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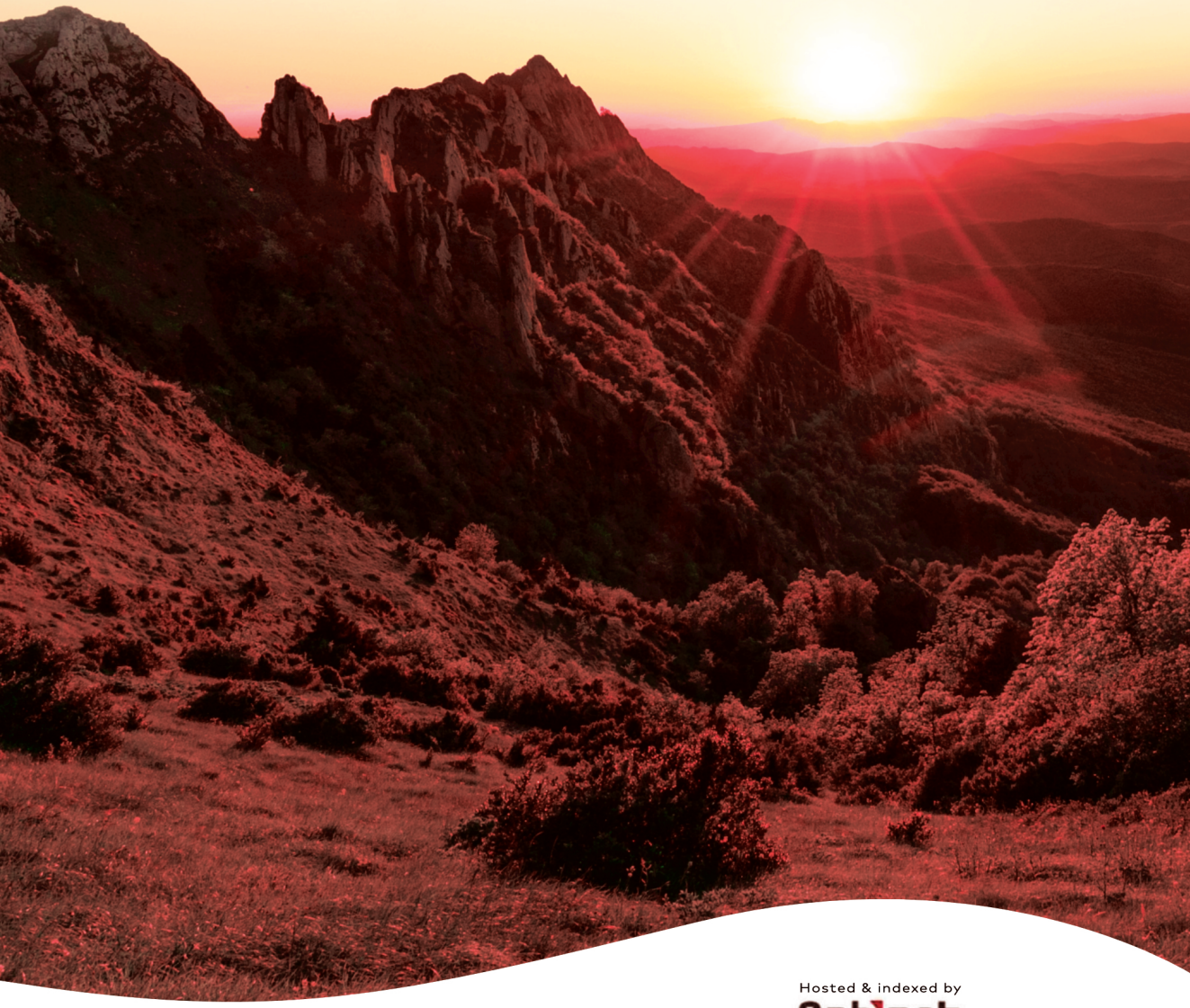

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Bridging the Gap: Prescriptive Human Resources Analytics Training to Enhance Performance of Employees in Higher and Tertiary Education Institutions (HEIs) in Zimbabwe

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Abstract

This study assessed the effectiveness of prescriptive human resource analytics (PHRA) in enhancing employee performance within five state universities in Zimbabwe. Prescriptive analytics employs complex algorithms that prioritise accuracy over interpretation, offering organisations actionable strategies for achieving desired outcomes. Guided by the LAMP model for evaluating the outcomes of HR actions, the study adopted a qualitative research approach and an explanatory research design to explore participants' perceptions of the relationship between PHRA and employee performance. Using purposive sampling, data were collected through structured interview guides and analysed thematically. The findings revealed that HR departments need to build structured plans to organise workforce data and integrate it with multiple organisational data sources to enable effective use of prescriptive analytics. Results further indicated that PHRA is particularly beneficial in transactional contexts, such as evaluating the success of specific training programmes, or identifying skill needs in selected organisational units through attrition pattern analysis. These insights demonstrate PHRA's potential for improving employee outcomes when effectively embedded into HR systems. The study recommends that Higher Education Institutions (HEIs) in Zimbabwe adopt HR technologies that facilitate prescriptive analytics, enabling them to identify employee needs, design targeted training, and ultimately enhance workforce performance.

Key Words: Human Resources, Higher and Tertiary Education, Prescriptive Human Resource Analytics, Employee Performance, Zimbabwe

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Introduction

In today's rapidly changing global environment, higher education institutions (HEIs) face increasing pressures from globalization, digitalization, workforce diversity, and heightened competition for talent. To respond effectively, organisations are progressively embracing human resource analytics (HRA) as a strategic tool to enhance decision-making and optimise workforce performance. While descriptive and predictive analytics have been widely adopted to understand historical trends and forecast future outcomes, prescriptive human resource analytics (PHRA) is gaining recognition for its ability to recommend concrete, data-driven actions that directly improve employee outcomes (Kapoor & Kabra, 2014; Momin & Mishra, 2016; Prathyusha, 2020). Unlike conventional HR practices that often rely on intuition, PHRA integrates advanced algorithms and machine learning techniques to identify skill gaps, optimise recruitment, and design targeted training interventions. Such capabilities are especially critical for HEIs, where human capital plays a central role in achieving institutional goals related to teaching, research, innovation, and community engagement.

Despite the growing potential of prescriptive analytics, its adoption in Zimbabwean universities remains limited, with most institutions primarily relying on descriptive HR reports for compliance and administrative purposes (Hughes, 2018; Pape, 2016). This underutilisation stems from multiple barriers, including limited resources, technological constraints, and insufficient analytical expertise (Angrave et al., 2016; King, 2016). Yet, studies across Asia, Europe, and Africa have shown that PHRA can significantly improve training effectiveness, employee engagement, and retention by linking HR strategies to measurable performance outcomes (Anshu Sharma et al., 2017; Sumathi, 2019; Wawer & Muryjas, 2016). Against this backdrop, this study investigates the effectiveness of prescriptive human resource analytics in enhancing employee performance within Zimbabwean HEIs. By doing so, it bridges a critical research gap and provide insights into how universities can harness advanced analytics to strengthen workforce capacity and achieve sustainable organisational performance.

Background

Contemporary organisations are increasingly confronted with multifaceted challenges arising from globalisation, talent shortages, economic volatility, technological advancement, knowledge-based environments, and demographic shifts within the workforce. In response, firms are adopting sophisticated,

data-driven decision-making tools to retain a competitive edge. Akter, Wamba, Gunasekaran, Dubey, and Childe (2016) contend that analytics are indispensable to enhancing organisational performance. In this regard, managers utilising business analytics leverage relational database systems to identify causal relationships among inputs, processes, outputs, and outcomes, thereby facilitating more accurate and evidence-based decisions (Kapoor & Kabra, 2014; Momin & Mishra, 2016).

The application of analytics in human resource management (HRM) has demonstrated efficacy in improving organisational outcomes, ranging from reduced labour costs and optimised recruitment to enhanced talent management, employee engagement, and overall productivity. Accordingly, this study investigates the impact of prescriptive human resource analytics (PHRA) training strategies on employee performance within Zimbabwean Higher and Tertiary Education Institutions (HEIs).

Human resource analytics (HRA) refers to the process of collecting, modelling, and analysing data from diverse sources to optimise HR decision-making (Prathyusha, 2020). It enables organisations to gain strategic insights into employee behaviours, operational processes, and performance outcomes (Opatha, 2020). In contrast to descriptive analytics (which explains past occurrences) and predictive analytics (which anticipates future outcomes), *prescriptive* analytics seeks to recommend actionable interventions to achieve desired objectives. Within HRM, this entails leveraging advanced data science techniques—often incorporating algorithms and machine learning, to suggest specific, evidence-based strategies aimed at enhancing workforce performance (Prathyusha, 2020; Hameed, 2021; Fu, 2022).

PHRA applications include targeted training programmes to close skills gaps, data-informed recruitment strategies to attract top-tier talent, retention initiatives tailored to high-risk employees, and performance management systems aligned with institutional goals. These interventions underpin sustainable organisational development (Hameed, 2021). Increasingly, HR departments, including those in HEIs, have embraced digital transformation through the adoption of integrated human resource information systems (HRIS). These systems facilitate centralised management of workforce data and enable real-time decision-making in domains such as payroll, time management, competency tracking, performance assessment, and training analytics.

The HRA process serves as both a diagnostic and strategic tool, facilitating the identification of problem areas and opportunities for improvement (Kapoor & Kabra, 2014; Momin & Mishra, 2016). Fitz-enz and Mattox (2014) liken HRA to a structured problem-solving mechanism: descriptive analytics highlight the nature of the issue; predictive analytics forecast the implications of inaction; and prescriptive analytics inform solutions that pre-empt recurrence. By quantifying human behaviours and linking them to business outcomes, HRA supports more objective, informed, and impactful HR decisions (Momin, 2015; Momin & Mishra, 2016).

Empirical evidence from HEIs in Malaysia indicates that the adoption of PHRA improves employee performance by enhancing the precision of training needs analyses, recruitment quality, talent development, productivity, and retention (Anshu Sharma, Tanuja, & Sharma, 2017; Sumathi, 2019; Prathyusha, 2020). Similarly, studies from European contexts demonstrate how predictive insights derived from HRA empower institutional leaders to proactively address emerging challenges and capitalise on strategic opportunities (Nienaber & Sewdass, 2016; Fitz-enz & Mattox, 2014; Kryscynski et al., 2018; Sharma et al., 2014).

Research from Asia underscores the advantages of PHRA in producing rapid, data-supported, and objective decisions. Statistical modelling allows HEI administrators to correlate variables and initiate targeted interventions, particularly in training, to improve performance outcomes (Higgins, 2014; Lipkin, 2015; Mishra & Lama, 2016). Meanwhile, studies in African HEIs corroborate these findings, demonstrating that PHRA can significantly enhance the effectiveness of training strategies for academic staff (Aral, Brynjolfsson, & Wu, 2012; Dlomu & Spears, 2015; Green, 2017; Marler & Boudreau, 2017; Wawer & Muryjas, 2016).

Nonetheless, the adoption of PHRA in HEIs remains uneven. Several studies identify barriers such as the absence of clear implementation frameworks, insufficient technical expertise, integration challenges, cost constraints, and limited executive buy-in (Angrave et al., 2016; King, 2016; Minbaeva, 2017; Reddy & Lakshmikeerthi, 2017; Vargas, 2015; Tonidandel, King, & Cortina, 2016). Ethical concerns and the absence of supporting legal frameworks also inhibit adoption (Fred & Kinange, 2015; White & Ariyachandra, 2016). While modern HR software offers advanced analytical capabilities, many HR professionals underutilise them due to skill deficits (Jones, 2015). However, Rasmussen (2017) suggests that institutions with robust management information systems derive

substantial value from data-informed decisions, albeit with an estimated return on investment of only 80% in the absence of advanced analytics.

PHRA enables HEIs to examine historical workforce data to inform the development of customised training models tailored to institutional performance goals (Fred & Kinange, 2015; Pape, 2016). Crucially, prescriptive analytics can address complex and often intractable questions, revealing transformative opportunities that may otherwise remain unrecognised (Minbaeva, 2017; Reddy & Lakshmikeerthi, 2017). At the heart of PHRA research lies the analysis of digital trace data using techniques such as process and sequence mining to uncover latent learning patterns and align training strategies with performance objectives (Maldonado & Sanagustín, 2019; Kizilcec, Morales, & Muñoz-Gama, 2018).

These approaches differentiate between superficial (surface) and conceptual (deep) learning strategies. Surface strategies, often driven by assessment deadlines, are characterised by limited engagement and shallow understanding, whereas deep strategies reflect a comprehensive, concept-driven learning orientation (Entwistle, 2016). PHRA assists in identifying such behavioural patterns to close performance gaps and foster sustainable development (Kapoor & Kabra, 2014; Tonidandel et al., 2016; Vargas, 2015). Furthermore, PHRA enables the discovery of hidden, statistically derived constructs that support real-time assessment of training needs and outcomes.

The relevance of PHRA is not confined to commercial enterprises. HEIs, too, are recognising its potential to advance institutional effectiveness, academic excellence, and operational efficiency (Kizilcec et al., 2018). Within these institutions, HR analytics emerges as a fusion of business and academic analytics, reflecting the pivotal role of faculty and researchers in shaping organisational success (Fred & Kinange, 2015; White & Ariyachandra, 2016). Nevertheless, adoption across African HEIs, particularly in Zimbabwe, remains limited. Despite the implementation of HRIS in most public universities, utilisation is largely confined to descriptive analytics, presenting data in the form of reports and metrics with little strategic application (Hughes, 2018; Pape, 2016).

Thus, the current study assesses the implications of integrating prescriptive HR analytics into training strategies to enhance staff performance in selected state universities in Zimbabwe. By advancing from descriptive to prescriptive analytics, these institutions may unlock more sustainable development outcomes, aligned with strategic workforce planning and capacity building.

Contextual framework and study objectives

Zimbabwe's higher education sector is undergoing a paradigm shift following the introduction of the Education 5.0 framework, a strategic policy that expands the traditional tripartite mission of universities (teaching, research, and community engagement) to include two additional pillars: innovation and industrialisation. This holistic mandate repositions higher education institutions (HEIs) as catalysts for national development by embedding entrepreneurial and industrial imperatives within their academic operations (Zimbabwe Council of Higher Education [ZIMCHE], 2022).

To operationalise this framework, modularisation, a newly adopted instructional model, was introduced across Zimbabwean universities. This pedagogical shift emphasises flexible, technology-driven, and often remote learning models. However, evidence suggests that approximately 90% of academic staff are faAcing considerable difficulties in adapting to these demands, particularly in navigating digital platforms and maintaining pedagogical quality in online delivery formats (ZIMCHE, 2022). These challenges have exposed systemic weaknesses in institutional support structures and human resource development strategies.

Compounding this situation is the reality of limited institutional resources, which constrains the ability of university management to design and implement effective, data-driven training interventions. The absence of prescriptive human resource analytics (PHRA) strategies has led to suboptimal operational performance, further exacerbating inefficiencies in service delivery and academic quality. As such, there is growing pressure on HEIs to adopt evidence-based HR practices, driven by advanced analytics, to address performance gaps and improve organisational agility.

Encouragingly, a number of Zimbabwean universities have initiated the integration of data analytics tools into their strategic management processes. These tools are increasingly viewed not merely as reporting mechanisms but as critical enablers for institutional insight and decision-making. University management now recognises that realising the objectives of Education 5.0 requires moving beyond surface-level metrics to the systematic exploration and interpretation of institutional data, thus enabling meaningful interventions at multiple organisational levels.

Given the high expectations placed on universities to deliver across teaching, innovation, and engagement, there is an urgent need to manage academic and

administrative talent more strategically. Human capital has become the linchpin in the realisation of institutional mandates, necessitating a shift towards prescriptive analytics-based training approaches that offer actionable insights and measurable returns on investment.

Within this context, the present study is anchored on the following objectives:

i) *To assess the effectiveness of prescriptive human resource analytics in enhancing employee performance within Zimbabwean state universities.*
ii) *To analyse the challenges associated with integrating human resource analytics into the strategic management systems of state universities in Zimbabwe.*

By addressing these objectives, the study contributes to the broader discourse on human capital optimisation in the post-pandemic, digitally driven, and innovation-focused era of higher education in sub-Saharan Africa. It further aims to illuminate how PHRA can serve as a transformational lever for workforce performance, institutional resilience, and sustainable development.

Theoretical Framework

This study is anchored in the LAMP Model (Logic, Analytics, Measures, and Process) developed by Boudreau and Ramstad (2004), a robust framework for evaluating the outcomes of human resource (HR) actions. The LAMP Model provides a systematic approach to assessing the strategic value of HR initiatives by linking measurement systems with organisational performance outcomes. It comprises four interrelated components, Logic, Analytics, Measures, and Process, each of which plays a critical role in driving organisational efficiency and strategic alignment.

According to Boudreau and Ramstad (2004), logic pertains to the conceptual foundation of the measurement system. It involves the identification of pertinent questions that illuminate the relationship between HR investments and broader organisational performance. This component ensures that HR metrics are not evaluated in isolation but are aligned with the strategic objectives and performance drivers of the institution.

The analytics component refers to the capacity to identify, interpret, and analyse data derived from HR and other organisational domains. Analytics provide the evidence base for answering the logic-driven questions and generating actionable insights. It involves the application of advanced statistical techniques and data models to critically examine workforce behaviours, performance patterns, and institutional dynamics.

Measures are the specific indicators used to track the progress and effectiveness of HR initiatives. For metrics to be meaningful, they must be both relevant and precise, capable of capturing the nuances of employee performance, engagement, training outcomes, and strategic alignment. Effective measurement systems thus provide tangible evidence of whether desired outcomes are being achieved.

The process dimension addresses the operationalisation and strategic integration of the measurement system. This component underscores the importance of embedding measurement practices into the broader organisational change and learning agenda. It reflects the ongoing cycle of feedback, adaptation, and knowledge generation that informs continuous improvement in HR practice and institutional management.

By integrating these four elements, logic, analytics, measures, and process, the LAMP Model provides a comprehensive theoretical lens for assessing the effectiveness of prescriptive human resource analytics in enhancing employee performance. In the context of Zimbabwean state universities, where the Education 5.0 agenda demand greater institutional agility and performance accountability, the LAMP framework offers a valuable structure for linking HR investments with measurable and sustainable organisational outcomes.

Review of related literature

In the contemporary landscape of human resource management, there is a marked shift from reactive decision-making based on static reports and dashboards towards proactive, data-integrated strategies that incorporate insights from both business processes and employee behaviour (Fred & Kinange, 2015; Pape, 2016; White & Ariyachandra, 2016). This shift is embodied in the application of prescriptive human resource analytics (PHRA), which establishes measurable and data-driven links between HR objectives and actual operational outcomes. Through the use of predictive modelling and optimisation techniques, PHRA supports strategic decision-making across a range of HR functions including recruitment, training, and performance management (Shah et al., 2017).

PHRA facilitates forward-looking interventions by combining historical employee data, such as competencies, productivity levels, and engagement metrics, with machine learning algorithms to recommend optimal HR strategies (Angrave et al., 2016; Minbaeva, 2017; Reddy & Lakshmikeerthi, 2017). In higher education institutions (HEIs), this approach is particularly pertinent given the increasing complexity of academic operations and performance expectations under frameworks such as Education 5.0. Human resource leaders in HEIs are

thus well-positioned to benefit from PHRA through evidence-based workforce planning, sustainable training strategies, and improved employee performance (Aral, Brynjolfsson & Wu, 2012; Sharma et al., 2014; Wawer & Muryjas, 2016; Collins et al., 2017).

According to Meena and Parimalarani (2019), the integration of prescriptive and proactive HR practices represents a paradigm shift in talent management, transforming HR from an administrative function into a strategic partner. Prescriptive analytics merges the retrospective insights of descriptive models with predictive forecasting, enabling HEIs to not only anticipate future staffing requirements but also define the performance benchmarks necessary to uphold institutional productivity (Kryscynski et al., 2018; Lakshmi & Pratap, 2016; Sharma et al., 2014). In doing so, HR leaders can derive data-informed guidance on how to improve instructional delivery, manage research outputs, and align academic staff performance with institutional goals.

More broadly, prescriptive analytics is defined as a category of advanced data intelligence that connects descriptive insights with predictive forecasting to recommend concrete actions for optimal outcomes (Lakshmi & Pratap, 2016). In the HR context, this translates into the ability to assess employee suitability for specific roles, forecast potential career trajectories, and develop strategic interventions to prevent high-potential employee attrition (Byrne, 2020). It facilitates workforce alignment by evaluating skill sets against organisational needs and provides data-driven recommendations to support both employee retention and succession planning (King, 2016; Minbaeva, 2017).

The application of PHRA in HEIs not only enhances individual performance but also supports the strategic efficiency of HR departments. Martins (2020) argues that PHRA assists HR professionals in evaluating return on human capital investment (ROI), streamlining departmental operations, and enhancing evidence-based decision-making (Aral et al., 2012; Collins et al., 2017). Furthermore, it enables the identification of key performance indicators (KPIs) and performance enhancers, facilitating long-term planning for workforce development.

Performance tracking through prescriptive analytics offers ongoing insight into employee development during and after training interventions, allowing institutions to evaluate progress against institutional benchmarks (McCartney & Fu, 2022; Huey, 2020). This level of diagnostic feedback is essential for the

optimisation of training processes and the alignment of staff development with organisational performance objectives.

Notably, PHRA supports a shift from subjective, static performance evaluation models, such as the often-criticised Bell Curve approach, towards more objective, real-time, and dynamic performance tracking systems (McCartney & Fu, 2022; Kabeer, 2021). These systems harness HRIS platforms to collect and analyse high-quality performance data, enabling HR managers to identify high performers, reward excellence, and implement strategic incentives (Seidel et al., 2019).

Additionally, PHRA enables organisations to uncover statistically significant patterns that relate directly to performance drivers, employee preferences, and organisational objectives. It encourages HEIs to invest in activities with a measurable return, such as targeted learning and development programmes, and facilitates real-time decision-making (Khalili, 2020). As organisations transition away from annual performance reviews in favour of continuous performance analysis, PHRA emerges as an indispensable tool for modern HRM.

Simbeck (2019) identifies five key domains where PHRA significantly contributes: improving HR departmental performance, informing strategic planning, predicting future skill requirements, evaluating talent fit, and optimising appraisal processes. These capabilities enhance institutional agility by ensuring that talent management systems are responsive, data-driven, and performance-oriented (McCartney & Fu, 2022). Importantly, these analytics help maintain employee motivation and satisfaction, key variables in academic performance and retention.

In the context of Zimbabwean HEIs, which are navigating the demands of Education 5.0 amidst limited resources, the application of PHRA is particularly relevant. It offers a mechanism to optimise training investments, improve academic staff performance, and ultimately advance institutional goals in teaching, innovation, and industrialisation. As HR analytics continues to evolve, prescriptive analytics provides a forward-looking lens through which Zimbabwean universities can identify systemic inefficiencies and deploy strategic, actionable interventions to enhance organisational effectiveness.

Research methodology

This study employed an **exploratory qualitative research approach** to investigate the implications of integrating prescriptive human resource analytics (PHRA) training on employee performance in Zimbabwean state universities.

A qualitative methodology was selected to capture and interpret the lived experiences of participants, thereby providing a nuanced understanding of the contextual factors influencing the adoption of PHRA. The research design was **explanatory**, moving beyond description to examine the causal mechanisms underpinning the phenomenon by addressing "why" and "how" questions (Creswell & Clark, 2007; Grey, 2014). The study population comprised all **13 state universities in Zimbabwe**, as recorded in the Ministry of Higher and Tertiary Education, Science and Technological Development database (2025), with a focus on university registrar personnel due to their strategic role in human resource management. Using **non-probability purposive sampling**, one participant was selected from each institution, resulting in a sample of 13 individuals. This sampling method ensured the inclusion of participants with substantial expertise in HR management and analytics, thereby maximising the richness and contextual validity of the data.

Data were collected through **semi-structured interviews**, which provided the flexibility for participants to articulate their perspectives while allowing the researcher to probe emerging themes in greater depth (Neuman, 2011; Creswell et al., 2018). An interview guide was used to maintain consistency across interviews and to align discussions with the study's objectives. The data were analysed using **thematic analysis**, involving iterative processes of coding, categorising, and synthesising to identify patterns and generate insights into issues such as employee sentiment, training effectiveness, and organisational readiness (Creswell et al., 2018). Ethical principles were rigorously observed throughout the study: informed consent was obtained from all participants, identities were anonymised, and confidentiality of sensitive information was strictly maintained. By combining methodological rigour with ethical integrity, the study ensured credible and trustworthy findings that contribute meaningfully to the discourse on HR analytics in higher education.

Results and Discussion

Data was collected from 13 participants purposively selected. However, data saturation was reached at 9. This translates to 69% response rate which according to Momeni (2009) is a good response rate to have unbiased data for qualitative research.

Discussion

Various responses were given on the effectiveness of prescriptive human resource analytics on performance of employees in Higher and Tertiary Education Institutions in Zimbabwe.

Participant 1 asserted that prescriptive HRA is being used for data driven decision to enhance performance of employees and had this to say:

> *Prescriptive human resource analytics is an important tool for our university to make data-driven decisions about their employees. We use prescriptive analytics to identify the skills and competencies that are needed for success, to evaluate the effectiveness of training and development programs, and to improve employee engagement and well-being. The most used HR data for analytics includes employee demographics, performance data, training and development data, and employee satisfaction data.*

Participant 2 alluded to the implementation of prescriptive human resource analytics in identification of performance gaps and close it by training incumbents to improve on performance and had this to say:

> *We use prescriptive analytics to identify areas of the university that need improvement, and to recommend actions to be taken to improve performance of employees through training needs analysis. Prescriptive analytics can also be used to measure the effectiveness of training programs and identify employees who are likely to leave the organization. By identifying employees who are at risk of leaving, the university can take steps to retain these employees by offering development opportunities, incentives, and other benefits.*

Participant 3 avers that prescriptive human resource analytics is used to identify training data for employees and enables management to define the roadmap and had this to say:

> *In our institution we identify training and development data using prescriptive human resource analytics since it has emerged to be novel in this domain. Training and development data includes information about the training and development programs offered by our institution, as well as the participation and performance of employees in these programs. This type of data can be used to evaluate the effectiveness of training programs, to identify areas for improvement, and to understand the impact of training on employee performance and career development.*

Participants 4 concurred with 1, 2 and 3 and had this to say:

> *Prescriptive human resource analytics impact on strategic decision-making of our institution by providing insights into the alignment of HR strategies with business objectives. Firstly, by analysing HR data, our institution can determine whether their HR strategies are achieving the desired outcomes and make necessary adjustments. This is leading to a more efficient and effective use of resources and ensure that the learning institution is investing in the right areas to achieve its strategic goals.*

The responses were in line with literature. The use of prescriptive HRA creates advantages for the company in a few ways. Researchers indicated that prescriptive HRA could improve a company's bottom line through effective workforce cost control and improve HR credibility (Jones, 2015; Kapoor & Kabra, 2014). Other benefits of using prescriptive HRA include allowing segmentation of employees, workforces, talent pools or vital skills for more efficient and impactful HR decisions (Muiruri et al., 2015) making prescriptive HRA critical for decision-making in the current business environment. Arora and Rahman (2016) discovered HR related data are a component of 'big data' and are unique, valuable firm resources that can provide sustainable competitive advantage. The HRA process facilitates insightful diagnosis of problems for developing focused solutions. HRA is a management tool for identifying opportunities, solving problems, and predicting returns on investments for obtaining maximum value (Fitz-enz & Mattox, 2014). Supporting the view that people are the most significant factor affecting business performance, scholars opined that HRA enables quantifying, evaluating and controlling human behavior critical for improved workforce performance (Momin, 2015; Momin & Mishra, 2016; Nienaber & Sewdass, 2016). By leveraging data analytics, organizations can make informed decisions about their HR strategies, which can lead to better business outcomes. Human resource (HR) analytics has emerged as a valuable tool for organisations seeking to improve their performance by using data to make informed decisions about their employees.

However, it has emerged from the responses that HEIs in Zimbabwe are facing dynamic challenges of implementing prescriptive human resource analytics (HRA) due to diverse factors.

Participant 6 had this to say:

> *…considering that human resource analytics is a new kid on the bloc, our institution lacks human capital expertise to analyse big data for university employee's skills deficiency and recommend for further action to be taken to improve on performance. This requires university HR managers to have strong analytical skills to produce recommendations supported by empirical evidence… required analytical ability as the individual's ability to develop and test causal models using appropriate metrics and incorporating the results into the company decision-making process.*

In addition, Participant 7 argue that:

> *…. analytical skills will become even more essential for HR professionals with technological advances and knowledge-based economies…. successful HRA requires a complement of both clean qualitative and relevant data and analytics skills. HR professionals in universities need to up skill themselves in this area or run the risk of statisticians and IT professionals taking over what should be a critical strategic HR role…. HR departments do not have practical base metrics.*

Participant 8 asserted that:

> *… data capability alone cannot deliver value; it is the ability to interpret the data within t h e company's unique context that creates value which is lacking in our institutions of higher learning and as a result, the costly analytics capabilities provided by the latest forms of human resource information system (HRIS) fail to deliver strategic HRA's capabilities leaving university having fatal strategic decision making detrimental to their orientation and goals.*

Participant 9 alluded that:

> *…universities need to implement an analytical strategy which is lacking… universities require a strategic approach for human resource analytics (HRA) to be successful and all elements of the analytics strategy must align; the data from disparate sources must be capable of integration, the data collection and management strategy must provide clean, current, and relevant data required for the institution needs, and there must be a deliberate mapping of analytic options against the corporate objectives and business challenges.*

Inference to literature demonstrated that organisations must have a data driven culture for HRA success. Scholars largely support the contextual nature of HRA and the importance of culture (Begelman, 2014; Jones & Sturtevant, 2016; Kryscynski et al., 2018; Reddy & Lakshmikeerthi, 2017; Tableau, 2016). Minbaeva (2017) advised that success with HRA requires developing it as an organisational capacity while Lismont et al. (2017) noted the importance of making HRA central to the corporate decision-making process. Levenson (2017) criticised current HRA as focusing too much attention at individual level when what is required for success is a multilevel approach that concentrates on individuals and relevant groups. Sharma et al. (2014) discovered the corporate decision-making process influences how insights transform decisions. Boudreau & Cascio (2017) acknowledged situations still exist when the advice of HR managers providing their leaders with evidence is ignored and company leaders decide to copy best practices, adopt the opinions of admired CEOs or management experts. Rasmussen and Ulrich (2015) noted that sometimes HRA insights might be rejected because they threaten existing belief systems and suggest the need for change. Therefore, HRA is limited by the suitability of the operational context, power politics, and willingness of leadership to invest and use the insights generated.

Conclusions and Recommendations

Major findings of the study derived from the thematic analysis indicated that despite human resource analytics as a fairly new concept in the domain of human resource management, it is being slowly implemented by universities to harness performance of employees. However, challenges associated with technological integration of HRA software and human capital technocrats is hindering the success story of implementation of using diverse HRA algorithms in managing human capital in the institutions. Study results also indicate that the prescriptive analysis would be preferable in transactional scenarios where, the experience of training can be focused on the success of a specific internal training program. The need to employ unique skills in a handful of company locations can be identified through attrition patterns to record a success factor. The study recommends that HEIs in Zimbabwe need to embrace HR technologies to identify employee needs, train them and enhance performance. However, to ensure the ethical use of HR analytics, organisations must establish clear guidelines and policies for the collection, use, and protection of employee data. HR should leverage their roots in employee advocacy, understanding, and development and ensure HRA results in benefits for both staff and the company. HR managers should not rely solely on data for decisions but should gather insights from the data and make informed decisions combining insights with their experience. Future research should focus on developing more advanced methods and techniques and addressing the ethical use of HR analytics. By doing so, organizations can harness the power of HR analytics to create a more productive, engaged, and satisfied workforce.

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