

## **TALENT MANAGEMENT, HUMAN RESOURCE ANALYTICS AND SUCCESSION PLANNING IN SELECTED CORPORATE INSTITUTIONS IN NIGERIA.**

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### **ABSTRACT**

*The operational sustainability of Human Resource (HR) operations depends heavily on the engagement of technology to adopt and deploy HR analytics. The main objective of the study is to examine talent management and succession planning with the mediating effect of HR analytics. A quantitative research method was adopted, in which a well-structured questionnaire was used to collect data from the target respondents of the study. The study population was 790 respondents from the selected enterprises and Yamane's (1967) sample size determination formula was used in the study and the sample size was 266 respondents. The study used partial least squares structural equation modelling (PLS-SEM) to test the research hypotheses and analysed the correlation as well as the significant impact between human resource analytics, talent management and succession planning in modern Nigerian businesses. The results show a positive and significant relationship between talent management and succession planning. This study also shows the positive impact of HR analytics on talent management and succession planning in Nigerian businesses. The study specifically concludes that talent management has an influence on the sustainability of succession planning through the mediating effect of human capital analytics. The study recommends that HR strategic thinkers continue to adopt new technologies that can accelerate the effective implementation of HR analytics, and that consistent training and development can help promote HR and talent management will meet succession planning expectations in the modern business environment.*

**Key Words:** Human Resource Analytics, Succession Planning, Talent Management.

### **INTRODUCTION**

Human resource analytics (HRA), also known as workforce analytics or talent analytics, involves using data analytics and technology to better understand various aspects of an organization's workforce. Human capital analytics is a technology-based human resources practice that modern businesses are adopting and implementing to improve the performance and sustainability of their HR departments, while simultaneously helping make data-driven decisions. The primary goal is to improve overall HR processes, workforce

efficiency, and organizational performance through data-driven decisions. In today's global organizational environment, HR activities have evolved from traditional methods to more innovative and digitized approaches. These changes are driven by continuous technological innovations, growth, development, and the recent COVID-19 pandemic, which has brought transformational changes to human resource practices in modern business contexts (Polisetty et al., 2024; Pandey et al., 2023).

These evolving environmental factors have led to the adoption and practice of human resource

(HR) analytics in the modern business environment. The application of HR analytics helps HR leaders and managers make effective and sustainable data-driven decisions, better understand resource practices through data analysis and visualization, and consistently improve performance (Thakur et al., 2024). Practicing HR analytics can assist in making data-driven talent decisions, improving workforce processes, and recruiting and retaining a talented and experienced workforce in modern business settings. Recent studies indicate that HR analytics is integral to sustainable and profitable global business environments (Thakur et al., 2024; Allaham, 2022; Patil & Priya, 2024), and its practice has been significantly influenced by newer technological innovations (Xu et al., 2022; Xiao, 2022). Strategically, HR analytics supports talent management, workforce development, career planning, human resources, and succession planning functionalities (Toine et al., 2022).

Talent management and succession planning are essential aspects of human resource management in modern organizations, ensuring effective retention of employee skills and ensuring continuity, stability, and long-term success. Both involve strategic approaches to managing an organization's workforce, focusing on creating a team of competent individuals capable of filling key roles. Talent management encompasses attracting, identifying, developing, and retaining the best talent within an organization. Succession planning identifies and develops potential future leaders or key employees who can assume critical roles when needed. These processes are crucial for organizational resilience and long-term success in a dynamic business environment (Kolachina et al., 2024).

The integration of HR analytics enhances talent management and succession planning efforts, aiming to improve workforce efficiency, talent retention, and organizational sustainability in modern businesses (Kaliannan et al., 2023; McCaig et al., 2022; Bano et al., 2022; Ratnawati et al., 2022). Adopting and

implementing HR analytics to achieve and sustain talent management and succession planning poses challenges for modern businesses in Nigeria. While several studies have explored talent management, succession planning, and HR analytics from various perspectives, particularly in developmental contexts (Thakur et al., 2024; Toine et al., 2022; Xiao, 2022; Kaliannan et al., 2023; Ratnawati et al., 2022; McCartney & Fu, 2022; Kiran et al., 2022; Jindal & Shaikh, 2020), none have specifically addressed the mediating impact of HR analytics on talent management and corporate succession planning in Nigeria.

Moreover, existing studies on reconciling HR analytics with talent management and succession planning often present limited literature, and their findings and conclusions sometimes contradict, leaving the relevance of HR analytics to modern HR practices unclear. Addressing these gaps, this study aims to examine talent management and succession planning in Nigerian businesses, focusing on the mediating impact of human resource (HR) analytics to contribute knowledge in these areas. The study utilized quantitative research methods, collecting data through well-structured questionnaires from selected corporate settings in Nigeria. The main objective of the study was to examine HR analytics effect on talent management and succession planning of selected corporate settings in Nigeria. The specific objectives are to:

- i. Investigate the mediating effect of HR analytics on talent management of selected corporate settings in Nigeria.
- ii. Evaluate the effect of HR analytics on succession planning of selected corporate settings in Nigeria.

## **Research Hypotheses**

**H01:** HR analytics does not mediate the relation between talent management and succession planning of selected corporate settings in Nigeria.

**H02:** HR analytics has no effect on succession planning of selected corporate settings in Nigeria.

## **LITERATURE REVIEW**

### **HR Analytics**

Human resources (HR) analytics is driven by the strategic alignment of new technology and innovation. HR analytics is an ever-evolving concept in human resources practice, encompassing the adoption and application of technological data to source, attract and retain talent in the modern business environment (Polisetty, et al. 2024). This involves adopting and implementing data-driven intelligence systems to help ensure the effectiveness and sustainability of talent planning, talent development, talent management and planning succession in modern organizations. People analytics is a systematic technology approach used to drive organizational talent and sustainable performance through operational systems that analyse strategic and critical data across the department. the company's human resources department (Thakur, 2024). Human capital analytics using modern techniques helps drive investment in the workforce of organizations to achieve operational sustainability and profitability in the business environment even during environmental changes hard. The analytical aspects of HR focus on strategic and critical pillars connected to employees, including employee retention and turnover analytics, training and development analytics, and systems analytics rewards and remuneration, motivation analysis, work environment analysis, performance and productivity analysis, recruitment process analysis and corporate culture analysis in organizations (Patil & Priya, 2024). Effectively applying and practicing HR analytics can help modern businesses optimize operations,

improve performance and overall employee experience, and reduce recruitment costs. employ and retain their workforce.

Recent studies had specifically investigated how technological variables such as artificial intelligence can be applied to improve HR analytics applications (Pandey, et al. 2024; Rodgers, et al. 2023) and the implications of HR analytics. HR analytics for HR management has contributed to strategically driving business performance in the modern business landscape (Madhani, 2023). Allaham, (2022) specifically concluded that many research studies was HR analytics and their findings were applied in organizations (Xu et al., 2022; Xiao, 2022). Ekka and Singh (2022) concluded that the application and practice of HR analytics has a significant and positive impact on the operational performance and sustainability of units and departments. human resources, as well as an overall view of employee performance in the modern era. business organizations. McCartney and Fu (2022) specifically believe that HR analytics methods can be applied to improve organizational performance and sustainability. Koirala and Mishra, (2022) believe that the application and practice of HR analytics has also contributed to the assessment of HR activities and practices in the modern business environment. Xiao, (2022) emphasizes the positive strategic significance of applying the Internet of Things (IoT) and big data analytics in the human resource management of modern enterprises. Toine et al. (2022) also supports the revalidation and credibility of innovative human resource management, digitalization and transformation approaches in modern organizations. Margherita, (2022) believes that HR analytics will be an effective and sustainable driver for HR activities in the near future. The study demonstrates the potential value of technology and innovation in the practice of HR analytics and value creation

for the performance and sustainability of modern organizations (Margherita, 2022). Soares, et al. (2022) also conducted a systematic review of the effectiveness and operational sustainability of applying and implementing HR analytics in modern business environments. Another study also emphasizes the mediating impact of HR analytics on the management and development of sustainable human resources as well as the sustainability of organizational performance in the modern digital era (Kiran, et al. 2022). Thakre, (2021) concluded on the effectiveness and sustainability of HR analytics for organizational innovation. Human resource analytics, according to Belizón and Kieran, (2021), promotes legitimate processes in human resource practices in modern organizations. The study conducted by Singh and Malhotra (2020) focused and concluded that HR analytics has improved the efficiency and effectiveness of management activities towards the organization's HR. Karmaska, (2020) focuses and emphasizes the importance of human resource analytics in modern organizations for the effectiveness and sustainability of human resource management.

### **Talent Management (TM)**

Talent management can best be described as the process of applying strategic thinking by senior managers and HR leaders to attract, organize, motivate and retain a talented workforce. the highest and most productive of the organization. Effective and sustainable talent management in the modern business environment helps attract and retain the best talent to organizations, which has a significant impact on building consistent operational sustainability as well as such as planning and executing succession work smoothly. The human resources department of any organization will benefit from operational smoothness and efficiency when effectively implementing talent management (Kolachina, et al. 2024). Talent management involves consistently developing personnel needed to

align with the organization's succession plan. Implementing effective talent management can help enhance talent attraction, development and retention, as well as employee performance and satisfaction in the modern business environment. Recent studies had investigated the relationship between the impact and impact of talent management on employee performance and organizational sustainability in a comprehensive manner (Kaliannan et al., 2023; McCaig et al. 2022). McCaig et al. (2022), opined that talent management is a source of enhanced organizational competitiveness and competitive advantage. Talent management, according to Kaliannan et al. (2023), is the improvement of talent development among an organization's employees. That is, effective talent management improves the efficiency and smoothness of the recruitment process in organizations. The effectiveness of employee engagement is a result of flexibility in talent management in modern companies. That is, adopting and implementing digital talent management methods can effectively and sustainably improve organizational performance. A study also found that talent management has a strategic impact on employee satisfaction and company performance (Siripipatthanakul et al. 2022). Shinta, et al. (2022) specifically assert that succession planning can be achieved effectively and sustainably through talent management in modern organizations. Louis, Sulaiman, and Zakaria (2022) also concluded that talent management in the context of corporate accounting improves auditors' overall performance. Kaewnaknaew et al. (2022) discussed the impact of talent management on the performance of a construction company. Sindhura, (2022) emphasizes the impact of talent management strategies in optimizing HR operations in modern organizations. One study concluded that technological innovation has changed the way talent is managed in today's digital age (Stopochkin, et al. 2022). Another study claims that implementing talent management strategies can help increase the efficiency and sustainability of HR operations



in organizations (Hassanein & zgit, 2022; Ratnawati, et al. 2022).

### Succession Planning (SP)

Succession planning is an important issue in modern businesses to meet the unforeseen needs of leadership and management changes. In other words, effective succession planning helps replace top talent who leave the organization. Well-structured succession planning frees the organization from searching for talent and successors to meet urgent needs. Effective succession planning helps modern businesses manage talent pipelines and enable successors to drive and improve the sustainability of their operations and profitability. Succession planning can also be described as planning for the replacement of talented people who leave the organization. Succession planning can best be described as the strategy adopted by strategic leaders to replace emerging talent with retired or lost talent within their organization (Hoque & Zheng, 2024). It is simply described as a structured process to replace departing talent with trained successors within organizations. Strengths and capabilities of succession planning in human resource management Effective and sustainable in the context of modern public and private business worldwide (Okeke, et al. 2022; Bano, et al.2022). Recent studies had strongly agreed that succession planning is key to the operational sustainability, profitability, and competitiveness of family businesses (Natadilaga, et al. 2024; Okeke et al. 2022; Awogbemi, et al. 2022; John & LeCounte, 2020). That is, succession planning practices in modern organizations can help enhance performance and sustainability. Bano et al. (2022) emphasize the importance of succession planning for the operational sustainability and profitability of businesses of all sizes. Nurudeen (2022) described the impact of succession planning on the performance strength of small and medium enterprises (SMEs) in Nigeria with intervention in organizational culture. Batra and Kaur (2022) evaluated the significant impact of succession planning and workforce diversity in modern

businesses. Sholesi, et al. (2022) concluded on the importance of succession planning on the performance and sustainability of manufacturing companies in Nigeria.

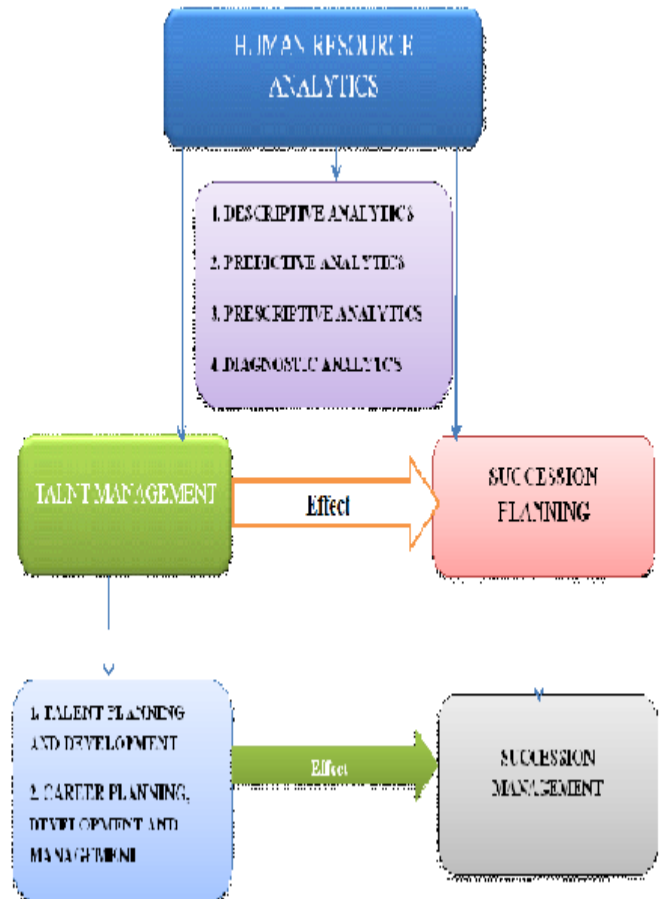


Fig. 1.2: Mediating Effect of HR Analytics on Talent Management and Succession Planning (Researchers, 2023)

The above model proposes and demonstrates the correlating impact of talent management and succession planning with the mediating impact of HR analytics in the modern business environment. HR analytics uses a modern technological variable called a “dashboard” to report events occurring in HR practices in TM and SP terms, known as “descriptive analytics.” HR analytics also uses technology variables to show the future impact of TM and SP on organization; this is called “predictive analytics” and when HR analytics is applied within the organization comes action options and corrective measures to adopt to avoid the unforeseen impact of TM and SP for the

organizations, this is called “prescriptive analytics.” HR analytics can help streamline the effectiveness and sustainability of the relationship between talent management and succession planning in the modern business environment. Diagnostic analytics helps identify data on remote and immediate causes of gaps that may arise in talent management and impact succession planning, and extract solutions and data necessary to overcome the causes of talent gaps and staff turnover in the organization. The model shows that effective talent management in modern companies leads to sustainable succession planning, implementation and management. The model also reveals that smooth talent management can bring about positive changes in employee talent planning and development, while helping to optimize planning, development, and growth. development and effectiveness of career management in organizations. This improvement can lead to more effective and long-term succession planning, as well as improved operational sustainability and overall organizational profitability.

### **Theoretical Framework**

This study has strategically linked and underpinned two (2) theories as theoretically based, namely, the Evidence-Based Management (EBM) Theory (Bezzina, et al. 2017) and dynamic capabilities theory (Winter, 2003). Evidence-Based Management (EBM) is an approach that involves making decisions and taking actions based on the best available evidence, integrating scientific findings with practical wisdom and organizational values. This concept is rooted in the broader movement of evidence-based practice, which originated in medicine and has been applied to various fields, including management. When aligning EBM with HR analytics, talent management, and succession planning, organizations can benefit from a more data-driven and informed approach to managing their human capital. By integrating EBM principles with HR analytics, talent management, and succession planning, organizations can create a more strategic and evidence-based approach to managing their

workforce. This alignment helps in making informed decisions that lead to improved organizational performance and employee satisfaction. According to EBM theory, the strength of HR analytics in organizations depends heavily on the facts and evidence from senior managers and HR leaders in talent management and succession planning. Studies had justified the adoption of EBM Theory on HR analytics research in various perspectives (Lathabhavan, 2023; McCartney, & Fu, 2022; Si, et al. 2023). Evidence-Based Management theory, when applied in conjunction with HR analytics, can significantly enhance the effectiveness of talent management and succession planning in Nigerian corporate settings. By making data-driven decisions, mitigating biases, and optimizing resource allocation, organizations can better identify, develop, and retain top talent, ensuring long-term success and sustainability in the dynamic business environment of Nigeria.

Dynamic capabilities (DC) Theory emphasized on the firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments. Dynamic capabilities are considered essential for a company's long-term success as they enable organizations to adapt to changing market conditions, seize new opportunities, and respond effectively to challenges. Dynamic capabilities refer to an organization's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments. In the context of human resources (HR), dynamic capabilities involve the capacity to adapt and respond to changes in the workforce, technology, and market conditions. This includes the ability to attract, develop, and retain talented employees, aligning HR strategies with the overall organizational goals. Based on DC theory HR analytics can provide valuable insights into talent management and succession planning. In summary, the alignment of dynamic capabilities with HR analytics in talent management and succession planning is crucial for organizations to stay competitive and agile in the face of evolving HR management environments. The combination of strategic HR practices,

adaptability, and data-driven decision-making supports effective workforce planning and development and succession in organizations. Dynamic Capabilities (DC) theory posits that HR analytics is a capability that can improve the effectiveness and sustainability of organizational resources, especially talent management, to achieve succession planning coherent. According to DC theory, HR analytics links the significant impacts of the relationship between talent management and succession planning in modern organizations. Recent studies had adopted DC theoretical lens to justify their research on HR analytics in various perspectives (Pillai, & Srivastava, 2023; Thakur, et al. 2024; Bahuguna, et al. 2023). By integrating dynamic capabilities theory with HR analytics, Nigerian businesses can enhance their ability to effectively manage talent and plan for succession in a rapidly changing environment. This approach enables organizations to better anticipate, adapting to changing business contexts, talent identification and development, boosting organization learning and knowledge management and respond to talent-related challenges while also leveraging data-driven insights to support strategic decision-making.

### **Empirical Reviews**

McCartney and Fu (2022) studied the impact of HR analytics on organizational performance and operational sustainability. The study examines the vitality of applying HR analytics to improve sustainability in business operations. The sample size of the study was 155 Irish companies. A questionnaire was used to collect data from the selected companies and SEM-PLS was used to analyse the collected data. According to research findings, HR analytics has a significant impact on the performance and sustainability of Irish businesses. Ratnawati et al. (2022) conducted research on talent management and succession planning in modern organizations. The main objective of the study is to examine the influence of talent management on organizational succession planning. The study reviewed a number of works, books and articles related to the effectiveness of talent management and succession planning. The study found, after

reviewing several literatures, that talent management has a strategic impact on an organization's overall succession plan. Kiran et al. (2022) studied the impact of HR analytics on HR management and organizational sustainability. The study aims to examine the correlation that exists between HR analytics, HR management and sustainability in the performance of organizations. A systematic literature review was used in the research methodology, revealing that HR analytics has a strategic impact on HR management and the overall operational sustainability of organizations.

Thakur et al. (2024) conducted a study on HR analytics, creative problem solving, and business performance: moderator-mediator analysis using PLS-SEM. This study explores how human resource analytics (HRA) can improve human resource management (HRM) performance and organizational performance, with creative problem-solving ability (CPSC) mediating Basic solution to create value from HRA. The hypotheses are tested in an empirical study including 191 firms using partial least squares structural equation modelling techniques. The results confirm the direct and indirect effects of HRA adoption and maturity on HRM and organizational performance, as well as the mediating role of CPSC. The expertise of HRA staff is believed to moderate the relationship between HRA and CPSC, with data quality being an important factor. Jindal and Shaikh, (2020) studied the effectiveness of talent management in succession planning: a proposed model for pharmaceutical companies. The study examines the relationship between talent identification (TID), talent development (TD), talent retention (TR) and succession planning in Indian pharmaceutical companies. A survey method was used to collect responses from senior executives of pharmaceutical companies in Hyderabad, India. The population was 367 people and the sample size was determined to be 340 people. The hypothesized model and structural relationships were tested through structural equation modelling (SEM). Research results show that TR plays a mediating role in the relationship between TID, TD and succession planning in the organization.

This research helps pharmaceutical companies prepare for the future in succession planning by making skilful use of their conventional talent management strategies. This study well develops the empirical relationship between TID, TD and real estate planning with the mediating effect of TR.

## METHODOLOGY

The methodology adopted in the study was quantitative research, and the study used a causal research design to ascertain the correlative effect of HR on analytics on talent management and succession planning in modern corporate settings. The data requirements source adopted on the variables of HR analytics, talent management and succession planning were closed-ended questionnaire and it was adequately administered to the selected corporate settings in Nigeria.

Selected corporate settings in Nigeria, where ShopRite, MTN Nigeria, GOBAL Com Nigeria, First Banks Nigeria Limited, Zenith Bank Plc and MultiChoice Nigeria Limited, were selected based on consistent performance in public operations their different industrial operation. The target population of the study included managerial and non-managerial employees in the selected business contexts. This resulted in a total of 790 respondents from the selected companies. Taro Yamane's (1967) sample size determination formula was used in the study.

$$n = \frac{N}{1 + N(e)^2}$$

Where: N = Population Size 1= Constant

n= Sample size

e = Error of Margin (0.05)<sup>2</sup>

$$n = \frac{790}{1 + 790(0.05)^2} \quad n = \frac{790}{1 + 790(0.0025)} = \frac{790}{2.975}$$

$$n = 209.75 = 265.6 = 266.$$

The sample size was 266 respondents. To avoid problems of no response, questionnaires being filled out incorrectly, and questionnaires possibly being lost, a sample size of 30 percent was provided and added to the sample to compensate for these limitations (Anderson, et al. 2017; Cochran, 1963). 30% of 266 = 80, so 80 + 266 = 346. To obtain complete and general information, this was allocated 30% to management employees and 70% to non-management employees.

The source of data collection for this study was the primary source of data and was collected directly from employees of the selected companies in Abuja, Nigeria through questionnaire. The use of primary data by researchers in talent management and succession planning, with the help of HR analytics, has significantly enabled the collection of data that can help obtain results and Conclusion based on real-time information on the topic. The study sent 21 items in the questionnaire, of which 7 items were taken from each variable to each company employee via email in Abuja, and 296 respondents answered and completed the questionnaire accurately. Researchers used HR analytics questionnaire in talent management and succession planning to provide a comprehensive, data-driven approach to understand the workforce planning and development workforce in a selected corporate workforce environment in Abuja, Nigeria. Surveys and questionnaires enabled research teams to collect quantitative data on the skills, aspirations and career goals of employees at selected companies in Abuja, Nigeria. This information is valuable for understanding the current skill set of the workforce in the selected corporate settings. Questionnaire data helped researchers create talent profiles and identify potential successors for key roles among selected companies in Abuja, Nigeria.

## Validity and Reliability of Research Instruments

The study used content validity to measure talent management and succession planning



questionnaires with the help of HR analytics. Content validity was used to help ensure that the question items accurately captured relevant aspects of these concepts. Content validity clearly defines the concepts used to measure talent management, succession planning, and human capital analytics. This ensures that the question items correspond to the concepts intended to be used in the study. The researchers sought advice from experts in the fields of talent management, succession planning and human capital analytics. These experts helped provide valuable information about the content and relevance of the questionnaire items. Considering the mediation of HR analytics, the researchers ensured that the questionnaire included items related to data-driven decision making, use of analytics, and impact of analytics on processes succession planning and talent management in a selected corporate setting in Abuja. The reliability of the questionnaire used in talent management and succession planning with the help of HR analytics ensured the consistency and stability of the measurement tool. The study used the statistical measure Cronbach's Alpha to evaluate the internal consistency of the questionnaire items and showed that the items had the same structure as 0.7 or higher. The study used partial least squares structural equation modelling (PLS-SEM) to test the research hypotheses and analyse the correlation as well as the significant impact between human resource analysis, human resource management, and human resource analysis focusing on structural and measurement model between research variables. SEM was used by the researchers to evaluate the effect of HR analytics in the relationship between talent management and succession planning. The researchers examine how HR analytics mediates or explains the relationship between talent management practices and outcomes using SEM. Researchers used SEM to test and validate theoretical models HR analytics items which are (descriptive analytics, predictive analytics, prescriptive analytics and diagnostic analytics) on talent management (talent development, talent retention and talent acquisition) and succession planning by

comparing hypothetical models with actual data and these are in consistent with studies of Ekka, and Singh, (2022); Batra, and Kaur, (2022); Jindal, and Shaikh, (2020); Kolachina, et al. (2024); Pandey, et al. (2024); Patil and Priya, (2024).

## RESULTS AND DISCUSSION OF FINDINGS

**Table 4.1: Outer loadings (Measurement Model)**

|             | Parameter estimates | Standard errors | T values | P values |
|-------------|---------------------|-----------------|----------|----------|
| ATT1 <- HR  | 1.000               | n/a             | n/a      | n/a      |
| ATT2 <- HR  | 0.993               | 0.023           | 43.399   | 0.000    |
| ATT3 <- HR  | 0.988               | 0.024           | 41.362   | 0.000    |
| ATT4 <- HR  | 0.915               | 0.024           | 37.504   | 0.000    |
| ATT5 <- HR  | 0.900               | 0.024           | 37.642   | 0.000    |
| BI1 <- SP   | 1.000               | n/a             | n/a      | n/a      |
| BI2 <- SP   | 1.432               | 0.061           | 23.530   | 0.000    |
| BI3 <- SP   | 1.390               | 0.059           | 23.635   | 0.000    |
| USEF1 <- TM | 1.000               | n/a             | n/a      | n/a      |
| USEF2 <- TM | 1.163               | 0.042           | 27.512   | 0.000    |
| USEF3 <- TM | 1.265               | 0.043           | 29.397   | 0.000    |
| USEF4 <- TM | 1.295               | 0.046           | 28.431   | 0.000    |
| USEF5 <- TM | 1.093               | 0.039           | 28.139   | 0.000    |

The table shows the outer loadings, parameter estimates, standard errors, t-values, and p-values for various indicators representing latent constructs in a structural equation model (SEM) or a similar analysis. These indicators reflect the relationships between observed variables and their corresponding latent variables. The values you've provided can be interpreted as follows:

### HR (HR Analytics):

- ATT1 <- HR: This indicates that the first indicator of the latent variable Attitude (ATT) is directly loaded by HR Analytics (HR) with a parameter estimate of 1.000. Since this loading is fixed at 1.000, it is not necessary to provide standard errors, t-values, or p-values for this indicator.
- ATT2 <- HR: The second indicator of Attitude (ATT) is loaded by HR Analytics (HR) with an estimated loading of 0.993. The associated t-

value is 43.399, suggesting high statistical significance.

- ATT3 <- HR: Similarly, the third indicator of Attitude (ATT) is loaded by HR Analytics (HR) with an estimated loading of 0.988 and a high t-value of 41.362.

- ATT4 <- HR: The fourth indicator of Attitude (ATT) is loaded by HR Analytics (HR) with an estimated loading of 0.915 and a significant t-value of 37.504.

- ATT5 <- HR: The fifth indicator of Attitude (ATT) is loaded by HR Analytics (HR) with an estimated loading of 0.900 and a significant t-value of 37.642.

#### SP (Succession Planning Strategies):

- BI1 <- SP: The first indicator of the latent variable Behavioural Intention (BI) is directly loaded by Succession Planning Strategies (SP) with a parameter estimate of 1.000. As before, the fixed loading means no additional statistics are provided.

- BI2 <- SP: The second indicator of Behavioural Intention (BI) is loaded by Succession Planning Strategies (SP) with an estimated loading of 1.432 and a highly significant t-value of 23.530.

- BI3 <- SP: The third indicator of Behavioural Intention (BI) is loaded by Succession Planning Strategies (SP) with an estimated loading of 1.390 and a highly significant t-value of 23.635.

#### TM (Talent Management):

- USEF1 <- TM: The first indicator of the latent variable is directly loaded by Talent Management (TM) with a parameter estimate of 1.000, again with no additional statistics due to the fixed loading.

- USEF2 <- TM: The second indicator of TM is loaded by Talent Management (TM) with an estimated loading of 1.163 and a significant t-value of 27.512.

- USEF3 <- TM: The third indicator of TM is loaded by Talent Management (TM) with an estimated loading of 1.265 and a significant t-value of 29.397.

- USEF4 <- TM: The fourth indicator of TM is loaded by Talent Management (TM) with an estimated loading of 1.295 and a significant t-value of 28.431.

- USEF5 <- TM: The fifth indicator of TM is loaded by Talent Management (TM) with an estimated loading of 1.093 and a significant t-value of 28.139.

These results provide insights into the relationships between observed variables (indicators) and their corresponding latent constructs (HR Analytics, Succession Planning Strategies and Talent Management). The parameter estimates, t-values, and p-values help assess the statistical significance of these relationships in the context of your analysis.

#### Latent variables

**Tabel 4.2: Estimated parameter (overview)**

|           | Parameter estimates | Standard errors | T values   | P values |
|-----------|---------------------|-----------------|------------|----------|
| <b>HR</b> | 0.883               | 0.047           | 18.86<br>2 | 0.000    |
| <b>SP</b> | 0.477               | 0.037           | 12.84<br>2 | 0.000    |
| <b>TM</b> | 0.352               | 0.025           | 14.17<br>9 | 0.000    |

The table 4.2 showed the estimated parameters for the latent variables within the context of your analysis: HR (HR Analytics), SP (Succession Planning Strategies), and TM (Talent Management). These parameters, including parameter estimates, standard errors, t-values, and p-values, hold significance in comprehending the nature and strength of the interrelationships among these latent constructs in a structural equation model (SEM) or a similar statistical framework. Beginning with HR (HR Analytics), the parameter estimates of 0.883 suggests a positive relationship between HR Analytics and the broader model. This numeric value denotes that HR Analytics wields a substantial and positive influence on the latent variables in the analysis. This assertion is reinforced by the remarkably high t-value of 18.862 and the exceedingly low p-value of 0.000, firmly establishing the statistical

significance of this connection. In practical terms, these findings underscore the pivotal role that HR Analytics plays in shaping the overall structural dynamics.

Transitioning to SP (Succession Planning Strategies), the estimated parameter value of 0.477 indicates a positive and significant association between Succession Planning Strategies and the overarching model. This numeric insight implies that Succession Planning Strategies exert a meaningful positive impact on the latent variables encapsulated within the analysis. This assertion is further confirmed by the noteworthy t-value of 12.842 and the highly significant p-value of 0.000. These statistical results illuminate the importance of well-developed succession planning strategies in influencing the broader structural relationships. Lastly, for TM (Talent Management), the parameter estimates of 0.352 signifies a constructive and substantial correlation between Talent Management and the overarching model. This numerical observation suggests that Talent Management exerts a noteworthy positive effect on the latent variables integrated into the analysis. This conclusion is strengthened by the pronounced t-value of 14.179 and the statistically significant p-value of 0.000. These statistical findings accentuate the integral role that effective Talent Management practices play in shaping the overall structural landscape.

The provided parameter estimates and their associated statistics collectively illuminate the intricate interplay among the latent variables: HR Analytics, Succession Planning Strategies, and Talent Management. The statistical significance of these relationships underscores their integral roles in shaping the comprehensive structural model, offering insights of value to researchers and practitioners seeking to understand and optimize the dynamics of HR-related factors within the context of your analysis.

**Table 4.3: Correlations**

|    | HR    | SP    | TM    |
|----|-------|-------|-------|
| HR | 1.000 | 0.345 | 0.408 |
| SP | 0.345 | 1.000 | 0.514 |
| TM | 0.408 | 0.514 | 1.000 |

The table 4.3 provided the correlation coefficients, which give insights into the relationships and variance explained among the latent variables HR (HR Analytics), SP (Succession Planning Strategies), and TM (Talent Management). The correlation coefficient between HR (HR Analytics) and SP (Succession Planning Strategies) is 0.345, indicating a positive but moderately weak correlation between these two variables. The correlation coefficient between HR (HR Analytics) and TM (Talent Management) is 0.408, signifying a positive but still moderately weak correlation between these variables. The correlation coefficient between SP (Succession Planning Strategies) and TM (Talent Management) is 0.514, demonstrating a positive and moderate correlation between these two variables. These correlation coefficients provide a snapshot of the relationships among the variables. While they suggest some level of association, the strengths are moderate, implying that these variables are related, but not extremely strongly.

**Table 4.4: R-square**

|    | R-square |
|----|----------|
| SP | 0.286    |
| TM | 0.167    |

The R-square (coefficient of determination) values provide insights into how much variance in one variable is explained by the other variables in the analysis. For SP (Succession Planning Strategies), the R-square value is 0.286. This means that around 28.6% of the variance in SP is explained by the variance in the other latent variables (HR and TM) in the model. For TM (Talent Management), the R-square value is 0.167. This indicates that

approximately 16.7% of the variance in TM is accounted for by the variance in the other latent variables (HR and SP) in the analysis. These R-square values indicate the proportion of variability in each latent variable that can be attributed to the other variables in the analysis. While these values are not extremely high, they do suggest that there is a degree of shared variance among the variables, contributing to the overall relationships observed in the model.

**Table 4.5: Construct Reliability and Validity**

|    | Cronbach's alpha (standardized) | Cronbach's alpha (unstandardized) | Composite reliability (rho c) | Average variance extracted (AVE) |
|----|---------------------------------|-----------------------------------|-------------------------------|----------------------------------|
| HR | 0.936                           | 0.936                             | 0.936                         | 0.744                            |
| SP | 0.825                           | 0.821                             | 0.831                         | 0.619                            |
| TM | 0.906                           | 0.906                             | 0.908                         | 0.660                            |

The table 4.5 offered a comprehensive assessment of construct reliability and validity for the latent variables in your analysis—HR (HR Analytics), SP (Succession Planning Strategies), and TM (Talent Management). These metrics are crucial for evaluating the robustness and quality of these latent constructs within the context of your model. Starting with Cronbach's Alpha, this measure of internal consistency evaluates the extent to which items within a latent variable correlate with one another. The standardized Cronbach's Alpha values—0.936 for HR, 0.825 for SP, and 0.906 for TM—indicate strong internal consistency within each variable. These scores suggest that the items forming each construct are coherent and consistently measure the underlying concept they represent. This level of internal consistency enhances the reliability of the constructs. Moving to Composite Reliability (rho c), this metric assesses the reliability of the latent variable as a whole, considering both shared variance among items and measurement error. With values of 0.936 for HR, 0.831 for SP, and 0.908 for TM, your constructs demonstrate high composite reliability.

This reflects the constructs' stability and the reliability of their measurement across various scenarios. Average Variance Extracted (AVE),

the next metric, gauges the proportion of variance captured by a latent variable's indicators. AVE values of 0.744 for HR, 0.619 for SP, and 0.660 for TM suggest that a substantial portion of the constructs' variability is accounted for by their indicators. This indicates that the indicators collectively contribute to explaining the underlying concepts effectively. Collectively, these findings underscore the robust construct reliability and validity of HR, SP, and TM within your model. The high Cronbach's Alpha scores affirm internal consistency, while the strong Composite Reliability values highlight the constructs' reliability as a whole. Additionally, the reasonable AVE values underscore the constructs' ability to effectively capture the intended concepts. Altogether, these metrics affirm the quality of the latent variables and enhance the credibility of your analysis and its findings.

**Table 4.6: Path coefficients**

|          | Parameter estimates | Standard errors | T values | P values |
|----------|---------------------|-----------------|----------|----------|
| HR -> SP | 0.142               | 0.029           | 4.949    | 0.000    |
| HR -> TM | 0.282               | 0.022           | 12.877   | 0.000    |
| TM -> SP | 0.562               | 0.047           | 11.926   | 0.000    |

The results from the analysis present a comprehensive view of the relationships between HR Analytics (HR), Talent Management (TM), and Succession Planning Strategies (SP) within the corporate landscape of Nigeria. These statistical findings unveil significant insights into how these variables interact and impact one another. The positive path coefficient of 0.142, accompanied by a low p-value ( $p < 0.001$ ), illustrates a robust correlation between HR Analytics and Succession Planning Strategies. This indicates that HR Analytics has a noteworthy positive influence on the development and implementation of effective succession



planning strategies within Nigerian corporations. The substantial t-value of 4.949 further underscores the statistical significance of this relationship, implying that companies that leverage HR Analytics are more likely to have successful succession planning initiatives in place. Similarly, the analysis highlights a significant link between HR Analytics and Talent Management, as evidenced by the substantial path coefficient of 0.282 and a very low p-value ( $p < 0.001$ ). This indicates that HR Analytics plays a pivotal role in shaping and enhancing Talent Management practices in Nigerian corporate environments. The considerable t-value of 12.877 reinforces the strength of this connection, implying that organizations utilizing HR Analytics tend to excel in their Talent Management endeavours.

Furthermore, the findings suggest a prominent connection between Talent Management and Succession Planning Strategies, with a path coefficient of 0.562 and an exceedingly low p-value ( $p < 0.001$ ). This signifies that effective Talent Management practices substantially contribute to the formulation and execution of successful succession planning strategies within Nigerian corporations. The high t-value of 11.926 bolsters the statistical significance of this relationship, underscoring the critical role that Talent Management plays in shaping effective succession planning. Thus, the empirical results of the analysis provide compelling evidence to support the initial hypotheses. HR Analytics demonstrates a strong positive influence on both Talent Management and Succession Planning Strategies, while effective Talent Management practices significantly contribute to the success of succession planning initiatives within the Nigerian corporate context. These findings collectively highlight the importance of HR Analytics and well-executed Talent Management strategies in fostering sustainable succession planning and overall organizational success in Nigeria.

**Table 4.7: Indirect effects**

|                | Specific indirect effects |
|----------------|---------------------------|
| HR -> TM -> SP | 0.159                     |

The analysis also explored indirect effects among the variables HR Analytics (HR), Talent Management (TM), and Succession Planning Strategies (SP). The specific indirect effect you've mentioned is:

**\*\*HR -> TM -> SP: 0.159\*\***

This indirect effect suggests that the influence of HR Analytics (HR) on Succession Planning Strategies (SP) is partially mediated by its impact on Talent Management (TM). In other words, HR Analytics indirectly affects Succession Planning Strategies by influencing Talent Management. A positive value of 0.159 for the specific indirect effect implies that the positive relationship between HR Analytics and Talent Management leads to an enhancement in Talent Management practices, which subsequently contributes to the effectiveness of Succession Planning Strategies. This indirect effect is statistically significant if its p-value is below the chosen significance level (0.05). Therefore, this indirect effect provides a deeper understanding of the mechanism through which Talent Management influences Succession Planning Strategies by working through the mediating variable of HR Analytics. This insight can be valuable for organizations seeking to optimize their HR strategies and improve their succession planning outcomes within the context of Nigeria's corporate environment.

### Discussion of Findings

The initial results of this study showed that talent management had a significant positive effect on succession planning in businesses in Nigeria. This finding has been conceptually and empirically supported by previous studies that talent management influences succession planning in corporate settings (Ratnawati et al. 2022; Shinta et al. 2022; Jindal & Shaikh, 2020; McCartney & Fu, 2022; Bature, 2022). The results of this study showed that HR analytics had a significant impact on talent management

in selected companies in Nigeria. This finding is consistent with the results of recent studies that HR analytics had an effect and influence on enterprise talent management (Kiran et al. 2022; Thakur et al. 2024). The results of this study also showed that HR analytics had a significant impact on succession planning in selected corporate settings in Nigeria. This conclusion is also supported by the findings of recent studies that HR analytics has had an impact and influence on business succession planning (Pandey, et al. 2024; Polisetty et al. 2024). The results showed that HR analytics had a mediating effect between talent management and succession planning in modern organizations. This finding had been supported empirically and conceptually that HR analytics had effect on talent management and succession planning in the modern business environment (Pandey, et al. 2024; Polisetty, et al. 2024; Kiran et al., 2022; McCartney & Fu, 2022). EBM and DC theories also support these findings that HR analytics had a strategic effect on talent management and succession planning in selected companies in Nigeria and had been consistent with the studies of Pillai, and Srivastava, (2023); Thakur, et al. (2024); Bahuguna, et al. (2023); McCartney, and Fu, (2022); Si, et al. (2023).

## **CONCLUSION AND RECOMMENDATIONS**

This study concludes that human resource analytics have had an effect on talent management and succession planning in selected corporate settings within the Nigerian business context. This conclusion addresses the research questions and objectives of the study. Specifically, the adoption and application of HR analytics can assist in achieving and maintaining effective talent management, thereby facilitating sustainable and profitable succession planning strategies in modern Nigerian businesses. Talent management and succession planning are dynamic processes that evolve over time, necessitating coordination with other elements of human resource development such as training, coaching, and performance appraisals.

This conclusion has addressed the study's objectives and research questions. Management skills can be effectively supplemented by developing successors through human capital analysis to achieve and maintain talent management and succession. Talent management is therefore an essential component of succession planning. Developing and implementing workforce development for succession should also be integrated into the talent management process to optimize succession planning within organizations. In essence, organizations must maintain a balance between talent supply and demand to effectively achieve optimal levels in fulfilling the goals of their succession plan through efficient analytics of staff.

Consistent employee training and development can assist corporate settings in Nigeria in implementing effective talent management to achieve sustainable succession planning strategies. Adopting new technologies to enhance HR analytics practices, supported by adequate financial resources, can help modern corporate settings in Nigeria effectively bridge the gap between talent management and succession planning. The findings of this study can aid HR managers and professionals in selected corporate environments in developing HR analytics strategies that improve long-term talent management and succession planning, adapting to the current complexities of talent acquisition in the global labor market.

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