



Modern Innovative HRM Practices and Organizational Effectiveness: The Mediating Role of Innovative Culture in Nigerian Healthcare Sector



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Abstract

The modern innovative practices have transformed the ways organizations conduct businesses; as organizations faced competition from all front. The study examines modern innovative HRM practices and organizational effectiveness (OE) in the healthcare sector of Nigeria. The study identified five objectives and five hypotheses were formulated. A sample size of 350 employees comprised of employees of eleven pharmaceutical companies in Nigeria. To achieve the study objectives, a structured questionnaire was developed and administered in a survey to respondents. The descriptive statistics of simple frequency count, percentage, mean and standard deviation were used for descriptive statistics of respondents. To test the hypotheses formulated, hypotheses 1-4 were tested using multiple regression, while hypothesis 5 was tested using the structural equation model (SEM). The findings highlights that all modern innovative HRM practices has strong and significant positive effect on OE with effective hiring process ($\beta = 5.33 > p\text{-value} = 0.000$) and human resource technology ($\beta = 5.48 > p\text{-value} = 0.000$) being highly influenced by organizational effectiveness. The study concludes that modern innovative practices provide a higher level of organizational effectiveness.

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1 Introduction

In an age of complex supply chains and globalization, creating an effective work environment to harness the power of diversity is a critical ingredient for organizational success. Modern Innovative Human Resource management (MIHRM) Practices emphasize developing employees through skill-based training, HR technology, and the effective hiring process of employees to achieve organizational effectiveness. In the modern business environment, human resources (HR) is an indispensable asset for organizational success and effectiveness; as employees are the crust of every organization. Human resource is people who offer their talents, creativity, knowledge, skills, and other capabilities to organizations. It is regarded as the scarcest, crucial, most valued asset, and productive resource that creates the largest and longest-lasting benefits for an organization (Igweh, 2019). This valued asset has the potential to increase the value of the organization more than other resources.

Significant scholarly articles have been published about Human Resource (HR) best practices and all agree that for it to qualify as a best practice, it must create a win-win situation for the employer and employee. Newman et al. (2018) argue that most organizations are faced with the problems of employees' effectiveness in terms of developing strategies to develop and promote modern innovative practices of hiring skilled workforce, improving operating systems or marketing traditional infrastructure. The traditional methods of operating organizations (Lundvall, 2008) are less effective in the motivation and development of employees' knowledge, capabilities, talents, and creativity.

The healthcare sector in Nigeria is faced with rigid changes and uncertainty exacerbated by globalization and liberalization. To create an environment that fosters a positive relationship between employees and employers, organizations need to adopt best modern HR practices such as employee job security, effective hiring process, a work environment that fosters team building and self-managing, fair/competitive compensation, skill-based training, innovative culture that promotes fairness enterprise, wide and effective communication.

Organizations enriched with motivated, innovative, and committed employees can achieve any competitive goals and challenges. In the modern century, the success of managers entirely depends on the effective managing of human resources (Budhwar & Debrah 2001). Similarly, Kianto et al. (2017) are of the view that the era of cutthroat competition ineffective management of the human resource is no longer feasible. To remain competitive globally, it is important to establish modern innovative human resource practices. Companies who excel in implementing this MIRHM Practices have found ways to engage employees' long term through employee share plans that vest over some time, developing and communicating effective career paths, and establishing a reputation for long term employee retention. A significant number of the supercharged Silicon Valley companies have a reputation for providing extremely generous career paths and work/life balance and have been able to attract and more importantly retain the best talents across the globe. In the views of Samma et al. (2019) Modern HRM practices have provided many insights for the field of strategic management and led to developments in the economics of organizations, firm competitiveness, and the working dynamics of employees

Modern-day organizations are faced with stiff competition for survival and success due to liberalization and globalization which has exacerbated the demand for excellence. Briscoe et al. (2009) believe that to attain success and organizational effectiveness, they require new strategic focus and new capabilities from HR. To be relevant in a globalized world, HR practitioners should not focus on the traditional HRM activities, however modern HR best practices such as E-recruitment and selection, skill-based training and development, fair/competitive compensation and employee security should be established and integrated into the operation of organizations to achieve optimal effectiveness. To achieve human resources best practices, companies must have solid human resource management practices and departments.

The journey to drug manufacturing started in Nigeria with May and Baker Nigeria PLC which was founded in 1944 as Nigeria's first pharmaceutical company (Pharmapproach, 2020). The pharmaceutical companies in Nigeria are reforming and altering their ways of doing business in job-related tasks and duties to make it more inspiring, encouraging, motivating, and competitive for employees in a globalized economy. Emphasis is shifting from the traditional primary responsibility of HRM on hiring, selection, staffing, and compensation. Waheed et al. (2019) opines that the rapid growth in technologies is drastically changing the organizational climate in some emerging economies such as Pakistan and India. The instability, complexity, and unpredictability in its business environment according to a study conducted by Cooray et al. (2016) put Pakistan at position 119 of 128 countries according to Global Innovation Index (GII).

The problem

The healthcare sector of the economy is one of the most important sectors of the economy due to the key services they offer. Pharmaceutical companies in Nigeria have come a long way in providing dependable high-quality pharmaceutical products to professionals, healthcare for the population, adequate access to essential drugs to patients in various communities in Nigeria, and other West African countries which have contributed immensely to the economic growth and development of the nation. Despite these laudable achievements, these companies are faced with various challenges. The key challenges confronting Nigeria's pharmaceutical companies include counterfeit medicines, poor healthcare infrastructure (power, water, transportation, and cost of distribution). The unfavorable government fiscal and monetary policies, resulting in the reduction of the capital base of many manufacturing companies, currency devaluation coupled with high-interest rates increase the cost of production. Also, the companies are faced with the challenges of an effective hiring process about having an equitable and fair compensation for employees. Training and retraining are key to organizational growth and success. The unstable social-economic environment generated by crime and corruption makes our indigenous companies many consumers oriented. This has distorted our economies of scale and the technological requirement for the manufacturing of drugs compare to pharmaceutical companies in other emerging economies like Brazil, Egypt, China, and India.

Objectives of the study

- 1) To examine how skill-based training affect organizational effectiveness
- 2) To determine the effect of an effective hiring process affect organizational effectiveness
- 3) To determine the relationship between fair/competitive compensation and its effect on organizational effectiveness
- 4) To examine to what extent HR technology affect organizational effectiveness
- 5) To examine the extent to which innovative culture moderate organizational effectiveness

Within the developed research framework, the following hypotheses guided the conduct of the study

- H₀₁ : Skilled based training has no significant relationship with organizational effectiveness
 H₀₂ : Effective hiring process has no significant relationship with organizational effectiveness
 H₀₃ : Fair/competitive compensation has no significant relationship with organizational effectiveness
 H₀₄ : HR technology has no significant relationship with organizational effectiveness.
 H₀₅ : Innovative culture does not moderate between the relationship between modern HRM practices and organizational effectiveness

Review of literature

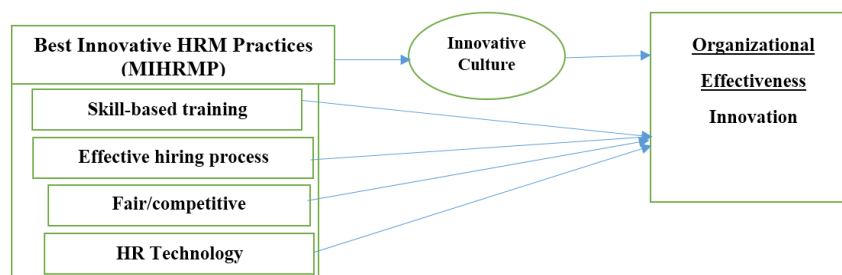


Figure 1. Conceptual framework

HRM practices in Nigeria

HRM practices in Nigeria are still at its rudimentary stage due to the lack of an indigenous HRM model. These practices are carried out within the context of the political, social, cultural, economic, and legal environment. Most organizations are faced with many challenges ranging from a shortage of skilled workers, unmotivated workforce, high unemployment rate, ever-changing organizational structure and environment. Onah (2001) believes that what set the

most successful organization apart is how they manage human resource and their ability to sustain competitive advantage lies within the workforce. HRM challenges are difficult and delicate in Nigerian society: ranging from how to develop future leaders, how to reward good performance fairly, how to control labor cost, and contend with competitors.

The liberation and globalization of economies have a significant impact on human resource practices in Nigeria. Francis et al. (2011) believe that modern-day businesses are conducted on an international scale and this involves technology, managerial skills, and knowledge, goods, and service across national and international boundaries. Globalization has made the world a micro place through a fast technological and communication network. HRM practices are considered significant in attaining organizational goals and competitive advantage (Bombiak & Marciniuk, 2018). Human resource practices have been developed to manage industrial change and economic development. Emerging countries are becoming aware of HRM practices and their importance. HRM practices have aimed at the acquisition, development, and motivation of employees as a key to attaining sustainable organizational performance (SOP) (Samma et al., 2019). Organizational managers have responded over recent decades by adopting a range of human resource practices to support their business performance, including in the areas of employee staffing, performance management, staff development, and compensation and benefits (De Belvis et al., 2012; Gordeev et al., 2011). The analysis of their study highlighted that HRM practices have provided many insights for the field of strategic management, and led to developments in the economics of organizations, firm competitiveness, and the working dynamics of employees

Organizational effectiveness

Organizational effectiveness (OE) describes how effective organizations use their human resources, quality services, technology; employing the right tools and strategies to accomplish specific goals and objectives. It is a measure of possible outcome vis-a-vis production. It is a systematic approach for enhancing the performance of an organization and its employees. Petrou & VANDOROS, 2018 opine that OE captures organizational performance, plus the myriad internal performance outcomes normally associated with the more efficient or effective operation and other external measures that relate to consideration that are broader than those associated with economic valuation.

Effective hiring process and organizational effectiveness

Effective hiring is key to creating a win-win scenario for employee relations, as businesses rely on their employees to be successful. Human capital is the backbone of any organization that seeks to add creativity through effective employee staffing. Companies that invest in getting the recruiting process right the first time tend to reap long term benefits. Studies have shown that high performing employees can be up to 400% more productive than average performing employees. This view was consistent with Akumoah et al. (2016) that better recruitment and selection strategies result in improved organizational outcomes. Organizations with an effectively recruit and select candidates are likely to employ and retain satisfied employees. However, the effectiveness of an organization's hiring process can influence bottom-line business outcomes, such as productivity and financial performance. A good hiring process according to Igweh (2019) helps to attract the right kind of employees, minimize the time involved in the searching, streamline the hiring process, make the search for viable candidates much more efficient, and build a positive image to the customers, peers, and competitors.

A good hiring process in the view of Michelle (2019) not only finds great employees, but saves time, and money on replacing and training new people. There are repercussions according to Denise (2017) when recruitment and selection systems fail. It includes losing money, lack of productivity, low turnover, hurt the morale of and productivity of employees, loss of confidence in their management team. Companies must have clear strategies and visions, and must be able and prepared to align that with the types of employees that will help them to execute them. Companies who excel in this metric often focus on ability, trainability, and commitment in their recruitment approach. The high-tech companies such as Google, Apple, Microsoft, Twitter, and Facebook have established reputations as leaders in this area as they fan the globe looking for the best to drive their growth engines.

Fair/competitive compensation and organizational effectiveness

Employees get compensation from a company in return for work they do. Employees who feel their work is fairly rewarded are more likely to stay with a company long term than those that do not. The best in class companies have

found ways to tie employees into long term contracts through employee share plans, stock options, and benefits that promote long tenure. Companies who are successful at this metric have found ways to link effective hiring to appropriate compensation. Compensation system [Asem \(2016\)](#) plays an essential role both socially and symbolically in any firm which affects vital outcomes like relationships at work, the commitment of employees as well as performance. Compensation acts as a motivator to employees; compensated employees will perform up to expectation, but poorly compensated employees will reflect in low effectiveness, productivity, and performance. Fair pay systems are likely to be perceived as a reflection of the organizational noble values ([Asem, 2016](#)). Fairness ensures both ethical and moral acceptance. Similarly, ([Samma et al., 2019](#)) opines that compensation and benefits practices affect the behavior of employees and organizational innovation. According to abilities, motivation, and opportunities theory (AMO), compensation and benefits form a part of the motivation goal of HR practices, affecting attitudes at work and bringing creativity and effectiveness to organizations ([Lepak et al., 2006](#)). Most companies have found ways to segregate their employees into different groups and tend to bucket them under "Critical", "Specialist", "Doers", and "Professionals". Most companies will invest heavily in the first two categories and pay them accordingly. The group that belongs in the first two categories include executives, managers, designers, while the latter two groups are hired labor, accountants, and those with generic skills. Given that a company does not have infinite resources, by segregating a company's workforce into these categories will enable them to focus their investment in the right group that will drive long term growth and profitability. Organizations attract skilled workers through attractive compensation and benefits packages and innovative rewards systems.

Skill-based training and organizational effectiveness

Training provides an opportunity for employees to continue to grow with a company, while companies on the other hand benefit from productivity gains realized through training. Employees with extensive expertise, skills, and knowledge bring innovation to organizations ([Mumford, 2000](#)). Companies who invest heavily in training reap long term benefits through employee retention and productivity gains. Effective training can be realized through formal methods and on the job. Studies have shown that 70% of employee knowledge is acquired through special projects, 20% through developmental relationships, and the remaining 10% through formal course-based training. [Oguntimehin \(2001\)](#) highlights the usefulness of training as follows: increase productivity, improve the quality of work, improve skills knowledge, understanding and attitudes enhance the use of tools and machines, reduce waste, accidents, turnover, lateness, absenteeism, eliminate obsolescence in skills techniques and methods. This metric underscores the importance of creating the right work environment that fosters team and relationship building that enables employees to share ideas and transfer knowledge that helps to increase the organizational knowledge pool. Effective organizations according to [Samma et al. \(2019\)](#) spent on employee's training and development, so these investments produce talented workers and creative ideas.

HR technology and organizational effectiveness

Technology is a key driver in organizational effectiveness; economy driven by the activities of public and private sectors requires modern technology for growth. Even with the evolution of technology such as robotics and artificial intelligence, HR is key to organizational effectiveness and growth. HR technology becomes more and more important for organizations because it speeds up the process, improving quality, and reducing cost ([Strohmeier, 2009](#)). These possible advantages bring innovation in organizations. Similarly, a study by [Lin \(2011\)](#) indicates HR technology affects organizational innovation because it improves on the latest technology, quality of work, and knowledge in the organization. Leveraging new technologies to deliver focused and relevant information to the right target audience is critical to managing an effective and high performing workforce. Companies are using multiple ways including smartphones, intranet, internet, emails, social media, in-person meetings, etc., to communicate with employees to achieve organizational effectiveness. [Alade \(2019\)](#) agreed that the introduction of virtual meetings, monthly webinars, e-learning, u-learning are all technology-driven platforms aimed at increasing organizational effectiveness.

Innovative culture and organizational effectiveness

Innovation is a key factor that influences long term organizational success in any organization. A supportive organizational environment and culture are imperative for employees' performance and effectiveness. Organizational

culture includes the norms that the members of an organization experience and describe as work setting (Schneider *et al.*, 2013). Organizational culture has to attract attention in the last decade because of its pivotal role in improving organizational performance and effectiveness from the future managerial perspective (Fisher & Wilmonth, 2018; Hutchison *et al.*, 2019; Jaskyte & Kisieliene 2006; Schein 2004). Similarly, Samma *et al.* (2019) note that organizations are now strongly encouraged to incorporate modern innovative practices into their business models aimed at identifying the contributing factors of innovativeness. For the successful implementation of innovative culture, employees' ideas, creativity, and talents must be considered. Hsu (2017) claims that without creative ideas, from employees, there will be no innovation in the organizations. Companies that embrace diversity and encourage knowledge creation and sharing will develop winning solutions to business problems. The cliché that nothing succeeds like success rings very true in this situation. Employees want to be part of a success story and will put in their best under the right circumstance and environment. Companies that create the right culture and environment tend to focus on personality assessment and leverage technologies to harness the power of team building. A company like Twitter has created work pods that enable employees across large geographic areas and different cultures to collaborate on different initiatives through the effective use of team collaboration technologies.

Theoretical foundation

The study was anchored on Technology – Organization – Environment (TOE) theory propounded by Thornatzky and Fischer in 1990 to empirically test the framework that links MIHRM practices and organizational effectiveness. The theory identifies the features of technology, organizational readiness of the firm, and the environmental conditions as key driver innovation. Researchers posit that *technology-organizational-environment (TOE)* theory largely applied in innovation performance supports on overall organization's competence, proficiency, working efficiencies, and practices (Awa *et al.*, 2015; Poorkavoos *et al.*, 2016). Similarly, Chen & Huang (2009) agreed that TOE is useful for New HRM practices and it provides sustainable competitive benefits. Organizations that adopt modern innovative HR practices must be glued to the hips with the management, strategy, and operational teams and must work in tandem with these groups to execute the corporate strategy and vision. This means understanding new technologies and practices that are delivering better results for employees and employers.

Empirical review

An empirical study was conducted by Samma *et al.* (2019) on how HRM practices and sustainable organizational performance (SOP). Five major Chinese banks were considered for this study. The study was carried out in 20 Shanghai branches. 350 banking employees were used for the study. Due to data confidentiality, the selected banks were indicated as Bank A, B, C, D, and E. HRM multidimensional includes employee staffing (ES), staff development (SD), performance management (PM), and compensation and benefits (CB). The questionnaire served as an instruction for data collection. The structural equation model (PLS-SEM 3.2) approach was used to analyze the relationships HRM practices and SOP. The results indicated that PM and CB positively influence SOP ($\beta=0.278$, $p<0.000$; $\beta=0.098$, $p<0.016$), but ES and SD do not positively influence SOP ($\beta=0.057$, $p<0.253$; $\beta=0.000$). ES, SD, PM, and CB on PD were all shown to be positively significant ($\beta=0.256$, $p<0.000$; $\beta=0.244$, $p<0.000$; $\beta=0.235$, $p<0.000$; $\beta=0.119$, $p<0.030$). Similarly, ES, SD, PM, and CB on PC were all shown to be positively significant ($\beta=0.201$, $p<0.001$; $\beta=0.119$, $p<0.036$; $\beta=0.241$, $p<0.001$; $\beta=0.196$, $p<0.000$). The study concludes that improved HRM practices are associated with the likelihood of bringing more innovation to organizational dynamics, in the forms of process innovation, product innovation, and knowledge innovation.

A similar study was carried out by Samma *et al.* (2019) on the relationship between modern HRM practices and organizational innovation in China. The variables of HRM practices include recruitment and selection, performance management, training and development, HR technology, and compensation and benefit. Data were collected from 25 Shanghai branches of five Chinese banks. The questionnaire survey was used to obtain information from 140 senior employees at the supervisor level. Descriptive statistics were used to analyze the biodata of the respondents while correlation and regression analysis were used to test the hypothesis. The results of the regression analysis revealed that recruitment and selection were significant ($\beta=0.271$, $p\text{-value} = 0.002$) but performance management was highly significant ($\beta=0.334$, $p\text{-value} = 0.000$) among all HRM practices on OI. The study concludes that modern HRM practices have a positive relationship with OI; with performance management and OI having a strong and positive relationship from all other modern HRM practices in the banking sectors in china.

A study on how new HRM practices, organizational innovation, and innovative climate affect the innovation performance in the IT Industry in Pakistan was conducted by Abdul et al. (2019). Data were collected from the five largest semi-government IT companies twin cities Lahore and Gujranwala for one year from Dec. 2016 to Dec. 2017. Two non-probability sampling techniques—the convenient sampling technique and the snowball sampling technique. The questionnaire survey was used to solicit data from 632 employees from the IT companies studied. Interviews method was used to solicit data from deputy HR directors, made up senior HR executives, and core knowledge employees. All the key variables were analyzed by the statistical software of IBM Statistical Package of Social Science (SPSS) version 21.0 while hierarchical regression analysis was used to obtain results. The results of the study revealed that NHRM was significantly correlated to organizational innovation ($r = 0.24, p < 0.01$) and innovation performance ($r = 0.14, p < 0.01$). The results also show that innovation performance and organizational innovation were positively correlated ($r = 0.20, p < 0.01$), explaining the prior proof of this investigation's hypotheses. The evidence of hierarchical regression analysis indicated that that new HRM was significantly linked with organizational performance ($\beta = 0.19, p < 0.001$). The study concludes that NHRM practices and organizational innovation play a vital role to enhance and promote the innovation performance of semi-government IT organizations in Pakistan.

2 Materials and Methods

The population of the study was 3,891 staff of eleven listed pharmaceutical firms in the Nigeria healthcare sector. (see appendix 1). The sample size of 363 staff was derived from the population using Taro Yamane formula. A questionnaire survey was used in this research, which is a common methodology to collect a wide range of information in empirical research. A pilot study of four pharmaceutical healthcare companies was conducted among 20 staff in which all responded positively by saying yes. The finding revealed that the instrument was reliable with Alpha Cronbrash coefficient level above 0.7 for all the construct (see appendix 2. Result). A total 35 items were used in the questionnaire with 5 points Likert-Scale ranging from SA= strongly Agreed, A= Agreed UD= Undecided D =Disagreed SD =Strongly Disagreed

Data Analysis methods

The information gathered from the respondents through the structured questionnaire were collated, presented, and analyzed. The descriptive statistics of frequency count, percentage, mean and standard deviation were used for descriptive statistics of respondents. To test the hypotheses formulated for the study, hypotheses 1-4 was tested using multiple regression, while hypothesis 5 was tested using the structural equation model (SEM).

Model Specification

$$\text{OGE} = f(\text{MHRP}) \quad \text{Equation (1)}$$

$$\text{MHRP} = (\text{EHP} + \text{FCC} + \text{SBT} + \text{HRT}) \quad \text{Equation (2)}$$

In light of the above, the model that guided the test of hypotheses in the study is stated below:

$$\text{Model 1} - \text{MIHRMP} = \alpha \beta_1 \text{EHP} + \beta_2 \text{FCC} + \beta_3 \text{SBT} + \beta_4 \text{HRT} + \text{Ui} \dots \dots \dots \text{Equation (3)}$$

Where

MHRP = Modern innovative HRM practices

EHP = Effective Hiring Process

FCC = Fair/Competitive Compensation

SBT = Skilled Based Training

HRT = Human Resource Technology

ICU = Innovative culture

OGE = Organizational Effectiveness

$\beta_1 - \beta_n$ = Coefficients of Regression

α = The intercept

U_i = Error Term or Stochastic Variables

3 Results and Discussions

Table 1 shows the descriptive properties of the data set used for the analysis. 369 sets of the questionnaire were distributed, but 350 questionnaires were retrieved and used for analysis. The maximum and minimum were 5 and 1 respectively. The mean values for all the constructs were above 4.2, indicating a high agreement rate for all the constructs.

Table 1
Descriptive Statistics

variable	mean	p50	max	min	N
icu	4.285714	4	5	1	350
sbt	4.345714	4	5	1	350
ehp	4.32	4	5	1	350
fcc	4.305714	4	5	1	350
hrt	4.3	4	5	1	350
oge	4.291429	4	5	1	350
oge	4.291429	4	5	1	350

Table 2
Group Correlation Matrix

	icu	sbt	ehp	fcc	hrt	oge
icu	1.0000					
sbt	0.5282	1.0000				
ehp	0.6240	0.5782	1.0000			
fcc	0.4750	0.5097	0.5786	1.0000		
hrt	0.7769	0.5842	0.6887	0.5570	1.0000	
oge	0.6693	0.5875	0.6747	0.5839	0.6734	1.0000

Positive correlation value was reported for innovative culture and organizational effective ($r = 0.669$), skilled based training and organizational effectiveness was positively correlated ($r = 0.528$), effective hiring process and organizational effectiveness ($r = 0.624$), fair/competitive compensation and organizational effectiveness ($r = 0.475$), human resource technology and organizational effectiveness ($r = 0.776$).

Table 3
Regression Analysis

Source	SS	df	MS	Number of obs = 350		
Model	70.0524357	4	17.5131089	F(4, 345) = 120.31		
Residual	50.22185	345	.14557058	Prob > F = 0.0000		
				R-squared = 0.5824		
				Adj R-squared = 0.5776		
				Root MSE = .38154		

oge	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
sbt	.1727118	.0464041	3.72	0.000	.0814413	.2639823
ehp	.2878057	.0539793	5.33	0.000	.1816358	.3939756
fcc	.1772201	.0447741	3.96	0.000	.0891555	.2652847
hrt	.2813923	.0513548	5.48	0.000	.1803843	.3824003
_cons	.3245059	.1845932	1.76	0.080	-.0385638	.6875755

In the present study, modern HRM practices serve as the independent variable and organizational effectiveness as the dependent variable.

Hypothesis One

H0₁: Skilled based training has no significant relationship with organizational effectiveness

The regression result for skill-based training ($\beta = 0.172$, $p\text{-value} = 0.000 < 0.05$), which indicates that there exists a significant positive relationship between skilled based training and organizational effectiveness. Given this, the null hypothesis (H₀) was rejected and the alternate hypothesis (H_a) accepted, implying there is a significant relationship between skilled based training and organizational effectiveness.

H0₂: Effective hiring process has no significant relationship with organizational effectiveness

The result also revealed that for an effective hiring process ($\beta = 0.287$, $p\text{-value} = 0.000 < 0.05$), which indicates that there exists a significant positive relationship between the effective hiring process and organizational effectiveness. Given this, the null hypothesis (H₀) was rejected and the alternate hypothesis accepted, implying there is a significant relationship between the effective hiring process and organizational effectiveness.

H0₃: Fair/competitive compensation has no significant relationship with organizational effectiveness

The regression results also found that for fair/competitive compensation ($\beta = 0.177$, $p\text{-value} = 0.000 < 0.05$), this indicates that there exists a significant positive relationship between fair/competitive compensation and organizational effectiveness. Given this, the null hypothesis (H₀) was rejected and the alternate hypothesis accepted, implying there is a significant relationship between fair/competitive compensation and organizational effectiveness.

H0₄: HR technology has no significant relationship with organizational effectiveness

The result shows that HRM practice like human resource technology was highly significant ($\beta = 0.281$, $p\text{-value} = 0.000 < 0.05$). Given this, the null hypothesis was rejected and the alternate hypothesis accepted. This means that there exists a significant positive relationship between human resource technology and organizational effectiveness. The multiple regression shows that the adjusted R-squared value of 0.577 which shows that about 57.7% of the systematic variations in organizational effectiveness was jointly explained by modern HRM practices. The F-statistic of 120.31 and its associated P-value of 0.000 shows that the multiple regression model on the overall is statistically significant.

H0₅: Innovative culture does not moderate between the relationship between modern HRM practices and organizational effectiveness

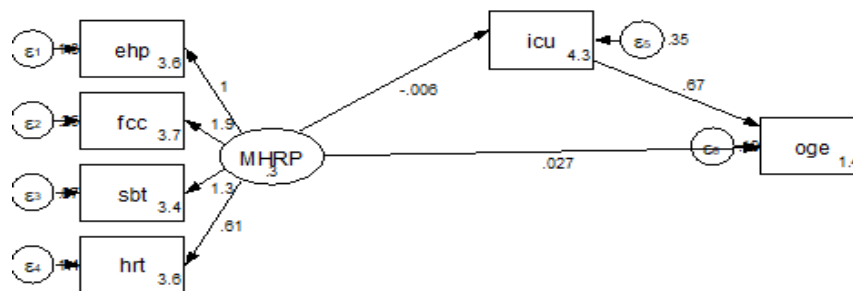


Figure 2. SEM Diagram

Table 3
SEM Result

	Coef.	OIM Std. Err.	z	P> z	[95% Conf. Interval]	
Structural						
icu <-						
MHRP	-.0060045	.0633645	-0.09	0.925	-.1301967	.1181876
_cons	4.297143	.0314412	136.67	0.000	4.235519	4.358766
oge <-						
icu	.6664774	.0395945	16.83	0.000	.5888737	.7440811
MHRP	.0274682	.0468862	0.59	0.558	-.064427	.1193635
_cons	1.42748	.1717311	8.31	0.000	1.090893	1.764067

PLS Structural equation modeling (PLS-SEM) was conducted to analyze the mediating significance of innovative culture. The result of the path analysis shows that innovative culture mediates between modern HRM practices and organizational effectiveness in the pharmaceutical industry of the Nigerian Health sector. Given this, the null hypothesis (Ho) was rejected and the alternate hypothesis (Ha) accepted, implying that innovative culture moderates between modern HRM practices and organizational effectiveness.

Table 4
Eigenvalue stability condition

Eigenvalue	Modulus
0	0
0	0
0	0
0	0
0	0
0	0

stability index = 0

All the eigenvalues lie inside the unit circle. This indicates that SEM satisfies stability conditions.

Discussions

The findings of the study highlight that all modern innovative HRM practices (skilled-based training, effective hiring process, fair/competitive compensation and human resource technology) have a significant positive relationship with OE. The findings of the study revealed that the health sector in Nigeria must emphasize employee effectiveness to achieve optimality in the organization. The finding was consistent with [Lau & Ngo \(2004\)](#) on the role of culture and HRM in innovation, this research was conducted in “Hong Kong” and provided evidence that HRM practices have a positive effect on OI. However, this study's main focuses were on organizational culture, but it supports the relationship between HRM and OI. The finding was also in agreement with the findings of [Abdul et al \(2019\)](#) that the importance of innovation climate has been validated as the moderating role of the innovative climate was proved between NHRM practices and innovation performance. These are similar to studies conducted by [Jia et al. \(2018\)](#) on how hew HRM practices, organizational innovation, and innovative climate affect the innovation performance in the IT Industry in Pakistan shows that a strong innovative climate leads towards innovation performance. The findings of the study support the findings of a study carried by [Freeman \(1998\)](#) in Japan on how Japanese national system transformed from a traditional manufacturing system to OI. The outcome of this study explicitly notes modern human resource management practices construct a road map for product innovation, process innovation, and product innovation in Japanese organizations.

4 Conclusion

The present study explained modern innovative HRM practices and organizational effectiveness plays a vital role in enhancing and improving organizational effectiveness. The results of the study revealed that modern innovative HRM

practices have a significant positive relationship with organizational effectiveness. The study concludes that effective hiring process and human resource technology highly influenced the organizational effectiveness of the employee in the healthcare sector in Nigeria.

Recommendations

- 1) Organizations must have solid human resource management practices and departments.
- 2) The HR department must be glued to the hips with the management, strategy, and operational teams and must work in tandem with these groups to execute the corporate strategy and vision.
- 3) HR best practices are effective when a win-win scenario is created for employees and employers, and understanding and executing the drivers of the win-win scenario will deliver results for both employees and employers while creating long term relationships.

Suggestions for further research

However, every study has some limitations, so was this study. The data of this study was cross-sectional. Further studies could focus on longitudinal research. Further studies should be undertaken in the areas of the service industry, the educational sector, and the automobile industry.

Conflict of interest statement

The authors declared that they have no competing interests.

Statement of authorship

The authors have a responsibility for the conception and design of the study. The authors have approved the final article.

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