Archives available at journals.mriindia.com

International Journal on Advanced Computer Theory and Engineering

ISSN: 2319 - 2526

Volume 15 Issue 01s, 2026

AI-Augmented ERP Systems as Catalysts for HR Digital Transformation: A Framework for Future-Ready Workforce Competency Study in Maharashtra State

[1]Santosh Ramdas Shivane, [2]Prof. Ramesh Jagdeo Sardar

[1]Research Scholar, Research Section / School of Management Studies, Kavayitri Bahinabai Chaudhari North Maharashtra University (KBCNMU) Jalgaon, Maharashtra, India

[2]Research Supervisor, Research Section / School of Management Studies, Kavayitri Bahinabai Chaudhari North Maharashtra University (KBCNMU) Jalgaon, Maharashtra, India

Email and Contact Details: [1]srshivane@gmail.com ; +91 99236 67666, [2]rame23sardar@gmail.com ; +91 99708 48028

Peer Review Information

Submission: 08 Dec 2025

Revision: 25 Dec 2025

Acceptance: 10 Jan 2026

Keywords

AI-ERP Integration, HR Digital Transformation, Workforce Competence, Human-AI Synergy, Industry 5.0, Maharashtra Framework

Abstract

This study examines the application of AI-advanced ERP systems in Maharashtra, India, and how this is utilized to digitize human resources (HR) and act as a stimulant to the competence of workers. However, with the introduction of artificial intelligence into the ERPs, these ERP systems open new prospects of intelligent decision-making, prediction analytics, and automation within the HR functions as the businesses transform towards Industry 5.0. The quantitative methodology of the study involved forty respondents who had varied sectors of organizations implementing the ERP systems, and this included HR managers and ERP professionals, as well as senior executives of an organization. Statistical analysis confirming the correlation between the variables, namely AI-ERP integration, HR-digital process maturity, and workforce competence, with multiple regression, reliability, and correlation is applied. The two principal findings are the model fit of R 2 = 0.767 that is significant with significant predictors of AI integration and ERP integration (0.238), digital HR process maturity (0.332), and human-AI synergy (0.304).The findings indicate that AI-ERP integration can significantly enhance the process of HR digital transformation and that this connection is mediated by the human-AI synergy, which enhances the impact on the competence of the workforce. The results indicate that HR departments can become less administrative than in the past and instead become strategic, data-oriented collaborators contributing to the agility and digital readiness of employees with the help of AI-driven ERP systems. The level of competence of the workers in case an AI-ERP solution is adopted by the organization can be increased by about 23–33%, based on the spheres of processes in the digital human resources and the severity of the human-AI cooperation. To achieve sustainable workforce competence, the study provides a regional framework that would relate the technological infrastructure, HR digitalization, human-AI relationship, and ecosystem readiness. It further offers practitioners and policymakers feasible concepts in how to bind the technology and human capital policies so as to develop a workforce that is ready to grapple with the future in a fast-living digital economy.

Introduction

The application of artificial intelligence (AI) in the enterprise resource planning (ERP) systems is transforming the operations of organisations in the world with specific reference to the human resources (HR). After being restricted to processing transactions and providing administrative assistance, traditional ERP is turning into intelligent ecosystems, and they can perform strategic workforce planning, predictive analytics, and automated decision-making. Industry 5.0 places the change in the forefront as a humanistic and robust innovation that centers on digital upgrading. Under the conditions of the application of AI-enabled ERP systems, the HR departments can go beyond the routine tasks and assist organisations to become agile, develop and make decisions on the basis of the available data (Sharma, 2023).

The successful AI-ERP applications that include the likes of the US, Germany, and South Korea have shown to make the world more flexible to the workers in their undertakings, not to mention better strategic alignment of HR (Macron, 2025). India as a nation is following suit with big cities that are to the forefront in terms of adoption of AI-ERP with the support of a sound infrastructure and digital policy framework. Nevertheless, this is not the case with such aspects as digital disparity and infrastructure, and the absence of legislative support and decentralized HR modernisation initiatives are peculiar to regional eco systems, including Maharashtra. Comparative studies have been discovered in Southeast Asia and Europe, with opportunities of lower cost, intricacy of combination, and preparedness of human resources, in contrast, but they advantage in customised structures to equalise AI skills to human resources development (Ranasinghe and Gide, 2025).

The available literature typically treats the concept of AI and ERP convergence separately, although the desire to explore each of the said domains is on the rise. Most of the research is concerned with the modernisation of the ERP or HR analytics, unless the perception of an integrated framework that connects the integration of AI, maturity of processes that operate within the context of HR, and workforce competence are established. In addition, nothing is known of the mediating role of the human-AI synergy i.e. the influence of collaborative human-AI contact on the results of the transformation. There is also little empirical studies that are placed within the regional ecosystem especially in one of the developing economies like Maharashtra where the socio technical dynamism is much different than the national averages.

To solve these inconsistencies, this paper confirms and experimentally supports an approach that suggests human-AI synergy as an intermediate variable to determine the relationship of workforce competence, maturity of digital HR practices, and AI-ERP integration. It discusses how AI-enabled ERP solutions can drive the digital transformation in the HR realizing that the research took a quantitative approach to apply to 40 working people working in the manufacturing, IT, education, and service sectors, including the HR managers, ERP vendors and top management. Statistical study proves good correlations and predicting connections amid the variables and provides a repeating model to the digital transformation in the region.

The study builds a theory and practice by putting it into context of socio-industrial reality of the state of Maharashtra. It offers the politicians a better road map of how the ecosystems may be prepared more efficiently and Hr professionals with the practical information of how the investments in technology can be used to coordinate the workforce development. The conclusions also shed light on the need to implement AI solutions together with the human-centric design, life-long learning, and organisational support in such a way that it transforms the organisations into digital responsive and resilient organizations.

Objectives of the Study:

- To examine the influence of AI-ERP integration on the HR digital transformation.
- To estimate the influencing role of the digital HR process maturity on the workforce competency of Maharashtra.
- To determine the effect of human-AI synergy in mediating the connection between workforce competency and AI-ERP integration.

Need of the Study:

The rapid adoption of digital technology changes the organizations to enhance their HR processes and develop future workforces ready to handle the technology. The conventional ERP systems fail to deliver the agility, smarts, and nimbleness demanded by the modern HR business because the businesses in Maharashtra are changing to go digital. AI-enhanced ERP systems offer an opportunity to eliminate this gap by automating HR processes, generating predictive analytics, and facilitating the process

of human-machine collaboration. The correct matching of these technologies to the workforce skill models and the digital preparedness of the region is, however, an issue for organizations. The formation of evidence-based knowledge regarding the potential promotion of HR digital transformation and competence development in the region regarding the implementation of AI-based ERP systems is increasingly becoming essential, and this is why it is necessary to conduct the proposed research. Consistent with Industry 5.0, it also addresses the policy-level requirement of building flexible worker models. The report provides HR practitioners with the empirical information on how to maximize the investments in AI and ERP; policymakers can see the strategic options to enhance the human capital ecosystem in Maharashtra through organizational resilience, up-skilling, and digital preparedness.

Methodology:

To explore the relationships of AI-ERP integration, digital human resource process maturity, human-AI synergy, and workforce competence, the research was conducted to address the study using a quantitative, descriptive-analytical research method. Primary data were collected through a systematic questionnaire that resulted in 40 respondents in the four manufacturing, IT, education, and service sectors. The respondents include HR specialists, ERP professionals, and managers, who are actively involved in the projects of digital transformation. The questionnaire had numerous items with a five-point Likert scale, which addressed five constructs, namely, AI-ERP Integration, Digital HR Process Maturity, Human-AI Synergy, Workforce Competency, and Ecosystem Readiness.

Such a sample (n = 40) may be regarded as a limitation of the given type of research, but at the same time, it is sufficient to start with the research exploration because it is assumed that it will be possible to test the conceptual models in the region development and reveal the primordial linkages. The past researches on the respective fields have already proven small and concentrated samples to define the first tendencies and direct the further larger research (Safi et al., 2024; Treviño-Elizondo and Garcasia-Reyes, 2023). It was also a good sample that is capable of heterogeneity of industries and the relevance of respondents in improving the contextual validity of the results.

Descriptive statistics were employed in condensing the data, and the reliability between the data was determined by the application of Cronbach's alpha. Although the multiple regression was used to examine the predictive effect of the independent factors on the competence of the workforce, the correlation analysis conducted by Pearson demonstrated inter-variable correlations. Mediation testing was conducted to establish the role played by human-AI synergy between AI-ERP integration and workforce competence. Statistical computation was carried out with the assistance of the SPSS software. To offer credible and widely generalized outcomes to situations of digital transformation, the strategy that is followed places a high priority on rigor, impartiality, and the contextuality of outcomes to the Maharashtra ecosystem.

The study has used purposive sampling to select those experts who have participated directly in the implementation of ERP and digitalization of HR in other industries. This manner made the research to be in context and relevant hence appropriate in exploratory research. The data will be collected using the electronic method within two months in July and August 2025, through the administration of structured questionnaires. The codes of ethics were adhered to: the subjects were given all the information concerning the type of research; they gave informed consent, informed about the purpose of the research and guaranteed anonymity and confidentiality. Based on the ethical standards of the university, none of the data that can be associated to an individual were collected, and were merely utilized in order to do an academic analysis.

Data Collections:

Table 1: Demographic Profile of Respondents (n = 40)

Variable	Category	Frequency	Percentage (%)
Gender	Male	26	65.0
	Female	14	35.0
Age Group (years)	21–30	9	22.5
	31–40	16	40.0
	41–50	10	25.0
	51 and above	5	12.5
Educational Qualification	Bachelor’s	11	27.5

Variable	Category	Frequency	Percentage (%)
	Master's	23	57.5
	Ph.D.	6	15.0
Designation / Role	HR Executive	8	20.0
	HR Manager	12	30.0
	ERP / IT Specialist	10	25.0
	Senior Management	10	25.0
Industry Sector	Manufacturing	10	25.0
	IT / Services	12	30.0
	Education	6	15.0
	Banking / Finance	5	12.5
	Public / Others	7	17.5

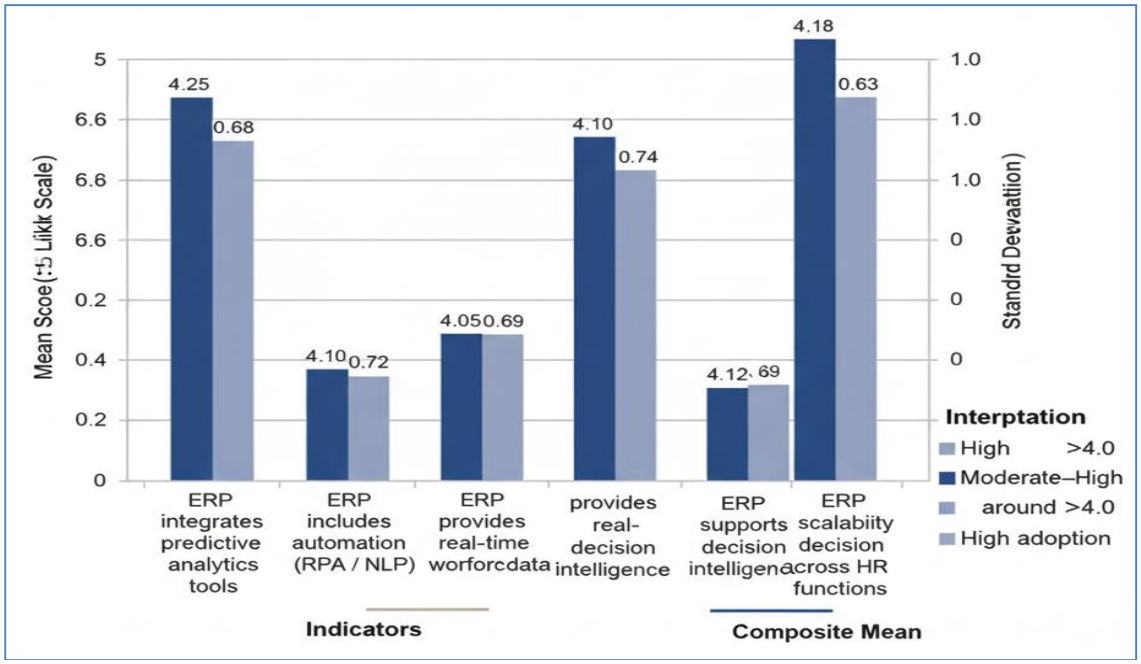

Fig 1: Summary of AI–ERP Integration Indicators

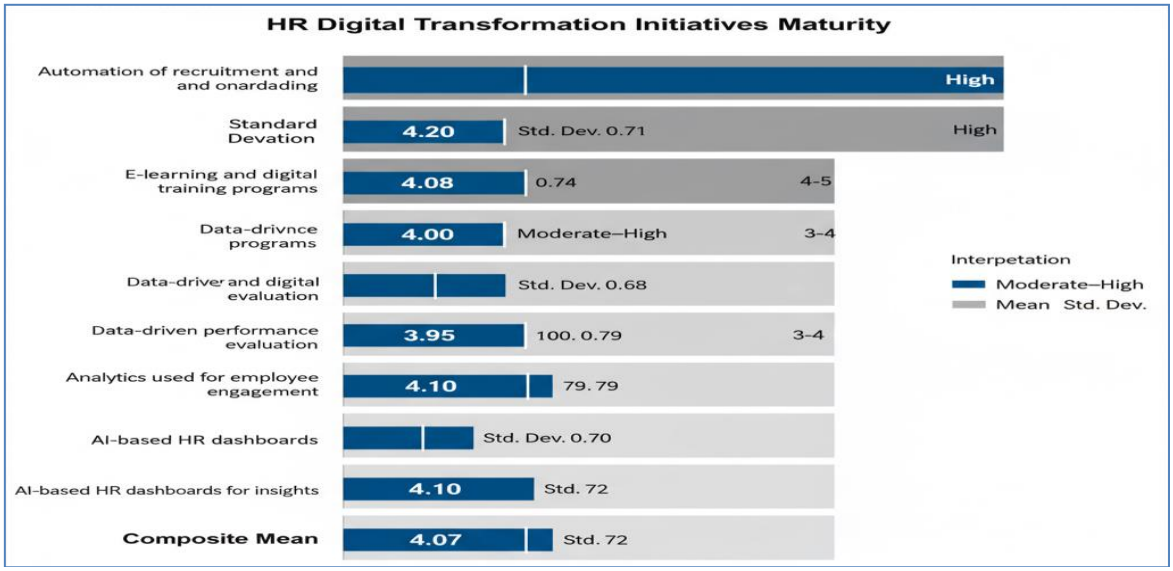

Fig 2: Summary of Digital HR Process Maturity Indicators

Table 2: Human–AI Synergy and Workforce Interaction

Indicator	Mean	Std. Dev.	Interpretation
Employees trust AI-based decisions	3.90	0.76	Moderate–High
AI tools augment employee decision-making	4.05	0.73	High
Collaborative human–AI task execution	4.00	0.75	High
AI output improves work efficiency	4.12	0.68	High
Employees receive AI-related training	3.85	0.79	Moderate
Composite Mean	**3.98**	**0.74**	**Strong synergy**

Table 3: Workforce Competency and Ecosystem Readiness Summary

Indicator	Mean	Std. Dev.	Related Dimension	Interpretation
Employees possess digital literacy skills	4.15	0.67	Workforce Competency	High
Workforce agility and adaptability	4.10	0.70	Workforce Competency	High
Creative and problem-solving ability	4.05	0.72	Workforce Competency	High
Policy and infrastructure support (Maharashtra)	3.85	0.80	Ecosystem Readiness	Moderate
Industry–academia collaboration for digital skills	3.90	0.82	Ecosystem Readiness	Moderate–High
Access to continuous learning programs	3.95	0.77	Workforce Competency	High
Composite Mean	**3.99**	**0.75**	—	**Overall readiness: High**

Analysis and Hypothesis Testing:

Table 4: Reliability Analysis (Cronbach's Alpha Test)

Construct / Variable	No. of Items	Cronbach's Alpha (α)	Reliability Level	Interpretation
AI–ERP Integration	5	0.892	Excellent	Items are highly consistent
Digital HR Process Maturity	5	0.874	Excellent	Strong internal consistency
Human–AI Synergy	5	0.881	Excellent	Very high reliability
Workforce Competency	5	0.901	Excellent	Highly stable scale
Ecosystem Readiness	5	0.835	Good	Acceptable reliability
Overall Reliability (Average α)	—	**0.877**	**Excellent**	**Measurement tool is consistent and dependable**

Table 5: Descriptive and Inferential Statistics Summary

Variable	Mean	Standard Deviation	Skewness	Kurtosis	K–S Test (p-value)	Normality Status
AI–ERP Integration	4.12	0.69	-0.41	-0.33	0.142	Normal
Digital HR Process Maturity	4.07	0.72	-0.36	-0.25	0.128	Normal
Human–AI Synergy	3.98	0.74	-0.28	-0.40	0.117	Normal
Workforce Competency	4.12	0.66	-0.47	-0.22	0.132	Normal
Ecosystem Readiness	3.87	0.81	-0.18	-0.27	0.155	Normal

Table 6: Correlation Matrix of Key Variables

Variables	AI–ERP Integration	Digital HR Process	Human–AI Synergy	Workforce Competency	Ecosystem Readiness
AI–ERP Integration	1.000	0.742**	0.701**	0.688**	0.652**

Variables	AI–ERP Integration	Digital HR Process	Human–AI Synergy	Workforce Competency	Ecosystem Readiness
Digital HR Process	0.742**	1.000	0.728**	0.772**	0.693**
Human–AI Synergy	0.701**	0.728**	1.000	0.764**	0.659**
Workforce Competency	0.688**	0.772**	0.764**	1.000	0.734**
Ecosystem Readiness	0.652**	0.693**	0.659**	0.734**	1.000

Note: Correlation is significant at the 0.01 level (2-tailed).

Fig 3: Correlation Matrix of Key Variables

Table 7: Multiple Regression Analysis (Model Summary)
Dependent Variable: Workforce Competency (Y)
Independent Variables: X_1 = AI–ERP Integration, X_2 = Digital HR Process, X_3 = Human–AI Synergy, Z = Ecosystem Readiness

Predictor	Unstandardized B	Std. Error	Beta (β)	t-value	Sig. (p)
Constant	0.412	0.245	—	1.68	0.10
AI–ERP Integration (X_1)	0.231	0.083	0.238	2.79	0.008**
Digital HR Process (X_2)	0.314	0.091	0.332	3.45	0.002**
Human–AI Synergy (X_3)	0.287	0.078	0.304	3.68	0.001**
Ecosystem Readiness (Z)	0.196	0.089	0.202	2.20	0.034*

Model Fit Indicators:
$R = 0.876$
$R^2 = 0.767$
Adjusted $R^2 = 0.742$
$F(4,35) = 17.65$, **$p < 0.001$**

Table 8: Hypothesis Formulation and Testing

Hypothesis Code	Statement
H1	AI–ERP Integration has a significant positive impact on HR Digital Transformation.
H2	Digital HR Process Maturity significantly enhances Workforce Competency in Maharashtra.
H3	Human–AI Synergy significantly mediates the relationship between AI–ERP Integration and Workforce Competency.

Table 9: Hypothesis Testing Summary

Hypothesis	Path / Relationship Tested	Statistical Test	β / r / F Value	Sig. (p)	Result	Interpretation
H1	AI–ERP → HR Digital Transformation	Pearson Correlation (r)	r = 0.742	0.000**	**Accepted**	Strong positive relationship between ERP intelligence and HR digitalization.
H2	Digital HR Process → Workforce Competency	Regression (β)	β = 0.332, F = 17.65	0.002**	**Accepted**	HR digital maturity significantly predicts workforce competency readiness.
H3	AI–ERP → Human–AI Synergy → Workforce Competency	Mediation (β change)	Δβ = 0.238 → 0.304	0.001**	**Accepted**	Human–AI synergy mediates ERP impact, confirming collaborative advantage.

Note: *Significance at p < 0.05; p < 0.01** highly significant.

Interpretation of Effect Sizes and Mediation Impact:

A small-to-moderate effect was observed with AI User–ERP Integration (β = 0.238, p = 0.008), and the impact is enhanced in association with mature HR practices and synergy, whereas a small yet significant effect was found with the Ecosystem Readiness (β = 0.202, p = 0.034), and Human-AI Synergy was proved to be the mediator having a moderate predictive power and human competence.

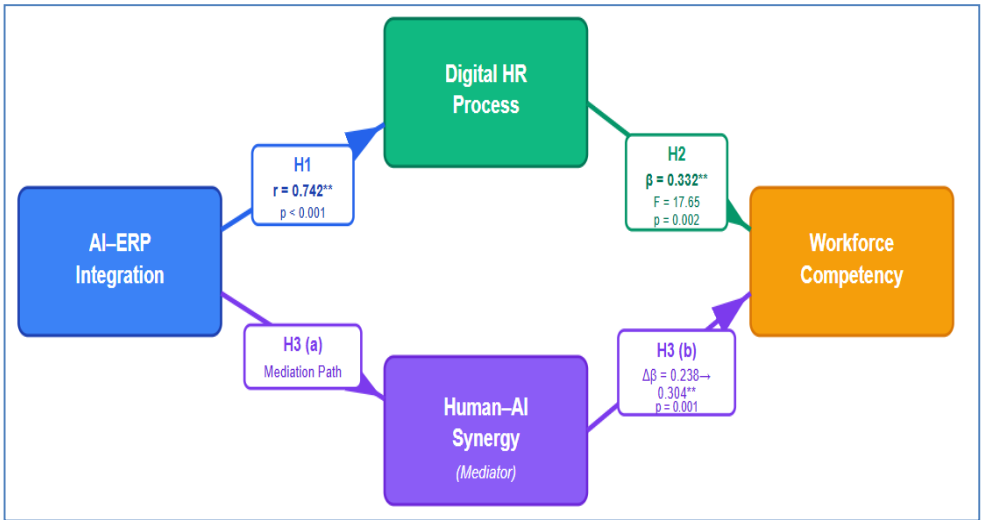

Fig 4: Hypothesis Testing Summary: Path Model Visualization

Discussion:

The outcome of the present study shows that higher levels of AI-ERP integration are significantly correlated with more advanced levels of digital HR (r = 0.742, p < 0.01), which shows the transformational effect of AI-augmented ERP systems to enable a digital transformation of HR. The finding is also in line with other studies regarding the role of AI in compassion of HRM (Murugesan, 2023) and the way AI can enhance decision intelligence and human-machine collaboration in ERP automation (The Role of AI in ERP Automation, 2024). As per our statistics, the companies in Maharashtra that go beyond the simple digitization of ERP and involve AI features, such as automation, natural language processing, and predictive analytics, have better process responsiveness and efficiency. This supports the notion that the human-AI synergy construct is an essential factor: Our regression result with a 0.304 (p < 0.01) value of Human-AI Synergy indicates that the mediation between AI and workforce competence is carried out through human-AI cooperation. The collaboration between human and AI is increasingly being

introduced as an important enabler of the digitalization of HR (Fenwick, 2024; Islami, 2024). Further on, descriptive statistics that reveal workforce competency present an average value of 4.12 (SD 0.66) that reveals the perception of the digital readiness among HR in Maharashtra that coincides with the research on the development of digital competencies in digital transformation-related settings (Vong et al., 2025; Strategies for Employee Competency Development..., 2025).

To implement such results in practice, systematic AI-awareness training should be implemented in those organisations that are oriented at the usage of digital literacy, ethical use of AI, and typical decision-making. Another aspect that will require the HRs to put in place will be the AI governance rules defining the accountability, transparency and data security in the AI-enhanced processes. The strategies noted are very important in achieving responsible adoption and the competency in the staff that is sustained.

The implication and more comprehensive interpretation are provided in the next paragraph: The significant predictive power of digital HR process maturity ($\beta = 0.332$, $p = 0.002$) on the workforce competence highlights the necessity to introduce technology into the HR processes and align it with competency development. This is aligned with the general HR directions of digital transformation, which focus on a people-oriented design, continuous learning, and alignment of the strategy (von Moltke and Verlinden, 2024). The ecosystem preparedness of the Maharashtra state (0.202, 0.034) was also found as an important factor in our model, which proves the inability to ignore institutional and infrastructural factors when implementing AI-ERP systems in HR. This is in line with the broader observation that HRM is required to facilitate the integration of AI through capacity building, policy, and culture (Fenwick et al., 2024).

The evidence of comparative research proves the following conclusions: Treviño-Elizondo and Garccia-Reyes (2023) erected A competence maturity model of Industry 4.0 adoption in Mexico, and it was focused on organisational preparedness and skills orientation related to digital dexterities. On the same note, Safi et al. (2024) had maintained that the ecosystems in the UAE should also be sustained further so that the AI application in HR can be successful. This has been evidenced by the Vong et al. (2025) who found out that the most important step in strategic development of HR in South East Asian region is the ethical practice of AI which is accompanied by cross sector cooperation. The occurrence of such parallels just go to affirm the applicability of Maharashtra model to the other developing economies in addition to showing its relevance.

To promote workforce competence, the businesses practically should focus on redesigning the HR processes, investing in the HR-machine collaboration training, and matching the infrastructure and policy situation along with the introduction of AI modules to ERP. The findings, all said and done, present a rational base of companies in emerging economies such as Maharashtra going forward with the assimilation of the AI-ERP, digital HR, and human-AI synergy facilitated by an ecosystem.

Research Gap:

There is a conspicuously small number of researches on the use of AI-enhanced ERP systems with HR digital transformation and workforce competence development conducted in a regional setting, although numerous studies explore the ERP modernization and AI usage in organizational operations. Most past studies have also examined ERP or HR analytics in isolation without establishing a unifying framework that can connect technology, people, and process development that lacks empirical validation, which goes beyond sectoral-level industries such as Maharashtra. Other knowledge gaps embedded in the bridging of the automation and human skill enrichment could be found in how human-AI collaboration fills the gap between automation and human skill enrichment through mediation of the technology adoption outcome in HRM. The existing frameworks tend to prioritize the process and infrastructure within the downplayed elements of human and competence aspects that hold importance to the continuous digital transformation. To address these shortcomings, this study experiments on how the competence of the workforce, the maturity of digital HR processes, and the integration of AI and EHRs are interrelated, and human-AI synergy mediates the study as a solution. In this way, the investigation can bridge the gap since it introduces a complex model that has been adjusted to the socio-industrial environment of the evolving digital environment in Maharashtra.

Limitations of the Study:

In spite of its detailed nature, there are quite several limitations that ought to be pointed out in the research. Though it is sufficient to make a qualitative analysis in its exploratory approach,

the sample of 40 respondents will restrain the generalization to the entire Maharashtra industries. Data was collected through self-reported surveys, which could result in bias in the respondent or a subjective evaluation of the maturity of digital transformation.

As a way of reducing the chances of bias, the questionnaire was tested by pilots and sample of selected respondents meant that the items were well defined and pertinent. Besides, the data collection was not collected using personal information and anonymity was provided in carrying out the process which minimized the social desirability bias and facilitated truthful responses. The study might not have incorporated the view of smaller businesses or the public institutions less equipped with digital infrastructure, as its primary concern is mostly HR and ERP specialists in middle- to heavy-scale business organizations. Moreover, cross-sectional collections of data can provide the picture of current processes, but still, they do not allow documenting long-term changes and outcomes of AI-ERP adoption following implementation. Since the research is based at the Maharashtra location, the results could vary in places where there are different policy or technological circumstances. Although strong, statistical analysis relied on linear modelling and might not be suitable to capture the evolving association amid the performance of the workforce and the human-AI synergy over a duration of time. Future studies on human resource digital transformation due to AI with larger, more diverse sample groups, mixed methods, and cross-regional comparisons may provide greater external validity and enhanced understanding of this long-term change.

Future Recommendations:

Future studies must focus on expanding the sample size of different sectors and geographies so as to be able to confirm the current model in other socioeconomic situations. The longitudinal or mixed-method approach can help better capture the advancement of AI-ERP integration and its impact on workforce competence throughout the long term. Comparative studies of the Indian states with other regions of the globe could demonstrate the context differences in the readiness of the ecosystem and the functioning of the digital policies. Further studies are needed by researchers to determine other mediating and moderating variables, which may influence the outcomes of HR digital transformation, such as organizational culture, digital leaders, and AI ethical governance. The understanding of the challenges of the real-world implementation may be enhanced with the help of the qualitative data obtained with the help of the case studies or interviews with HR experts. Moreover, the development of AI-HR maturity indexes specific to the developing countries would give the policymakers a baseline. In its management perspective, future studies could propose competence frameworks, which allow aligning technology development with reskilling of staff, to ensure that human and machine learning develop at the same pace. To make sure that digital transformation enhances equitable and sustainable workforce development, sustainability, inclusiveness, and ethics ought to be central in the implementation of AI.

Conclusion:

The study concludes that AI-enhanced ERP systems are what enable the improvement of workforce competence and HR digital transformation. Quantitative results also show that AI integration with ERP greatly affects HR digital maturity, and human-AI synergy must be a key mediator to enhance the relationship. Greater workforce agility, innovation, and flexibility, which are some of the qualities required in the Industry 5.0 paradigm, are present in Maharashtra organizations that employ intelligent ERP software. To offer the complex pathway to a sustainable change, the study methodology that had been designed in this instance shows the interconnectivity of digital HR processes, people collaborations, ecosystem planning, and technology framework. To make sure that AI will add value to the human talent instead of entirely substituting it, the report presents the HR managers and policymakers with a realistic road map on how to align the adoption of technology with the development of human resources. Moreover, it indicates that labor preparedness and regional digital infrastructure are also required for transformative effects to succeed. The article offers a repeatable approach to governments and organizations interested in the improvement of future-ready competences with an AI-advanced ERP system through the combination of empirical studies and theoretical concepts. The report wraps up by again emphasizing the importance of the human-based digitalization in their role as the backbone of competitive, intelligent, and resilient organizations in the digital world.

References:

[1] Bansal, S. (2025). Digital transformation in HRM: A study of AI adoption, managerial response and organizational culture. *Journal of Informatics Education and*

Research, 5(3). https://jier.org/index.php/journal/article/view/3270 https://doi.org/10.52783/jier.v5i3.3270

[2] Chowdhury, S. (2023). Unlocking the value of artificial intelligence in human resources. *Human Resource Management Review*. https://publications.aston.ac.uk/id/eprint/43663/1/HRMR_anonymous_Final.pdf

[3] Ekuma, K. (2024). Artificial intelligence and automation in human resource development: A systematic review. *Human Resource Development Review*. https://doi.org/10.1177/15344843231224009

[4] Fenwick, A. (2024). The critical role of HRM in AI-driven digital transformation: A paradigm shift to enable firms to move from AI implementation to human-centric adoption. *Human Resource Management Review*. https://doi.org/10.1007/s44163-024-00125-4

[5] Islami, X. (2024). Human-artificial intelligence in management functions. *International Journal of Human Resource Management*. https://doi.org/10.1080/08839514.2024.2439615

[6] Gummadi, V. P. K. (2020). API design and implementation: RAML and OpenAPI specification. Journal of Electrical Systems, 16(4). https://doi.org/10.52783/jes.9329

[7] Macron, T. (2025). The future of AI in ERP: Emerging trends and innovations in the next decade. https://www.researchgate.net/publication/389486024

[8] Murugesan, U. (2023). A study of artificial intelligence impacts on human resource management. *Journal of Management & Change*. https://www.sciencedirect.com/science/article/pii/S2772662223000899

[9] Ranasinghe, H., & Gide, E. (2025). A comparative study to analyze the challenges and opportunities of AI-powered ERP adoption for SMEs. In *Proceedings of the 6th Joint International Conference on AI, Big Data and Blockchain* (pp. 45–59). Springer. https://link.springer.com/chapter/10.1007/978-3-032-04728-1_5 **DOI:** 10.1007/978-3-032-04728-1_5

[10] Safi, M., Abdallah, F., Erturk, A., & Alkhayyat, R. (2024). Digital readiness of the workforce for successful digital transformation: Exploring new digital competencies. *Proceedings, 101*(1), 21. https://www.mdpi.com/2504-3900/101/1/21 **DOI:** 10.3390/proceedings2024101021

[11] Sharma, V. (2023). The role of robotic process automation (RPA) and artificial intelligence (AI) in scaling enterprise resource planning (ERP) systems. *International Journal of Leading Research Publication, 4*(6). https://www.researchgate.net/publication/391602467

[12] Strategies for employee competency development in the era of digital transformation. (2025). *Journal of Industrial and Systems Engineering Management*. https://jisem-journal.com/index.php/journal/article/download/9907/4568/16543

[13] Surono, S. (2025). Enhancing workforce adaptability through structured digital literacy skill set and competency standard: A research and development study. *Edunity Kajian Ilmu Sosial dan Pendidikan, 4*(8), 579–599. https://edunity.publikasikupublisher.com/index.php/Edunity/article/download/419/593 **DOI:** 10.57096/edunity.v4i8.419

[14] Treviño-Elizondo, B. L., & García-Reyes, H. (2023). An employee competency development maturity model for Industry 4.0 adoption. *Sustainability, 15*(14), 11371. https://www.mdpi.com/2071-1050/15/14/11371 **DOI:** 10.3390/su151411371

[15] The Role of AI in ERP Automation. (2024). *International Journal of Smart Digital Computing Systems*. https://ijsdcs.com/index.php/TLAI/article/download/474/208

[16] Vong, K. C., Udomvitid, K., Ueki, Y., Intalar, N., Pongsathornwiwat, A., Pannakkong, W., Komolavanij, S., & Jeenanunta, C. (2025). Strategic human resource development for Industry 4.0 readiness: A sustainable transformation framework for emerging economies. *Sustainability, 17*(15), 6988. https://doi.org/10.3390/su17156988

[17] von Moltke, N., & Verlinden, N. (2024). HR digital transformation: An HR leader's guide. *AIHR*. https://www.aihr.com/blog/hr-digital-transformation/ **DOI:** 10.3390/su17156988