



# PREDICTIVE HR ANALYTICS AND HUMAN RESOURCE MANAGEMENT AMONGST HUMAN RESOURCE MANAGEMENT PRACTITIONERS IN PORT HARCOURT, NIGERIA

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## Abstract

The research examined and analyzed the impact of the use of Predictive Analytics (PHRA) on Human Resource Management (HRM) Practices (recruitment & selection, performance management and succession planning) amongst HR Practitioners in Port Harcourt. A cross sectional study with the use of questionnaire survey was adopted, and the questionnaires were distributed through self-administered procedure. Data was generated from 159 respondents comprising of all levels of HR practitioners in Port Harcourt. The generated data was analysed with a version 20, SPSS statistical tool. Mean scores and standard deviation were calculated from these data to assess the performances of PHRA, recruitment & selection, performance management and succession planning processes amongst the studied HR practitioners. A correlation analysis was done to determine the nature of relationship that existed between PHRA and the HRM practice. Also to predict the significance of the relationship between PHRA and the outcomes HRM practices (recruitment & selection, performance management and succession planning). The outcome from the correlation analyses showed that there is a significant positive relationship between PHRA and the HRM practices used for the study. Based on the findings, it can be concluded that PHRA is an important factor in enhancing the HRM practice outcomes. Therefore, the study recommends that HRM practitioners should embrace the use of PHRA in their practices. It further emphasizes that practitioners should not just stop at mere data presentation but strive to move a step further to predictive analytics in their practices in order to effectively and efficiently improve the human resource practice outcomes in their organization. The study provides additional insight by showing that most practitioners in Port Harcourt stop their analytics at the descriptive stage. A limitation of lack of capability in the identification and application of appropriate metrics amongst the respondents was also identified. It also highlighted general contributions while making suggestions for future study.

**Keywords:** *Predictive HR Analytics, Human Resource Management, amongst Human Resource Management Practitioners*

## Introduction

The field of human resource management (HRM) has been besieged by lack of recognition from its existence right from the works of Peter Drucker in 1950, it however, got its revolution in the mid-1980s (Kaufman, 2015). During the 1990s, focus started shifting and the human resource began receiving attention as valued organisational resource that can produce competitive advantage for the organisation (Huselid, 1995; Ulrich, 1997). In support of this, Du Plessis (2009), emphasized that the human resource is one of an organization's most powerful and important resources among other factors of production. With the wave of globalization, technological advancement and advent of telecommunications, there is an increased competition of having the right talent; and organizations, irrespective of their countries are seeking for ways to respond to these changing conditions by retaining their talents through effective human resource management (HRM) practices (Du Plessis, 2009; Horgan, 2003). Subsequently, focus started shifting to the development of new methods for ascertaining the return on human capital (Fitz-Enz, 2000). By the mid-2000s, the focus was on the introduction of more scientific and evidence-based approaches to HR (Boudreau & Ramstad, 2007; Pfeffer & Sutton, 2006).

Consequently, organisations are now looking to the HR practitioners to do more than cost minimization based administrative services by providing proficiency on how to influence and manage human capital (Jamrog & Overholt, 2004). There is now a paradigm shift from nominal-based to a knowledge and evidence-based human resource practice and forward looking organizations are beginning to adopt knowledge based HRM practices to gain competitive advantage. Coincidentally, the position of HR practitioners as strategic business partners and change agents has also been given significant attention (Du Plessis, 2009). The implication of this is that the human resource (HR) practitioners have an important role to play in harnessing the skills of the organization's human resources for efficiency through practices that promote critical employee attitude that is necessary for achieving key organizational course of action, thereby bringing about organizational success (Stone 2008; Rennie 2003; Wright & Boswell, 2002). Emphasizing on this assertion, Jaja and Arugu (2015) opined that the ultimate objective of attaining organizational goal comes from the values added from an enduring HRM culture that is able to effectively utilize and deploy potentials within the organization. Against this backdrop,

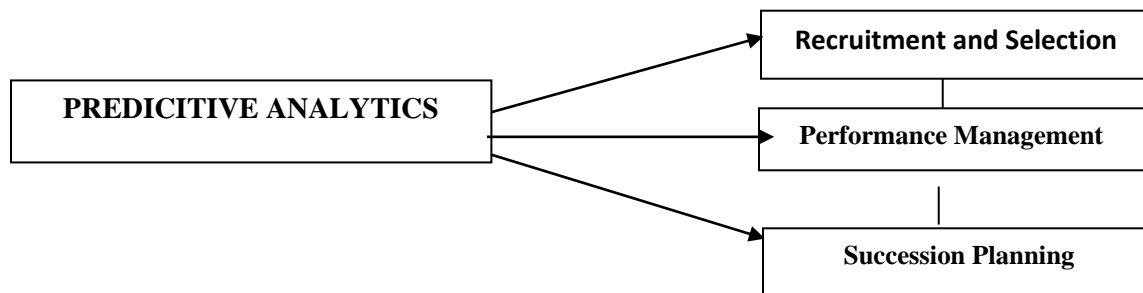
one can say that the extent to which the human resource is managed is significant in boosting internal effectiveness and enhancing organizational competitiveness.

For the past three decades, some scholars have studied and campaigned tirelessly in order to improve the state of HR data to help the HR practitioners understand and maintain a strategic importance in the organization. But despite these efforts, studies and campaigns, the strategic importance of the use of HR metrics has still not been established. This is because a lot of these studies on HRM practices have focused only on the use of metrics for effective HRM practices and have failed to give HRM practitioners the strategic edge and success evidence they seek in the organization. This is why human resource managers often fall short of being considered as strategic partners to their organizations. This is so because the HR practitioners do not have knowledge of the right analytic and database decision making competence needed to bring about business performance. One of the reasons for this may be because they lack the right metrics, analytics skills and models. The HRM practitioners can only make a well-built case of being an important player in strategy formulation in the organization through the use of success evident predictive HR analytics (PHRA) that involves the use of metrics to analyze trends and forecast future occurrence.

The research problem arises from the newness of the topic and the need for human resource management practitioners to move beyond mere data presentation to effective trend analyses and forecasting of these data for efficient decision making in the acquisition and retention of talents in order to gain strategic positions in and for the organisation. Yes, it is time for HRM practitioners to take their place at the decision table and it is time to correct the notion 'why the human resource gets no respect' held by organizations. To address these concerns, this study examines the concept of predictive HR analytics (PHRA), how it influences the HRM practices of recruitment & selection, performance management and succession planning and how the HR practitioners can leverage the predictive analytics tool to gain strategic position in the workplace.

## Conceptual Framework

In an effort to study the relationship between PHRA and HRM practices of recruitment & selection, performance management and succession planning; a conceptual model was developed as shown in Fig. 1.1.



*Fig 1.1 Conceptual Framework of the relationship between predictive analytics and HRM practices.*

## Research Questions

This paper seeks to provide answers to the following questions:

1. To what extent does predictive HR analytics (PHRA) significantly enhance recruitment and selection outcome?
2. To what extent does predictive HR analytics (PHRA) significantly enhance performance management outcome?
3. To what extent does predictive HR analytics (PHRA) significantly enhance succession planning outcome?

## The Research Hypotheses

This study tested three (3) hypotheses as stated below:

**H<sub>01</sub>:** Predictive HR analytics (PHRA) does not significantly enhance recruitment and selection outcome.

**H<sub>02</sub>:** Predictive HR analytics (PHRA) does not significantly enhance performance management outcome.

**H<sub>03</sub>:** Predictive HR analytics (PHRA) does not significantly enhance succession planning outcome.

## **Geographical Scope**

Being a contemporary concept in the human resource field, initial studies on workforce/HR analytics were carried out mostly in Malaysia, England and UAE. Not much of such studies have been carried out in Nigeria, particularly in the Niger Delta region. This prompted the focus of this study to be limited to human resource practitioners in Port Harcourt, a city in the Niger Delta region of Nigeria.

## **Review of Literature**

### **Predictive HR Analytics (PHRA)**

Predictive HR analytics (PHRA) is a level of human resource (HR) analytics - a multidisciplinary methodology used in making quality people-related decisions in order to improve both individual and organizational performance. HR analytics plays a role in every aspect of the HR function, including recruiting, training and development, succession planning, retention, engagement, compensation, and benefit (Mishra, Lama & Pal, 2016). There are three basic levels of HR analytics – descriptive HR analytics (DHRA), predictive HR analytics (PHRA) and prescriptive HR analytics (PSHRA). In line with the scope and purpose of this paper, the discourse of this paper is limited to the predictive HR analytics (PHRA). Predictive HR analytics (PHRA) emanates from the ability of data to “Predict” what might happen in the future, it understands the future. It is not like the descriptive HR analytics (DHRA) that focuses on mere reactive data presentations on tables, reports, metrics or dashboards; it is a proactive data-driven insights that facilitate better people-related decisions (Mishra et al., 2016). It involves statistical techniques and data mining models that mine and evaluate existing or historical data to pick out trends and make future predictions. It enables organizations to analyze the past and look forward to spot trends in key factors related to managing human capital and other sources of risk. Mishra et al. (2016) emphasized that PHRA provides organisations with actionable view or insights into data and give the decision maker an idea about the likelihood of a future outcome. Even though no statistical algorithm can actually give a 100% certainty of the future outcome, the PHRA uses data to establish the most likely future outcome of an event or the likelihood of a situation happening. PHRA combines historical data to recognize trends and apply statistical models to know the relationships between and amongst arrays of data. HR practitioners and Organizations use predictive statistics and analytics to see the future.

Today, some organisations are familiar with the use of PHRA to produce attrition rate. These attrition scores are used by HR practitioners to determine the probability of employees leaving the organization at a given time (Grillo & Hackett, 2015). They further stated that typical business uses of PHRA include, understanding how talent might close at the end of the year, predicting what category of talent will be retained, or forecasting the absent rate based upon a myriad of variables such as employee relations or satisfaction. It helps to show how employee attitudes inside a company affect customer attitudes and investor confidence outside the company (Ulrich, 2013). Different types of analytics are required and frequently used to determine the ingredients of substantial business outcomes with regards to the business setting. For example, banks use predictive approach to understand consumer behaviour. It can also be used in HRM practice to predict employee retainability which can inform succession planning decisions. These approaches make a knowledgeable, predictive assessment based on facts and data. Examples of PHRA are; no of error versus skill level, cost of error versus cost of training, last month attrition rate versus present month attrition rate etc. As earlier established, PHRA extends the questions that descriptive analytics is answering to the next level by moving from a retrospective set of answers to a set of answers focused on predicting performance and laying down detailed action plans or recommendations. Sesil (2013) established that PHRA has aided practitioners to achieve organizational objectives through HR management, workforce planning, employee management, and performance management etc.

### **The PHRA Decision Making Model**

One of the major objectives of organizations is to have the right number of persons in the right place at the right time, this objective can easily be achieved by means of analytics (Dey & De, 2015). However, the application of PHRA to make proactive evidence based talent decisions require a well mapped out model involving need identification, appropriate HR metric and Impact assessment. Without a clear understanding of the data, and a method for accessing and integrating a variety of quantifiable talent metrics, it will be difficult to succeed in the application of PHRA and its promise of strategic positioning (Rhodes, 2015).

### **Need Identification**

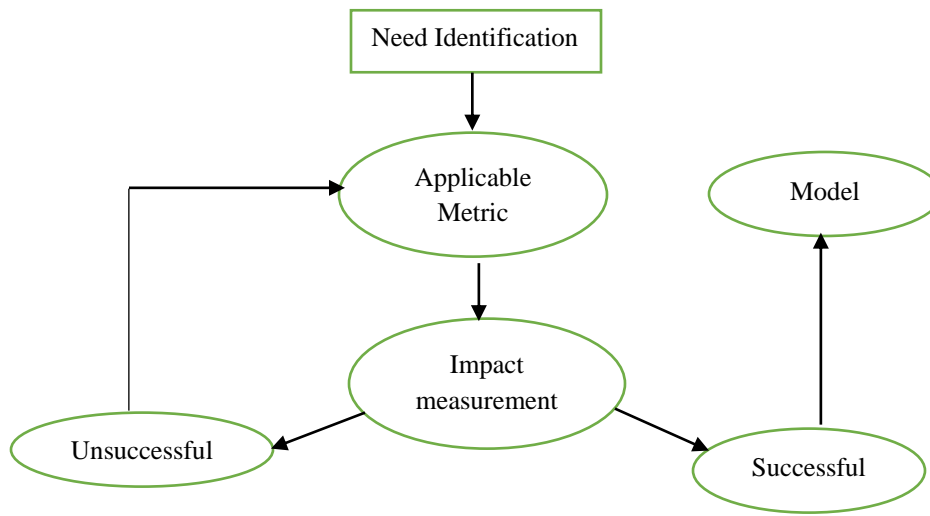
It is a fact that organizations are not exactly same with regards to workforce, talent bundles, environment, strategies, and industry. This is an indication that the identification of the need for which PHRA should be applied is key in getting a successful outcome of its application. Therefore to remain strategically significant in the workplace, HR leaders need to provide management with a predictive analytics based explanation for important talent related decisions as related to the organizational objectives. This sets off the identification of need as the first step to a successful PHRA model.

### **Application of HR Metric**

As soon as the need for which PHRA is to be applied is identified, the next step in the analytical model is to determine which HR metrics is most appropriate for the model. Organizations use HR data or metric such as monthly turnover rate, revenue per employee, return on investment, and employee absent rate etc. to scale HR functions in terms of recruitment time, work schedule, attrition level, employee turnover, and successive talent identifications. Having concrete and appropriate metrics is key in showing how strategic HR initiatives can help affect organisational outcomes (Mishra et. al., 2016).

### **Impact**

Perhaps the most important aspect of the PHRA model is the impact measurement. The ability of HR practitioners to be able to measure the impact of the application of PHRA is a sure way to efficiency as models with successful outcome will become a future tool for success while unsuccessful models will be revamped and remodeled until it becomes successful. For example, Mølgaard-Pedersen (2010) showed that a US wind turbine maker, changed their recruitment and retaining policies after PHRA suggested women employees performs 5% better than men. Another example is that if a PHRA result should show that companies with high engagement have a 20% boost in efficiency and effectiveness, it will mean that companies will pay more attention to its employee engagement processes. A pictorial representation of the model is as shown in fig 1.2 below.



**Fig 2:** A PHRA Model. Source: Okwakpam, 2018

The biggest challenge for HR practitioners therefore, is to build the potential and skill that will help them move from a descriptive, retrospective view point to a forward looking approach (Schmarzo & Smeyers, 2014). HR personnel need to team up with other business units and customer-facing functions to understand how they pull data and analytics to create value (Ulrich, Schiemann & Sartain, 2015).

### **Human Resources Management (HRM) Practices**

HRM practices refer to how organizations display commitment to its employees (Kinicki, Carson & Bohlander, 1992). Also, Wall and Woods (2005) posit that HRM is a way of representing that part of an organization's activities concerned with the recruitment, development and management of its employees. However, Paauwe and Boselie (2005) note that there seems to be no clear consensus among scholars regarding the true nature of HRM practices.

Previous studies on HRM practices have focused only on few strong variables such as; T&D, performance management; compensation and rewards; performance appraisal and staff participation (Khan, 2010). Many researchers who have carried out studies on HRM practices have established that the practices differ from study to study and from organizations to organizations. As pointed out by Stone (2002), all organizations should therefore identify and



execute the appropriate HRM practices as they strive to improve their overall performance. In relation to this, Delaney and Huselid (1996) identify several HRM practices: selection, participation, training, rewards and internal labour market. Furthermore, Khan (2010) tested a framework for HRM practices (staff intake and selection, T&D, compensation & rewards and performance appraisal). Lam and White (1998) suggest that extensive T&D programmes, attractive compensations and benefits and effective recruitment practices positively influence the performance of a firm. Going by the assertion of Wall and Woods (2005) on HRM as indicated earlier, this study examines three HRM practices: recruitment & selection, performance management and succession planning. These measurements of HRM practices as adopted by this study are discussed below.

### **Recruitment and Selection**

The Centre for Talent Reporting defines employee acquisition as one of the key HR processes used to locate and onboard talents to fulfill firm's strategic needs. Employee acquisition includes talent assessment, selection, recruitment and on-boarding. The essence of recruitment and selection is to obtain a maximum number of highly talented candidates and to choose the best to enhance organizational advantages. Recruitment is the process of drawing the attention of applicants to positions in the organization. Empirical researches have shown a positive relationship between effective recruitment and selection practices and top-class performances (Delany & Huselid, 1996; Fey, Bjorkman & Pavlovskaya, 2000) which is why it is imperative for it to be given enough attention. Selection on the other hand is a follow up on the recruitment process. It is the process of gathering and getting information about intending job applicants to decide their suitability. A good selection process should therefore rely on metrics and analytics to facilitate its effectiveness (Khan, 2010). In order to cope with the changes in terms of work performance, increased competitive advantages and other challenges related to HR outcomes, staffing activities are required to be done analytically. Stone (2002) advocates for the importance of integrating the recruitment and selection practices into broad organizational strategies and HR processes as part of an effective response to changes in an organization's environment. Irwin (2003) observes that when decision makers fail to select the right candidate, it may be due to poor selection techniques. Doyle (2002) finds that key selection decisions in firms are largely influenced by subjective and arbitrary actions which often result in incorrect or misguided decisions and subsequently leads to the process being open to abuse and manipulation.

## **Performance Management**

The performance appraisal process is referred to as an action that ensures there is shared understanding between subordinates and their supervisor all the way through a process of direct evaluation of the subordinate's job-specific performance expectations, communication, and assigned responsibilities. Appraising performance is also seen as a process of providing periodic and planned feedback that is geared to facilitate teamwork and promote greater efficiency and abilities. Performance appraisal activity is a tool used by management to develop and mold subordinates in the organizations to conform to their job expectations. Appraisals can boost job performance by focusing on organizational communication and its shared values and objectives. The appraisal process also systematically outline and throws more light on job duties and responsibilities as they evolve or change over time. Previous studies on performance management have established significant and positive relationships between performance appraisal and organizational performance (Chang & Chen, 2002; Ahmed & Schroeders, 2003; Kuo, 2004; Hanley, 2005). It can be used as a measure to reward the employees (Hanley, 2005; Bernardin & Russell, 1998; Cleveland, Murphy & Williams, 1989; Ahmed & Akhtar, 2012).

The result of performance appraisals generally help decision makers set goals and continuously support employees in improving their work output. It is therefore not surprising that the significant functions of performance appraisal involves decisions on promotion, pay rise or other incentive pay outs (Murphy & Cleveland, 1995). Although most of these studies show that there is link between the performance appraisal processes adopted by an organization with the organizational performance; however, none was able to establish how this link can be strengthened or guaranteed. This brings us to the focus of this study which is on how the use of PHRA can enhance the performance management process and outcome of the organizations such that the ultimate organizational performance is achieved.

## **Succession Planning**

Organizations today have to put in place a viable succession planning system, where managers properly look for how to groom and develop employees with top talents, such that they can fill top leadership and critical technical positions from within. Researchers have established that HR analytics play strategic role in succession planning and promotion in organizations. Similarly, Frioux (2013) posits that using HR analytics techniques allow organizations to build a process that can flag when managers constantly rate some employees poorly in a particular area when actually those employees appear to be high flyers in other areas, especially when those ratings are given to people of a certain group such as gender (curbing discrimination or bias). He further advises that when such issues have been identified, then HRM practitioners can intervene before time to ensure employees with top talents do not leave unexpectedly out of frustration. It is also established that the use of PHRA can eliminate staffing error. Frioux (2016) states that with a few basic changes spurred by data analytics, bench depth analysis can help managers discern precisely the area that may experience the most significant staffing threat and risk. In continuation, he said that data analytics practice can look at all the possible combinations of job role, skill, position, geographical location and point out portions of the organization with the highest employee tenure, and help figure out where to focus training and recruiting expense (Frioux, 2013). Similarly, PHRA is more concerned with why people leave than who is leaving, considering key indicators that show the employee attributes such as those related to resignations (on one hand) and those related to retention (on the other hand). It has been proven in many ways that this sort of prediction is more important than naming individuals because it offers the practitioners the opportunity to develop thoughtful, refined, long-term programs that will help to reduce attrition rates by targeting root causes (Weisbeck, 2015). PHRA can equally be used to understand how talent move in and out of the organization, the explicit alterations in management practices and market conditions that affect these movements and the steps required to address workforce planning gaps (Grillo & Hackett, 2015). Organizations have generated statistical models to predict turnover, helping managers to quickly alter work conditions to prevent top performers' from leaving (Grillo & Hackett, 2015). Another collaborative study carried out on Black Hills Corporation by Collins (2013) established that to prevent a massive turnover disaster, the company used PHRA to work out how many employees would retire each year, the types of workers needed for their replacement, and the sources the new hires would be

pulled from. This resulted to having a workforce planning summit that categorized and prioritized 89 action plans designed to address the potential talent dearth.

### **PHRA and Recruitment & Selection**

According to Nair (2014), some forward-looking firms have developed analytic initiatives that use data to assess employee productivity and improve employee hiring and retention. In India, over 55 per cent of organizations feel that PHRA predictions help to secure quality hires (Press Trust of India, 2015). Similarly, Biogen (an American global biotechnology company based in Cambridge) has an established employee strategy and analytics team that makes use of predictive methodology to understand the patterns of attrition and recruitment of its employees. Stone (2002) points out that as changes take place, errors can be made by decision makers in selecting the right people for the right jobs. These errors as pointed out by Stone (2002) can only be minimized or eliminated when appropriate analytics is adopted in the recruitment process. This paper attempts to ascertain this link between PHRA and Recruitment & Selection by testing the hypotheses below:

**H<sub>01</sub>:** *Predictive HR analytics (PHRA) does not significantly enhance recruitment and selection outcome.*

### **PHRA and Performance Management**

Martins (2011) states that by using analytics, HR managers can more effectively manage and improve performance. PHRA is said to help HR practitioners measure and manage return on human capital investment (ROI) as well as the performance improvement of the HR (Ikebudu, 2014). PHRA can help to predict workforce developments within the organization, identify and assess workforce performance indicators and boosters. Also PHRA helps HR practitioners and organisations to make refined and informed predictions in areas like performance. (Grillo & Hackett, 2015) This study will attempt to further strengthen the link between PHRA and performance management by testing the hypotheses below:

**H<sub>02</sub>:** *Predictive HR analytics (PHRA) does not significantly enhance the performance management outcome.*

## **PHRA Analytics and Succession Planning**

Although succession planning may not exactly be a data analytics activity, however, the use of analytics can give human resources managers insights they can use to make sure top performers and areas most in need of top talent are promptly identified (Frioux, 2013). He further stated that with a few basic changes based on data analytics and bench depth analysis, managers can identify the area with the biggest staffing threat or risks. According to Weisbeck (2015), prediction from analytics is more important than naming individuals, as it allows HR to develop thoughtful, refined, long-term programs to reduce resignation rates by targeting root causes. Collins (2013), in his study of Black Hill Corporation in 2013 established that to prevent a massive turnover disaster, the company used PHRA to calculate how many employees would retire each year, the types of workers needed for their replacement, and the sources the new hires would be pulled from. This study will attempt to further strengthen this link between PHRA and Succession Planning by testing the hypotheses below:

**H<sub>03</sub>:** *Predictive HR analytics (PHRA) does not significantly enhance succession planning outcome.*

### **Method**

This study made use of a descriptive research design. The target population of 320 registered practitioners was drawn from HR practitioners in both private and public sectors in Port Harcourt, a figure obtained from the Administrative office of the Chartered Institute of Personnel Management of Nigeria, Rivers State Branch as at May 2016. Subsequently a sample size of 175 practitioners derived from the Krejcie & Morgan Population Sample Table was taken. A random sampling technique was adopted in choosing the sampled practitioners.

### **Instrument**

Data was collected via a likert rated questionnaire which were distributed to HR practitioners in Port Harcourt. In order to guarantee consistency in response and to encourage participation, the questionnaire was kept short and structured with a 5 point likert scaling (strongly disagree, disagree, neutral, agree and strongly agree). The overall Cronbach Alpha for the study instrument was 89.7% with a total number of 4 variables (PHRA, Recruitment & Selection, Performance Management and Succession Planning). This indicates that the instrument's reliability was very good. A total of 190 copies of questionnaires were distributed and 166 copies were returned,

representing 87 % of the total number distributed. Out of the 166 copies returned, 159 copies were usable and 7 copies were discarded due to the issue of missing vital data. Thus, a total of 159 copies of the questionnaires representing approximately 96% of the returned copies were finally used for the analyses.

### **Procedure**

The questionnaires were personally administered to the sampled respondents. All completed questionnaires were edited for completeness and to ensure consistency. The data was then analyzed using statistical tools from Statistical Package for Social Sciences (SPSS) version 20. The findings were presented using tables for further analysis and ease of interpretation.

A univariate analysis was carried out on each of the variables to ascertain its level of existence in organizations. A correlation analysis was also employed to study the relationship between PHRA and HRM practices measures (Recruitment & Selection, Performance Management and Succession Planning) and also to test the hypotheses of the study and subsequently address the research questions.

### **Results**

#### **Descriptive Statistics**

The Descriptive statistics of mean and standard deviation for each variables (PHRA, Recruitment & Selection, Performance Management and Succession Planning) of the study were calculated as depicted in table 1.1. The implication of the result is that recruitment and selection scored the lowest in mean with a mean score of 2.17 which implies that it receives the least attention by practitioners. This means that practitioners do not see the recruitment & selection process as a critical process and as such carried it out by mere laid down procedures. Following closing after recruitment and selection is PHRA with a mean score of 2.32 which implies that it equally gets less attention by HR practitioners in Port Harcourt. This implies that they were not utilizing the tool of PHRA in their practice.

**Table 1.1 Descriptive Statistics**

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
PHRA	159	1.00	3.50	2.32	.83
Recruitment & Selection	159	.75	3.50	2.17	.88
Performance Mgt	159	1.00	4.00	2.49	1.11
Succession Planning	159	.75	3.50	2.60	.80

### Correlation Analysis

The result of the correlation analysis carried out on the variables of the study indicates that PHRA correlates with recruitment & selection at  $r = .860$ ,  $p < 0.05$ ; with performance management at  $r = .846$ ,  $p < 0.05$  and with succession planning at  $r = .857$ ,  $p < 0.05$ . This indicates that there is a strong positive relationship between PHRA and the HRM practices (recruitment & selection, performance management and succession planning). Summary of the analyses are as shown in table 1.2 below:

#### 1.2 Summary of Correlation analysis

<b>Relationship</b>	<b>Correlation</b>	<b>p-value</b>	<b>Strength</b>	<b>Direction</b>
PHRA and Recruitment & Selection	(r) 0.860	0.000	Large	Positive
PHRA and Performance Management	0.846	0.000	Large	Positive
PHRA and Succession Planning	0.857	0.000	Large	Positive

### **Test of Hypotheses**

**H<sub>01</sub>:** *Predictive HR analytics (PHRA) does not significantly enhance the recruitment & selection outcome.*

The correlation result used for testing **H<sub>01</sub>** as depicted in table 1.2 shows an r value of 0.860 which indicates a strong positive relationship between PHRA and recruitment & selection while the p value of 0.000 which is < 0.05 indicates that the relationship is significant. Given that a null hypothesis should be rejected when  $p$  is < 0.05, the null hypothesis (**H<sub>01</sub>**) **that predictive HR analytics (PHRA) does not significantly enhance the recruitment & selection outcome was rejected.**

**H<sub>02</sub>:** *Predictive HR analytics (PHRA) does not significantly enhance performance management outcome.*

The correlation result used for testing **H<sub>02</sub>** as depicted in table 1.2 shows an r value of 0.846 which indicates a strong positive relationship between PHRA and performance management while the p- value of 0.000 which is < 0.05 indicates that the relationship is significant. Given that a null hypothesis should be rejected when  $p$  is < 0.05, the null hypothesis (**H<sub>02</sub>**) **that predictive HR analytics (PHRA) does not significantly enhance performance management outcome was rejected.**

**H<sub>03</sub>:** *Predictive HR analytics (PHRA) does not significantly enhance succession planning outcome.*

The correlation result used for testing **H<sub>03</sub>** as depicted in table 1.2 shows an r value of 0.857 which indicates a strong positive relationship between PHRA and succession planning while the p- value of 0.000 which is < 0.05 indicates that the relationship is significant. Given that a null hypothesis should be rejected when  $p$  is < 0.05, the null hypothesis (**H<sub>02</sub>**) **that predictive HR analytics (PHRA) does not significantly enhance succession planning outcome was rejected.**



From the result of the hypotheses, the three (3) research questions for the study were addressed and answered as thus, that:

1. PHRA significantly enhances the recruitment and selection outcome.
2. PHRA significantly enhances the performance management outcome.
3. PHRA significantly enhances the succession planning outcome

### **Conclusion**

The study has been able to show that there is a strong significant relationship between PHRA and HRM (recruitment & selection, performance management and succession planning). Through its findings, this study has been able to establish that most practitioners in Port Harcourt did not make use of PHRA in their HRM practices because they probably did not see the need for such level of analytics in HRM practice. This explains their inability to make any impact in their various organizations. The good news now is that the findings of this study have plainly explained out the usefulness of a higher level of HR analytics to practitioners and the organizations. In support of (Mishra et al., 2016) position on the essence of PHRA, this study concludes that HR practitioners cannot add value to the organisational chain in the long run if they do not possess predictive analytics skills. PHRA helps organizations control HR-related costs while optimizing business and HR outcomes. PHRA is rapidly changing and growing technology which has potential to achieve 100% accuracy in decision making for HR.

### **Contribution**

Apart from establishing that a very strong relationship exist between PHRA and the HRM practices, The significant contribution of this paper is its established guiding model of PHRA which will aid practitioners in applying the PHRA in the HRM practice. Other studies on analytics mentioned in this work only show the importance of the analytics in HRM without so much emphasis on how to get it done. Finally, the practical contribution of this study is cued from the usefulness of its findings to the practitioners, business owners, policy makers and the managers.

## Recommendations

Based on the findings obtained from the analyses, the following recommendations were reached:

1. That overall, there is a significant relationship between PHRA and HRM practices outcomes, therefore HR practitioners need to incorporate the use of PHRA in their HRM practice functions to get better results.
2. That enhanced and effective HRM practice outcomes can be accomplished with the increased use of PHRA by practitioners. Thus, practitioners should lay more emphasis on utilizing this level of analytics in their HRM practice functions, as doing so would help them achieve their HR objectives of efficiency and effectiveness; and ultimately earn them a strategic position in the organisation.
3. That a HRM practitioner should understand the different levels of HR metrics they require to make better talent decisions.



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