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A Study On E-Learning In Employees Training And Development Using Gen Ai.

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ABSTRACT: This study examines the effectiveness of AI software in enhancing training and development at Thermax Global Limited. It evaluates AI's impact on employee engagement, skill development, and well-being. The research aims to assess how AI influences performance monitoring and managerial support. A structured questionnaire was used to collect data from 150 employees. Data analysis was conducted using percentage analysis, weighted average, correlation, and chi-square tests. The findings offer recommendations to improve AI integration for better employee satisfaction and organizational efficiency.

Keywords: AI Software, Training and Development, Employee Engagement, skill development, reduce stress.

1.INTRODUCTION

In today's fast-changing business world, AI-powered e-learning has transformed employee training by offering personalized, flexible, and efficient learning experiences. It allows real-time feedback, adaptive learning paths, and data-driven insights, improving engagement, skill development, and knowledge retention. Integrated with HRMIS, AI can track progress and suggest relevant training. While AI brings scalability and cost-effectiveness, challenges like data privacy, bias, and tech infrastructure remain. Balancing technology with human interaction is essential. With future trends like VR and predictive analytics, AI in e-learning holds great promise. Clear goals, infrastructure, and ongoing support are key to success.

Features of effectiveness of GEN-AI

Personalized Learning: AI customizes training content based on each employee's progress, learning style, and needs, making learning more relevant and effective.

Real-Time Feedback: AI provides instant feedback and performance analysis, helping employees understand their strengths and areas for improvement.

Integration with HRMIS: AI integrated with HRMIS suggests suitable training programs, tracks progress, and identifies skill gaps to support employee growth.

2. OBJECTIVES OF THE STUDY

1.To assess AI impact on employee engagement.
2.To identify key factors influencing skill development.
3. To understand how AI software helps to reduce stress and improve employee's well-being.
4. To assess employees' perceptions of performance monitoring and managerial support in the workplace.

3.SCOPE OF THE STUDY

This study explores how AI-powered e-learning enhances employee engagement, skill development, and knowledge retention compared to traditional methods. It examines AI's role in personalizing training, boosting motivation, and improving job performance. The research also considers scalability, cost-effectiveness, and accessibility. Overall, it aims to show how AI-driven training can transform corporate learning strategies.

4.REVIEW OF LITERATURE

Ayman Fawzy Khattab Madkour, Faisal Fahed Al-Wadani 2025

Electronic Training Environment Based on Artificial Intelligence Tools and Its Impact on Developing Digital Administrative Concepts Among Human Resources Employees" stated that This study looked at how AI-based e-training helps HR employees learn digital administrative skills. It focused on how to design and use AI for training. The study involved 60 HR employees from different organizations, divided into two groups of 30 each. The results showed that one group improved significantly after training, but there was no big difference between the two groups in the final test.

Ashwani Kumar uphyay 2024

The paper on "Generative AI and training employees with special needs" explores how Gen AI can create personalized training for individuals with physical or cognitive disabilities. It explains how AI customizes learning materials to suit unique needs, enhancing accessibility. The study highlights the use of AI-powered assistive technologies that adapt content based on specific requirements. It stresses the need for collaboration between training teams, government bodies, and tech providers. These partnerships are key to making AI-driven solutions effective. The paper promotes the role of Gen AI in fostering diversity, equity, and inclusion. Ultimately, it supports more inclusive workplace learning opportunities.

5.RESEARCH METHODOLOGY

The study uses a descriptive research design to examine the relationship between organizational climate and deviant work behavior. A sample size of 150 employees was selected using convenience sampling from a total population of 300. Data collection follows quantitative methods, and since the data is not normally distributed, non-parametric tools were applied for analysis.

6.DATA ANALYSIS AND INTERPRETATION

Table 1: Demographic profile of employees

Categories	Sub categories	No. of respondents	Percentage (%)
Age	18-25	33	22
	26-35	76	50.6
	36-45	25	16.7
	46 and above	16	10.7
Gender	Male	97	64.7
	Female	53	35.3
Educational Qualification	Bachelor's degree	71	47.3
	Master's degree	39	26
	Diploma	40	26.7
	Others	0	0
Experience	Less than 1 year	3	2
	1-3 years	41	27.3
	4-6 years	58	38.7
	7-10 year	29	19.3
	More than 10 years	19	12.7
Total	**All categories**	**150**	**100**

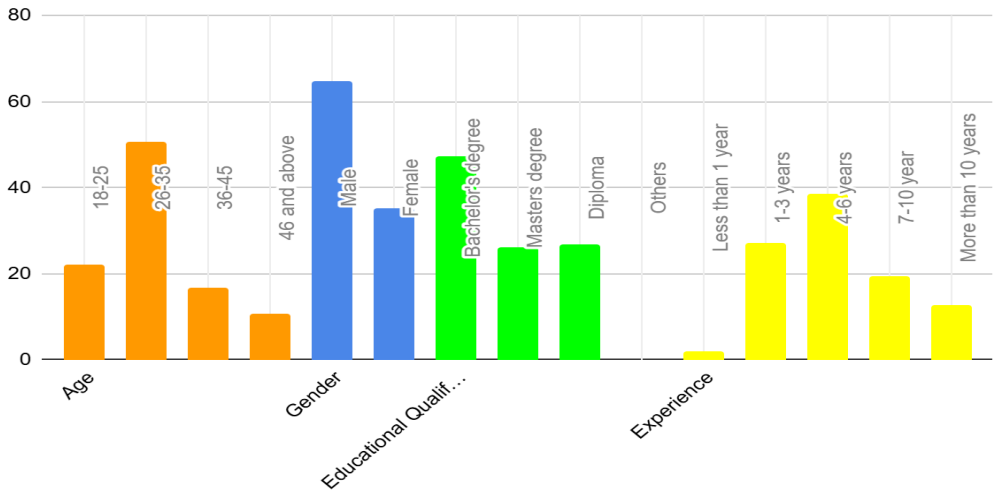
FINDINGS

The majority of respondents (50.6%) are aged 26–35, followed by 22% aged 18–25, 16.7% aged 36–45, and 10.7% aged 46 and above. Most respondents are male (64.7%), while 35.3% are female. In terms of education, 47.3% hold a Bachelor's degree, 26.7% a Diploma, 26% a Master's degree, and none reported other qualifications. Regarding experience, 38.7% have 4–6 years, 27.3% have 1–3 years, 19.3% have 7–10 years, 12.7% have over 10 years, and 2% have less than a year.

INFERENCE

- It is inferred that the majority of the respondents are male.
- It is inferred that the majority of the respondents are employees belonging to the age group of 26-35.
- It is inferred that the majority of the respondents are employees possessing the educational qualification of a Bachelor's degree.
- It is inferred that the majority of the respondents are employees with 4-6 Years' Experience

Figure 1: Demographic profile of investors



Source: Author generated

WEIGHTED AVERAGE

2 TABLE Overall assessment of AI-based training in employee development – weighted average method.

PARTICULARS	R1	R2	R3	R4	R 5	WEIGHTED AVERAGE	RANK
AI training boosts software skills.	7	54	75	12	2	33.4	6
AI learning improves time management.	13	91	42	4	0	37.5	1
AI training boosts creativity.	29	55	56	10	0	36.8	4
AI training builds leadership skills.	13	71	51	15	0	37.4	2
AI training boosts client handling.	14	76	49	11	0	36.2	5
AI insights improve crisis management.	24	68	51	7	0	37.2	3

FINDINGS:

Therefore, it is concluded that AI learning improves time management is ranked 1st, AI training builds leadership skills is ranked 2nd, AI insights improve crisis management.is ranked 3rd, AI training boosts creativity is ranked 4th, AI training boosts client handling is ranked 5th and AI insights improve crisis management is ranked 6th by the employees.

INFERENCE:

It is inferred that AI learning improves time management is the highest level of Rank.

6.2 STATISTICAL TOOLS

CHI - SQUARE TEST:

Null Hypothesis (H_0): There is no significant difference between age and whether the respondent feels that AI-based training and development helps reduce their work-related stress.

Alternative Hypothesis (H_1): There is a significant difference between age and whether the respondent feels that AI-based training and development helps reduce their work-related stress.

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
age * reduce	150	100.0%	0	.0%	150	100.0%

Age * reduce Crosstabulation

			reduce				Total
			2	3	4	5	
age	1	Count	0	6	25	2	33
		Expected Count	.4	6.4	25.1	1.1	33.0
	2	Count	1	13	60	2	76
		Expected Count	1.0	14.7	57.8	2.5	76.0
	3	Count	0	5	20	0	25
		Expected Count	.3	4.8	19.0	.8	25.0
	4	Count	1	5	9	1	16
		Expected Count	.2	3.1	12.2	.5	16.0

Total	Count	2	29	114	5	150
	Expected Count	2.0	29.0	114.0	5.0	150.0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.124[a]	9	.522
Likelihood Ratio	8.028	9	.531
Linear-by-Linear Association	2.489	1	.115
N of Valid Cases	150		

a. 10 cells (62.5%) have expected count less than 5. The minimum expected count is .21.

Source: Author generated

INFERENCE

The p value > 0.05, Null hypothesis is accepted, there is no significant difference between age and whether the respondent feels that AI-based training and development helps reduce their work-related stress.

CORRELAION:

Correlations

		Employee engagement	Skill development	Performance monitoring	Reduce stress
Employee engagement	Pearson Correlation	1	.518**	.591**	.449**
	Sig. (2-tailed)		.000	.000	.000
	N	150	150	150	150
Skill development	Pearson Correlation	.518**	1	.389**	.342**
	Sig. (2-tailed)	.000		.000	.000
	N	150	150	150	150
Performance monitoring	Pearson Correlation	.591**	.389**	1	.595**
	Sig. (2-tailed)	.000	.000		.000
	N	150	150	150	150

Reduce stress	Pearson Correlation	.449**	.342**	.595**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	150	150	150	150

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

Source: Author generated

FINDING:

The table shows that the factors influencing employees, like AI-based training and development, have a positive impact on employee engagement, stress reduction, and performance monitoring. There is a moderate correlation between employee engagement and both skill development and stress reduction, with values of 0.518 and 0.449. The employee engagement also has a strong positive impact on performance monitoring, showing a correlation value of 0.591. The skill development factor has a positive impact on both stress reduction and performance monitoring. There is a moderate correlation between skill development in both (stress reduction and performance monitoring), with values of 0.342 and 0.389. The stress reduction factor also has a strong positive correlation with performance monitoring, with a value of 0.595. There is a moderate to strong correlation between all the factors influenced through AI-based training methods, indicating that each area supports the development and well-being of employees**.**

INFERENCE

- A moderate positive relationship exists between employee engagement and both skill development (r = 0.518) and stress reduction (r = 0.449).
- Employee engagement also shows a moderate correlation with performance monitoring (r = 0.591).
- Skill development has a moderate positive link with stress reduction (r = 0.342) and performance monitoring (r = 0.389).
- There is a moderate correlation between stress reduction and performance monitoring (r = 0.595).

7. SUMMARY OF FINDINGS

1. The majority of the respondents are male.

2. It is inferred that the majority of the respondents are employees belonging to the age group of 26-35.

3. It is inferred that the majority of the respondents are employees possessing the educational qualification of a Bachelor's degree.

4. It is inferred that the majority of the respondents are employees with 4-6 Years Experience

5. The p value > 0.05, Null hypothesis is accepted, there is no significant difference between age and whether the respondent feels that AI-based training and development helps reduce their work-related stress.

6. A moderate positive relationship exists between employee engagement and both skill development (r = 0.518) and stress reduction (r = 0.449).

7. Employee engagement also shows a moderate correlation with performance monitoring (r = 0.591).

8. Skill development has a moderate positive link with stress reduction (r = 0.342) and performance monitoring (r = 0.389).

9. There is a moderate correlation between stress reduction and performance monitoring (r = 0.595).

8.SUGGESTIONS

- Implement Gen AI tools to gather and analyze data from learner feedback, surveys, and behavior analytics. Use these insights to regularly update and enhance training programs, ensuring they stay dynamic, engaging, and aligned with evolving employee needs.
- Embed AI-driven assistants (like chatbots or virtual tutors) within e-learning platforms to provide instant help, clarify doubts, and offer motivational nudges. This keeps learners supported, especially when facing challenges or showing reduced participation.
- Implement Gen AI tools to gather and analyze data from learner feedback, surveys, and behavior analytics. Use these insights to regularly update and enhance training programs, ensuring they stay dynamic, engaging, and aligned with evolving employee needs

9.CONCLUSION

The study emphasizes how adding Gen AI to e-learning improves skill retention, learning efficacy, and employee engagement. Personalized learning paths and real-time feedback promote continuous development and enable employees to lead their own learning. This strategy fosters an innovative and flexible organizational culture in addition to improving individual performance. Adaptive learning experiences that are customized to different learning styles and career objectives are also made possible by Gen AI, which leads to more effective information transfer and long-term workforce development.

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