



Role Of Hr Analytics In Enhancing Employee Performance And Retention

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ABSTRACT

HR Analytics, also called Human Resource Analytics, is becoming popular in organizations. It helps improve employee performance and reduce turnover. This study focuses on how HR Analytics improve employee performance and retention in the manufacturing industry, especially in J.K. Paper Ltd. We used a descriptive research method and collected data from 100 employees through a questionnaire. The results indicate that respondent perceptions of HR Analytics methods and their corresponding performance improvement, engagement, and retention were examined. The findings of this study reveal that HR Analytics enhances an organization's effectiveness by identifying areas of performance gap, predicting employee exits from the organization, enhancing productivity within the workforce, and leading to improved decision-making. Furthermore, there is evidence to support that a positive relationship exists between HR Analytics implementation and employee engagement and retention. In conclusion, based on the findings of this research, this study finds that utilizing HR Analytics will result in improved relations between organizations and their employees, decreased turnover rates, and better management of the workforce. There are still challenges, including poor training and only partial knowledge of the subject matter.

KEYWORDS

HR Analytics, Employee Performance, Employee Retention, Workforce Planning, Data-Driven Decision Making, Predictive Analytics, Employee Engagement, Human Resource Management, Productivity Improvement, Employee Turnover

1. INTRODUCTION

In today's business environment, organizations aim to improve employee performance and retain skilled employees, where Human Resource Management (HRM) plays an important role. With the advancement of technology, traditional HR Practices are gradually being replaced by data-driven approaches such as HR Analytics. HR Analytics involves the use of data, statistical tools, and analytical methods to support better decision-making in HR functions. It helps organizations evaluate employee performance, identify skill gaps, predict employee turnover, and improve productivity, engagement, and retention. In the manufacturing sector, where efficiency and productivity are essential, HR Analytics plays key role in

improving workforce performance and reducing employee turnover. However, despite its importance, many organizations in this sector are not fully using HR Analytics due to challenges such as lack of awareness, limited skills, and data-related issues. These challenges often lead to low productivity and poor decision-making. Therefore, this study aims to examine the role of HR Analytics in improving employee performance and retention in the manufacturing sector. The main objectives of the study are to understand the concept of HR Analytics, analyze its impact on employee performance, examine its role in employee retention, identify its benefits, study the challenges in its implementation, and provide suggestions for its effective use. The scope of the study is limited to selected organizations and focuses mainly on performance management and employee retention using both primary and secondary data. This study is important as it provides useful insights for HR professional and organizations to adopt data-driven practices for better decision-making and effective workforce management.

2. LITERATURE REVIEW

1. Shrivastava (2025) Examine employee engagement and job satisfaction in IT industry. Analyze HR analytics impact on retention intentions. Employee satisfaction varies; 20-30% report high satisfaction levels. 30% believe HR analytics significantly impacts retention. HR analytics enhances employee engagement and retention. Employee satisfaction varies; many remain dissatisfied or indifferent.
2. Katfi, Oumaima EL MNOUER, Ghallal (2025) Examine HR Analytics' role in HRM transformation. Highlight challenges and implications of integrating HR Analytics. HR Analytics transforms Human Resource Management in the digital age. Emphasizes datadriven culture for effective HR decision-making. HR Analytics transforms HRM in the digital age. Data-driven culture maximizes HR Analytics' potential.
3. Yang, Banerjee (2024) Analyze HR analytics' role in workforce management. Examine its impact on retention and employee performance. HR analytics reduces turnover expenses and improves retention rates. Enhances employee happiness and performance through targeted strategies. HR analytics enhances workforce management and employee performance. Effective adoption requires addressing data privacy and ethical issues.
4. Sasirekha, Abinash, Prasad B (2024) Increase employee engagement and retention rates. Improve hiring procedures using data-driven insights. HR analytics enhances employee engagement and retention rates. Predictive analysis aids in workforce planning and management. HR analytics enhances employee engagement and retention rates. Predictive analysis is vital for workforce planning and management.
5. Ravesanga, Narayanan (2024) Assess efficacy of data-driven decisions in HR analytics. Examine impact of HR analytics on improving employee retention. HR analytics significantly improves employee retention in the workplace. Data-driven decisions enhance employee engagement and retention rates. Limited literature on HR analytics and employee retention. Data analytics crucial for strategic decisionmaking in HR.
6. Joha (2024) Examine HR analytics' impact on organizational performance. Explore applications and advantages of HR analytics in organizations. HR analytics enhances talent acquisition, employee development, and productivity. Data-driven choices improve HR procedures and organizational performance. HR analytics enhances talent acquisition, employee development, and productivity. HR analytics aligns HR strategy with corporate objectives for competitiveness.
7. Elrehail (2023) Review current state of HR analytics application in businesses. Explore implications for future work and workforce management decisions. HR analytics is crucial for attracting and retaining talent. It aids datadriven workforce management decisions. HR analytics is crucial for organizations in attracting and retaining skilled individuals. HR analytics can assist in making datadriven and strategic workforce management decisions.
8. Mesquita (2023) Review current state of HR analytics application in businesses. Discuss implications for future work and ethical issues. HR analytics is crucial for attracting and retaining talent. It aids data-

driven workforce management decisions. HR analytics is crucial for organizations to attract and retain skilled individuals. HR analytics can assist in making data-driven and strategic workforce management decisions.

9. Madhani (2022) Transition of HR analytics with maturity model. Key requirements for successful deployment of HR analytics. HR analytics enhances decision-making with data-driven insights. HR analytics maximizes HRM activities impact on organizational performance. HR analytics enables data-driven decisionmaking. HR analytics maximizes impact on organizational performance.

10. Boakye, Lamptey (2020) Investigate implications of HR analytics in Ghana. Provide framework for HR solutions in organizations. HR analytics enhances employee performance and productivity. Many organizations lack analytics competencies and management support. Employees with IT, Engineering, and Statistics backgrounds are taking over the HR function as HR Business Partners. HR professionals and managers may lose their jobs to IT and other numeric intensive professionals.

3. RESEARCH METHODOLOGY

Research Design

The present study adopts a descriptive research design to examine the role of HR Analytics in enhancing employee performance and retention. This design helps in understanding the perceptions, opinions, and behavior of employees regarding the use of HR Analytics in the organization.

Data Collection

- **Primary Data:** Primary data was collected by giving a structured questionnaire to employees. The questionnaire included close-ended questions based on a Likert scale, where employees could rate their responses. These questions were used to understand their views on HR Analytics employee performance and retention.
- **Secondary Data:** Secondary data was gathered from a range of sources including published research papers, academic journals, books, company reports, and relevant online resources. These helped provide context, depth, and broader support for the findings.

Sample Size

The study is based on 100 employees. These employees belong to different job levels such as workers, executives, supervisors, and managers.

Sampling Method

A random sampling method was used to choose the respondents. This means every employee had an equal chance of being selected, which helps make the data fair and reduces bias.

Tools Used

- Microsoft Excel for data entry, tabulation, and graphical representation
- Percentage Analysis to understand the distribution of responses
- Mean to measure the average response of respondents
- Standard Deviation to analyze the variability in responses

Scope of the Study

The study focuses on how HR Analytics is used in the manufacturing sector. It looks at how HR Analytics helps improve employee performance and keeps employees in the organizations across different job roles and experience levels.

Limitations of the Study

- The results are based on what employees think, so there may be some bias.
- There was also limited time to collect and analyze the data.
- Additionally, some employees did not have much knowledge about HR Analytics, which may have affected the accuracy of their responses.

4. DATA ANALYSIS AND INTERPRETATION

The analysis looks at what employees think about HR Analytics and how it helps improve their performance, productivity, and retention in the organization.

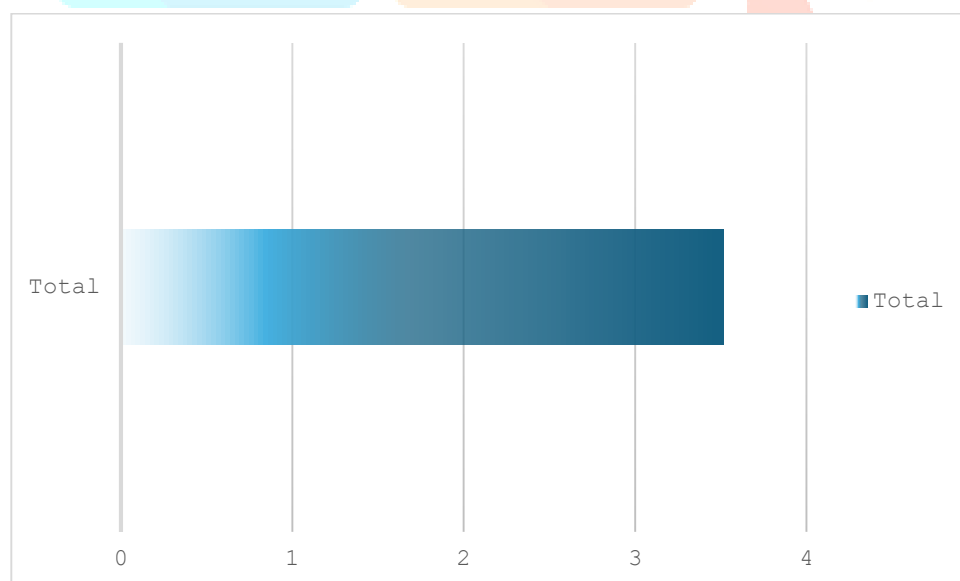
Mean Score Analysis

Factor	Mean
Performance Improvement	3.52
Retention Strategies	3.58
Workforce Planning	3.61
Management Support	3.73

Interpretation:

The average score of 3.61 shows that employees have a favourable opinion of HR Analytics and believe it contributes to improving their performance and engagements.

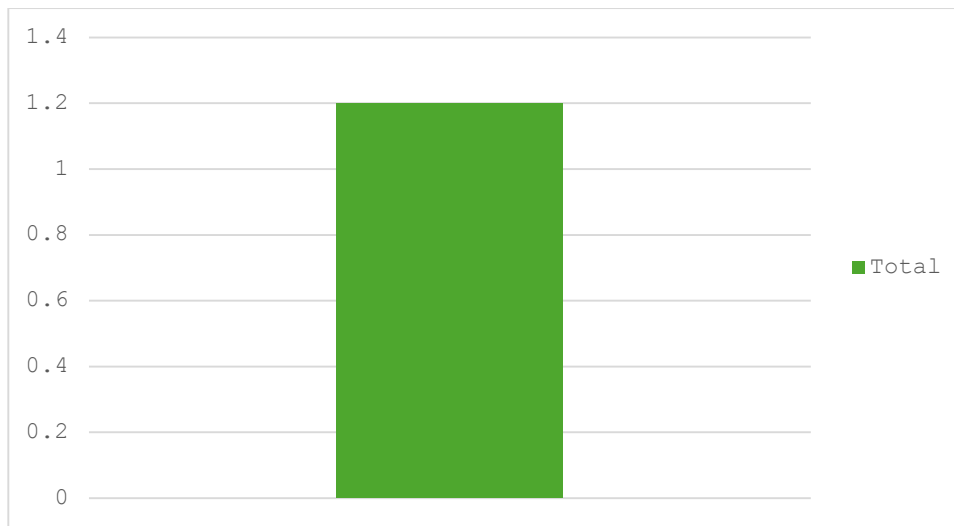
Average of Mean



Standard Deviation Analysis

- The Standard deviation ranges from 1.12 to 1.30.
- Which Indicates a moderate level of variation in the responses.

Average of Standard Deviation



Interpretation:

Employees have mostly similar opinions, but some differences exist due to variations in awareness and training. The average standard deviation of 1.21 indicates a moderate level of variation, showing that employee views on HR Analytics practices are fairly consistent.

Key findings from Survey

- 58% believe HR Analytics predicts employee turnover
- 54% agree it improves productivity
- 61% believe it improves work environment
- 65% report strong management support
- 60% feel adequately trained

5. RESULTS

The study shows the following results:

- HR Analytics has a positive impact on employee performance
- It helps identify performance gaps and recognize high-performing employees
- Predictive analytics helps in retaining employees
- Data-based decisions improve transparency and fairness
- Employees productivity increases with the use of analytics

6. DISCUSSION

The findings show that HR Analytics plays an important role in changing HR practices from traditional methods to data-based approaches.

Organizations that use HR Analytics can:

- Improve decision-making accuracy
- Reduce employee turnover
- Enhance employee engagement

- Optimize training and development

However, challenges such as lack of proper training, data quality issues, and resistance to change need to be addressed.

7. CONCLUSION

The study concludes that HR Analytics is an effective tool for improving employee performance and retention in the manufacturing sector.

Organizations that use HR Analytics effectively benefit from:

- Improved productivity
- Better workforce planning
- Reduced attrition
- Higher employee satisfaction

To maximize its benefits, companies should focus on:

- Providing training to employees on analytics tools
- Promoting data-driven culture
- Ensuring top management support

8. RECOMMENDATIONS

- Provide training programs on HR Analytics tools
- Improve awareness among employees
- Invest in advanced analytics software
- Encourage data-driven decision-making
- Strengthen HR data management systems

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