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**A Study on Impact of HR Analytics in Talent Management and Employee Development in IT Sector****Polsani Akshitha** student of MBA, CMR Institute of Technology, Hyderabad, Telangana India.akshithapolsani283@gmail.com**Dr. B. Nayeema**, Associate Professor, CMR Institute of Technology, Hyderabad, Telangana India.bajjisnayeema@cmritonline.ac.in**ABSTRACT**

The study examines the impact of HR Analytics on talent management and employee development in the IT sector. It focuses on how data-driven HR practices improve recruitment, performance management, training, employee engagement, and retention. Data was collected from IT employees through a structured questionnaire and analyzed using percentage and statistical tools. The findings indicate that HR Analytics positively influences talent acquisition, skill development, workforce planning, and employee productivity. The study concludes that effective use of HR Analytics enhances decision-making, supports employee growth, and contributes to organizational success.

INTRODUCTION

In today's competitive IT environment, organizations use advanced technologies to improve efficiency and performance. HR Analytics has transformed traditional HR practices into data-driven decision-making processes. It helps organizations enhance recruitment, performance management, employee engagement, and retention. HR Analytics also supports talent management by identifying, developing, and retaining skilled employees while addressing skill gaps through effective training programs. This study examines the impact of HR Analytics on talent management and employee development in the IT sector.

STATEMENT OF THE PROBLEM

In today's competitive business environment, organizations face challenges in attracting, developing, and retaining talented employees. HR Analytics has emerged as an important tool for improving talent management and employee development through data-driven decision-making. However, issues such as employee turnover, skill gaps, and ineffective performance management continue to affect organizational effectiveness. The implementation of HR Analytics may also face challenges such as high costs, poor data quality, and limited analytical skills. Therefore, this study examines the role of HR Analytics in recruitment, performance management, skill development, career growth, and employee retention.

OBJECTIVES OF THE STUDY

1. To understand the role of HR analytics in talent management and employee development in IT sector
2. To examine the influence of HR analytics on employee performance management systems.
3. To analyze the relationship between talent management practices and employee development outcomes using HR analytics.

Hypothesis of the Study

Null Hypothesis(H₀):

HR Analytics has no significant impact on talent management and employee development in IT sector

Alternative Hypothesis (H₁):

HR Analytics has a significant impact in talent management and employee development in IT sector

SCOPE OF THE STUDY

This study focuses on evaluating the impact of HR Analytics on talent management and employee development in the IT sector. It examines how data-driven HR practices support recruitment, performance management, training, employee engagement, and retention. The study collects information from HR managers and employees working in IT companies. It also considers the role of technology and challenges associated with implementing HR Analytics. The scope is limited to the IT sector and does not include other industries.

Limitations of the study

1. Insufficient sample size
2. Bias of the respondent in answering questions may affect responses.
3. Time limitations in conducting research.
4. Lack of access to HR data.
5. Convenience sampling technique used.

2 Review of literature

1.Vaditheand Kesari(2025)

The study found that HR Analytics has significantly improved talent management in the IT industry by supporting data-driven recruitment and employee retention decisions. It also highlights the importance of HR Analytics tools in aligning HR practices with organizational goals.

2. Simpsonet al.2025

found that the integration of HR Analytics and Artificial Intelligence improves recruitment and supports effective talent management through data-driven decision-making. The study also emphasizes the importance of transparency in the use of AI within HR practices.

3.Mannam Etal. (2025)

proposed the use of advanced analytics in talent management and found that it improves data interpretation in HRM processes. The study highlights the role of advanced analytics in enhancing effective HR decision-making.

3.Research Methodology

Research Design

Descriptive research: Descriptive research is conducted to describe the practice of HR analytics in terms of talent management and employee development in the organizations working in the IT sector. It focuses on describing the existing state of things.

Analytical research: Analytical research is conducted for studying the relationship between HR analytics and its effect on talent management and employee development practices.

Population and sampling

Sample size

Sample: 120

Population: 100 respondents

Sources of Data

Primary Data: Collected through structured questionnaire

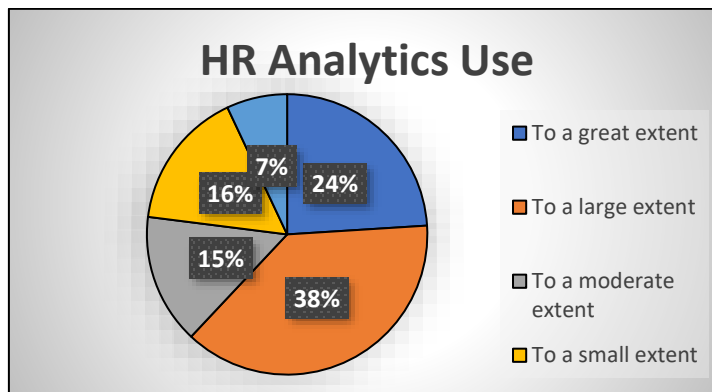
Secondary Data: Publications on research papers and journal ,websites ,Publications

DATA ANALYSIS

1.HR analytics used in your organization for talent management and employee development.

Options	Frequency	percentage
To a great extent	24	24%
To a large extent	38	38
To a moderate extent	15	15%
To a small extent	16	16%

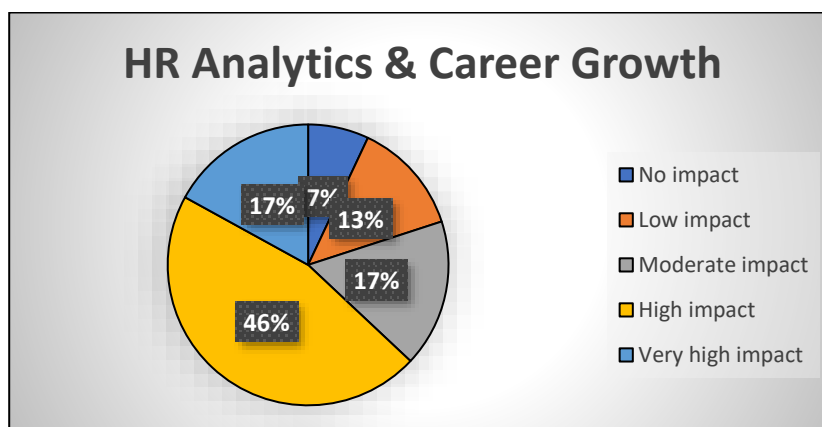
Not at all	7	7%
Total	100	100%



Interpretation : The graph shows that 38% of people believe that HR analytics is extensively being utilized in their organizations. Also, 24% people think that it is being used to a great extent. Furthermore, about 15% believe that it is used moderately, whereas 16% of people use it to a small extent.

2.HR Analytics Contributes to employee career growth in your organization.

options	Frequency	percentage
No impact	7	7%
Low impact	13	13%
Moderate impact	17	17%
High impact	46	46%
Very high impact	17	17%
Total	100	100%

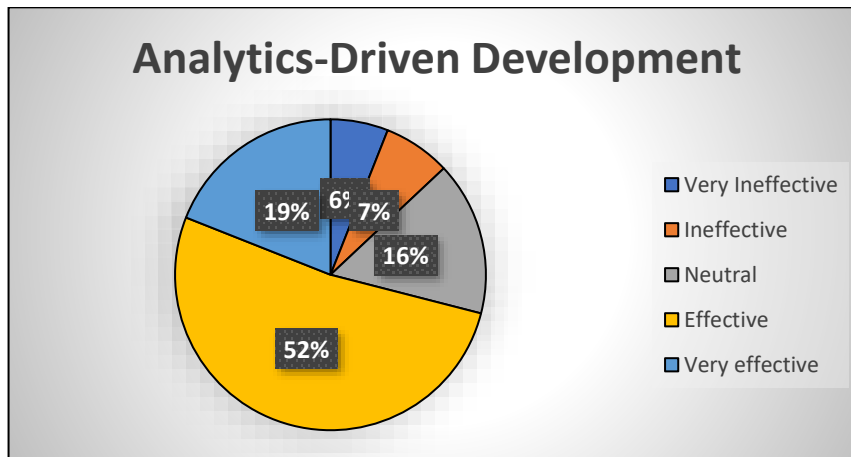


Interpretation : The graph shows that 46% of people think that the role of HR analytics in helping employees develop their careers is high. Another 17% of people say that the effect is very high. Moderate impact was reported by about 17%, while low impact was experienced by 13% and with 7% no impact.

3.HR analytics helps in designing personalized employee development plans

Options	Frequency	percentage
Very Ineffective	6	6%
Ineffective	7	7%
Neutral	16	16%
Effective	52	52%
Very effective	19	19%

Total	100	100%
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Interpretation: The graph shows that 52% of those surveyed felt that HR analytics was an effective tool in designing personalized development plans for their employees. 19% believed that HR analytics was highly effective for achieving this goal, while about 16% were uncertain on the subject. Only 7% found HR analytics to be ineffective, and 6% found it highly ineffective .

Statistical tool analysis

Null Hypothesis (H_0) : HR analytics has no significant impact on talent management and employee development in the IT sector.

Alternative Hypothesis (H_1) : HR analytics has a significant impact on talent management and employee development in the IT sector.

1 HR analytics used in your organization for talent management and employee development

options	Observed value(o)	Expected value(E)	χ^2
To a great extent	24	20	0.8
To a large extent	38	20	16.2
To a moderate extent	15	20	1.25
To a small extent	16	20	0.8
Not at all	7	20	8.45
Total	100	100	27.5

χ^2 Table value	χ^2 Calculated value
9.488	27.5
As table value is less than calculated value. We reject H_0 (Null) and accept H_1 (alternative)	
Note :	
χ^2 = chi square	
O = Observed value	
E = Expected value	
Formula : $=(O-E)^2 / E$	
Degree of Freedom : 4	
significance =0.05 level	

Since the table value is less than the calculated value, H_0 is rejected and H_1 is accepted so, HR analytics has a significant impact on talent management and employee development in the IT sector

2 HR analytics contributes to employee career growth in your organization

options	Observed value(o)	Expected value(E)	χ^2
No impact	7	20	8.45
Low impact	13	20	2.45
Moderate impact	17	20	0.45
High impact	46	20	33.8
Very high impact	17	20	0.45
Total	100	20	45.6

χ^2 Table value	χ^2 Calculated value
9.488	45.6
As table value is less than calculated value. We reject H0 (Null) and accept H1 (alternative)	
Note :	
χ^2 = chi square	
O = Observed value	
E = Expected value	
Formula : $=(O-E)^2 / E$	
Degree of Freedom : 4	
significance =0.05 level	

Since the table value is less than the calculated value,H0 is rejected and H1 is accepted so, HR analytics has a significant impact on talent management and employee development in the IT sector.

3.HR analytics helps in designing personalized employee development plans

options	Observed value(o)	Expected value(E)	χ^2
Very ineffective	6	20	9.8
Ineffective	7	20	8.45
Neutral	16	20	0.8
Effective	52	20	51.2
Very effective	19	20	0.05
Total	100	100	70.3

χ^2 Table value	χ^2 Calculated value
9.488	70.3
As table value is less than calculated value. We reject H0 (Null) and accept H1 (alternative)	
Note :	
χ^2 = chi square	
O = Observed value	
E = Expected value	
Formula : $=(O-E)^2 / E$	
Degree of Freedom : 4	
significance =0.05 level	

Since the table value is less than the calculated value,H0 is rejected and H1 is accepted so, HR analytics has a significant impact on talent management and employee development in the IT sector.

FINDINGS

- Majority of respondents (62%) agreed that HR analytics is used extensively for talent management and employee development purposes.
- The majority of the respondents 46% of respondents believe that HR Analytics has a high impact on employee career growth
- The majority of the respondents (52%) believe that HR analytics is effective in designing personalized employee development plans.
- Over 70% of the respondents agreed that HR analytics proves to be an effective way of boosting performance appraisal systems for evaluating the employees.

SUGGESTIONS

- Recommendations for the Improvement of Employee Development through HR Analytics include ,The utilization of HR analytics tools by organizations needs to be increased.
- HR professionals should be trained effectively to become more analytical in interpreting HR data.
- Efforts need to be made to develop customized development programs for employees using HR analytics.
- HR analytics must be merged with performance management practices.
- Learning and development programs should be promoted among employees.
- An effective feedback system should be put in place to monitor the progress of employees.
- The use of HR analytics by organizations should ensure the integrity of data

CONCLUSION

In addition, this research demonstrates the role of HR analytics on talent management and development in the IT industry. Based on the results from the statistical analysis with the use of Chi-square test and correlation, it is possible to state that the link between HR analytics and certain factors that contribute to employee development is rather strong. Specifically, the analysis revealed that HR analytics helps organizations enhance their talent management strategies, performance improvement initiatives, and other aspects related to development programs. It also makes it possible to make better decisions and increase efficiency and productivity due to the provision of data-driven insights. Overall, the use of HR analytics is crucial to the current practices of the HR department, and it can positively affect employees' development and progress.

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