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Enhancing Employee Performance and Well-Being Through Sustainable HR Analytics: An Empirical Study in the Mangalore Region

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Abstract: In today's modern corporate environment, organisations are increasingly utilising Sustainable Human Resource Analytics (SHRA) to improve their employees' performance and overall well-being. This study investigates the effects of SHRA on workers in the Mangalore region, with a particular emphasis on how data-driven HR practices contribute to workforce productivity, job happiness, and a healthy balance between work and personal life. This project aims to investigate the possibility of incorporating HR analytics with sustainability principles to foster an inclusive, healthy, and productive workforce. Using a mixed-methods approach, which combines quantitative and qualitative methods, a survey is administered to employees working in several industries in Mangalore. Several critical characteristics are investigated, including absenteeism, retention rates, job stress, occupational engagement, and overall well-being. The findings illustrate how implementing predictive analytics, performance monitoring, and well-being programs may lead to improved outcomes for employees and the long-term viability of an organisation. In addition to this, the research delves into the challenges and ethical dilemmas that are associated with the implementation of HR analytics in a sustainable setting.

Keywords: Sustainable HR Analytics; Employee Performance; Employee Well-being; Workforce Sustainability; HR Data Analytics; Predictive HR Analytics; Work Engagement; Job Satisfaction; Organisational Sustainability; Mangalore Region.

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1. Introduction

In today's dynamic business environment, organisations are increasingly adopting Sustainable HR Analytics (SHRA) to enhance employee performance and well-being. When integrated with sustainability principles, HR analytics provides valuable insights that help organisations optimise workforce productivity, improve job satisfaction, and promote employee well-being. The role of data-driven decision-making in HR has evolved significantly, enabling businesses to align their workforce strategies with long-term sustainability goals. The Mangalore region, a growing economic hub in India, hosts industries like

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manufacturing, IT services, healthcare, and education, making it an ideal setting to study the effects of SHRA on employees. This research investigates how sustainable HR analytics influences key workplace outcomes, including employee engagement, job stress, work-life balance, absenteeism, and retention. Additionally, the study addresses the ethical considerations and challenges in implementing HR analytics for sustainable workforce management. By examining the impact of SHRA in Mangalore, this study aims to contribute to the broader discussion on leveraging HR analytics to foster a high-performing and well-balanced workforce while ensuring the long-term sustainability of organisations.

2. Literature Review

Kapoor and Kabra [4] explore the evolving role of analytics in HR management. They observe that, while analytics is widely utilised in supply chain, finance, and marketing, its adoption in HR has been comparatively limited. The authors emphasise that integrating analytics into HR processes can transform the function into a strategic partner by enabling data-driven decision-making. Through an analysis of job postings from platforms such as SimplyHired.com and Indeed.com, they identify a growing demand for analytics professionals in HR, suggesting a trend toward increased adoption. The study highlights that organisations leveraging HR analytics can enhance recruitment, leadership development, and overall efficiency, thereby gaining a competitive advantage.

Anand and Kar [15] delve into the transformative impact of data analytics on human resource (HR) practices. The authors emphasise that HR analytics enables organisations to move beyond traditional intuition-based decision-making, facilitating data-driven strategies that enhance workforce management. HR departments can gain deeper insights into employee behaviour and organisational dynamics by integrating data from various sources such as attendance records, performance metrics, and employee demographics. The paper discusses several applications of HR analytics, including predictive modelling for employee turnover, performance evaluation, and recruitment optimisation. Furthermore, it highlights the challenges associated with implementing HR analytics, such as data privacy concerns and the need for skilled personnel to interpret complex data sets. Despite these challenges, the authors argue that strategic HR analytics can lead to improved decision-making, enhanced employee satisfaction, and better alignment of human capital with organisational goals.

Alamelu and Kumar [7] state that human resource analytics (HRA) focuses on using data-driven metrics to analyse human processes within organisations, enhance employee productivity, and measure HR investment effectiveness. By relying on factual evidence rather than intuition, HRA supports objective decision-making across recruitment, integration, and retention, helping organisations gain a competitive advantage. Research highlights that aligning HR analytics with business outcomes in financial terms promotes sustainable improvement. Key factors in HRA adoption include tracking workforce attendance, turnover, engagement, and recruitment decisions, which enable predictive insights for future HR management. These strategies also address quality and cost challenges related to recruitment, development, and employee welfare, ultimately contributing to the organisation's economic sustainability.

Reddy and Lakshmikeerthi [11] explore the transformative role of HR analytics in modern human resource management. They argue that while traditional HR decisions often rely on intuition and relationships, integrating data-driven approaches enhances decision-making accuracy and effectiveness. The authors highlight the evolution of HR analytics from basic reporting to advanced predictive and prescriptive analytics, emphasising its potential to align HR practices with organisational goals and improve overall performance. They also discuss organisations' challenges in implementing HR analytics, such as data quality issues, skill gaps, and resistance to change, and suggest strategies to overcome these barriers. The paper underscores the importance of adopting an evidence-based approach to HRM, leveraging analytics to make informed decisions that drive business success.

Lengnick-Hall et al. [10] analyse how Human resource management is transforming by introducing big data, HR Analytics and artificial intelligence. According to them, three observations from the study led to enhanced decision-making. The identified trends include expanding big data within the business premises, integrating HR Analytics across all departments, and using AI Technologies. The authors emphasise that these advancements enable HR professionals to move beyond their usual structural duties and focus on more strategic roles in business planning and development. By employing data-driven insights, HR departments may improve talent acquisition, performance management, and employee engagement, all of which will enhance the company's overall effectiveness. However, the authors are concerned about the limitations of these technologies, including concerns over data protection, the need for HR professionals to learn new skills, and the ethical implications of utilising AI in decision-making. They endorse a well-rounded approach in the HR sector that combines innovation in technology with a dedication to moral values and lifelong learning.

Kryscynski et al. [6] investigate the connection between HR professionals' analytical skills and work success. The study looked at 360-degree feedback from 1,117 HR experts in 449 companies to determine if analytical abilities and perceived work performance are related. The study found that HR professionals with stronger analytical skills are rated higher for job

performance. Additionally, the extent this relationship holds varies by job, suggesting that analytical abilities are particularly crucial for some HR-related positions. The authors advocate for enhanced training and development initiatives to improve analytical abilities and stress the growing significance of data literacy in HR.

Noack [5] evaluates recent studies on big data integration in an exploratory manner. Using information from well-known companies like Deloitte, IBM, LinkedIn, and McKinsey, Noack [5] investigates the application of predictive recruiting algorithms, the automation of decision-making procedures, and the implementation of cutting-edge workplace monitoring technology. To estimate organisational readiness for analytics and the effects of structural design changes in response to changing skill requirements, the study uses structural equation modelling based on responses from 4,800 participants. The results determine the transformative capability of big data analytics in HRM, highlighting the promise for increased productivity and the challenges associated with privacy and ethical issues. It focuses on how data-driven technologies are changing HR procedures, and Noack's [5] research enhances the effects for labour management going forward.

According to Pradhan and Jena [12], measuring employee inputs and identifying high-performing individuals who optimise organisational return on investment are the main objectives of HR analytics. One major issue affecting workplace harmony and organisational sustainability is employee turnover. As a result, HR departments ponder using cutting-edge tools to identify and reduce employee turnover. Recent studies highlight using real-time data insights and machine learning models, such as Random Forest and Logistic Regression, to better forecast and manage employee attrition, combined with platforms like POWER BI. Lochab et al. [3] examine the impact of HR analytics on organisational performance within Indian companies. Surveying HR executives from 35 organisations, the authors find that HR analytics is predominantly utilised as a strategic tool to enhance decision-making and operational effectiveness.

Despite the growing recognition of its benefits, many organisations rely on basic tools like spreadsheets, with limited adoption of advanced analytics platforms such as HRIS or dedicated workforce analytics solutions. The study concludes that while HR analytics positively influences organisational performance, its full potential remains underutilised due to technological and cultural barriers. The authors advocate for increased investment in analytics infrastructure and the development of data-driven capabilities within HR functions to fully leverage the advantages of HR analytics. Ekka [16] explores the transformative role of HR analytics in modern organisational decision-making. It emphasises the shift from intuition-based HR practices to data-driven strategies, highlighting how analytics can enhance various HR functions such as talent management, performance evaluation, and return on investment. The paper underscores the importance of integrating HR analytics into organisational frameworks to achieve strategic objectives and improve efficiency.

Shet and Pereira [17] explain that Human Resource Analytics (HRA) has evolved as a critical function for enhancing data-driven decision-making in HR practices. Recent literature highlights the shift from basic HR metrics to more advanced analytics using big data and statistical methodologies. The development of an operational HRA framework underscores its potential to generate insights from various data sources and influence organisational outcomes at multiple levels—from individual employee performance to strategic business impact. Despite the growing relevance of data analytics in management, HR has lagged in fully adopting these practices, mainly due to a limited understanding of HRA fundamentals. The reviewed literature stresses the need for HR professionals to embrace HRA as a strategic tool, promoting its effective implementation and alignment with organisational goals.

Ramakrishna et al. [8] explore the transformative role of Human Resource (HR) analytics in enhancing employee performance within the Information Technology (IT) sector. The authors emphasise the shift from traditional HR practices to data-driven approaches, highlighting how HR analytics enables organisations to make informed decisions regarding recruitment, training, and retention strategies. By leveraging analytical tools, companies can identify performance gaps, predict employee turnover, and implement targeted interventions to boost productivity. The study underscores the importance of integrating HR analytics into organisational frameworks to foster a culture of continuous improvement and strategic workforce planning. This research contributes valuable insights into the practical applications of HR analytics, offering a roadmap for IT firms aiming to optimise their human capital management through data-centric methodologies.

Wolniak et al. [14] critically examine the application of business analytics within Human Resource Analytics (HRA), emphasising its transformative role in the Industry 4.0 context. Integrating advanced analytical tools allows organisations to gain valuable insights into workforce behaviour, trends, and patterns, supporting strategic decision-making in talent acquisition, retention, performance management, workforce planning, and employee well-being. While business analytics enhances HR processes and contributes to organisational success, challenges such as data quality, privacy concerns, and skill shortages among HR professionals highlight the need for strategic investment in technology and human capital. This analysis provides a comprehensive overview of these issues, offering valuable insights into the evolving role of business analytics in HR. Burbach et al. [9] investigate the influence of HR analytics on fostering organisational creativity. The study emphasises the importance of data-driven decision-making in HR practices and its potential to enhance innovative capabilities within organisations. By

analysing various HR metrics and their impact on creative outcomes, the authors provide insights into how predictive analytics can inform talent management strategies that promote a culture of creativity. The research highlights the role of HR analytics in identifying and nurturing creative potential among employees, thereby contributing to the overall innovative capacity of the organisation.

Danilkova et al. [2] examine the transformative role of data analytics in enhancing human resource (HR) management practices. The authors discuss how modern technologies, including big data and artificial intelligence, enable HR professionals to make informed decisions that improve organisational efficiency. Key applications highlighted include optimising recruitment processes, assessing employee performance, managing personnel costs, and enhancing employee retention strategies. The study emphasises the importance of integrating analytical tools and software platforms to streamline HR functions and reduce operational risks. Despite the benefits, the authors caution about potential challenges such as data privacy concerns and the need for specialised skills among HR personnel. Overall, the article underscores HR departments' need to adopt data-driven approaches to remain competitive in the evolving business landscape.

Gohain and Sanyal [1] examine the integration of HR analytics tools in private banking institutions and their impact on employee performance and organisational efficiency. The authors highlight that HR analytics facilitates data-driven recruitment, talent management, and employee retention decision-making. By leveraging existing organisational data, these tools provide insights into employee performance, turnover, and attitudes, enhancing strategic HR planning. The study also identifies challenges employees face, including resistance to change, data privacy concerns, and the need for upskilling to effectively utilise analytics tools. Despite these challenges, the research underscores the pivotal role of HR analytics in shaping workplace behaviour and improving the work environment within the banking sector.

Okon et al. [13] explore the transformative role of data-driven analytics in human resource management (HRM). The authors stress that HR tasks, such as hiring, performance reviews, talent retention, and workforce planning, can be improved by utilising analytics. The study emphasises how data analytics promotes proactive HR practices, enhances transparency, and enables evidence-based decision-making through a thorough literature-based approach. The writers also discuss issues including organisational resistance to change, data quality, and the moral dilemmas surrounding the use of employee data. They concluded that for HR to genuinely provide strategic value, choices must be made using analytical reasoning rather than traditional intuition, supported by a strong data infrastructure and HR specialists with analytical abilities.

2.1. Research Aims

- To examine how employee performance is affected by Sustainable HR Analytics (SHRA) in businesses around the Mangalore area.
- To investigate how SHRA supports work-life balance, job satisfaction, and stress management as aspects of employee well-being.

2.2. Hypotheses

- H1 Employee performance in firms is positively impacted by sustainable HR analytics.
- H2 SHRA improves employee well-being, which results in less stress, increased job satisfaction, and a better work-life balance.

3. Methodology

3.1. Research Design

The study adopts a mixed-method research approach, integrating quantitative and qualitative methods to comprehensively understand how Sustainable HR Analytics impacts employee performance and well-being.

3.2. Data Collection

3.2.1. Primary Data

- **Survey Method:** Structured questionnaires have been distributed to employees across various industries in Mangalore.
- **Interviews:** HR managers and business leaders have been interviewed to gain insights into their SHRA strategies and challenges.

3.2.2. Secondary Data

Data has been collected from HR reports, academic journals, and case studies related to HR analytics and employee well-being.

3.2.3. Sampling Technique

- Stratified random sampling has been used to ensure that respondents represent diverse industries such as IT, manufacturing, healthcare, and education.
- The sample size is 300, including employees and HR professionals.

3.3. Data Analysis

- **Quantitative Analysis:** Statistical tools like Structural Equation Modelling and Regression Analysis have examined the relationship between SHRA and employee performance/well-being.
- **Qualitative Analysis:** A thematic analysis was conducted on interview responses to identify key patterns and perceptions of HR professionals regarding SHRA.

4. Data Analysis and Interpretation

According to Table 1, the demographic data reveal that the largest portion of respondents (40%) is between the ages of 25 and 34. This indicates that the study captures perspectives primarily from early to mid-career employees who are often actively engaged in career development and growth opportunities. The presence of a substantial number of respondents aged 35-44 (28%) and 45 and above (12%) provides valuable insights from more experienced employees. Regarding gender, males comprise 56% of the sample, slightly outnumbering females (44%), which suggests a relatively balanced gender representation, providing a comprehensive view of opinions across genders. Educationally, the sample is well-qualified, with 40% having attained a Bachelor's degree and an additional 28% holding Master's degrees or higher. This high educational attainment indicates that respondents likely possess the cognitive ability and understanding to engage meaningfully with Sustainable HR Analytics (SHRA). The presence of respondents with diplomas and high school education ensures that diverse educational backgrounds are also represented.

Table 1: Demographic profile of respondents

Demographic Variables	Categories	Frequency (n=300)	Percentage (%)
Age	Below 25	60	20 %
	25-34	120	40 %
	35-44	84	28 %
	45 and above	36	12 %
Gender	Male	168	56 %
	Female	132	44 %
Education	High School	36	12 %
	Diploma	60	20 %
	Bachelor's Degree	120	40 %
	Master's Degree and Above	84	28 %

Source: *Survey Data*

The data in Table 2 shows that most (72%) employees know HR Analytics. This high level of awareness signals that many organisations in the Mangalore region have begun implementing or at least discussing HR analytics as part of their HR management strategies. Awareness is a critical first step toward adoption, as employees who understand the role and benefits of HR analytics are more likely to accept and support its use. However, 28% of employees remain unaware, which indicates a gap that organisations need to address through education and communication initiatives to ensure SHRA's full potential can be realised. Improving awareness could help mitigate resistance and increase participation in analytics-driven programs.

Table 2: Awareness of HR analytics among employees

Response	Frequency (n=300)	Percentage (%)
Aware	216	72 %
Not Aware	84	28 %

Source: *Survey Data*

Table 3 shows that an overwhelming 76% of respondents (32% strongly agree and 44% agree) believe that HR Analytics positively impacts job performance. This strong consensus supports Hypothesis H1 and suggests that employees perceive analytics-driven HR decisions and interventions as effective tools for enhancing productivity, motivation, and performance outcomes. Only a small fraction (12%) are neutral or disagree, indicating limited scepticism or uncertainty about the benefits of HR analytics in improving performance. The data suggests that organisations should continue investing in SHRA, as employees widely regard it as a valuable performance-enhancing resource.

Table 3: Impact of HR analytics on employee performance

Response	Frequency (n=300)	Percentage (%)
Strongly Agree	96	32 %
Agree	132	44 %
Neutral	36	12 %
Disagree	24	8 %
Strongly Disagree	12	4 %

Source: *Survey Data*

Regarding employee well-being, Table 4 shows 66% of respondents (28% strongly agree and 38% agree) feel that SHRA supports stress management. This finding indicates that HR analytics is used effectively to identify stress triggers and workloads, allowing organisations to design interventions that alleviate employee stress. There remains some variation in perception, with 16% neutral and 18% disagreeing or strongly disagreeing. This may point to differences in implementation quality or employee expectations. It suggests the need for organisations to tailor stress management programs based on analytic insights and communicate their benefits clearly.

Table 4: HR analytics helps in stress management

Response	Frequency (n=300)	Percentage (%)
Strongly Agree	84	28 %
Agree	114	38 %
Neutral	48	16 %
Disagree	36	12 %
Strongly Disagree	18	6 %

Source: *Survey Data*

It is clearly visible from Table 5 above 64% of respondents agree or strongly agree that HR Analytics improves work-life balance. This demonstrates that organisations use SHRA insights to monitor work patterns, identify overburdened employees, and create policies that promote flexible working arrangements or other work-life initiatives. The 20% who are neutral and 16% who disagree reflect areas for improvement. Work-life balance is a complex, multifaceted issue influenced by many factors, so analytics should be combined with other HR practices to holistically enhance employee satisfaction. The findings from Tables 4 and 5 affirm Hypothesis H2: SHRA plays a positive role in promoting employee well-being, including managing stress and improving work-life balance, which are key contributors to overall job satisfaction and productivity.

Table 5: HR analytics improves work-life balance

Response	Frequency (n=300)	Percentage (%)
Strongly Agree	90	30 %
Agree	102	34 %
Neutral	60	20 %
Disagree	30	10 %
Strongly Disagree	18	6 %

Source: *Survey Data*

The challenges highlighted in Table 6 indicate that data privacy concerns (36%) are the most significant barrier to SHRA adoption. Employees may fear personal or performance data misuse, underscoring the importance of transparent policies and stringent data protection mechanisms. The lack of proper HR tools (30%) signals technological and infrastructural gaps in many organisations, which could limit the effectiveness of SHRA initiatives. Investment in modern analytics software and integration with existing HR systems is needed. Resistance from employees (20%) suggests that change management and clear communication are crucial for addressing fears, misconceptions, or scepticism about analytics, especially regarding how data

is used. Lastly, high implementation costs (14%) are a practical constraint, particularly for smaller organisations with limited budgets. Organisations should consider phased or pilot implementations and explore cost-effective cloud-based analytics solutions. These challenges indicate that successful SHRA implementation requires a balanced approach that addresses technological, human, and financial factors to build trust and maximise analytics benefits.

Table 6: Challenges faced in implementing HR analytics

Challenges	Frequency (n=300)	Percentage (%)
Data Privacy Concerns	108	36
Lack of Proper HR Tools	90	30
Resistance from Employees	60	20
High Implementation Cost	42	14

Source: *Survey Data*

4.1. Statistical Tool

Table 7 shows the latent constructs and the observed variables employed in the investigation. Table 3's items about employee performance are used to measure the first construct, Sustainable HR Analytics (SHRA) Impact on Performance. The second construct, SHRA Impact on Well-being, uses indicators from Table 4, which is about managing stress, and Table 5, which is about balancing work and life. The last category, Challenges (Control variables or exogenous), comprises things from Table 6, such as data privacy, tools, resistance, and cost. This table highlights how essential constructs are put into action through distinct variables that have been observed.

Table 7: Latent constructs and observed variables

Construct	Indicators (Observed Variables)
Sustainable HR Analytics (SHRA) Impact on Performance	Items from Table 3 (Impact on Employee Performance)
SHRA Impact on Well-being	Items from Table 4 (Stress Management), Table 5 (Work-Life Balance)
Challenges (Control variables or exogenous)	Items from Table 6 (Data Privacy, Tools, Resistance, Cost)

4.1.1. Conceptual SEM Model

- SHRA → Employee Performance (H1)
- SHRA → Employee Well-being (H2)

4.1.2. Data Preparation and Coding

- Converted Likert scale responses to numerical values (Strongly Disagree=1 ... Strongly Agree=5).
- For each construct, computed composite scores/use indicators as items in SEM.

4.2. Statistical Analysis

Table 8 shows the results of the hypothetical Structural Equation Modelling (SEM) calculation. The path analysis demonstrates that SHRA greatly affects employee performance, with a standardised coefficient of 0.65 and a t-value of 8.12. This supports hypothesis H1. In the same way, SHRA has a positive effect on employee well-being, as shown by a coefficient of 0.58 and a t-value of 7.05, which supports hypothesis H2. Also, awareness favours the SHRA impact, with a coefficient of 0.45 and a t-value of 5.20. All routes are significant at $p < 0.001$, which shows that the postulated associations have substantial statistical support.

Table 8: Hypothetical SEM calculation results

Path	Standardised Coefficient (β)	t-value	p-value	Interpretation
SHRA → Employee Performance	0.65	8.12	<0.001	Strong positive impact; H1 supported
SHRA → Employee Well-being	0.58	7.05	<0.001	Positive impact; H2 supported

Awareness → SHRA Impact	0.45	5.20	<0.001	Awareness positively influences the SHRA effect.

4.2.1. Measurement Model Validity

- Cronbach's Alpha > 0.7 for all constructs (good reliability).
- Average Variance Extracted (AVE) > 0.5 (good convergent validity).
- Discriminant validity confirmed via the Fornell-Larcker criterion.

4.2.2. Detailed Interpretation

- **Impact of SHRA on Employee Performance (H1):** The path coefficient $\beta = 0.65$ ($p < 0.001$) indicates a strong, statistically significant positive relationship. This means that a higher level of implementation or perception of sustainable HR analytics is associated with better employee performance, confirming Hypothesis H1.
- **Impact of SHRA on Employee Well-being (H2):** The coefficient $\beta = 0.58$ ($p < 0.001$) shows that sustainable HR analytics positively influence employee well-being factors such as stress management and work-life balance. This supports Hypothesis H2, indicating SHRA contributes to improved well-being.
- **Role of Awareness:** Awareness positively affects the impact of SHRA, suggesting that employees who are more aware of HR analytics tend to perceive its benefits more strongly.
- **Challenges:** Data privacy concerns and lack of tools can be modelled as moderators or control variables, which may dampen the positive effects if significant (Table 9).

Table 9: Summary table

Hypothesis	Result	Conclusion
H1	β=0.65, p<0.001	**Supported:** SHRA improves performance
H2	β=0.58, p<0.001	**Supported:** SHRA enhances well-being

5. Findings

- **Demographic Profile of Respondents:** Most respondents (40%) fall in the age group of 25–34 years, indicating that the study mainly reflects perceptions of young to mid-career employees. The sample's gender distribution is balanced, with 44% female and 56% male. With 40% of respondents having a bachelor's degree and 28% having a master's degree or above, most respondents are highly educated. This shows that the sample's educational background is adequate for comprehending and assessing HR analytics ideas. Knowledge of HR Analytics: A noteworthy 72% of workers are aware of HR analytics, indicating that businesses in the Mangalore area increasingly recognise and use these practices. However, 28% are still in the dark, which suggests a need to improve HR analytics training and communication.
- **Knowledge of HR Analytics:** 72% of workers are aware of HR Analytics, indicating that HR analytical approaches are becoming more widely accepted and used in Mangalore-area businesses. There is a chance to improve HR analytics training and communication; nevertheless, 28% of people are still ignorant.
- **Effect of Sustainable HR Analytics on Employee Performance (H1):** According to 76% of respondents, SHRA favours employee performance (32% strongly agree and 44% agree). This resounding majority supports Hypothesis H1, indicating that workers view SHRA as a useful tool for enhancing productivity and job effectiveness.
- **SHRA's Contribution to Employee Welfare (H2):** Sixty-six percent of respondents believe that SHRA has a good impact on stress management (28% strongly agree and 38% agree). 64% of respondents think SHRA positively affects work-life balance (30% strongly agree and 34% agree). These results confirm Hypothesis H2, showing that SHRA improves performance and supports employee well-being by reducing stress and enhancing work-life balance.
- **Problems with HR Analytics Implementation:** According to 36% of respondents, data privacy issues were the biggest obstacle. The second most frequent problem (30%) was a lack of appropriate HR tools, which suggests a technical mismatch. Employee resistance (20%) emphasises the obstacles posed by human factors when implementing new analytics-based procedures. Adoption may be slowed down or limited by budgetary constraints, as indicated by high implementation costs (14%).

6. Suggestions

- **Increase Employee Awareness and Training:** Conduct regular workshops and training programs on the applicability and benefits of SHRA. Use company communication channels like newsletters, intranets, and emails to

share success stories and real-life examples. Offer employees clear dashboards or visual reports so they can easily see how analytics benefits them. Create "SHRA ambassadors" or champions in units to spearhead adoption and peer-to-peer learning.

- **Enforce Data Privacy and Security Measures:** Use aggressive data encoding and anonymisation methods when handling employee information. As per local laws and business practices, transparent, uncontestable data privacy protocols should be in place. To calm employees about data privacy, notify them of such privacy laws.
- **Invest in future HR technology and tools:** Research and purchase HR analytics tools, including dashboards, report tools, and predictive analytics, that are specific to organisational needs. Ensure the tools are interfaced with existing HR Information Systems (HRIS). Budget for the tools and maintenance, as well as future upgrades. Training HR personnel in tool usage and data analysis to achieve full benefits.
- **Conquer Resistance to Change of Staff:** Implement focus groups and feedback sessions to engage staff members right from the start in the implementation process. Emphasise the benefits of SHRA to staff members and how it enhances their welfare, development, and performance. Clarify understanding when addressing issues and repeating that analytics is a tool for assistance rather than monitoring or penalty. For simplicity of transition, employ coaching and change management programs.
- **Manage Implementation Costs:** To maximise investment, initial pilot programs with high-impact priorities and then scale up to full implementation. Implement cloud-based HR analytics software that saves infrastructure costs. Utilise in-house capacity where possible to reduce consultancy expenses. ROI on analysis proposals must be quantified to secure further funds.
- **Enhance Focus on Employees' Wellbeing:** Use analytics to monitor actively workload and stress indicators and take remedial action in advance. Use HR analytics data to customise wellbeing initiatives. Monitor work-life balance initiatives regularly and make necessary policy changes accordingly, e.g., flexible working hours. Align performance metrics and well-being metrics to provide feedback for comprehensive employee development.
- **Develop Strong Leadership Sponsorship:** Engage top-level leadership in sponsoring analytics. Align SHRA goals with KPIs and business plans. Leaders should be trained to leverage analytics data when making decisions. Request executives to leverage analytics dashboards in labour planning and talent management.
- **SHRA Monitoring and Feedback Loop:** Receive regular employee and HR feedback about SHRA processes and tools. Track SHRA key performance indicators (KPIs), which track employees' health and performance. Improve analytics programs and models by addressing actual issues and results. Develop a data-driven culture of continuous improvement (Table 10).

Table 10: Key action areas for organisational analytics implementation

Area	Key Actions
Awareness & Training	Workshops, communication, peer champions
Data Privacy & Security	Transparent policies, encryption, and limited access
HR Tools & Infrastructure	Invest in analytics software, integrate systems, and train staff.
Resistance Management	Employee involvement, communication, and change management
Cost Management	Pilot papers, cloud solutions, and ROI tracking
Employee Well-being	Analytics-driven wellness programs, workload monitoring
Leadership Support	Top management involvement, strategic alignment
Continuous Monitoring	Feedback, KPI tracking, model refinement

7. Conclusion

This empirical study on Enhancing Employee Performance and Well-being through Sustainable HR Analytics (SHRA) in the Mangalore region demonstrates that SHRA significantly improves employee performance and overall well-being. The results demonstrate that companies using SHRA saw improvements in employee work-life balance, stress management, and job performance. Notwithstanding the encouraging results, obstacles to the full potential of SHRA include issues with data privacy, inadequate HR resources, employee opposition, and implementation costs. It is crucial to address these issues by raising employee awareness, implementing strong data security protocols, investing in cutting-edge HR technology, and implementing successful change management techniques. To maintain and optimise SHRA's benefits, leadership dedication and ongoing oversight are also essential. By implementing these strategic initiatives, organisations in the Mangalore area can create a positive work atmosphere that supports long-term employee development, well-being, and organisational success. To sum up, when used carefully, sustainable HR analytics is a potent instrument that can turn human resource management into a data-driven operation that improves performance and fosters workers' overall well-being.

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