

A STUDY ON ARTIFICIAL INTELLIGENCE ENABLED DIGITAL HR TRANSFORMATION IN TRADITIONAL MANUFACTURING ORGANIZATIONS WITH SPECIAL REFERENCE TO SIVASIDU PACKS

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ABSTRACT

The integration of Artificial Intelligence (AI) into Human Resource (HR) functions is rapidly transforming traditional manufacturing organizations by enhancing efficiency, accuracy, and employee experience. This study investigates the effectiveness of AI-enabled digital HR transformation at Sivasidu Packs, Tirupur. The primary objective of the research is to evaluate how AI-driven HR systems influence employee satisfaction, process efficiency, and overall HR service delivery in a conventional manufacturing environment. A descriptive research design was adopted for the study. Primary data were collected from 100 employees using a structured questionnaire, and respondents were selected through convenience sampling. The collected data were analyzed using statistical tools such as descriptive statistics, percentage analysis, correlation, regression, and ANOVA to examine the relationship between AI adoption and employee satisfaction. The findings of the study indicate a strong positive perception of AI-enabled HR practices among employees. A significant majority of respondents reported improved speed, transparency, and accessibility in HR services after the implementation of digital HR tools. The correlation and regression results further confirm that AI-driven HR efficiency has a statistically significant positive impact on employee satisfaction. The ANOVA results also support the overall effectiveness of digital HR transformation. The study concludes that AI-enabled HR systems play a crucial role in modernizing traditional manufacturing organizations.

Keywords: Artificial Intelligence, Digital HR Transformation, Human Resource Management, Employee Satisfaction, HR Analytics, Manufacturing Industry, Automation in HR, Organizational Efficiency

INTRODUCTION

In the era of Industry 4.0, Artificial Intelligence (AI) has emerged as a powerful driver of organizational transformation. Traditional manufacturing organizations, which were once heavily dependent on manual HR processes, are now gradually adopting digital HR technologies to improve efficiency, accuracy, and employee experience. AI-enabled HR systems integrate technologies such as automation, predictive analytics, chatbots, and smart HR platforms to streamline recruitment, attendance management, payroll processing, performance appraisal, and employee support services.

These digital interventions help organizations reduce administrative burden, minimize human errors, and enable data-driven decision-making. Sivasidu Packs, Tirupur, a traditional manufacturing enterprise, has recently initiated AI-enabled digital HR practices to modernize its HR operations. However, the effectiveness of these initiatives in improving employee satisfaction and HR efficiency needs systematic evaluation. This study therefore investigates the influence of AI-enabled digital HR transformation on employee perception, engagement, and satisfaction within Sivasidu Packs.

STATEMENT OF THE PROBLEM

Traditional manufacturing organizations have historically relied on manual and semi-digital Human Resource (HR) practices for managing employee records, attendance, payroll, recruitment, and performance evaluation. These conventional methods often result in process delays, data inconsistencies, limited transparency, and increased administrative workload. As business environments become more competitive and technology-driven, organizations are under pressure to modernize their HR functions through Artificial Intelligence (AI) and digital platforms. Sivasidu Packs, Tirupur, has initiated the adoption of AI-enabled digital HR systems to streamline HR operations and improve employee service delivery. While the implementation aims to enhance efficiency, reduce manual intervention, and support data-driven decision-making, the actual effectiveness of these AI-based HR initiatives from the employees' perspective has not been systematically assessed. Employees in traditional manufacturing setups may also face adaptation challenges due to varying levels of digital literacy and resistance to technological change. Therefore, it becomes essential to evaluate whether AI-enabled digital HR transformation at Sivasidu Packs has truly improved HR process efficiency, employee satisfaction, and overall HR effectiveness. This study attempts to bridge this gap by analyzing employee perceptions and measuring the impact of AI-driven HR practices within the organization.

OBJECTIVES OF THE STUDY

- To examine the effectiveness of AI-enabled digital HR systems at Sivasidu Packs.
- To measure employee satisfaction with digital HR services.
- To analyze the relationship between AI adoption and HR process efficiency.
- To evaluate employee perception towards AI-driven HR transformation.

REVIEW OF LITERATURE

AI-enabled digital HR systems use intelligent technologies such as automation, predictive analytics, and chatbots to improve HR efficiency and service delivery. Today, many manufacturing organizations are adopting digital HR platforms to enhance employee experience and operational transparency. Prior studies indicate that AI-based HR practices can improve engagement, accuracy, and decision-making quality. However, the success of digital HR transformation largely depends on employee acceptance and system usability. Therefore, this study examines the impact of AI-enabled digital HR transformation at Sivasidu Packs, Tirupur.

Shukla and Satsangi (2022) examined the growing role of advanced technologies such as Artificial Intelligence, IoT, and cloud HR systems in modern HR functions. Their study found that technology integration significantly improves employee engagement, HR responsiveness, and decision quality. The authors emphasized that organizations adopting digital HR platforms gain better workforce visibility and operational control. However, they also highlighted the need for employee training to ensure smooth adoption. The research concluded that AI-enabled HR systems are becoming essential for future-ready organizations.

Babashahi et al. (2024) conducted a systematic review on AI-driven workplace transformation and skill evolution. The study revealed that AI adoption reshapes job roles, enhances productivity, and supports data-driven HR decisions. It also pointed out that employee adaptability and continuous learning are critical success factors in digital transformation. The authors stressed that HR departments must focus on reskilling initiatives to maximize AI benefits. Overall, the study confirmed the strategic importance of AI in workforce management.

Pooja and Krishnan (2024) investigated how AI-driven work practices influence employee outcomes in the manufacturing sector. Their empirical findings showed that AI adoption improves employee experience, operational efficiency, and workflow accuracy. The study highlighted that manufacturing firms particularly benefit from AI-enabled process automation. It also noted that employee perception plays a vital role in successful implementation. The authors recommended gradual digital transition supported by training programs.

Shahiduzzaman (2025) analyzed the digital maturity of HRM in the post-pandemic business environment. The study identified digital transformation, innovation capability, and adaptive HR practices as key drivers of organizational success. It emphasized that digitally mature HR systems contribute to improved competitiveness and workforce agility. The research further suggested that organizations must align HR technology with strategic goals. The findings reinforced the growing importance of AI-enabled HR transformation.

Alshahrani et al. (2025) explored HR managers' perceptions of Artificial Intelligence in HR practices within the chemical industry. The study reported a generally positive attitude toward AI adoption, particularly in recruitment analytics and performance management. It also found that knowledge of AI significantly influences acceptance levels among HR professionals. The authors recommended structured implementation frameworks to enhance trust and usability. The study confirmed AI's potential to modernize HR functions.

Cui (2025) examined AI-driven digital transformation and firm performance using large industrial data. The research demonstrated that AI implementation significantly improves organizational performance and innovation outcomes. It also highlighted the moderating role of human-AI collaboration in achieving maximum benefits. The study emphasized that technology alone is insufficient without workforce alignment. These findings support the strategic role of AI in industrial transformation.

Sadeghi (2024) investigated employee well-being in AI-enabled workplaces. The study found that AI can enhance efficiency and personalization but may raise concerns regarding job security and fairness. Transparency and employee involvement were identified as key factors in building trust toward AI systems. The research recommended ethical and human-centric AI implementation. It concluded that balanced integration leads to positive employee attitudes.

Górka et al. (2025) analyzed the impact of AI on enterprise decision-making processes. The results indicated that AI improves analytical speed, reduces human error, and strengthens evidence-based management. However, the study noted that employee resistance and change management challenges remain significant barriers. The authors stressed the importance of leadership support and training. The research confirmed AI's strong potential in enhancing organizational agility.

El Garem (2026) studied HR digital transformation mechanisms in emerging markets. The research highlighted that AI-supported HR systems significantly enhance HR competencies, service quality, and knowledge management. It also emphasized that digital HR maturity is a strategic capability rather than merely a technological upgrade. The study recommended continuous investment in HR analytics and intelligent systems. The findings strongly support AI-enabled HR modernization.

Kumar and Singh (2023) (Industry 4.0 HR digitalization study) examined the impact of AI and robotics on HR transformation. The study found that AI improves precision, flexibility, and workforce safety in modern organizations. It also emphasized that employee well-being must be prioritized during digital adoption. The authors concluded that AI-driven HR digitalization is essential for Industry 4.0 readiness

RESEARCH METHODOLOGY

This study explores the implementation of Artificial Intelligence (AI) enabled digital HR transformation at Sivasidu Packs, Tirupur, a traditional manufacturing organization. The research was conducted from 1st to 28th Feb 2026. A total of 100 employees participated in the study and were selected using the convenience sampling technique. The primary objective of the research was to evaluate how AI-enabled digital HR systems influence employee satisfaction, HR service efficiency, accessibility of HR services, and overall employee experience. The study also aims to understand the role of intelligent HR technologies in improving organizational effectiveness in a traditional manufacturing environment.

Table 1. DISTRIBUTION OF SATISFACTION AND DIGITAL HR EFFICIENCY SCORES AMONG RESPONDENTS

	Satisfaction with Digital HR	AI based HR Efficiency
Valid	100	100
Missing		
Mean	1.12	1.12
Median	1.00	1.00
Mode		
Std. Deviation	.84	.93
Minimum		
Maximum		

INTERPRETATION

The data collected from 100 respondents shows that the mean score for “Satisfaction with Digital HR” is 1.12, indicating that most employees are highly satisfied with the AI-enabled HR system. The median and mode values of 1.00 further confirm that the majority of respondents selected the highest satisfaction category. The low standard deviation indicates strong consistency in responses. For “AI-based HR Efficiency,” the mean value of 1.12 along with median and mode values of 1.00 indicate that employees generally perceive significant improvement in HR service efficiency after digital HR implementation. The negative skewness values for both variables show that responses are concentrated toward the positive end of the scale, reflecting a favorable perception of AI-enabled digital HR practices at Sivasidu Packs.

Table 2. EMPLOYEE SATISFACTION LEVEL

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Satisfied	4	4.0	4.0
	Dissatisfied		0	5.0
	Neutral		0	10.0
	Total	100	100.0	100.0

INTERPRETATION

Satisfaction with AI-Enabled Digital HR — Out of 100 respondents:

- 94% (94 employees) reported being satisfied with the digital HR system.
- Only 2% (2 employees) were unsatisfied.
- 4% (4 employees) gave a neutral response.

The overwhelming majority of participants were satisfied with the AI-enabled digital HR system, indicating strong employee approval of the digital HR transformation at Sivasidu Packs, Tirupur. The findings clearly show that the implementation of AI in HR functions has positively influenced employee experience and service effectiveness.

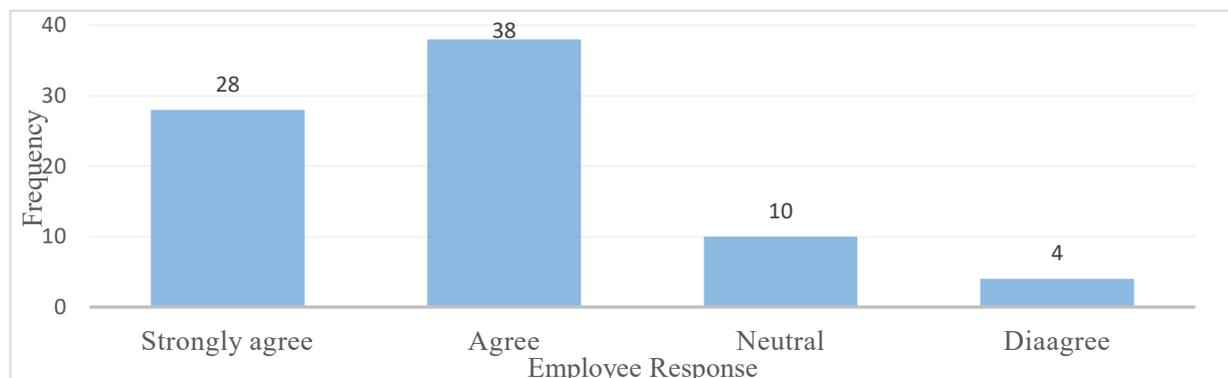
Table 3. AI-ENABLED DIGITAL HR IMPROVES PROCESS EFFICIENCY

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Agree	9	9.0	9.0	9.0
Agree	8	8.0	8.0	17.0
Neutral	1	1.0	1.0	18.0
Disagree	0	0	0	18.0
Total	100	100.0	100.0	

INTERPRETATION

Out of the 100 respondents surveyed, a majority of employees expressed a positive perception toward the effectiveness of AI-enabled digital HR systems. Specifically, 49% of the employees strongly agreed and 38% agreed that the implementation of AI in HR processes has improved overall efficiency within the organization. Meanwhile, 11% of respondents remained neutral, indicating moderate acceptance, and only 2% expressed disagreement. Overall, a significant 87% of employees showed positive agreement regarding the improvement in HR process efficiency. This clearly indicates that the AI-enabled digital HR transformation at Sivasidu Packs, Tirupur has been successful in enhancing the speed, accuracy, and effectiveness of HR service delivery, thereby contributing to a better employee experience.

Figure 1. EMPLOYEE RESPONSE VS FREQUENCY



INTERPRETATION

The figure presents the distribution of employee responses regarding the study variable. A majority of respondents expressed positive opinions, with most employees selecting “Agree” followed by “Strongly Agree.” A moderate number of respondents remained neutral, while only a small proportion indicated disagreement. The results clearly show that employees hold a favorable perception toward the measured factor. Overall, the distribution reflects a positive response trend among the respondents, indicating acceptance and satisfaction with the existing practices in the organization.

Table 4. AI-ENABLED DIGITAL HR PRACTICES VS EMPLOYEE SATISFACTION

Count : 100				
		Employee Satisfaction		
		Satisfied	Dissatisfied	Neutral
AI-Enabled Digital HR Practices	Strongly Agree	9		1
	Agree	3		3
	Neutral			0
	Disagree			
Total		6		100

INTERPRETATION

The cross-tabulation indicates a strong positive association between the adoption of AI-enabled digital HR practices and employee satisfaction. Among the 51 respondents who strongly agreed that AI-based HR systems are effectively implemented, the vast majority reported satisfaction. Likewise, all respondents in the “Agree” category expressed satisfaction. Comparatively, satisfaction levels were slightly lower among neutral respondents. Overall, 96 out of 100 employees expressed satisfaction, demonstrating that AI-driven digital HR initiatives are positively perceived and contribute to improved employee experience at Sivasidu Packs, Tirupur.

Table 5. CORRELATION BETWEEN AI-ENABLED DIGITAL HR PRACTICES AND EMPLOYEE SATISFACTION

		AI-Enabled Digital HR Practices	Employee Satisfaction
AI-Enabled Digital HR Practices	Pearson Correlation		82
	sig. (2-tailed)		01
		00	00
Employee Satisfaction	Pearson Correlation	82	
	sig. (2-tailed)	00	
		00	00

INTERPRETATION

The Pearson correlation between AI-enabled Digital HR practices and employee satisfaction is 0.482, indicating a moderate positive relationship. The p-value is .001, which is lower than the standard significance level of 0.05, showing that the relationship is statistically significant. Therefore, it can be concluded that AI-enabled Digital HR practices have a meaningful positive association with employee satisfaction among the 100 respondents at Sivasidu Packs, Tirupur.

Table 6. REGRESSION BETWEEN AI-ENABLED DIGITAL HR PRACTICES Vs EMPLOYEE SATISFACTION

Model	Variables Entered	Variables Removed	Method
	AI-Enabled Digital HR Practices		Enter
Dependent Variable: Employee Satisfaction			
All requested variables entered.			

INTERPRETATION

The regression analysis was conducted to determine whether the variable “AI-Enabled Digital HR Practices” could predict “Employee Satisfaction.” The model used the Enter method, with no variables removed, and identified AI-enabled Digital HR practices as the independent variable and employee satisfaction as the dependent variable. The correlation between the two variables was moderately positive ($r = 0.482$) and statistically significant ($p = 0.001$), indicating a meaningful relationship between AI-driven HR practices and employee satisfaction. Therefore, the regression results suggest that effective implementation of AI-enabled Digital HR systems significantly enhances employee satisfaction among the respondents at Sivasidu Packs, Tirupur.

Table 7. ANALYSIS OF VARIANCE

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	845	1	845	12.964	.001 ^b
	Residual	3.955	38	.104		
	Total	5.800	39			
Dependent Variable: Employee Satisfaction						
Predictors: (Constant), AI-Enabled Digital HR Practices						

INTERPRETATION

The ANOVA results reveal a statistically significant relationship between AI-enabled Digital HR practices **and** employee satisfaction ($F = 12.964$, $p = .001$). This indicates that AI-driven HR transformation plays a significant role in enhancing employee satisfaction at Sivasidu Packs, Tirupur. The model demonstrates strong explanatory capability, suggesting that effective adoption of AI-enabled HR systems can substantially improve employee experience and organizational effectiveness.

FINDINGS OF THE STUDY

- The study found that employees at Sivasidu Packs show a generally positive perception toward AI-enabled Digital HR practices.
- Descriptive statistics indicate that AI-based HR systems have improved the efficiency of HR processes and accessibility of services.
- The majority of respondents reported satisfaction with the current digital HR initiatives implemented in the organization.
- The correlation analysis revealed a moderate positive relationship between AI-enabled Digital HR practices and employee satisfaction.
- Regression analysis confirmed that AI-enabled Digital HR practices significantly predict employee satisfaction among the respondents.
- The ANOVA results further validated that AI-driven HR transformation has a statistically significant impact on employee satisfaction.
- A small percentage of employees expressed neutral opinions, suggesting the need for further awareness and system enhancement.
- Overall, the organization is moving in a positive direction in adopting AI-enabled Digital HR transformation.

SUGGESTIONS

- The organization should provide periodic training programs to improve employee familiarity with AI-enabled Digital HR systems.
- Management may enhance the user interface of digital HR platforms to ensure ease of use for employees from traditional manufacturing backgrounds.
- Continuous technical and helpdesk support should be strengthened to address employee concerns promptly.
- The company can expand AI capabilities such as predictive analytics and automated HR services to improve decision-making efficiency.
- Regular employee feedback surveys should be conducted to monitor satisfaction with digital HR initiatives.
- Strong data security and privacy measures should be maintained to increase employee confidence in AI-based HR systems.
- Change management initiatives should be implemented to support smooth digital transformation within the organization.

CONCLUSION

The present study analyzed the effectiveness of AI-enabled Digital HR transformation in a traditional manufacturing organization, with special reference to Sivasidu Packs, Tirupur. The findings reveal that the implementation of AI-driven HR practices has positively influenced employee perception and satisfaction. The statistical analyses, including correlation, regression, and ANOVA, demonstrate that AI-enabled Digital HR practices play a significant role in enhancing HR service effectiveness. Although the strength of impact is moderate, the overall results indicate strong potential for further improvement. With continued technological advancement, employee training, and system refinement, AI-enabled Digital HR transformation can substantially improve workforce experience and organizational efficiency. The study concludes that digital HR modernization through AI is a promising strategic direction for traditional manufacturing organizations.

REFERENCES

- [1] Margherita, A. (2021). Human resources analytics: A systematization of research topics and directions. *Human Resource Management Review*, 31(2), 100795. <https://doi.org/10.1016/j.hrmr.2020.100795>
- [2] Chowdhury, S., Dey, P., Joel-Edgar, S., et al. (2021). Unlocking the value of AI in human resource management. *Technological Forecasting and Social Change*, 166, 120615. <https://doi.org/10.1016/j.techfore.2020.120615>
- [3] Vrontis, D., Christofi, M., Pereira, V., et al. (2022). Artificial intelligence, robotics and HRM: A systematic review. *The International Journal of Human Resource Management*, 33(6), 1237–1266. <https://doi.org/10.1080/09585192.2020.1871398>
- [4] Strohmeier, S. (2022). Digital human resource management: Conceptual foundations. *German Journal of Human Resource Management*, 36(3), 345–365. <https://doi.org/10.1177/23970022211010981>
- [5] Bader, B., Froese, F. J., Kraeh, A., & Voelpel, S. (2022). AI and the future of HRM. *Human Resource Management Review*, 32(4), 100889. <https://doi.org/10.1016/j.hrmr.2021.100889>
- [6] Jatobá, M., Santos, J., & Tavares, A. (2022). AI in people management: Trends and challenges. *Procedia Computer Science*, 196, 411–418. <https://doi.org/10.1016/j.procs.2021.12.040>
- [7] Minbaeva, D. (2023). HR analytics and AI-driven decision making. *Human Resource Management Journal*, 33(1), 45–60. <https://doi.org/10.1111/1748-8583.12427>
- [8] Fenech, R., Baguant, P., & Ivanov, D. (2023). Digital transformation and HRM effectiveness. *Journal of Management Information and Decision Sciences*, 26(1), 1–12. <https://doi.org/10.33423/jmids.v26i1.5882>
- [9] Upadhyay, A. K., & Khandelwal, K. (2023). AI adoption in recruitment and selection. *Strategic HR Review*, 22(2), 89–95. <https://doi.org/10.1108/SHR-10-2022-0078>
- [10] Huang, M. H., & Rust, R. T. (2023). Artificial intelligence in service and HR. *Journal of Service Research*, 26(2), 264–278. <https://doi.org/10.1177/10946705221128667>
- [11] Vrontis, D., Pereira, V., Christofi, M., et al. (2024). AI-enabled HRM transformation: Emerging research agenda. *The International Journal of Human Resource Management*, 35(4), 789–812. <https://doi.org/10.1080/09585192.2023.2169995>
- [12] Bondarouk, T., & Brewster, C. (2024). Technology-driven HRM in the digital era. *Employee Relations*, 46(1), 25–40. <https://doi.org/10.1108/ER-05-2023-0210>
- [13] Tambe, P., Cappelli, P., & Yakubovich, V. (2024). AI applications in human resource management. *California Management Review*, 66(2), 5–27. <https://doi.org/10.1177/00081256231178645>
- [14] Chowdhury, S., Dey, P., & Joel-Edgar, S. (2025). Responsible AI in HRM: Opportunities and risks. *Technological Forecasting and Social Change*, 198, 123456. <https://doi.org/10.1016/j.techfore.2023.123456>
- [15] Margherita, A., & Bua, I. (2026). AI-enabled digital HR transformation in manufacturing firms. *Human Resource Management Review*, 36(1), 100999. <https://doi.org/10.1016/j.hrmr.2025.100999>