PREDICTIVE HR ANALYTICS AND TALENT MANAGEMENT OUTCOMES IN THE HOSPITALITY INDUSTRY IN IKEJA, LAGOS STATE

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ABSTRACT

This study examined the relationship between predictive analytics and talent management outcomes in hotels in Ikeja, Lagos State. Specifically, it investigated how Data Infrastructure Capability influences Workforce Planning, how Predictive Modelling Capability affects Employee Retention, how Analytics-Based Decision-Support Capability relates to Organisational Performance, and how these capabilities collectively contribute to Talent Management Outcomes. The study was anchored on Sociotechnical Systems Theory and the Resource-Based View and adopted a convergent mixed-methods research design. The population comprised 620 management and supervisory personnel drawn from selected hotels in Ikeja, Lagos State. A sample of 250 respondents participated in the survey, while 20 key informants were selected for interviews. Data were collected through a structured questionnaire and a semi-structured interview guide. Quantitative data were analysed using descriptive statistics and multiple regression analysis, while qualitative data were analysed using thematic analysis. The findings showed that Data Infrastructure Capability was significantly associated with Workforce Planning ($\beta = 0.412$, $p < 0.001$), Predictive Modelling Capability was significantly associated with Employee Retention ($\beta = 0.446$, $p < 0.001$), and Analytics-Based Decision-Support Capability was significantly associated with Organisational Performance ($\beta = 0.474$, $p < 0.001$). The combined model indicated that the three predictive analytics capabilities explained 46.1% of the variation in Talent Management Outcomes ($R^2 = 0.461$, $p < 0.001$). The interview findings further showed that data quality, analytical skills, system integration, and management support influenced the extent to which predictive analytics was applied in workforce management. The study concluded that predictive analytics capabilities can support talent management outcomes when they are backed by reliable data, competent personnel, and effective organisational processes. It therefore recommended that hotels strengthen workforce data management, build analytical capability, increase the use of analytics-based decision-support systems, and adopt a more integrated approach to workforce analytics.

Keywords: Predictive Analytics, Data Infrastructure Capability, Predictive Modelling Capability, Analytics-Based Decision-Support Capability, Talent Management Outcomes, Hospitality Industry.

INTRODUCTION

Predictive analytics involves the use of statistical, mathematical, and computational techniques to analyse historical and current data in order to predict future events and support informed decision-making. In human resource management, predictive analytics helps organisations anticipate workforce trends, identify employees who may leave the organisation, forecast staffing requirements, and improve talent management practices. This study is anchored on the Resource-Based View and Socio-Technical Systems Theory. The Resource-Based View argues that organisational resources such as quality data, analytical capabilities, and technological systems can create competitive advantage when they are effectively developed and utilised. Socio-Technical Systems Theory emphasises the need to align technological systems with people, organisational processes, and managerial practices to achieve improved performance and organisational effectiveness. The effectiveness of predictive analytics begins with strong data infrastructure capability. Data infrastructure capability refers to the quality, accessibility, integration, security, and governance of organisational data. George (2024) argues that reliable data is essential for generating accurate analytical outcomes and supporting advanced technologies such as artificial intelligence. Within the hospitality industry, high-quality workforce data enables managers to make more accurate predictions regarding staffing requirements, employee performance, workforce availability, and retention patterns. Another important component of predictive analytics is predictive modelling capability. Predictive modelling capability refers to the application of mathematical and statistical techniques such as multiple regression analysis, forecasting models, classification methods, and machine learning algorithms to identify patterns and predict future workforce outcomes. Vasuki and Alghazali (2025) note that these techniques improve forecasting accuracy and strengthen organisational decision-making. In hospitality organisations, predictive models can be used to estimate employee turnover, forecast labour demand, identify high-performing employees, and support succession planning.

The value of predictive analytics is fully realised when predictive insights are integrated into managerial decision-making through analytics-based decision-support capability. Analytics-based decision-support capability refers to the use of dashboards, predictive reports, and decision-support systems that enable managers to transform analytical findings into practical actions. Sahoo et al. (2025) argue that decision-support systems improve the quality of managerial decisions by allowing decision-makers to evaluate different alternatives and select options that best support organisational goals. In hospitality organisations, these systems assist managers in making decisions relating to recruitment, workforce allocation, employee development, performance management, and retention strategies. Drawing from the Resource-Based View and Socio-Technical Systems Theory, this study conceptualises predictive analytics through three interconnected capabilities: data infrastructure capability, predictive

modelling capability, and analytics-based decision-support capability. These capabilities are expected to work together to improve talent management outcomes. In this study, talent management outcomes are measured through workforce planning effectiveness, employee retention, and organisational performance. The study therefore examines how predictive analytics capabilities contribute to improved talent management outcomes among hospitality organisations in Ikeja, Lagos State.

Statement of the Problem

While predictive analytics has gained increasing attention for its ability to improve decision-making, forecasting, and organisational performance across industries such as finance, healthcare, manufacturing, and security management (Adeniran et al., 2024; Adesina et al., 2024), its use in human resource management within the Nigerian hospitality industry remains limited. Many hotels in Nigeria, including those in Ikeja, Lagos State, still depend on traditional human resource practices that are based mainly on managerial experience, intuition, and past records rather than data-driven predictive systems. This is a concern because the hospitality industry continues to face challenges such as high employee turnover, skills shortages, workforce instability, rising labour costs, and increasing customer expectations, all of which affect service quality and organisational performance. Studies have shown that predictive analytics can improve forecasting accuracy, support proactive decision-making, and enhance organisational effectiveness in different industries (Jamarani et al., 2024; Vasuki and Alghazali, 2025). However, there is limited evidence on how data infrastructure capability, predictive modelling techniques, and analytics-based decision-support systems affect talent management outcomes in the Nigerian hospitality industry. As a result, many hotels may lack the capability to anticipate workforce needs, reduce employee turnover, improve workforce planning, and strengthen organisational performance. In addition, most existing studies have focused on developed countries and industries outside hospitality, creating both a contextual and industry gap in the literature (George, 2024). This gap highlights the need for this study, which examines the effect of predictive analytics on talent management outcomes among hotels in Ikeja, Lagos State.

Research Objectives

The main objective of this study is to examine the effect of predictive analytics on talent management outcomes in hotels in Ikeja, Lagos State.

The specific objectives are to:

i. examine the effect of data infrastructure capability on workforce planning in hotels in Ikeja, Lagos State.
ii. determine the effect of predictive modelling capability on employee retention in hotels in Ikeja, Lagos State.
iii. assess the effect of analytics-based decision-support capability on organisational performance in hotels in Ikeja, Lagos State.

iv. examine how data infrastructure capability, predictive modelling capability, and analytics-based decision-support capability collectively influence talent management outcomes in hotels in Ikeja, Lagos State.

LITERATURE REVIEW

Predictive Analytics

Predictive analytics has evolved from a technical forecasting tool into a strategic capability that supports organisational decision-making. Although scholars generally agree that predictive analytics involves the use of statistical, mathematical, and computational techniques to forecast future events, they differ in how they conceptualise its value. Shmueli and Koppius (2011) view predictive analytics primarily as a means of improving prediction accuracy, arguing that the strength of any analytical model lies in its ability to forecast future outcomes more effectively than traditional explanatory models. In contrast, Siegel (2013) argues that the true value of predictive analytics is not prediction itself but the ability of organisations to convert predictions into actionable decisions. Wu and Coggeshall (2012) attempt to bridge these perspectives by suggesting that predictive analytics combines data, modelling techniques, and organisational processes to support decision-making. These differing perspectives reveal an important issue within the literature. While considerable attention has been given to the technical accuracy of predictive models, less attention has been paid to how predictive insights are translated into organisational outcomes. This has resulted in a tendency to equate predictive capability with organisational effectiveness, even though accurate predictions do not automatically lead to better decisions. An organisation may possess sophisticated predictive models but still fail to improve performance if managers do not trust, understand, or apply the resulting insights. Therefore, predictive analytics should be viewed not merely as a technical tool but as a capability that combines data resources, analytical competence, and decision-support mechanisms.

The existing literature also reveals significant differences in sectoral focus. Most empirical studies have been conducted in finance, healthcare, retail, manufacturing, and information technology industries, where large volumes of structured data are readily available (Agu et al., 2024; Farayola, 2024). Findings from these sectors consistently suggest that predictive analytics improves forecasting accuracy, operational efficiency, and resource allocation. However, hospitality organisations operate under different conditions. Service delivery depends heavily on human interaction, employee behaviour, and customer experience, factors that are often more difficult to predict and measure. Consequently, assumptions derived from technology-intensive industries may not be directly transferable to hospitality settings. A further limitation is that existing hospitality studies have focused largely on customer analytics, revenue management, and operational efficiency, with relatively little attention given to workforce management (Giousmpasoglou & Marinakou, 2024; Stergiou, 2025). This imbalance is surprising because labour costs represent one of the largest operational expenses in the hospitality industry, and workforce instability remains a persistent challenge. In the Nigerian hospitality industry, where hotels frequently struggle with employee turnover, skill shortages,

and workforce planning difficulties, the limited application of predictive analytics to talent management represents both a practical and scholarly concern. Consequently, there remains insufficient understanding of how predictive analytics capabilities contribute to talent management outcomes within hospitality organisations operating in developing economies. This study addresses this gap by examining predictive analytics as a multidimensional capability comprising data infrastructure capability, predictive modelling capability, and analytics-based decision-support capability.

Human Resource Management in the Hospitality Industry

Human resource management is widely recognised as a strategic function that contributes to organisational effectiveness through the attraction, development, management, and retention of employees. Kaufman (2010) argues that the primary role of human resource management is to align workforce capabilities with organisational objectives, while Korte (2012) views it as a system that supports both employee development and organisational learning. Similarly, Yawson (2013) emphasises that organisational success depends on the interaction between people, processes, and systems rather than on individual factors alone. Although these scholars approach human resource management from different perspectives, they share the view that employees are critical organisational assets whose effective management can influence long-term performance. The strategic importance of human resource management is particularly evident in the hospitality industry, where service quality depends heavily on employee behaviour, competence, and commitment (Giousmpasoglou & Marinakou, 2024). Unlike manufacturing industries that rely more on technology and physical assets, hospitality organisations depend largely on human interaction to create customer value. Consequently, workforce-related problems such as employee turnover, labour shortages, skills gaps, and workforce instability can directly affect service quality, customer satisfaction, and organisational performance (Stergiou, 2025; Ngo & Tran, 2025). While many studies identify compensation, training, employee engagement, and career development as important solutions to these challenges (Jha, Pal, & Sarkar, 2025; Petitta & Ghezzi, 2025), workforce instability remains a persistent problem across the hospitality industry. This suggests that traditional human resource practices alone may not be sufficient to address increasingly complex workforce challenges.

Recent literature has therefore shifted attention towards data-driven human resource management, where workforce decisions are guided by evidence generated from organisational data rather than relying solely on managerial intuition and experience (Shmueli & Koppius, 2011; Siegel, 2013). However, scholars differ regarding the most important capability required for effective data-driven human resource management. George (2024) and Numajiri and Hayashi (2024) emphasise the importance of data infrastructure capability, arguing that accurate, integrated, and accessible data are necessary for reliable workforce analysis. In contrast, Wu and Coggeshall (2012) and Vasuki and Alghazali (2025) place greater emphasis on predictive modelling capability, suggesting that organisations gain value when they can use statistical and mathematical techniques to forecast workforce outcomes. Meanwhile, Eom and Kim (2006) and Sahoo, Pamucar, and Goswami (2025) argue that analytics-based decision-

support capability is the most critical factor because predictive insights create little value unless they are incorporated into managerial decisions.

These different perspectives suggest that predictive human resource management is not driven by a single capability. Rather, data infrastructure capability provides the foundation for analytics, predictive modelling capability generates forecasts and insights, while analytics-based decision-support capability enables managers to apply those insights to workforce decisions (Wu & Coggeshall, 2012; George, 2024; Sahoo, Pamucar, & Goswami, 2025). Despite this growing body of knowledge, most empirical studies have been conducted in finance, healthcare, manufacturing, and technology-intensive industries where analytical systems are more developed (Agu et al., 2024; Farayola, 2024; Kacheru, Bajjuru, & Arthan, 2025). Comparatively fewer studies have examined how these capabilities influence workforce-related outcomes in hospitality organisations (Giousmpasoglou & Marinakou, 2024; Stergiou, 2025). Another limitation in the literature is its geographical concentration. Most studies originate from developed economies with advanced digital infrastructure and mature analytics capabilities (Shmueli & Koppius, 2011; Siegel, 2013; Vasuki & Alghazali, 2025). Such findings may not fully reflect the realities of hospitality organisations in developing countries, where workforce records are often fragmented and analytical systems are less developed. In Nigeria, particularly within the hospitality industry, empirical evidence on the application of predictive analytics to human resource management remains scarce. As a result, there is limited understanding of how data infrastructure capability, predictive modelling capability, and analytics-based decision-support capability influence workforce planning, employee retention, and organisational performance. This contextual and empirical gap justifies the need for the present study.

Talent Management Outcomes

Talent management outcomes are the results organisations achieve from attracting, developing, retaining, and effectively using their employees. Although scholars agree that talent management is important for organisational success, they differ in what they consider its most important outcome. Meyer (2005) argues that talent management is successful when organisations have the right people with the right skills at the right time. In contrast, Collings, Mellahi, and Cascio (2017) argue that talent management should be judged by its ability to create long-term value and improve organisational competitiveness. While both views are valid, they show that talent management is concerned not only with filling positions but also with helping organisations perform better over time. One important outcome of talent management is workforce planning. Traditional human resource approaches view workforce planning as a process of matching the number of employees to organisational needs using past records and managerial judgement (Kaufman, 2010). More recent studies take a different view. They argue that workforce planning should be forward-looking and supported by workforce data and forecasting tools (Shmueli & Koppius, 2011; Siegel, 2013). Although studies in industries such as healthcare, manufacturing, and technology suggest that predictive approaches improve workforce planning (Agu et al., 2024; Farayola, 2024), there is limited evidence from the hospitality industry. This is surprising because hotels often experience changing labour demands, staff shortages, and workforce instability. As a result, there is still limited

understanding of how data-driven approaches can improve workforce planning in hospitality organisations.

Employee retention is another key outcome of talent management. Most studies agree that retaining skilled employees helps organisations reduce recruitment costs, maintain service quality, and improve workforce stability. However, scholars disagree on the best way to achieve retention. Traditional studies focus on factors such as pay, job satisfaction, leadership, and career growth opportunities (Jha, Pal, & Sarkar, 2025; Petitta & Ghezzi, 2025). More recent studies suggest that organisations should move beyond reacting to turnover and instead use predictive approaches to identify employees who may leave before they actually do. In simple terms, traditional studies explain why employees leave, while predictive approaches attempt to identify who is likely to leave and when. Despite the growing interest in this approach, hospitality research has paid little attention to how predictive capabilities can support employee retention decisions. Organisational performance is often seen as the final outcome of effective talent management because it reflects how well an organisation achieves its goals. In the hospitality industry, this may be reflected in service quality, customer satisfaction, employee productivity, profitability, and competitive advantage (Ngo & Tran, 2025). However, the relationship between talent management and performance is not as clear as some studies suggest. Collings et al. (2017) argue that effective talent management directly improves organisational performance. On the other hand, Korte (2012) and Yawson (2013) argue that performance improvements depend on other factors such as organisational culture, leadership, and technological support. This suggests that talent management alone may not be enough to improve performance unless it is supported by the right organisational systems.

A review of the literature highlights three important gaps. First, workforce planning, employee retention, and organisational performance are often studied separately, even though they are closely connected outcomes of talent management. Second, while interest in predictive analytics is growing, there is still limited evidence on how predictive analytics capabilities influence these outcomes. Third, most existing studies come from developed countries and industries outside hospitality. As a result, little is known about how data infrastructure capability, predictive modelling capability, and analytics-based decision-support capability affect talent management outcomes in the Nigerian hospitality industry, particularly among hotels in Ikeja, Lagos State. This gap provides the basis for the present study.

Theoretical Review

This study is anchored on Sociotechnical Systems Theory and the Resource-Based View because the two theories offer complementary explanations for how predictive analytics influences talent management outcomes. Sociotechnical Systems Theory, developed by Trist and Bamforth (1951), argues that organisational outcomes are shaped by the interaction between social systems, such as employees, managers, and work practices, and technical systems, such as technologies, tools, and processes. Recent studies have applied the theory to digital work environments and technology-enabled organisations. For example, Thomas (2024) found that technology adoption is more effective when aligned with organisational practices, while Ang, Sankaran, and Liu (2025) and Hanafizadeh and Mehrasa (2025) showed that

organisational performance depends on how people and technologies work together. This perspective is relevant to the present study because data infrastructure capability, predictive modelling capability, and analytics-based decision-support capability are technical resources whose effectiveness depends on how managers and employees use them. The theory therefore suggests that predictive analytics is more likely to improve workforce planning, employee retention, and organisational performance when it is integrated into human resource practices and decision-making processes.

The Resource-Based View provides a complementary explanation by focusing on the strategic value of organisational capabilities. The theory argues that organisations achieve superior performance when they possess and effectively utilise resources that are valuable, rare, difficult to imitate, and not easily substituted. Recent studies by Ferreira and Ferreira (2025), Willie (2025), and Abdurrahman (2025) show that data resources, analytical capabilities, and digital technologies have become important sources of organisational advantage. In the context of this study, data infrastructure capability, predictive modelling capability, and analytics-based decision-support capability can be viewed as strategic resources that support better workforce decisions and organisational outcomes. While the Resource-Based View explains why these capabilities can create value, Sociotechnical Systems Theory explains how that value is realised through their integration with people and organisational processes. The two theories provide a useful framework for understanding the study variables. The Resource-Based View highlights the importance of predictive analytics capabilities as organisational assets, while Sociotechnical Systems Theory emphasises their effective use within human resource management. Applied to hotels in Ikeja, Lagos State, the theories suggest that organisations that develop strong predictive analytics capabilities and successfully integrate them into workforce management practices are more likely to improve workforce planning, retain valuable employees, and enhance organisational performance. These theoretical expectations form the basis of the study.

Gaps in Literature

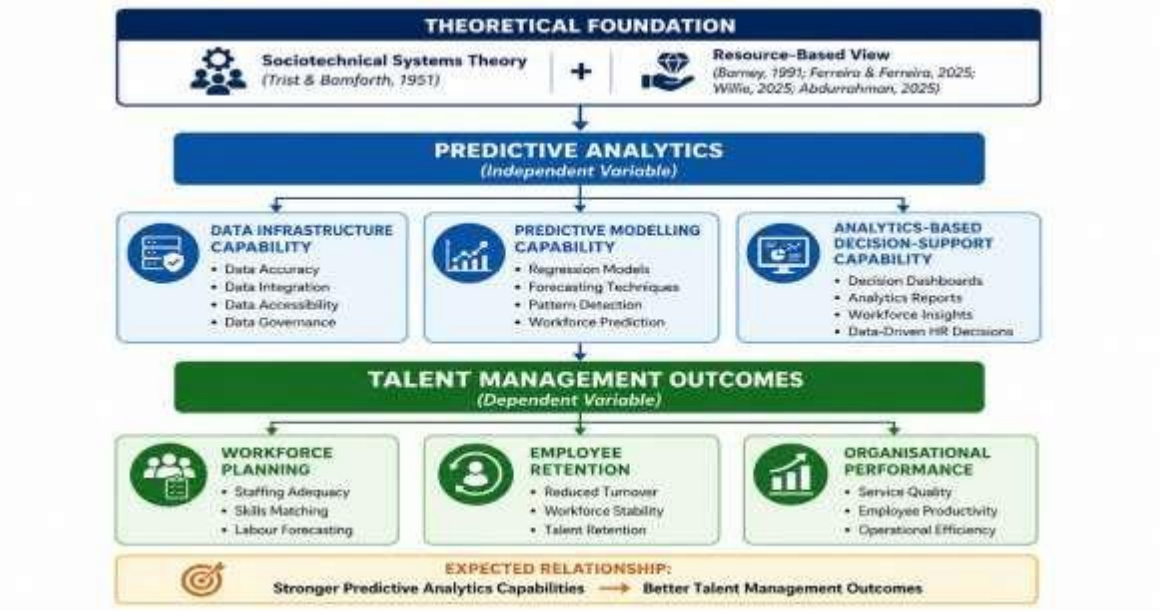
The most important gap in the literature is the lack of empirical evidence on how predictive analytics influences talent management outcomes in the hospitality industry. While many studies have shown that predictive analytics improves forecasting, planning, and decision-making in industries such as finance, healthcare, manufacturing, and information technology (Agu et al., 2024; Farayola, 2024; Joel & Oguanobi, 2024), there is still limited evidence on its effect on workforce planning, employee retention, and organisational performance in hospitality organisations. More importantly, previous studies have rarely examined the individual and combined effects of data infrastructure capability, predictive modelling capability, and analytics-based decision-support capability on these outcomes. This makes it difficult to determine which aspects of predictive analytics contribute most to effective talent management. A second gap relates to inconsistencies in the existing literature. Although many studies report positive outcomes from predictive analytics adoption (Shmueli & Koppius, 2011; Siegel, 2013; Vasuki & Alghazali, 2025), others suggest that technology alone does not guarantee better organisational outcomes. Thomas (2024), Ang, Sankaran, and Liu (2025), and Hanafizadeh and Mehrasa (2025) argue that the benefits of technology depend largely on how well it is integrated into organisational processes and human activities. Similarly, Collings,

Mellahi, and Cascio (2017) suggest that effective talent management improves organisational performance, whereas Korte (2012) and Yawson (2013) maintain that performance gains depend on broader organisational conditions such as culture, leadership, and employee involvement. These differing views indicate that the relationship between predictive analytics and talent management outcomes is not yet fully understood and requires further investigation.

A theoretical gap is also evident. Sociotechnical Systems Theory explains how people and technology interact to influence organisational outcomes (Trist & Bamforth, 1951; Thomas, 2024; Ang, Sankaran, & Liu, 2025), while the Resource-Based View explains how valuable organisational capabilities contribute to performance (Ferreira & Ferreira, 2025; Willie, 2025; Abdurrahman, 2025). However, most studies have applied these theories separately. There is limited research that combines both perspectives to explain how predictive analytics capabilities can create value and improve talent management outcomes at the same time. As a result, the theoretical explanation of these relationships remains incomplete. The literature also reveals a methodological gap. Most studies on predictive analytics and human resource management rely heavily on quantitative methods and survey data. While these studies identify statistical relationships, they often provide limited insight into how predictive analytics is applied in practice and the organisational conditions that shape its effectiveness. Consequently, there is a need for studies that combine quantitative and qualitative evidence to provide a more complete understanding of the phenomenon.

Finally, there is a clear contextual gap. Much of the existing evidence comes from developed countries where digital infrastructure and analytical capabilities are more advanced (Shmueli & Koppius, 2011; Siegel, 2013; Vasuki & Alghazali, 2025). The hospitality industry in Nigeria operates under different conditions, including workforce instability, employee turnover, and varying levels of technological adoption. Despite the growing importance of data-driven decision-making, there is limited evidence on how predictive analytics capabilities influence talent management outcomes in hotels within the Nigerian context, particularly in Ikeja, Lagos State. These gaps show that existing studies have not sufficiently explained how data infrastructure capability, predictive modelling capability, and analytics-based decision-support capability influence workforce planning, employee retention, and organisational performance in hospitality organisations. This study addresses these empirical, theoretical, methodological, and contextual gaps by examining the effect of predictive analytics on talent management outcomes among hotels in Ikeja, Lagos State.

Conceptual Framework



Source: Authors' Computation

Figure 2.1 presents the conceptual framework for this study. The framework illustrates the relationship between predictive analytics and talent management outcomes in hotels in Ikeja, Lagos State. It is anchored on two complementary theories: Sociotechnical Systems Theory and the Resource-Based View. These theories provide the foundation for understanding how predictive analytics capabilities can contribute to improved workforce management and organisational performance. At the top of the framework are the theoretical foundations. Sociotechnical Systems Theory explains that organisational success depends on how well technology, people, and organisational processes work together. In the context of this study, the theory suggests that predictive analytics will be effective only when analytical tools and systems are integrated into human resource practices and managerial decision-making. The Resource-Based View, on the other hand, argues that organisations achieve better performance when they develop and effectively use valuable capabilities and resources. From this perspective, predictive analytics capabilities can become strategic assets that support better workforce decisions and improve organisational outcomes.

The independent variable in the framework is predictive analytics. It is represented by three dimensions: data infrastructure capability, predictive modelling capability, and analytics-based decision-support capability. Data infrastructure capability refers to the organisation's ability to collect, store, integrate, and manage workforce data effectively. Predictive modelling capability relates to the use of statistical and analytical techniques to forecast workforce trends and future outcomes. Analytics-based decision-support capability focuses on the use of analytical insights,

reports, and dashboards to support managerial decision-making. The framework proposes that these three capabilities work together to strengthen an organisation's ability to make informed human resource decisions. Data infrastructure capability provides reliable workforce information, predictive modelling capability transforms that information into meaningful forecasts, while analytics-based decision-support capability ensures that the resulting insights are applied to organisational decisions.

The dependent variable is talent management outcomes. In this study, talent management outcomes are reflected in workforce planning, employee retention, and organisational performance. Workforce planning refers to the organisation's ability to anticipate staffing needs and ensure the availability of employees with the required skills. Employee retention reflects the organisation's ability to retain valuable employees and reduce workforce instability. Organisational performance refers to improvements in service quality, employee productivity, and operational efficiency. The directional flow of the framework indicates that predictive analytics capabilities are expected to influence talent management outcomes positively. The framework assumes that hotels with stronger data infrastructure capability, predictive modelling capability, and analytics-based decision-support capability will be better positioned to forecast workforce needs, retain competent employees, and improve organisational performance. In other words, as predictive analytics capabilities become stronger, talent management outcomes are expected to improve. The framework demonstrates that predictive analytics is not merely a technological tool but a strategic capability that can support more effective workforce management. Guided by Sociotechnical Systems Theory and the Resource-Based View, the framework provides the basis for examining how predictive analytics capabilities contribute to workforce planning, employee retention, and organisational performance among hotels in Ikeja, Lagos State.

METHODOLOGY

This study adopted a convergent mixed-methods research design to examine the relationship between predictive analytics and talent management outcomes in hotels in Ikeja, Lagos State. The design combined quantitative and qualitative approaches because the study sought both statistical evidence of the relationships among the variables and detailed explanations of how predictive analytics was applied in workforce management. Quantitative data provided information on the extent to which predictive analytics capabilities were associated with talent management outcomes, while qualitative data helped explain organisational practices, experiences, and factors influencing the use of predictive analytics. Both sets of data were collected concurrently, analysed separately, and integrated during the interpretation stage.

The study was conducted in Ikeja Local Government Area of Lagos State, Nigeria. Ikeja was selected because it hosts a considerable number of hotels operating at different scales and levels of technological adoption. The area provided access to hospitality organisations that had varying approaches to workforce management, making it suitable for examining the relationship between predictive analytics and talent management outcomes.

The population of the study consisted of management and supervisory personnel responsible for workforce planning, employee management, organisational performance monitoring, and

technology-supported decision-making in registered hotels within Ikeja Local Government Area. Specifically, the population comprised Human Resource Managers, Human Resource Officers, Hotel Managers, Operations Managers, and Information Technology or Analytics Officers. Information obtained from hotel directories and organisational records showed that the target population consisted of 620 management personnel across the selected hotels.

The sample size for the quantitative phase was determined using Yamane's (1967) formula for finite populations:

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

Where:

n = Sample size
N = Population size
e = Level of precision (0.05)
Substituting the population value of 620 produced a minimum sample size of 243 respondents. To improve representation and reduce the effect of possible non-response, the sample size was increased to 250 respondents. For the qualitative phase, 20 key informants were selected from among management personnel who were directly involved in workforce planning, employee management, and organisational decision-making.

A multi-stage sampling procedure was adopted. In the first stage, hotels were stratified into small, medium, and large categories based on operational size. This ensured adequate representation across different categories of hospitality organisations. In the second stage, hotels were selected proportionately from each category. In the final stage, purposive sampling was used to select respondents occupying positions relevant to the study. The selection criteria included involvement in workforce planning, employee management, organisational performance monitoring, or the use of workforce data in decision-making.

Table 3.1: Distribution of Hotels and Respondents

Hotel Category	**Number of Hotels**	**Survey Respondents**	**Key Informants**
Small Hotels	10	75	6
Medium Hotels	8	100	8
Large Hotels	5	75	6
Total	**23**	**250**	**20**

Source: Researcher's Field Design (2026)

The distribution reflected the relative number of management personnel available within each hotel category.

The study relied on both primary and secondary sources of data. Primary data were obtained through questionnaires and interviews, while secondary data were obtained from journal

articles, textbooks, industry reports, organisational documents, and other relevant publications relating to predictive analytics, human resource management, and talent management. Data were collected using a structured questionnaire and a semi-structured interview guide. The questionnaire consisted of five sections. Section A collected demographic and organisational information. Section B measured Data Infrastructure Capability. Section C measured Predictive Modelling Capability. Section D measured Analytics-Based Decision-Support Capability. Section E measured Talent Management Outcomes through Workforce Planning, Employee Retention, and Organisational Performance. The questionnaire items were measured on a five-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5). The interview guide contained open-ended questions designed to obtain detailed information on how hotels generated, analysed, and used workforce data in human resource decisions. The interviews also explored factors that supported or constrained the use of predictive analytics in workforce management.

Table 3.2: Operationalisation of Study Variables

Variable	Dimensions	Indicators
Predictive Analytics (Independent Variable)	Data Infrastructure Capability	Data accuracy, data accessibility, data integration, data governance
	Predictive Modelling Capability	Workforce forecasting, turnover prediction, staffing projections, use of predictive models
	Analytics-Based Decision-Support Capability	Dashboard utilisation, analytics reports, workforce monitoring, evidence-based decision-making
Talent Management Outcomes (Dependent Variable)	Workforce Planning	Staffing adequacy, workforce forecasting, skill alignment
	Employee Retention	Employee stability, turnover reduction, retention effectiveness
	Organisational Performance	Service quality, employee productivity, operational efficiency

Source: Researcher's Conceptualisation (2026)

Validity refers to the extent to which an instrument measures the concept it is intended to measure. Content validity was established through expert review. The questionnaire and interview guide were examined by specialists in hospitality management, human resource management, and research methodology. Their observations led to revisions in wording, structure, and item relevance. Construct validity was assessed using factor analysis. The

analysis examined whether questionnaire items loaded appropriately on their respective constructs. Items with weak loadings were revised or removed to improve the overall quality of the instrument. Face validity was also established by ensuring that the questionnaire items were clear, understandable, and directly related to the study variables.

A pilot study was conducted among 30 management personnel drawn from hotels outside the study area but with characteristics similar to those of the study population. Data obtained from the pilot study were analysed using Cronbach's Alpha. The reliability coefficients obtained exceeded the minimum acceptable threshold of 0.70, indicating satisfactory internal consistency of the instrument. The results confirmed that the items measuring Data Infrastructure Capability, Predictive Modelling Capability, Analytics-Based Decision-Support Capability, Workforce Planning, Employee Retention, and Organisational Performance were reliable for the main study.

Table 3.3: Reliability Statistics

Construct	Number of Items	Cronbach's Alpha
Data Infrastructure Capability	6	0.84
Predictive Modelling Capability	6	0.87
Analytics-Based Decision-Support Capability	6	0.82
Workforce Planning	5	0.86
Employee Retention	5	0.81
Organisational Performance	5	0.88

Source: Pilot Study Results (2026)

The questionnaires were administered personally by the researcher with the assistance of trained research assistants. Respondents completed the questionnaires at their convenience and the completed copies were subsequently retrieved.

Semi-structured interviews were conducted with the selected key informants. With participants' consent, the interviews were audio-recorded and later transcribed for analysis. To reduce common method bias, respondents were assured of anonymity, questionnaire items were arranged logically, and participation was voluntary.

Ethical standards were observed throughout the study. Approval to conduct the study was obtained from the management of participating hotels before data collection commenced. Respondents were informed about the purpose of the study, the voluntary nature of participation, and their right to withdraw at any stage without penalty. Informed consent was obtained from all participants before questionnaires were administered and interviews were conducted. Confidentiality was maintained by excluding names and personal identifiers from the questionnaire. Information provided by respondents was used strictly for academic purposes. Interview recordings, transcripts, and completed questionnaires were stored securely

and were accessible only to the researcher. The findings were reported honestly and objectively without alteration, fabrication, or misrepresentation of data.

Quantitative data were analysed using the Statistical Package for the Social Sciences (SPSS Version 29). Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to describe respondents' characteristics and assess the level of predictive analytics capability within the participating hotels. Multiple regression analysis was used to examine the relationship between predictive analytics and talent management outcomes. Prior to the analysis, tests of normality, multicollinearity, linearity, and homoscedasticity were conducted to ensure that the assumptions of regression analysis were satisfied. Qualitative data were analysed using thematic analysis. Interview transcripts were read repeatedly, coded systematically, grouped into categories, and organised into themes corresponding to the study objectives. The themes were subsequently compared with the quantitative findings during interpretation. The quantitative and qualitative findings were integrated at the interpretation stage. Areas of convergence strengthened the credibility of the findings, while areas of divergence provided additional explanations for the observed results

The study examined the relationship between predictive analytics and talent management outcomes using the following functional model:

TMO = f(DIC, PMC, ADSC)

Where:

TMO = Talent Management Outcomes

DIC = Data Infrastructure Capability

PMC = Predictive Modelling Capability

ADSC = Analytics-Based Decision-Support Capability

The regression model was expressed as:

$TMO = \beta_0 + \beta_1 DIC + \beta_2 PMC + \beta_3 ADSC + \varepsilon$

Where:

β_0 = Constant

β_1–β_3 = Regression Coefficients

ε = Error Term

The following null hypotheses guided the study:

H_{01}: Data Infrastructure Capability had no significant relationship with Workforce Planning among hotels in Ikeja, Lagos State.

H_{02}: Predictive Modelling Capability had no significant relationship with Employee Retention among hotels in Ikeja, Lagos State.

H_{03}: Analytics-Based Decision-Support Capability had no significant relationship with Organisational Performance among hotels in Ikeja, Lagos State.

H_{04}: Data Infrastructure Capability, Predictive Modelling Capability, and Analytics-Based Decision-Support Capability had no significant joint relationship with Talent Management Outcomes among hotels in Ikeja, Lagos State.

RESULTS AND DISCUSSION

Response Rate

A total of 250 questionnaires were distributed to the selected respondents. Of this number, 236 questionnaires were returned, representing a return rate of 94.4 per cent. However, six questionnaires were excluded because they were either incomplete or contained substantial missing responses. Consequently, 230 questionnaires were found suitable for analysis, resulting in an effective response rate of 92.0 per cent. For the qualitative phase, 20 key informants were invited to participate in interviews. Fifteen agreed and completed the interview process, representing a participation rate of 75.0 per cent.

Table 4.1: Response Rate of Survey Respondents and Interview Participants

Category	Number Selected	Returned/Participated	Not Returned/Declined	Valid Responses
Questionnaire Survey	250	236	14	230
Key Informant Interviews	20	15	5	15

Source: Field Survey (2026)

The response rates obtained were considered adequate for quantitative and qualitative analysis.

Demographic Characteristics of Respondents

The demographic information was analysed to provide background information on the respondents and to establish that participants possessed the experience and professional responsibilities required to provide reliable information on predictive analytics and talent management practices.

Table 4.2: Demographic Characteristics of Survey Respondents (n = 230)

Variable	Category	Frequency	Percentage (%)
Hotel Category	Small	80	34.8
	Medium	95	41.3

Variable	Category	Frequency	Percentage (%)
	Large	55	23.9
Position	Human Resource Manager	110	47.8
	Human Resource Officer	65	28.3
	Analytics Officer/Specialist	40	17.4
	Other HR Personnel	15	6.5
Years of Experience	Less than 3 Years	60	26.1
	3–10 Years	140	60.9
	Above 10 Years	30	13.0
Educational Qualification	Diploma	10	4.3
	Bachelor's Degree	120	52.2
	Master's Degree	80	34.8
	Professional Certification	20	8.7

Source: Field Survey (2026)

The results show that respondents were drawn from small, medium, and large hotels, with medium-sized hotels accounting for the highest proportion (41.3%). Most respondents occupied human resource management positions (76.1%), while 17.4% were directly involved in analytics-related functions. In addition, 73.9% of respondents had at least three years of professional experience, suggesting familiarity with workforce management practices within their organisations.

Table 4.3: Profile of Key Informants (n = 15)

Variable	Category	Frequency	Percentage (%)
Position	Human Resource Manager	8	53.3
	Human Resource Director	4	26.7
	Analytics Specialist	3	20.0
Experience	5–10 Years	5	33.3
	Above 10 Years	10	66.7

Variable	Category	Frequency	Percentage (%)
Involvement in Predictive Analytics	Primary User	9	60.0
	Supervisory Role	6	40.0

Source: Field Survey (2026)

The profile of the key informants indicates that all participants occupied positions directly related to workforce management and predictive analytics activities. Their responses therefore provided valuable contextual explanations for the quantitative findings.

Test of Research Hypotheses

Prior to regression analysis, tests for normality, multicollinearity, linearity, and homoscedasticity were conducted. The results indicated that the assumptions underlying multiple regression analysis were satisfied. Variance Inflation Factor values ranged between 1.34 and 2.12, indicating the absence of multicollinearity among the predictor variables.

Hypothesis One

H_{01}: Data Infrastructure Capability had no significant effect on Workforce Planning among hotels in Ikeja, Lagos State.

Table 4.4: Regression Analysis of the Effect of Data Infrastructure Capability on Workforce Planning

Variable	B	Std. Error	Beta	t-value	p-value	95% CI
Constant	1.124	0.198	–	5.677	<0.001	0.734 – 1.514
Data Infrastructure Capability	0.487	0.071	0.412	6.859	<0.001	0.347 – 0.627

$R^2 = 0.170$; Adjusted $R^2 = 0.166$; $F(1,228) = 47.05$; $p < 0.001$

Source: Field Survey (2026)

The results show that Data Infrastructure Capability significantly predicted Workforce Planning ($\beta = 0.412$, $p < 0.001$). The model explained 17.0% of the variation in Workforce Planning. Consequently, the null hypothesis was rejected.

Hypothesis Two

H_{02}: Predictive Modelling Capability had no significant effect on Employee Retention among hotels in Ikeja, Lagos State.

Table 4.5: Regression Analysis of the Effect of Predictive Modelling Capability on Employee Retention

Variable	B	Std. Error	Beta	t-value	p-value	95% CI
Constant	1.086	0.205	–	5.298	<0.001	0.682 – 1.490
Predictive Modelling Capability	0.523	0.078	0.446	6.705	<0.001	0.369 – 0.677

$R^2 = 0.199$; Adjusted $R^2 = 0.195$; $F(1,228) = 44.95$; $p < 0.001$

Source: Field Survey (2026)

The findings indicate that Predictive Modelling Capability had a significant positive effect on Employee Retention ($\beta = 0.446$, $p < 0.001$). The model explained 19.9% of the variation in Employee Retention. Therefore, the null hypothesis was rejected.

Hypothesis Three

H_{03}: Analytics-Based Decision-Support Capability had no significant effect on Organisational Performance among hotels in Ikeja, Lagos State.

Table 4.6: Regression Analysis of the Effect of Analytics-Based Decision-Support Capability on Organisational Performance

Variable	B	Std. Error	Beta	t-value	p-value	95% CI
Constant	0.995	0.193	–	5.155	<0.001	0.614 – 1.376
Analytics-Based Decision-Support Capability	0.561	0.069	0.474	8.130	<0.001	0.425 – 0.697

$R^2 = 0.225$; Adjusted $R^2 = 0.221$; $F(1,228) = 66.09$; $p < 0.001$

Source: Field Survey (2026)

The results indicate that Analytics-Based Decision-Support Capability significantly predicted Organisational Performance ($\beta = 0.474$, $p < 0.001$). The model accounted for 22.5% of the variation in Organisational Performance. The null hypothesis was therefore rejected.

Hypothesis Four

H_{04}: Data Infrastructure Capability, Predictive Modelling Capability, and Analytics-Based Decision-Support Capability had no significant joint effect on Talent Management Outcomes among hotels in Ikeja, Lagos State.

Table 4.7: Multiple Regression Analysis of Predictive Analytics Capabilities and Talent Management Outcomes

Variable	B	Std. Error	Beta	t-value	p-value
Constant	0.814	0.224	–	3.634	<0.001
Data Infrastructure Capability	0.281	0.064	0.244	4.391	<0.001
Predictive Modelling Capability	0.309	0.072	0.276	4.292	<0.001
Analytics-Based Decision-Support Capability	0.337	0.068	0.315	4.956	<0.001

$R^2 = 0.461$; Adjusted $R^2 = 0.454$; $F(3,226) = 64.39$; $p < 0.001$

Source: Field Survey (2026)

The combined model was statistically significant and explained 46.1% of the variation in Talent Management Outcomes. All three predictive analytics dimensions contributed significantly to the model. Analytics-Based Decision-Support Capability recorded the highest standardised coefficient, followed by Predictive Modelling Capability and Data Infrastructure Capability. The null hypothesis was therefore rejected.

Qualitative Findings

The interview data were analysed using thematic analysis. Initial codes were generated from the interview transcripts and subsequently grouped into broader themes that reflected participants' experiences with predictive analytics and workforce management. Three dominant themes emerged from the analysis.

Table 4.8: Summary of Major Themes from Key Informant Interviews

Theme	Number of Informants Mentioning Theme
Data Quality and Workforce Planning	12
Predictive Modelling and Employee Retention	11
Decision-Support Systems and Organisational Performance	13

Source: Field Survey (2026)

Participants generally reported that the availability of accurate and integrated workforce data supported staffing decisions and workforce planning activities. One Human Resource Manager stated:

"When employee records are complete and updated regularly, it becomes easier to identify staffing gaps and prepare for recruitment needs before they become urgent."

Several participants also indicated that predictive models were increasingly being used to monitor turnover patterns and identify employees who might require additional support or

engagement. However, some respondents noted that limited technical expertise reduced the extent to which predictive models could be fully utilised.

An Analytics Specialist explained:

"The models help us identify possible turnover risks, but not every hotel has people with the skills needed to interpret the results properly."

Participants further observed that analytics-based decision-support systems assisted managers in monitoring workforce indicators and organisational performance. Nevertheless, a few respondents indicated that management decisions were still sometimes influenced by experience and intuition rather than analytical evidence.

These responses suggest that while predictive analytics capabilities are increasingly being incorporated into workforce management practices, variations remain in organisational capacity, staff competence, and the extent of managerial reliance on analytical information.

Discussion of Findings

The study found that Data Infrastructure Capability was significantly associated with Workforce Planning among hotels in Ikeja, Lagos State. While the statistical relationship was positive, the more important issue is what this relationship reveals about workforce management in hospitality organisations. Workforce planning depends on the availability of accurate, accessible, and integrated employee data. Where workforce information is fragmented across different records and systems, managers are more likely to rely on judgement and experience when making staffing decisions. The findings suggest that better data infrastructure provides a clearer picture of workforce availability, skill requirements, labour trends, and staffing gaps, thereby supporting more structured workforce planning. However, the explanatory power of the model ($R^2 = 0.170$) indicates that Data Infrastructure Capability accounted for only 17.0 per cent of the variation in Workforce Planning. This suggests that workforce planning is influenced by additional factors such as labour market conditions, management practices, organisational policies, and operational demands. Consequently, data infrastructure should be viewed as an important enabling factor rather than a complete explanation for effective workforce planning.

This finding contributes to the literature by providing evidence from the hospitality industry, an area that has received relatively limited attention in predictive analytics research. Earlier studies by George (2024) and Numajiri and Hayashi (2024) emphasised the importance of data quality and integration for analytical activities, but most of their discussions were situated within broader organisational or technology contexts. The present study extends this discussion by showing how data infrastructure relates specifically to workforce planning in hotels. At the same time, the findings suggest that investments in data infrastructure alone may not automatically translate into improved workforce outcomes. Several interview participants reported challenges relating to incomplete records, inconsistent data entry practices, and limited integration across organisational systems. These observations support the argument of Sociotechnical Systems Theory that technological resources derive value only when supported by appropriate organisational processes and human practices.

The study also found that Predictive Modelling Capability was significantly associated with Employee Retention. This finding suggests that hotels that make greater use of workforce forecasting and predictive modelling are better positioned to identify potential retention risks and workforce trends before they become more severe organisational problems. However, the mechanism through which this relationship occurs deserves attention. Predictive models do not retain employees directly. Rather, they provide information that helps managers identify patterns relating to turnover, absenteeism, employee engagement, and workforce stability. The practical value therefore lies not in the models themselves but in how organisations use the information generated by those models.

The findings are consistent with the work of Shmueli and Koppius (2011), Siegel (2013), and Vasuki and Alghazali (2025), who argued that predictive modelling supports organisational decision-making by identifying future possibilities from existing data. Nevertheless, the literature also suggests that predictive models can produce misleading outcomes when data quality is poor or when organisational users lack the skills required to interpret results correctly. This concern was reflected in the interview findings, where some participants acknowledged that predictive reports were available but were not always fully utilised because of limited analytical expertise. This observation helps explain why Predictive Modelling Capability accounted for only 19.9 per cent of the variation in Employee Retention. While predictive modelling contributes to retention efforts, employee retention is also shaped by factors such as compensation, career development opportunities, organisational culture, leadership practices, and working conditions. The findings therefore suggest that predictive modelling should be viewed as a decision-support resource rather than a substitute for broader human resource management practices.

The results further showed that Analytics-Based Decision-Support Capability had the strongest individual relationship with Organisational Performance among the predictive analytics dimensions examined. This finding is noteworthy because it suggests that the value of workforce data and predictive models may depend largely on whether they are incorporated into actual organisational decisions. Data infrastructure creates access to information, and predictive models generate forecasts, but decision-support systems provide the mechanism through which analytical outputs influence managerial actions. The findings therefore point to the importance of translating analytical information into practical workforce decisions.

From a theoretical perspective, this finding provides stronger support for Sociotechnical Systems Theory than for a purely technology-centred explanation. The theory argues that organisational outcomes emerge from interactions between technological systems and human actors rather than from technology alone. The interview findings reinforced this position. Participants generally reported that analytical dashboards and workforce reports were useful, but their effectiveness depended on management willingness to use the information in staffing, scheduling, and performance-related decisions. Some participants also reported instances where managerial experience was given greater weight than analytical recommendations. This suggests that the benefits associated with decision-support systems are influenced by organisational culture, managerial attitudes, and employee acceptance. The findings therefore

indicate that technology adoption alone is insufficient; organisational commitment to evidence-based decision-making remains equally important.

The combined regression model provides further insight into the relationship between predictive analytics and talent management outcomes. Together, Data Infrastructure Capability, Predictive Modelling Capability, and Analytics-Based Decision-Support Capability explained 46.1 per cent of the variation in Talent Management Outcomes. This result is important because it demonstrates that predictive analytics capabilities collectively have greater explanatory value than any single dimension considered independently. However, the remaining 53.9 per cent of unexplained variation suggests that talent management outcomes are shaped by a wider range of organisational and environmental factors beyond predictive analytics. Consequently, the findings should not be interpreted as suggesting that predictive analytics alone determines workforce planning, employee retention, or organisational performance.

The findings contribute to addressing the empirical gap identified in the literature. Previous studies largely examined predictive analytics within finance, healthcare, manufacturing, and information technology, with relatively little attention given to hospitality workforce management. The present study provides evidence that predictive analytics capabilities are associated with talent management outcomes within a hospitality setting. It also addresses the theoretical gap identified earlier by demonstrating how the Resource-Based View and Sociotechnical Systems Theory can be applied together. The Resource-Based View helps explain why data infrastructure, predictive modelling, and decision-support capabilities can function as valuable organisational resources, while Sociotechnical Systems Theory explains why the benefits of those resources depend on their integration into organisational processes and managerial practices.

An important contribution of the qualitative findings was the identification of practical constraints that were not fully captured by the quantitative analysis. Participants consistently referred to challenges relating to staff capability, data quality, system integration, and management commitment. These issues help explain why the relationships observed, although statistically significant, were not overwhelmingly large in practical terms. The findings therefore suggest that predictive analytics capabilities operate within broader organisational conditions rather than independently of them. The study does not suggest that predictive analytics provides a complete solution to talent management challenges in hospitality organisations. Rather, the findings indicate that predictive analytics capabilities contribute to workforce planning, employee retention, and organisational performance when supported by reliable data, appropriate analytical skills, effective organisational processes, and managerial commitment. This perspective offers a more balanced understanding of the role of predictive analytics in hospitality workforce management and responds directly to the empirical, theoretical, and contextual gaps identified in the literature.

CONCLUSION AND RECOMMENDATIONS

This study examined the relationship between predictive analytics and talent management outcomes in hotels in Ikeja, Lagos State. The findings showed that Data Infrastructure Capability, Predictive Modelling Capability, and Analytics-Based Decision-Support Capability

were significantly associated with Workforce Planning, Employee Retention, and Organisational Performance. Collectively, these capabilities explained a substantial proportion of the variation in Talent Management Outcomes, although other organisational factors also contributed to the outcomes observed. The study further showed that the value of predictive analytics depends not only on technology but also on how organisations manage data, develop analytical skills, and incorporate analytical information into workforce decisions. The qualitative findings highlighted issues such as data quality, staff competence, system integration, and managerial commitment as important factors influencing the effective use of predictive analytics. The study contributes to the literature by providing evidence from the hospitality industry, particularly within the Nigerian context where research on predictive analytics and talent management remains limited. It also demonstrates the usefulness of examining predictive analytics through Data Infrastructure Capability, Predictive Modelling Capability, and Analytics-Based Decision-Support Capability.

The findings were consistent with the assumptions of Sociotechnical Systems Theory and the Resource-Based View. They suggest that predictive analytics capabilities are more likely to support talent management when technological resources are effectively integrated with organisational processes and workforce practices. While the findings are specific to hotels in Ikeja, Lagos State, they provide useful evidence on the role of data-driven approaches in workforce management within the hospitality industry.

The recommendations are presented in line with the objectives of the study and are informed by the realities of workforce management in the hospitality industry.

i. Since Data Infrastructure Capability was associated with Workforce Planning, hotels should prioritise the development of reliable workforce information systems. Employee records, training histories, attendance data, and performance information should be properly captured, updated, and integrated. From a regenerative management perspective, planning should move beyond filling immediate vacancies to anticipating future workforce needs, developing internal talent pipelines, and ensuring the long-term sustainability of human capital within the organisation.

ii. Since Predictive Modelling Capability was associated with Employee Retention, hotel managers should adopt workforce forecasting practices that help identify turnover risks before they become organisational problems. Rather than responding to employee exits after they occur, management should use available workforce data to understand patterns of dissatisfaction, career stagnation, and workforce instability. This proactive approach can support employee wellbeing, strengthen organisational commitment, and reduce the financial and operational costs associated with high labour turnover.

iii. As Analytics-Based Decision-Support Capability recorded the strongest relationship with Organisational Performance, hotels should embed analytical evidence into routine management decisions. Workforce scheduling, staff development, performance management, and resource allocation decisions should be guided by objective workforce information. In a service industry where employee actions directly influence

guest experiences, better-informed decisions can contribute to improved service quality, operational efficiency, and organisational resilience.

iv. Since Data Infrastructure Capability, Predictive Modelling Capability, and Analytics-Based Decision-Support Capability jointly influenced Talent Management Outcomes, hotels should adopt an integrated workforce analytics strategy rather than implementing isolated technological solutions. Investments in data systems should be accompanied by staff development, management support, and a culture that values evidence-based decision-making. A regenerative approach to talent management requires organisations to view employees not merely as operational resources but as assets whose growth, wellbeing, and retention contribute to long-term organisational sustainability and competitiveness.

Compliance with Ethical Standards

Disclosure of Conflict of Interest

The researcher declares that there was no conflict of interest in the conduct of this study.

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