International Journal of Business & Entrepreneurship Research
ISSN: 2360-989X, Volume 14, Issue 6, (April, 2023) pages 14 – 29
DOI: 272614523711462
www.arcnjournals.org

Human Resource Database Analytics and Employee Productivity in Telecommunication Companies in South-South, Nigeria

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Abstract: *This study examined the relationship between human resource database analytics and employee productivity in telecommunication companies in South-South, Nigeria. The study adopted the cross-sectional research survey design. Primary data was generated through structured questionnaire. The population of this study was made up of 162 employees, managers and supervisors of the four telecommunication companies in South-South, Nigeria. Since the entire population of 162 employees of the four (4) telecommunication companies in South-South, Nigeria was small, the entire population was adopted as a census. The reliability of the instrument was achieved by the use of the Cronbach Alpha coefficient with all the items scoring above 0.70. The hypotheses were tested using the Spearman's Rank Order Correlation Statistics. The tests were carried out at a 0.05 significance level. The findings revealed that there is a significant relationship between human resource database management and employee productivity in telecommunication companies in South-South, Nigeria. Therefore, based on the findings, this study concludes that human resource database analytics enhance in a positive way the productivity of employees in telecommunication firms in Nigeria. Hence, the study recommends that management of telecommunication companies should HR database analytics as a tool for enhancing employee productivity. This can be achieved by investing in HR analytics tools, training HR professionals on the use of these tools, and integrating HR analytics into the overall HR strategy of the organization.*

Keywords: *Human Resource Database Analytics, Employee Productivity, Timeliness, Achievement, Employee Innovativeness.*

INTRODUCTION

In today's digital age, companies are inundated with data, and human resource departments are no exception. The use of a human resource database analytics can be a valuable tool for organizations in understanding workforce patterns and making informed decisions. According to Jaouadi (2022), HR analytics can provide insight into employee retention rates, recruitment strategies, and even employee performance. By analyzing data on employee performance, HR departments can identify high performers and tailor development programs to their needs, which can lead to increased job satisfaction and retention rates. In addition, HR analytics can help companies identify potential talent gaps and adjust hiring strategies accordingly. By monitoring workforce patterns and trends, HR departments can make data-driven decisions that can lead to increased productivity, efficiency, and profitability. However, it is important to note that HR analytics should not be used in isolation and should be complemented by other HR practices such as employee engagement, training, and development (Jaouadi, 2022). Therefore, the use of a human resource database analytics can be an

essential tool for companies to gain insights into workforce patterns and make informed decisions, but it should be used in conjunction with other HR practices.

Analytics, which refers to the use of data, statistical analysis, and machine learning to uncover insights and patterns, can significantly improve employee productivity. By analyzing employee performance data, companies can identify areas where employees may be struggling or underperforming and provide targeted training and support to help them improve. Additionally, analytics can help companies optimize their workforce by identifying high-performing employees and offering them incentives to stay with the company. This can help reduce turnover rates, which can be costly for companies in terms of lost productivity and resources. Furthermore, analytics can help companies identify patterns in employee behavior and preferences, allowing them to tailor their work environments and policies to better suit employee needs and preferences. Kakulapati, Chaitanya, Chaitanya and Akshay (2020) found that by using analytics to analyze employee data, companies can identify which employees are most likely to leave the company and take steps to retain them, such as offering them more challenging tasks or greater opportunities for advancement (Kakulapati*et al.,* 2020). Overall, by leveraging analytics to improve employee productivity, companies can not only increase their bottom line but also create a more engaged and satisfied workforce.

The purpose of this paper therefore was to examine the relationship between human resource database analytics and employee productivity in telecommunication companies in South-South, Nigeria. The specific objectives of the study included:

i. What is the relationship between human resource database analyticsand timeliness of work in telecommunication companies in South-South, Nigeria?

ii. What is the relationship between human resource database analyticsand achievements of targets in telecommunication companies in South-South, Nigeria?

iii. What is the relationship between human resource database analyticsand employee innovativeness in telecommunication companies in South-South, Nigeria?

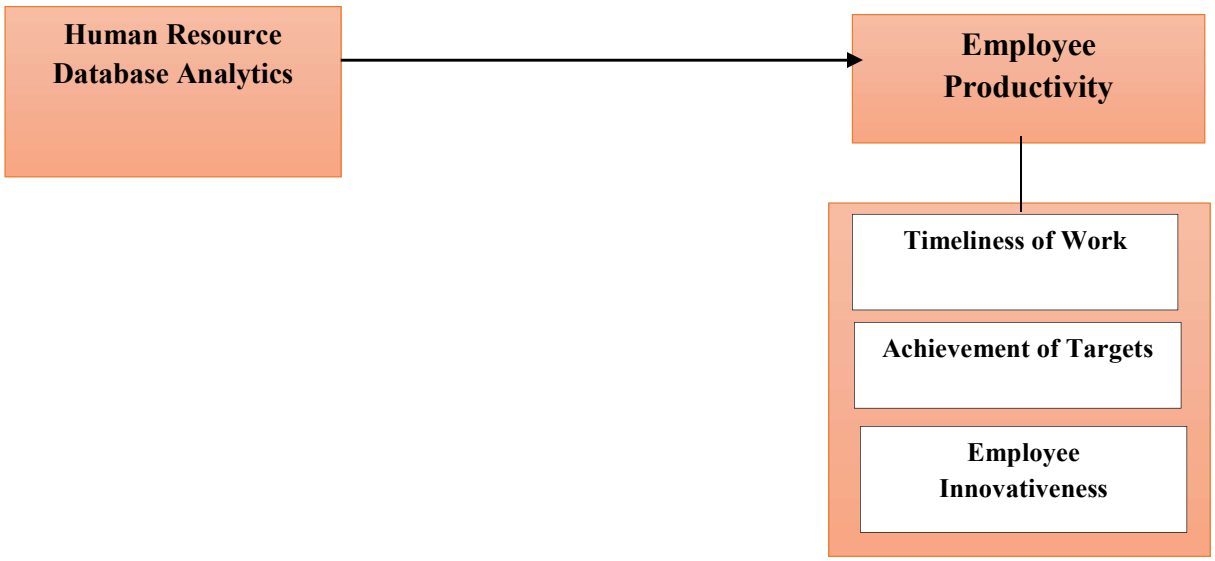

Figure 1: conceptual model for the relationship between human resource database analytics and employee productivity

Source: Desk Research (2022)

LITERATURE REVIEW

Theoretical Foundation

Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) was proposed by Davis (1989). Although, it was extended to TAM2 (Venkatesh & Davis, 2000) to explain perceived usefulness and usage intentions including social and cognitive influence. Subsequently, it was stretched to create a new version aka TAM3 (Venkatesh & Bala, 2008) to incorporate anchors and adjustments factors to perceived ease of use. However, Bernadette (1996) reports that the original TAM is more appropriate as compared with the later extensions. It is one of the models which provide the foundation for unveiling the influence of external variables on the adoption decisions based on the economic, usability and behavioral grounds.

The original TAM states that perceived usefulness is a major determinant of people's intention to use technological innovation (Davis, 1989). It further proposes that the degree to which an IT system will be accepted is related to perceived usefulness (PU) and perceived ease of use (PEOU). PU can be defined as the user's perception in terms of the likelihood that the innovation will increase their job performance within an organizational context. While PEOU is defined as the degree of the user's expectation that innovation or system to be adopted can be free of effort (Davis, 1989). But unfortunately, it is being criticized for focusing more on technological aspect and not considering the effects of organizational and human factors viz-a-viz., the influence of external variables (Shih, Shih, Li, Chen, Chen & Chen, 2011; Wayne, 2016; Wu, Li, & Fu, 2011; Yarbrough & Smith, 2007). Notwithstanding, researchers have advocated the inclusion of

customized variables and advocates for considering beyond the technical perspective (Marc, 2011; Shabir & Padma, 2017). Park (2009) reported that variables related to the actual use of information technology could be grouped into four categories: human context, technology context, social context, and organizational context. Here the social context means social influence on personal acceptance of technology usage and organizational context emphasizes the organization's influence or support related to information technology use.

Determinants of technology use have been investigated to predict and explain end-user adoption and acceptance of information technology and systems. One of the first theories in this field is Fishbein and Ajzen's generic Theory of Reasoned Action (TRA) that explains user's attitude towards technology in the organizations. TRA argues that a person's behavior is predicted by his or her behavioral intention. Now in this field the most prevalent model is Technology Acceptance Model (TAM) that was adapted from the Theory of Reasoned Action (TRA).

The justification for choosing TAM for this research was because TAM has been tested empirically and supported through validations, applications, and replications (Venkatesh, 2000; Schaup Carter, L., & McBride, 2010; Lee, 2010; Yusoff, Ramayah&Haslindar, 2010). TAM is one of the most powerful, robust and parsimonious model for predicting user acceptance especially in HR analytics context (Bueno and Salmeron, 2008). According to Venkatesh (2000), the parsimony of TAM combined with its predictive power makes it easy to apply to different situations.

HR Database Analytics

Human resource analytics is referred to as workforce science and workforce analytics, talent analytics, people research and people analytic, human capital analytics, talents decision science, talent architecture, Human capital metrics and strategy, HR architecture and metrics (Xylia, 2018). According to Marler and Boudreau (2017), human resources analytics as a branch of Business Analytics and Business intelligence can be described as a practice in Human Resources aided by information technology which utilises visual, statistical and descriptive analyses of data linked to organisational performance, human capital, external economic benchmarks and HR processes to helping in making effective decision-making. Human Resource analytics show the influence of employee's data on organisational outcomes (Carson *et al.*, 2011). So, as to gain meaningful insight, data understanding is essential, and analytics must be grounded in it (Angrave *et al.*, 2016). The goal of HRM is to enhance performance, processes and make decisions that are data-driven in relation to business strategy For the HR to be considered as a genuine strategic business partner, they must utilise HRA.

AIHR is a consulting company within HR analytics, based in Netherland. They are one of the leading companies in that field. In defining HR analytics, they made use of the definition by Heuvel &Bondarouk (2017), which states that HR analytics is the systematic identification and qualification of people's drivers of business outcome. Heuvel &Bondarouk (2017) opines that in 2015, HRA was not used to provide actual analysis, but it was primarily used for conducting metrics and reports. Angrave *et al.* (2016) stated that HR does lack HRA implementation because they possess analytical skills. In the year 2025, Heuvel &Bondarouks (2017) believes that HRA in relation to HR themes, will include; strategic workforce planning, retention management, leadership, employability and employee health. Look at the HR themes that have been utilised

today, we would see that it is not different from it, but organisational challenges that will be addressed using business data will be the main focus.

Human resource analytics is defined by Marler and Boudreau (2017) as an HR practice that is enabled by information technology to mine data using statistical, descriptive, and visual analyses related to HR processes, human capital, and organisational performance to establish business impact for decision-making that is data-driven. In simple terms, Human Resource analytics is a tool to help HR Practitioners make more informed decisions and to create value for organisations. According to Handa and Garima (2014), Human Resource Analytics refers to the use of both qualitative and quantitative data to gain insights and support people management through effective decision-making processes. HR analytics simply is collecting, manipulating, and reporting data through the use of information technology. Heuvel and Bondarouk (2017) also posit that HR analytics is about identifying and quantifying people drivers systematically for better decision making on business outcomes. This means that, being able to analyse data related to human resources to make decisions in a systematic way.

Analytics that target human resources according to Gustafsson (2012) has received a lot of names in the past including Talent analytics (Davenport, Harris & Shapiro, 2010), HR analytics (Mondore, Douthitt & Carson, 2011), Talent intelligence (Snell, 2011) or Workforce analytics (Hoffman, Lesser, & Ringo, 2012). Scientific articles have not been published in the field of HR Analytics as HR Metrics (Stone &Dulebohn, 2013) and e-HRM (Strohmeier, 2009). This has led to a lot of misconceptions within the HR arena with regards to HR analytics (Smeyers, 2012). The reason being that most of the articles written are practice-based or by consultancy firms (Johannink, 2015). Because HR analytics are used to make decisions to improve both individual and organisational performance, it should focus on the future rather than the past (Smeyers, 2012). It is evident that analytics are in different forms; descriptive, predictive and optimization or prescriptive (Watson, 2014).

Concept of Employee Productivity

Employee productivity can be thought of as how effectively organizations and the people working in them produce value from available inputs, Cheese (2015). According to Joshi and Balyan (2012) employee productivity also known as labour productivity is known as the output per person or system. Samnani and Singh, (2014) define productivity as the ratio of outputs to inputs. It refers to the volume of output produced from a given volume of inputs or resources. If the firm becomes more productive, then it has become more efficient, since productivity is an efficiency measure. Productivity in itself has so many benefits to the organization, Chen, et al (2015) believe that it translates to real income and that means that the firm can meet its duties to customers, suppliers, employees, shareholders and government (taxes and regulation) and still remain competitive or improve its competitiveness in the market place. Onyije (2015) looks at productivity not so differently from other researchers, according to him high productivity levels translate into lower unit costs and it is one of the drivers of success in the organization. It is growing the business in a way where the employees and the employer are satisfied.

Employee productivity is referred to as labour productivity because it was originally studied only with respect to the work of labourers as opposed to managers or professionals (Scarth, 2002). According to Mathis and John (2003), productivity is a measure of the quantity and quality of work done, considering the cost of the resources used. The more productive an organization, the better its competitive advantage, because the costs to produce its goods and services are lower. Better productivity does not necessarily mean more is produced; perhaps fewer people (or less money or time) was used to produce the same amount. McNamara (2003) further states that, results are usually the final and specific outputs desired from the employee. Results are often expressed as products or services for an internal or external customer, but not always. They may be in terms of financial accomplishments, impact on a community; and so whose results are expressed in terms of cost, quality, quantity or time. He further notes that measuring productivity involves determining the length of time that an average worker needs to generate a given level of production. You can also observe the amount of time that a group of employees spends on certain activities such as production, travel, or idle time spent waiting for materials or replacing broken equipment. The method can determine whether the employees are spending too much time away from production on other aspects of the job that can be controlled by the business.

Measures of Employee Productivity

Timeliness of Work

Timeliness of work is a measure of employee productivity. Timeliness measures whether a unit of work was done correctly and on time, given that time is the most crucial resource to be considered in the performance of any activity. Time determines the imperativeness of any other resources in accomplishing organizational set out objectives and goals (Ugwulashi, 2011). It is an essential resource every manager needs to achieve the goals and objectives of an organization (Adeojo, 2012). Time, according to Nwaiwu (2000), is the interval between the beginning and the end of an operation. It is so delicate that it cannot be saved but can only be spent and once misused it can never be regained. Time is an immaterial resource, inelastic, scarce and erodes fast and once spent, cannot be won back, stored or recalled for use (Kalu, 2012). It is an essential resource; it's irrecoverable, limited and dynamic. Irrecoverable because every minute spent is gone forever, limited because only 24hours exist in a day and dynamic because it is never static (Adeojo, 2012). Managing time appropriately leads to achieving results easily with limited resources. Consequently, any productive system, whatever its structure, human, technology or financial support requires efficient and effective time management procedure. Consequently, Mullins (1999) refers time as one of the most valuable, but limited resources and it is important that administrators utilize time to the maximum advantage. For not realizing time as a scarce resource most employee run out of time before expected result is achieved and this negatively affect their productivity level.

Maduagwu and Nwogu (2006) notes that, every activity is allocated some frames within which an activity is to be accomplished within factory floor. Timeliness is also important for effective inspection and supervision in the academic workplace in bringing the much needed quality. Effective time process ensures unambiguous objectives, proactive planning, well defined priorities and actions; participatory and successful delegation of activities. Nevertheless, time is continuum and all activities or roles performance depend on it whether voluntary or involuntary in avoiding

conflicts. According to Hisrich and Peters (2002), time is a unique quantity an entrepreneur (manager) cannot store it, rent it, and buy it. Everything requires it and it passes at the same rate for everyone. Time management involves investing time to determine what one wants out of his activities. Effective time management is the investment of time in such a way that optimal result is gotten from activities consuming a specific time quantity. Time management hinges on the principle that it is more important to do the right things than to do things right. The ability to choose between the important and the unimportant and be persistent on the correctly chosen sequence is the key determinant of effectiveness in time management.

Achievement of Targets

Task accomplishment is a measure of an employee's productivity and involves their contribution to overall organizational productivity and effectiveness, it refers to actions that are part of the formal reward system and addresses the prescription as indicated in the descriptions of the role (Williams and Karau, 1991). It shows the level or the extent an employee achieves a given target. In general, task accomplishment comprises of activities that translates the organizations policies, missions and resources into tangible and intangible goods produced by the organization and to enable efficient operation of the organization (Motowidlo et al., 1997). Thus, task accomplishment covers the fulfilment of the requirements that are part of the agreement between the employee and the organisation. Borman and Motowidlo (1993) pointed out that task accomplishment is the effectiveness and efficiency with which job incumbents perform activities that contribute to the organization's technical core and assist in moulding the psychological state of the organization (Borman and Motowidlo, 1993). They further suggested that in accomplishing a given task there are two aspects to it, which are interpersonal facilitation and job dedication. Interpersonal facilitation includes cooperative and helpful acts that help the effectiveness of co-employee. While job dedication includes self-disciplined and motivation to support organizational objectives and goals (Van Scotter and Motowidlo, 1996).

Employee Innovativeness

Innovativeness of employees is measured by the propensity by which they innovate in their work (Miller and Friesen 1982); their willingness to try new ways which are different from the existing; the enthusiasm to adopt new ideas or new methods to their work operation; and the eagerness to implement the innovation strategy in their work (Khandwalla 1987). Innovativeness reflects a employee's tendency to engage in and support new ideas, novelty, experimentation and creative processes (Lumpkin and Dess, 1996) that may result in new products, services, or technological processes and which may take the organization to a new paradigm of success (Swiezczek and Ha, 2003). It also implies seeking creative, extraordinary or strange solutions to problems and needs. Schumpeter (1934) considered employees to be essentially a creative activity and entrepreneur as an innovator who carries out new combinations in the field of men, money, material, machine and management. According to him, an entrepreneur is an economic man who tries to maximize his profits by making innovations in any one of the following fields: (1) new products; (2) new production methods; (3) new markets; or (4) new forms of organization.

Employee innovativeness can be defined as an engagement in innovative behaviours, which includes behaviours related to the innovation process, i.e. idea generation, idea promotion and idea realization with the aim of producing innovations (Ramamoorthy, Flood, Slattery &Sardessai

2005). Innovations which have to do with the implementation or adoption of novel ideas can in turn be categorized as either technological (changes in products, services, production processes) or administrative (changes in activities, social processes, structures), and as either radical or incremental, depending on the extent of their influence for existing products or processes (Damanpour 1991). Employee innovativeness can thus be examined throughout the innovation process, from the initial idea generation to product development and eventually to product commercialization, or to the adoption of new processes or structures in the organization (Vincent, Decker & Mumford, 2002).

Human Resource Database Analytics and Employee Productivity

Togt and Rasmussen (2017) shared the current value, challenges as well as the future of HR analytics from a Fortune 500 and whose findings established a moderate positive relationship between HR analytics and Human resource management on organisational outcomes such as productivity and profit. Furthermore, the finding also empirically validates the earlier work of Narula (2015) who conducted a study to give insights on the usage, techniques, and impacts of HR analytics and found that critical talent retention, enhanced recruiting cycles and costs, improved workforce planning and forecasting and improved decision making are the end products of HR analytics. The study highlights how to assess the effect of HR activities to evaluate business performance and strategy and these are efficiency, effectiveness, and impact as anchored by Boudreau and Ramstad (2005) to draw the connection between resources and organisational effectiveness.

Ejo-Orusa and Okwakpam (2018) carried out a study on predictive HR analytics and human resource management amongst human resource management practitioners in Port Harcourt, Nigeria and their finding revealed 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 which subsequently increases sustainability of organizations. Similarly, the finding also concurs with Ruohonen (2015) who that, there is a need to leverage predictive analytics in the human resource management domain to identify the possible benefits. Using a qualitative approach to data collection where semi-structured interviews backed up by a questionnaire and multiple case studies were utilised, interesting findings were observed. Although the findings were company specific, general implications for businesses can be deduced. The benefits were enhanced individual and organisational performance, increased employee engagement and satisfaction, customer satisfaction, increased profitability and sales, and cost reductions. These benefits were identified in areas valuable to these organisations within the Human Resource domain. The findings of the study reveal the need to leverage predictive analytics if the organisation wants to be strategic partners in the business. Although the findings are relevant, using firms that are matured in the use of predictive analytics could have elicited quite different evaluations other than young ones as was the case in this study. A bigger sample could have also increased the definitive trends as well as credibility to some of the questions posed compared to the smaller sample of five.

From the foregoing discourse, the study hypothesized thus:

H_{o1}: There is no significant relationship between human resource database analytics and timeliness of work in telecommunication companies in South-South, Nigeria.

H_{o2}: There is no significant relationship between human resource database analyticsand achievement of targets in telecommunication companies in South-South, Nigeria.

H_{o3}: There is no significant relationship between human resource database analyticsand employee innovativeness in telecommunication companies in South-South, Nigeria.

METHODOLOGY

The study adopted a cross sectional survey research design. Primary data was collected using a 5-point Likert scaled questionnaire. The population of this study was made up of 162 employees, managers and supervisors of the four telecommunication companies in South-South, Nigeria. Since the entire population of 162 employees of the four (4) telecommunication companies in South-South, Nigeria was small, the entire population was adopted as a census. The reliability of the instrument was achieved by the use of the Cronbach Alpha coefficient with all the items scoring above 0.70. The hypotheses were tested using the Spearman's Rank Order Correlation Coefficient with the aid of Statistical Package for Social Sciences version 23.0 as shown below:

DATA ANALYSIS AND RESULTS

Table 1 shows the result of correlation matrix obtained for HR database quality management and measures of employee productivity. Also displayed in the table is the statistical test of significance (p - value), which makes us able to answer our research question and generalize our findings to the study population.

Table 1: Correlations Matrix for HR Database Analytics and Measures of Employee Productivity

			HR Database Analytics	Timeliness of Work	Achievement of Targets	Employee Innovativeness
Spearman's rho	HR Database Analytics	Correlation Coefficient	1.000	.796**	.868**	.754**
		Sig. (2-tailed)	.	.000	.000	.000
		N	143	143	143	143
	Timeliness of Work	Correlation Coefficient	.796**	1.000	.890**	.846**
		Sig. (2-tailed)	.000	.	.000	.000
		N	143	143	143	143
	Achievement of Targets	Correlation Coefficient	.868**	.890**	1.000	.790**
		Sig. (2-tailed)	.000	.000	.	.000
		N	143	143	143	143
	Employee Innovativeness	Correlation Coefficient	.754**	.846**	.790**	1.000
		Sig. (2-tailed)	.000	.000	.000	.
		N	143	143	143	143

**. Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS Output version 23.0

H_{o1}: There is no significant relationship between human resource database analytics and timeliness of work of telecommunication companies in Nigeria.

Table 1 shows a Spearman Rank Order Correlation Coefficient (rho) of 0.796 on the relationship between human resource database analytics and timeliness of work. This value implies that a strong relationship exists between the variables. The direction of the relationship indicates that the correlation is positive; implying that an increase in timeliness of work was as a result of the adoption of HR database analytics. Therefore, there is a strong positive correlation between HR database analytics and timeliness of work of telecommunication firms in South-South, Nigeria. Similarly displayed in the Table 1 is the statistical test of significance (p-value) which makes possible the generalization of our findings to the study population. From the result obtained from Table 1, the sig- calculated is less than significant level ($p = 0.000 < 0.05$). Therefore, based on this finding the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant relationship between human resource database analytics and timeliness of work of telecommunication companies in Nigeria.

H_{o2}: There is no significant relationship between human database analytics and achievement of targets of telecommunication companies in Nigeria.
Similarly, Table 1 shows a Spearman Rank Order Correlation Coefficient (rho) of 0.868 on the relationship between human resource database analytics and achievement of targets. This value implies that a very strong relationship exists between the variables. The direction of the relationship indicates that the correlation is positive; implying that an increase in achievement of targets was as a result of the adoption of HR database analytics. Therefore, there is a very strong positive correlation between human resource database analytics and achievement of targets of telecommunication firms in South-South, Nigeria. Also displayed in the Table 2 is the statistical test of significance (p-value) which makes possible the generalization of our findings to the study population. From the result obtained from Table 1, the sig- calculated is less than significant level ($p = 0.000 < 0.05$). Therefore, based on this finding the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant relationship between human resource database analytics and achievement of targets of telecommunication companies in Nigeria.

H_{o3}: There is no significant relationship between human resource database analytics and employee innovativeness of telecommunication companies in Nigeria.
Furthermore, Table 1 shows a Spearman Rank Order Correlation Coefficient (rho) of 0.754 on the relationship between human resource database analytics and employee innovativeness. This value implies that a strong relationship exists between the variables. The direction of the relationship indicates that the correlation is positive; implying that an increase in employee innovativeness was as a result of the adoption of HR database analytics. Therefore, there is a strong correlation positive between human resource database analytics and employee innovativeness of telecommunication firms in South-South, Nigeria. Also displayed in the Table 1 is the statistical test of significance (p-value) which makes possible the generalization of our findings to the study population. From the result obtained from Table 1, the sig- calculated is less than significant level ($p = 0.000 < 0.05$). Therefore, based on this finding the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant relationship between human resource database analytics and employee innovativeness of telecommunication companies in Nigeria.

DISCUSSION OF FINDINGS

The findings revealed that there is a positive significant relationship between human resource database analytics and employee productivity. This finding agrees with a research work by Irwandya et al (2020) carried out a related study to assess the level of efficiency and productivity of the BLUD Hospital in South Sulawesi province during the period of implementation of the National Health Insurance policy in Indonesia. The results found that the average level of efficiency was 1.023. There are 14 hospitals (56%) inefficient and 11 hospitals (44%) efficient. The average hospital productivity growth rate is 4%. The study concluded that the role of technology, competitive human resources, good management systems, and strong leadership are needed for hospitals to improve their efficiency and productivity level.

Likewise, the finding aligns with Togt and Rasmussen (2017) whose study shared the current value, challenges as well as the future of HR analytics from a Fortune 500 and whose findings established a moderate positive relationship between HR analytics and Human resource management on organisational outcomes such as productivity and profit. Furthermore, the finding also empirically validates the earlier work of Narula (2015) who conducted a study to give insights on the usage, techniques, and impacts of HR analytics and found that critical talent retention, enhanced recruiting cycles and costs, improved workforce planning and forecasting and improved decision making are the end products of HR analytics. The study highlights how to assess the effect of HR activities to evaluate business performance and strategy and these are efficiency, effectiveness, and impact as anchored by Boudreau and Ramstad (2005) to draw the connection between resources and organisational effectiveness.

These findings corroborate with Ejo-Orusa and Okwakpam (2018) who carried out a study on predictive HR analytics and human resource management amongst human resource management practitioners in Port Harcourt, Nigeria and their finding revealed 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 which subsequently increases sustainability of organizations. Similarly, the finding also concurs with Ruohonen (2015) who that, there is a need to leverage predictive analytics in the human resource management domain to identify the possible benefits. Using a qualitative approach to data collection where semi-structured interviews backed up by a questionnaire and multiple case studies were utilised, interesting findings were observed. Although the findings were company specific, general implications for businesses can be deduced. The benefits were enhanced individual and organisational performance, increased employee engagement and satisfaction, customer satisfaction, increased profitability and sales, and cost reductions. These benefits were identified in areas valuable to these organisations within the Human Resource domain. The findings of the study reveal the need to leverage predictive analytics if the organisation wants to be strategic partners in the business. Although the findings are relevant, using firms that are matured in the use of predictive analytics could have elicited quite different evaluations other than young ones as was the case in this study. A bigger sample could have also increased the definitive trends as well as credibility to some of the questions posed compared to the smaller sample of five.

CONCLUSION AND RECOMMENDATION

The study concludes that HR database analytics impacts positively on the productivity of employees in telecommunication firms in Nigeria. The study found that there is a significant relationship between the use of HR database analytics and employee productivity, with employees reporting higher levels of productivity when HR analytics is utilized. Additionally, the study found that HR database analytics can improve the accuracy of performance evaluation, support better decision-making, and enhance employee engagement.

Therefore, the study recommends that management of telecommunication companies should HR database analytics as a tool for enhancing employee productivity. This can be achieved by investing in HR analytics tools, training HR professionals on the use of these tools, and integrating HR analytics into the overall HR strategy of the organization. Additionally, firms can leverage HR analytics to identify areas for improvement in employee performance, provide targeted training and development opportunities, and track the effectiveness of HR initiatives.

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