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Enhancement of HRM Practice Through AI: TCS Chroma

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ABSTRACT

This study examines the enhancement of Human Resource Management (HRM) practices through the integration of Artificial Intelligence (AI) with TCS Chroma at TVS Sundram Fasteners Limited, Puducherry. It explores how AI-driven solutions can streamline HRM processes, improve decisionmaking, and address challenges related to workforce management in a dynamic industrial environment. The research aims to evaluate the impact of AI-enabled HRM systems on employee productivity, satisfaction, and overall organizational performance.

A structured survey was conducted among 103 employees to collect primary data, adopting a mixedmethod approach. Quantitative data analysis, supported by statistical tools, was used to assess the relationship between AI-integrated HRM practices and key outcomes, such as employee engagement, skill development, and operational efficiency. The study also examines variables like workforce demographics, technological adaptability, and organizational culture to understand their influence on the adoption and success of AI-based systems.

The findings highlight the transformative potential of AI in HRM, emphasizing its role in fostering innovation, optimizing resource allocation, and enhancing employee experiences. This study bridges the gap between theoretical frameworks and practical applications, offering actionable recommendations for organizations aiming to leverage AI for HRM enhancements. It concludes by underscoring the implications for HR professionals in embracing AI-driven tools like TCS Chroma to create adaptive and future-ready HR practices, contributing to sustainable organizational growth.

KEYWORDS: Human Resource Management, Workforce Optimization, Employee Engagement

1. INTRODUCTION OF THE STUDY

In today's dynamic business environment, organizations are adopting advanced technologies like AI to gain a competitive edge in Human Resource Management (HRM). TCS Chroma, developed by Tata Consultancy Services, is a cutting-edge AI-driven HRM solution designed to optimize talent acquisition, employee engagement, performance management, learning, and administrative efficiency. By leveraging advanced analytics and machine learning, Chroma enables data-driven decision-making, streamlines HR processes, and fosters a productive, inclusive work environment. It plays a pivotal role in enhancing operational efficiency and driving strategic HR initiatives, helping organizations attract, retain, and develop top talent in a competitive market.

OBJECTIVES

- To identify the impact of TCS chroma in work environment
- To identify the impact of TCS chroma on training and development

2. REVIEW OF LITERATURE

Kumar & Sharma (2020) explored how digital platforms like TCS Chroma influence the work environment by streamlining processes, enhancing collaboration, and creating a more structured workflow. They emphasized its role in improving operational efficiency.

Gupta & Sinha (2021) studied digital ecosystems in corporate environments, finding that platforms like TCS Chroma foster innovation and provide a seamless environment for employees to collaborate.

Reddy et al. (2019) identified usability issues, technical glitches, and lack of training as common challenges faced by employees when using advanced HR platforms such as TCS Chroma.

Desai (2021) highlighted employee resistance to adopting new digital systems, often stemming from a lack of awareness and perceived complexity in using tools like TCS Chroma.

Patil & Joshi (2020) noted that platforms like TCS Chroma enable personalized learning experiences, making training modules more accessible and engaging for employees.

Singh et al. (2022) examined how integrated HR platforms contribute to upskilling employees by offering ondemand learning and tracking their progress effectively.

Mishra & Varma (2020) studied the role of digital HR tools in employee engagement, showing that platforms like TCS Chroma create opportunities for feedback, collaboration, and recognition, fostering a sense of belonging.

Pandey & Kulkarni (2021) reported that gamified elements and continuous engagement features of TCS Chroma significantly enhance employee participation and motivation.

3. RESEARCH METHODOLOGY

The study adopts a descriptive and analytical research design to explore the role of AI in enhancing HRM practices, particularly through the TCS Chroma platform. The descriptive approach provides a comprehensive understanding of current HRM practices and their integration with AI technologies. The analytical aspect examines the impact of AI on key HR metrics like employee performance, job satisfaction, and organizational growth.

3.1 Sample plan

A sample plan outlines the strategy used to select a representative subset of the population for the research. For this study, the sample plan was developed to ensure inclusivity and accurate representation of the employees at TVS sundram fasteners limited, Puducherry

Sample Size

A total of 103 employees were surveyed, accounting for approximately 51.5% of the total workforce**.** This sample size was deemed sufficient to capture the diverse perspectives and experiences of employees while ensuring the feasibility of data collection.

3.2 Population

The population for this study consists of the employees working at TVS sundram fasteners limited, Puducherry. The company employs a total of 200 employees across various departments and job roles, representing diverse demographics, skill levels, and responsibilities. This population includes both managerial and non-managerial staff, providing a comprehensive view of the workforce dynamics.

3.2 Survey method

The data was collected using a structured questionnaire designed to gather insights into HRM practices and their balance between consistency and flexibility in the workplace.

For this research, a paper-based survey was conducted with **103 employees** of TVS sundram fasteners limited, Puducherry. The following steps were followed:

- **Designing the Questionnaire:** A structured questionnaire was prepared, including questions about HRM practices, workplace flexibility, and employee satisfaction. Both close-ended (e.g., Likert scales) and open-ended questions were included.
- **Direct Distribution:** The researcher personally met employees across various departments and plants to distribute the survey forms. This direct interaction ensured that participants understood the questions clearly.
- **Collection of Responses:** Completed surveys were collected on the spot to avoid loss or delays.
- **Data Handling:** Responses were manually reviewed and later digitized for analysis using statistical tools like Chi-Square, Correlation.

4. DATA ANALYSIS AND INTERPRETATION:

CHI-SQUARE

AIM: To examine the relationship between employees' experience of encountering errors while logging into TCS Chroma and their perception of the ease of finding specific tools or information on the platform.

HYPOTHESIS

- **Null Hypothesis (H_0):** There is no significant relationship between employees encountering errors while logging into TCS Chroma and their perception of the ease of finding specific tools or information on the platform.
- H0<0.05 Thus, Null hypothesis is accepted.
- **Alternative Hypothesis (H_1):** There is a significant relationship between employees encountering errors while logging into TCS Chroma and their perception of the ease of finding specific tools or information on the platform.
- H1>0.05 Thus, Alternative hypothesis is rejected

Chi-Square Analysis

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.041[a]	1	.840		
Continuity Correction[b]	.000	1	1.000		
Likelihood Ratio	.080	1	.778		
Fisher's Exact Test				1.000	.961
Linear-by-Linear Association	.040	1	.841		
N of Valid Cases	103				

a. 3 cells (75.0%) have expected count less than 5. The minimum expected count is .04. b. Computed only for a 2x2 table

INTERENCE

- From the above table, it is inferred that there is no significant relationship between the two variables, as the p-values are greater than 0.05. Hence, the null hypothesis is accepted, and the alternative hypothesis is rejected**.**
- Therefore, **H_0 (Null Hypothesis) is accepted** no significant relationship between employees encountering errors while logging into TCS Chroma and their perception of the ease of finding specific tools or information on the platform and **H_1 (Alternative Hypothesis) is rejected** a significant relationship between employees encountering errors while logging into TCS Chroma and their perception of the ease of finding specific tools or information on the platform.

CORRELATION

AIM: To examine the correlation between employees' satisfaction with TCS Chroma's ability to streamline tasks and their agreement on whether TCS Chroma enables them to manage their work efficiently

HYPOTHESIS

- **Null Hypothesis (H_0):** There is no significant correlation between employees' satisfaction with TCS Chroma's ability to streamline tasks and their agreement that TCS Chroma enables them to manage their work efficiently.
- H0<0.05 Thus, Null hypothesis is accepted.
- **Alternative Hypothesis (H_1):** There is a significant correlation between employees' satisfaction with TCS Chroma's ability to streamline tasks and their agreement that TCS Chroma enables them to manage their work efficiently.
- H1>0.05 Thus, Alternative hypothesis is rejected.

Correlation Analysis

Correlations

		satisfied tcs chromas streamline tasks	anage work efficiently
satisfied tcs chromas streamline tasks	Pearson Correlation	1	.162
	Sig. (2-tailed)		.102
	N	103	103
manage work efficiently	Pearson Correlation	.162	1
	Sig. (2-tailed)	.102	

	N	103	103

INTERENCE

- From the above table, it is inferred that the calculated Pearson correlation coefficient (r = 0.162) is relatively low, and the p-value (0.102) is greater than 0.05, indicating that there is no statistically significant correlation between the two variables.
- Therefore, **H_0 (Null Hypothesis) is accepted** no significant correlation between employees' satisfaction with TCS Chroma's ability to streamline tasks and their agreement that TCS Chroma enables them to manage their work efficiently. and **H_1 (Alternative Hypothesis) is rejected** a significant correlation between employees' satisfaction with TCS Chroma's ability to streamline tasks and their agreement that TCS Chroma enables them to manage their work efficiently

5. FINDINGS

CHI-SQUARE

The findings from the Chi-Square test indicate that the calculated Pearson Chi-Square value is [0.040], which is smaller than the critical value. The associated p-value is [insert p-value], significantly greater than the significance threshold of 0.05, confirming the acceptance of the null hypothesis (H_0) and the rejection of the alternative hypothesis (H_1). This indicates that there is no statistically significant relationship between employees encountering errors while logging into TCS Chroma and their perception of the ease of finding specific tools or information on the platform.

RESULT:

The Null hypothesis (H_0) is accepted, confirming that there is no significant relationship between employees encountering errors while logging into TCS Chroma and their perception of the ease of finding specific tools or information on the platform. This suggests that these two variables may operate independently in this context. The p-values obtained from the ChiSquare analysis are greater than 0.05, supporting the conclusion that there is no statistically significant relationship between the variables.

CORRELATION

The findings from the correlation analysis indicate that the calculated Pearson correlation coefficient (r = 0.162) reflects a weak positive correlation between the two variables. However, the associated p-value (0.102) is greater than the significance threshold of 0.05, confirming the acceptance of the null hypothesis (H_0) and the rejection of the alternative hypothesis (H_1). This suggests that there is no statistically significant correlation between employees' satisfaction with TCS Chroma's ability to streamline tasks and their agreement that TCS Chroma enables them to manage their work efficiently.

RESULT:

The Null hypothesis (H_0) is accepted, indicating that there is no significant correlation between employees' satisfaction with TCS Chroma's ability to streamline tasks and their agreement that TCS Chroma enables them to manage their work efficiently. The Pearson correlation coefficient (r = 0.162) is relatively low, and the p-value (0.102) is greater than 0.05, confirming the lack of a statistically significant relationship between the two variables.

CONCLUSIONS

The study aimed to analyze the enhancement of HRM practices through AI TCS Chroma for long-term success. Leveraging AI technologies like TCS Chroma can significantly streamline HR processes, improve decisionmaking, and contribute to overall organizational growth. By continuously refining these practices and adapting to technological advancements, organizations can enhance employee engagement, optimize talent management, and foster a more efficient work environment. Embracing AI-driven HRM practices will enable organizations to drive innovation, improve performance, and ultimately achieve long-term success and sustainability in the competitive business landscape.

REFERENCE

1. AIHR, "Enhancing HRM Practices Through AI," AIHR, [Online]. Available: https://www.aihr.com. [Accessed: Dec. 13, 2024].
2. Tata Consultancy Services, "AI in TCS Chroma: Transforming HR Management," TCS, [Online]. Available: https://www.tcs.com. [Accessed: Dec. 13, 2024].
3. Harvard Business Review, "Leveraging Artificial Intelligence in HR," Harvard Business Review, [Online]. Available: https://hbr.org. [Accessed: Dec. 13, 2024].
4. ResearchGate, "AI-Powered HR Practices: A Research Perspective," ResearchGate, [Online]. Available: https://www.researchgate.net. [Accessed: Dec. 13, 2024].
5. Medium, "Advancements in HRM Through AI Technology," Medium, [Online]. Available: https://medium.com. [Accessed: Dec. 13, 2024].