experience, a minority with less than 12 months of working experience (n=43, 11.7%), 1 to 5 years were 180 (48.8%), 6-10 years were 69 (18.7%) while those above 10 years' experience were 12 (3.2%).

3.2 MODEL EVALUATION

To ascertain that the estimated model fits the data, the results of the fit indices from the confirmatory factor analysis were compared against benchmarks for measurement models (Hu & Bentler, 1999). The Global fit indices- ×2/df=2.964 [excellent: range 1-3] while the absolute fit measures were generally acceptable- root mean squared error of approximation (RMSEA) =0.073 (range: <0.08; 90% Confidence Interval [0.066; 0.079]), and standardized root mean squared (SRMR) =0.08 (range: <0.08) with a relative fit index-Comparative fit index (CFI)=0.900 (acceptable).

Table 2. Convergent Validity of Measurement Model

Construct	Indicators	Factor loading	Composite reliability	Cronbach
OCC			0.673	0.671
	OCC3	0.450		
	OCC4	0.582		
	OCC5	0.684		
	OCC6	0.607		
OCA			0.761	0.766
	OCA1	0.619		
	OCA2	0.557		
	OCA3	0.455		
	OCA4	0.669		
	OCA5	0.609		
	OCA6	0.615		
OCN			0.760	0.788
	OCN1	0.483		
	OCN2	0.524		
	OCN3	0.500		
	OCN4	0.662		
	OCN5	0.686		
	OCN6	0.661		
Hygiene			0.805	0.802
	IR	0.805		
	WT	0.584		
	WL	0.394		
	JS	0.597		
	RS	0.796		
	MS	0.617		
Motivator			0.737	0.765

	AT	0.533		
	IT	0.551		
	CO	0.584		
	ER	0.670		
	SL	0.653		

Source: Author's computation

Note: *Indicators- OCCI and OCC2 were removed because of low factor loadings (<0.4)*

As shown in **Table 2,** the measurement model was assessed for internal reliability and validity of latent variables. The indicators with standardized factor loadings greater than 0.3 to 0.4 were retained as adequate measures of the constructs for samples above 350 (Hair et al., 1998). A cut-off baseline for the study was set at 0.35 and thus, OCC1 and OCC2 were removed because of factor loadings below 0.35. The internal reliability of the model was accepted as composite reliability values ranged from 0.673 to 0.805. The consistency of the indicator items measurement tool was accepted since Cronbach alpha values ranged from 0.673 to 0.802 (Hair et al., 1998).

As recommended by Collier (2020), to improve model fit, correlations were made between the error terms of indicators of the same construct based on established theoretical relationships between OCA5 and OCA6; OCN2 and OCN3; OCN3 and OCN4; CO and ER; and IT and AT.

Table 3. Discriminant validity of Model (Heterotrait Monotrait)

Construct	Hygiene	Motivators	OCC	OCA	OCN
Hygiene					
Motivators	0.945				
OCC	0.064	0.061			
OCA	0.460	0.662	0.031		
OCN	0.433	0.691	0.164	0.762	

Source: Author's computation

As shown in Table 3, the Heterotrait Monotrait criterion was used to establish the separateness or distinguishability of the study constructs with a strict value of 0.85 or a less strict value of 0.90 as recommended by Henseler et al. (2015). All constructs fulfilled this criterion apart from Hygiene and motivators which were nearly indistinguishable or unique constructs. This is probably because the Herzberg hygiene-motivation theory explains the factors that define job satisfaction (Herzberg, 1966; Herzberg, 1968).

3.3 EVALUATION OF STRUCTURAL MODEL

As shown in Figure 2, the model examined the possible correlation between OCC and OCN. The correlation coefficient between OCN and OCC had a positive coefficient beta=0.141 [C.I -0.150; 0.889], with *a p*-value of 0.153 was insignificant which showed that both constructs do not have any correlational relationship. In other words, there is no association between employees high or low in OCC and those high or low in OCN. This finding supports the separability and distinction of these constructs (Mercurio, 2015; Meyer & Allen, 1997; Ahmad, 2018). Hence, hypothesis (**H1**) was not supported. In the same vein, Meyer et al (2002), Bergman (2006), and Devecea et al, (2016) argued that differences in stated correlations between both constructs from studies conducted are reflective of cultural differences and low employment opportunities. The authors implied that the low correlations between OCN and OC may be suggestive of the culture in the Nigerian context.

The *R*-squared values showed that the main dependent variable- OCA (β=0.827; C.I=0.703-1.398) was significant at $p<0.05$, while the other endogenous variables-Motivators (β=0.625; C.I. 0.372-1.489) and Hygiene (β=0.343; C.I. 0.177-0.809) were also significant. Based on Cohen's recommendations (Cohen, 1988) on effect sizes (<0.2-small; >0.5=moderate; >0.7-substantial), the *R*-squared values showed that the model has moderate to substantial predictive value (that is, the independent variables provide a significant explanation of the dependent or endogenous variables in the developed model).

Table 4. Assessment of Direct Effects

Path	coefficient	t-value	p-value	Inference
OCC -----> Hygiene	(0.060)	(0.957)	0.338	Not significant
OCN -----> Hygiene	0.591	6.938	0.001	Significant
OCN ------> Motivators	0.798	6.596	0.001	Significant
OCC -----> Motivators	(0.121)	(1.884)	0.060	Not significant
OCC -----> OCA	(0.107)	(1.814)	0.070	Not significant
OCN -----> OCA	0.560	3.763	0.001	Significant
Hygiene -----> OCA	(0.245)	(3.502)	0.001	Significant
Motivators -----> OCA	0.525	3.966	0.001	Significant

Source: Author's computation
Note- brackets indicate negative values

In Table 4, the direct effects of the model are presented, with significant relationships shown between variables apart from the relationship between OCC and Hygiene factors, Motivators, and OCA.

Table 5. Assessment of Indirect effects (Mediation analysis)

Path	coefficient	p-value	95% C.I	Inference
OCC-->Hygiene--> OCA	0.014	0.349	[-0.102; 3.356]	not supported
OCC-->Motivators--> OCA	(0.062)	0.223	[-6.356; 0.195]	not supported
OCN-->Hygiene-->OCA	(0.193)	0.009	[-4.092; -0.029]	supported
OCN-->Motivators-->OCA	0.560	0.015	[0.150; 6.629]	supported

Source: Author's computation
***Note**. C.I. =confidence interval*

As shown in Table 5, the explanatory effects of hygiene and motivator factors in the relationship between OCC, OCN, and dependent variable-OCA revealed significant mediating effects of hygiene (negative value) and motivators (positive value) linking OCN to OCA, but there was no mediatory effect in the relationship between OCC and OCA.

Table 6. Summary of Hypotheses testing for structural model

Hypotheses	Inference
H1a: OCC has a significant correlation with OCN	not supported
H2a: OCC has a negative relationship with Hygiene factors	partially supported
H2b: OCN has a positive relationship with Hygiene factors	supported
H3a: OCC has a negative relationship with OCA	partially supported
H3b: OCN has a positive relationship with OCA	supported
H4a: OCC has a negative relationship with Motivator factors	partially supported
H4b: OCN has a positive relationship with Motivator factors	supported
H5a: Hygiene factors have a positive effect on OCA	not supported
H5b: Motivator factors have a positive effect or influence on OCA	supported
H6a: The relationship between OCC and OCA is mediated by Hygiene factors	not supported
H6a: The relationship between OCC and OCA is mediated by Motivator factors	not supported
H7a: The relationship between OCN and OCA is mediated by Hygiene factors	supported
H7b: The relationship between OCN and OCA is mediated by Motivator factors	supported

Source: Author's computation

In Table 6 above, the results of the analysis revealed the tests of hypotheses and inference. Hypotheses 1a, 5a, 6a, and 6b were not supported while H2a, 3a, and 4a were partially supported. Finally, hypotheses 2b, 3b, 4b, 5b, 7a, and 7b were fully supported by the results of the structural model.

3.4 RESULTS OF ANOVA TEST COMPARING OCA, OCN, AND OC

A one-way repeated measures ANOVA test results revealed that OC groups (mean scores of

OCA=3.46, OCC=3.35, and OCN=3.20) are significantly different from each other (F (2, 368) =38.18, p<0.001). Group-wise comparison using OCA as the reference group showed that significant differences existed with OCC (mean difference=0.114, SE=0.036, C.I=0.03363-0.1950, p<0.004) and OCN (mean difference=0.256, SE=0.0335, C.I=0.1820-0.3307, p<0.001). Hence hypothesis **H8** is supported. This result implies a higher perception of OCA compared to OCC and OCN supporting the assertion that OCA is the most desirable form of OC (Mercurio, 2015; Meyer & Allen, 1997; Ahmad, 2018). This strengthens the need to utilize hygiene and motivator factors to improve employee satisfaction and sense of motivation with their jobs.

4 DISCUSSION

The study using structural equation modeling addressed the mediating role of hygiene and motivator factors to elicit behavioral change from OCC, OCN to OCA from a sample of pharmaceutical marketing executives in Nigeria. The study uniquely extends the discourse on Herzberg's theory by advancing a structural model to provide more insight into OC behavioral change in the workplace among pharmaceutical executives involved in pharmaceutical marketing operations.

The comparative path coefficients (figure 2) revealed a stronger relationship of OCN (β=0.56, p<0.001) to OCA compared to OCC to OCA (β=-0.11, p>0.05) which is supported by Meyer et al. (2002) and Dinc (2017) who showed that OCA and OCN were predictors of organizational performance and work outcomes while OCC was not a significant predictor. Likewise, Beigi and Lajevardi (2020) affirmed that OCA and OCN are key determinants for improved job satisfaction compared to OCC. Their results also showed that OCA and OCN had a higher correlation with satisfaction with work compared to OCC which had the lowest value among employees in Malaysia (Beigi & Lajevardi 2020). Therefore, these findings underscore the relevance of OCN and OCA to positive employee behavior compared to OCC.

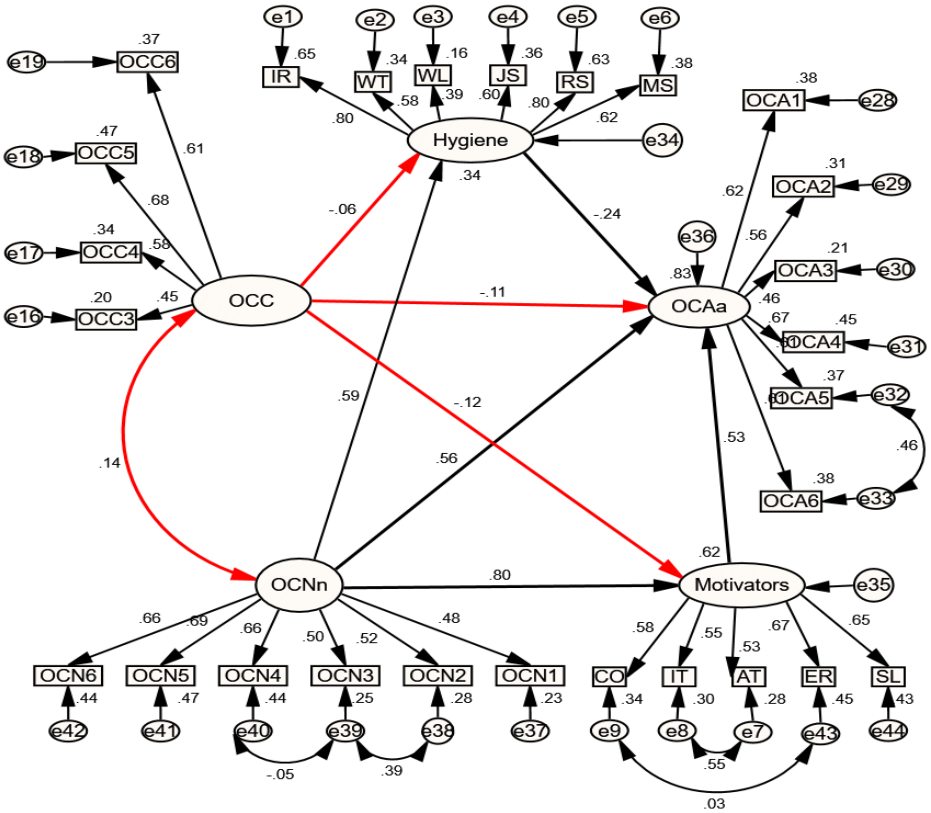

Fig 2. Figure 2. Full structural model showing standardized path coefficients

Source: Author's computation (2023) from AMOS 24

Note: *OCC= continuance organisational commitment, OCN= continuance organisational commitment, OCA= affective organisational commitment. Highlighted red coloured lines indicate non-significant paths; black solid lines indicate significant paths.*

From the findings of the study, the OCC construct expressed negative and non-significant direct relationships with Hygiene, Motivators, OCN, and OCA. Thus, hypotheses H2a, H3a, and H4a were partially supported as presented in Table 6 and Figure 3, since the hypothesized negative effects were present but insignificant. The negative effects is anticipated considering that the psychological state of OCN is evident when there is perceived dissatisfaction with work conditions and low motivation, but affected employees remain with their organization probably for want of a better alternative or when the cost of exiting is high (Ullah et al., 2021; Lee & Lee, 2022). However, the non-significance of the anticipated negative effects of the path relationships suggests that the level of OCC state among the study population is within controllable levels. This is contrary to the expectation of statistical significance between OCC and the dependent variables-hygiene, motivators, and OCA as presented by Ficapal-Cusi et al (2020) and Ullah et al (2021). In other words, it is apparent that within the context of pharmaceutical marketing, it is argued as posited by Jung & Moon (2024) that the partially supported hypotheses attest to the fact that employees in different industries or contexts may respond differently to changes in the workplace. However, the findings of the study on a general note, established that OCC has a negative impact on behavior and perception. This outcome is in sync with a study by Chigeda et al. (2022) that established a profound impact of OCC on the attitude, and behavior of employees. For instance, Chigeda et al. (2022) asserted that work-life balance (hygiene factor) is positively associated with OCC which is absent in the present sample, hence resulting in a negative and insignificant relationship. In other words, in the absence or shortage of hygiene and motivator factors, employees are likely to exhibit undesirable traits and behaviors such as – absenteeism, quiet quitting, low motivation, high turnover intentions, low satisfaction, and less cooperative behavior, when exhibiting OCC behaviors (Khan, 2020).

Conversely, OCN showed positive and significant direct relationships with Hygiene factors, motivators, and OCA (hypotheses H2b, H3b, and H4b supported by findings). This finding implicitly justifies the fact that OCN is considered a more positive form of OC psychological state among employees compared to OCC (Ahmad, 2018; Meyer, 2016). Therefore, the findings align with the assertions of Meyer (2016) that OCN's psychological mindset is a more positive, loyal, and obligatory form of commitment by an employee to his or her organization. This is further suggestive of a reasonable level of satisfaction in the workplace as argued by Beigi and Lajevardi (2020) and affirmed by a three-year longitudinal study conducted among pharmaceutical marketing executives in Nigeria which showed an apparent improvement in job satisfaction suggestive of adaption by pharmaceutical employees, and/or possible improved working conditions suggesting a higher level of OCN compared to OCC (Oamen, 2023b).

Furthermore, there was no significant mediation by hygiene and motivator variables, on the relationship between OCC and OCA. Therefore, in the context of the study, transposing OCC to OCA behaviors through the agency of Herzberg's dual factors was not attained. This is probably explained by the apparent perceived lack of hygiene resources available to the workforce in the pharmaceutical marketing industry in Nigeria is indicative of high levels of OCC. This finding is supported by Oamen (2023a) who asserted that pharmaceutical executives identified the unavailability of adequate work tools and job security (both hygiene factors) as major improvement areas to support an optimal (hygienic) work environment. However, this was contradicted by Sanjeev & Surya (2016) who affirmed that motivator factors are only as critical for job satisfaction compared to hygiene factors among sales and marketing professionals.

Likewise, the non-significant paths to motivator factors from OCC imply that a focal strategy to manage and translate OCC to OCA behavior should be premised on job enrichment, promoting creativity and initiative of the employee (Li, 2018). In other words, the more people are allowed to use their subjective initiative and creativity, the more they become encouraged and fulfilled, thereby eliciting positive or affective emotions of commitment. The absence of a significant path among respondents engaged in the study explains a gap in the pharmaceutical industry which may have long-term implications on commitment and organizational citizenship behavior if not conscientiously addressed by management teams in the pharmaceutical industry (Sun, 2005; Li, 2018).

Based on the results, hygiene factors showed a negative and significant effect on OCA. The impact of hygiene factors on OCA from OCN stems from the fact that hygienic factors are primarily under the control of managers or management and thus outside the locus of control of the employee (Li, 2018). Therefore, it is the responsibility of managers to design employee-based or centered strategies to elicit positive emotions and perceived organizational support from the employee (Sanjeev & Surya, 2016). Therefore, the negative effect can be attributed to the perception of low management support from the perspective of the pharmaceutical executives.

Conversely, motivator factors had a positive and significant effect on OCA, which indicates that respondents generally perceived having positive levels of work role and function which can trigger satisfaction in employees. In line with Herzberg's submission, the operating climate in the study sample reveals competitive or antagonistic effects of both factors (hygiene and motivators), thereby implying that pharmaceutical employees showed low perception of working conditions but seem to have or derive satisfaction from their work itself (Herzberg et al., 1959; Herzberg, 1966). This finding contradicts the assertion of Ghazi et al. (2013) that fulfilment of hygiene and motivator factors is important to the motivation and satisfaction of employees. Therefore, the implication is that when employees experience low hygiene and high motivation, it may constitute a recipe for high turnover intentions for employees, in which they may focus on exiting the organization when an opportunity arises or presents itself. In addition, it is recommended that managers should limit turnover intentions of employees by providing incentives and needed resources required by the workforce. As a result, Meyer (2016) and Klein et al. (2012) have suggested that OCC (raising incentives or cost of leaving) alone is not advisable but should involve measures to foster OCA.

The finding from the mediation analysis revealed that hygiene factors negatively mediated the relationship between OCN and OCA. This shows that the presence of less-than-optimal hygiene or low managerial support could negate the desired positive behavior. This finding is corroborated by empirical support by Vandenberghe et al. (2014} which revealed that OCN tends to project negative outcomes of exhaustion, distress, and work performance especially when employees' perception of management support or perceived organizational support (typified by high levels of OCC) is low. This finding further aligns with the study by Wang et al. (2022) which showed that OCN behavior tends to stimulate negative, incongruent outcomes such as emotional exhaustion and silent behavior. This scenario is suggestive of a breach of the psychological contract between employer-employee from the perspective of the employee (Kaplan & Kaplan, 2018).

Furthermore, the study revealed that motivator factors positively mediated the relationship between OCN and OCA. This implies that intrinsic or motivator factors have appreciable effect on the behavior of the workforce. Thus, from the perspective of the employee, the intrinsic nature of work itself can stimulate adaptive strategies from employees in a bid to improve work output. This aligns with the assertion of Inam et al. (2023) who highlighted that employees tend to develop intrinsic capabilities like adaptive self-leadership competencies, particularly in jobs (like pharmaceutical marketing) that require expedient execution of tasks and work deliverables. In addition, Neck and Houghton (2006) and Alnakhli et al. (2010) stated these adaptive strategies (self-monitoring and adaptive selling behavior) evolve irrespective of whether or not the work conditions are optimal. This outcome is in sync with a longitudinal survey conducted in Nigeria among pharmaceutical executives that revealed linear incremental growth in job satisfaction between the years 2020 to 2022 (Oamen, 2023b).

4.1 THEORETICAL IMPLICATIONS OF THE STUDY

The study adds significantly to the theory in human resource management by providing empirical evidence of the causal and mediating relationship between Herzberg's motivation-hygiene theory and the three-compartment model of organizational commitment in the context of the pharmaceutical marketing sector in a developing economy. The validated model used for empirical analysis can be extended to empirical research studies in other industries and different workplace contexts. Therefore, it contributes substantially to the global human resource management literature in the area of identifying the key satisfiers and dissatisfiers that influence the psychological states of commitment as well as

instigate desired behavioral change among employees. For instance, this is arguably the first study to establish a model to test the mediating effect of hygiene and motivator factors that can influence employee behavioral change from normative and continuance commitment to affective commitment. Hence, the study extends the interpretability and contextualizing of the components of organizational commitment using the instrumental mechanism of Herzberg's theory of motivation.

4.2 MANAGERIAL IMPLICATIONS OF THE STUDY

Managers should continuously learn and adapt their managerial competencies to motivate employees to develop the right organisational commitment behavior by facilitating hygiene, and motivation factors into their management philosophy in the organization (Ng'ora et al., 2022). Therefore, the outcomes of the study should guide employee-centered guide policy in marketing organization. In this regard, human resource managers should strive to elicit positive emotions and attachment from employees through a higher sense of perceived organizational support inherent in OCA. This is enhanced by clearly communicating management's intention to provide all conditions required to improve job satisfaction. Employees experiencing OCC require close management attention due to the potential of such behavior to negatively influence performance and derail co-workers' behavior in the workplace.

In pharmaceutical organizations, managers should take cognizance of the impact of psychological contracts on their relationship with employees (Robinson, 1996; Herrera & De Las, 2021). This contract is of practical relevance, as any violation of this understanding may negatively influence perceptions and behaviors. Strategic managers in sales organizations should routinely evaluate employee dissatisfiers (hygiene factors) and satisfiers (motivator factors) to identify key areas to be reworked and improved on for the benefit of the organization.

The study adds another dimension to the discussion on OC by expounding the role of Herzberg factors in eliciting behavioral change underlying domains of OC in the workplace. The study adds to the literature by providing more insight and empirical evidence of the role of hygiene and motivation in translating organizational commitment domains in the pharmaceutical industry.

4.3 LIMITATIONS OF THE STUDY AND SUGGESTIONS FOR FURTHER RESEARCH

The study used a cross-sectional sample of pharmaceutical marketing executives, thus limiting the scope of the study to the perception of respondents to a point in time. Thus, a longitudinal design is required. Also, expanding the reach to other critical stakeholders (such as operations and support staff) in the pharmaceutical marketing industry is required. Furthermore, a multigroup analysis of the study sample would provide more information about subsisting group-specific differences which may broaden the scope of conclusions inferred from the study.

5 CONCLUSION

The findings of the study showed that the developed structural model was adequate to examine the hypothesized relationship between OCC and OCN to desired OCA using the mechanism of hygiene and motivator factors. From the study results, the direct effects of OCN on hygiene, motivator factors, and OCA were positive and significant (hypotheses fully supported) while those of OCC were negative and non-significant (partially supported). Hygiene and motivator factors mediated the effects of OCN on OCA, unlike OCC. In the context of the study population examined OCA was more prominent compared to OCC and OCN. The study concludes that a dynamic psychological shift from less desirable organizational commitment attitudes- OCC and OCN to the more productive and desirable OCA is contingent on the absence and presence of hygienic and motivation factors inherent in Herzberg's theory. On the other hand, OCC was affirmed to have a negative impact on behavioral change and perception of employees. In a nutshell, OCN elicited stronger moral obligation by employees compared to OCC, through the intermediary linkage of hygiene and motivator factors. Strategic and operational

managers can use the information provided from this research to adapt Herzberg's factors for the improvement of positive employee behavior and work engagement. The model elucidated in the study provides a new theoretical perspective and insight useful for applied research to ascertain the impact of human resource strategies on the behavioral disposition of employees in organizations.

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