VOLUME - 15, ISSUE - 04, APRIL - 2026 • PRINT ISSN No. 2277 - 8160 • DOI : 10.36106/gjra

Original Research Paper

Management

AN ANALYTICAL STUDY OF DIGITAL AND CONVENTIONAL TRAINING EFFECTIVENESS IN ENHANCING PERFORMANCE

Dr. M. Soundarya	Assistant Professor, School of Management Studies, Sathyabama Institute of Science and Technology, Chennai
S. Harishivani	MBA Student, School of Management Studies, Sathyabama Institute of Science and Technology, Chennai
L. Hemalatha	MBA Student, School of Management Studies, Sathyabama Institute of Science and Technology, Chennai
Bhuvaneshwari R	MBA Student, School of Management Studies, Sathyabama Institute of Science and Technology, Chennai

ABSTRACT The present study examines the performance effectiveness of digital training and conventional training by analyzing their impact on learning outcomes, skill development, and overall performance. The study is based on primary data collected from 385 respondents using a structured questionnaire covering three major dimensions: digital training effectiveness, conventional training effectiveness, and comparative effectiveness. Descriptive and analytical tools such as mean score analysis, rank analysis, and discriminant analysis were employed to evaluate the data. The findings reveal that digital training is highly valued for its flexibility, accessibility, and self-paced learning, while conventional training is preferred for its face-to-face interaction, better communication, and effective clarification of doubts. The comparative analysis indicates that both methods have distinct advantages, with digital training being more cost-effective and conventional training contributing more to interpersonal skill development. The discriminant analysis further highlights that flexibility and self-learning are key factors distinguishing digital training, whereas interaction and communication significantly define conventional training effectiveness. Overall, the study suggests that neither method alone is sufficient; instead, a blended approach integrating both digital and conventional training methods can enhance learning efficiency and performance outcomes. This research provides valuable insights for educators, trainers, and organizations in designing effective training programs that combine technological advantages with human interaction for optimal results.

KEYWORDS : Digital Training, Conventional Training, Skill Development

1.1 INTRODUCTION OF THE STUDY

Training is widely recognized as one of the most essential human resource development practices adopted by organizations to enhance employee competencies, improve productivity, and strengthen overall performance outcomes. In a competitive and rapidly transforming business environment, organizations cannot rely solely on existing employee skills. Continuous learning and systematic training programs are necessary to ensure that employees remain updated with technological advancements, industry standards, and evolving organizational goals. Effective training not only improves technical expertise but also enhances soft skills such as communication, teamwork, adaptability, and problem-solving abilities. As a result, training becomes a strategic investment rather than merely an operational activity. In today's digitally driven era, organizations are increasingly adopting diverse training methodologies to meet dynamic learning requirements. The integration of technology into workplace learning has significantly transformed traditional training systems. Among the most widely implemented approaches are digital training and conventional training. Both methods are designed with the primary objective of improving employee knowledge, skills, engagement levels, and overall performance effectiveness. However, they differ in terms of delivery methods, learning environment, interaction patterns, and accessibility.

Digital training refers to technology-enabled learning delivered through online platforms such as virtual classrooms, webinars, e-learning modules, recorded video sessions, mobile learning applications, and Learning Management Systems (LMS). This method allows employees to access training content anytime and anywhere, making learning flexible and convenient. Digital training supports self-paced learning, enabling participants to revisit materials multiple times to strengthen understanding. It is also scalable, allowing organizations to train large numbers of employees simultaneously at reduced cost. Furthermore, digital platforms often incorporate interactive elements such as quizzes, simulations, and multimedia presentations, which enhance learner engagement and technical skill development. Due to its cost efficiency and time-saving nature, digital training has gained significant importance in modern organizational learning strategies. Conventional training, on the other hand, refers to traditional instructor-led classroom sessions conducted in physical environments.

This method emphasizes direct face to-face interaction between trainers and participants, facilitating real-time communication and immediate doubt clarification. Conventional training promotes collaborative learning through group discussions, role plays, workshops, and hands on activities. The structured environment of classroom training often enhances attentiveness and discipline among participants. Additionally, physical interaction helps in building interpersonal relationships, strengthening teamwork skills, and improving confidence in communication. Conventional training is particularly effective when dealing with complex topics that require in-depth explanation, guided practice, and continuous feedback. Both digital and conventional training approaches play a crucial role in enhancing employee performance effectiveness. While digital training offers flexibility and technological adaptability, conventional training strengthens interpersonal engagement and collaborative competence. Therefore, understanding the effectiveness of these training methods is essential for organizations seeking to maximize learning outcomes and performance improvement.

1.2 Concept of Digital Training

Digital training refers to a technology-enabled learning approach that delivers educational and skill development programs through electronic platforms. It involves the use of

internet-based systems such as Learning Management Systems (LMS), virtual classrooms, webinars, video conferencing tools, online modules, and mobile learning applications to facilitate structured learning experiences. Unlike traditional classroom-based instruction, digital training eliminates the need for physical presence and allows participants to access content remotely. Digital training represents a shift from conventional teaching methods to modern, flexible, and technology-driven learning systems. It is designed to support continuous learning, enhance accessibility, and meet the dynamic needs of organizations operating in a digital environment.

1.3 Concept of Conventional Training

Conventional training refers to the traditional method of learning delivered through face-to-face, instructor-led sessions conducted in a physical classroom or training environment. It is one of the oldest and most widely practiced forms of employee development in organizations. In this approach, trainers and participants interact directly in the same physical setting, allowing real-time communication and immediate feedback. Conventional training focuses on structured instruction, where learning takes place according to a predefined schedule, curriculum, and teaching methodology. It emphasizes direct engagement, observation, and guided learning experiences under the supervision of a trainer.

1.2 Review of Literature:

Blanchard and Thacker (2022) further emphasized that systematic training design, implementation, and evaluation are critical for achieving measurable results. They argued that both traditional classroom training and technology-based training can be effective when aligned with organizational strategy, learner characteristics, and performance objectives. Their research reinforced the idea that effectiveness depends more on instructional design quality than on the mode of delivery alone.

Salas et al. (2012) focused on broader determinants of training effectiveness and emphasized the importance of learner motivation, feedback mechanisms, and transfer of training. They argued that training programs are effective only when learners are motivated to participate and have opportunities to apply acquired skills in real-world job situations. Their research suggests that both digital and conventional training methods can produce positive outcomes if supported by a strong organizational learning culture.

Garrison and Kanuka (2004) introduced the concept of blended learning, integrating digital and face-to-face instructional methods. They argued that blended approaches combine the flexibility, scalability, and accessibility of digital training with the interactive and collaborative strengths of conventional classroom learning. Their findings indicate that blended learning enhances engagement, satisfaction, and learning outcomes more effectively than relying exclusively on a single delivery method.

1.4 Objectives of the Study:

The primary objective of this study is to examine the performance effectiveness of digital training and conventional training in improving employee competencies and workplace performance outcomes.

1.5 Research Methodology

1.5.1 Research Design

The study adopts a descriptive and analytical research design to examine and compare the effectiveness of digital and conventional training methods in enhancing performance. The design facilitates systematic collection, analysis, and interpretation of data related to training effectiveness.

1.5.2 Nature and Source of Data

- Primary Data: Collected through a structured questionnaire administered to respondents in Dvein Innovations Pvt Ltd, Navalur.
- Secondary Data: Gathered from journals, research articles, books, and online sources related to training effectiveness.

1.5.3 Sampling Design

- Sampling Method: Convenience sampling technique was used to select respondents.
- Sample Size: A total of 385 respondents participated in the study.

1.6 Data Analysis and Interpretation:

Table 1.1 Demographic Profile of the Respondents

Variable	Category	Frequency	Percentage (%)
Gender	Male	210	54.50
	Female	165	42.90
	Other	10	2.60
	Total	385	100
Age	Below 25	120	31.20
	25 - 35	150	39.00
	36 - 45	75	19.50
	Above 45	40	10.30
	Total	385	100
Educational Qualification	Undergraduate	140	36.40
	Postgraduate	170	44.20
	Professional	55	14.30
	Others	20	5.10
	Total	385	100
Occupation	Student	130	33.80
	Employee	180	46.80
	Trainer	45	11.70
	Others	30	7.70
	Total	385	100
Experience	Below 2 years	110	28.60
	2 - 5 years	140	36.40
	6 - 10 years	85	22.10
	Above 10 years	50	13.00
	Total	385	100

Source: Primary Data

Interpretation:

Gender:

The table shows that the majority of respondents are male (54.5%), followed by female respondents (42.9%), while a small proportion (2.6%) falls under other categories. This indicates a slightly male-dominated sample.

Age:

It is observed that most respondents belong to the 25–35 age group (39%), followed by those below 25 years (31.2%). This indicates that young adults form the major portion of the sample.

Educational Qualification:

The majority of respondents are postgraduates (44.2%), followed by undergraduates (36.4%). This shows that the sample is largely well-educated.

Occupation:

The table indicates that most respondents are employees (46.8%), followed by students (33.8%). This suggests that working professionals constitute the largest group in the study.

Experience:

It is evident that most respondents have 2–5 years of experience (36.4%), followed by those with below 2 years (28.6%). This indicates that respondents with moderate experience dominate the sample.

1.6.1 Digital Training Effectiveness – Mean Score Analysis:

Digital Training Effectiveness refers to the extent to which training delivered through digital platforms (such as online courses, e-learning modules, webinars, or virtual classrooms) successfully achieves its intended learning outcomes. Table 1.2 represents the Digital Training Effectiveness.

Table 1.2 Digital Training Effectiveness – Mean Score Analysis

S. No	Statement	Mean Score	Rank
1	Digital training programs are easy to access	4.12	3
2	The content in digital training is clear and understandable	4.05	4
3	Digital training improves my technical skills	3.98	6
4	I can learn at my own pace through digital training	4.22	2
5	Digital training provides flexibility in time and location	4.28	1
6	Interactive elements enhance my learning	3.95	7
7	I feel engaged during digital training sessions	3.88	8
8	Digital training improves my overall performance	4.00	5

Source: Primary Data

The mean score analysis indicates that respondents generally have a positive perception of digital training effectiveness. Among the factors, flexibility in time and location (Mean = 4.28) is ranked first, followed by self-paced learning (Mean = 4.20), highlighting the importance of convenience and autonomy in digital learning. Accessibility and clarity of content also received relatively high mean scores, indicating user satisfaction with platform usability. On the other hand, engagement during digital training sessions (Mean = 3.88) and interactive elements (Mean = 3.95) received lower ranks, suggesting areas for improvement. Overall, the findings imply that while digital training is effective and convenient, enhancing engagement and interactivity could further improve its impact.

1.6.2 Conventional Training Effectiveness - Mean Score Analysis:

Conventional Training Effectiveness refers to the extent to which traditional, face-to-face training methods (such as classroom teaching, workshops, and seminars) successfully achieve their intended learning outcomes. Table 1.3 represents the Digital Training Effectiveness.

Table 1.3 Digital Training Effectiveness – Mean Score Analysis

S. No	Statement	Mean Score	Rank
1	Conventional training provides better face-to-face interaction	4.3	1
2	I understand concepts better in conventional training	4.18	3
3	Trainers effectively clarify doubts in conventional training	4.22	2
4	Conventional training improves my practical knowledge	4.05	5
5	I feel more motivated during classroom training	4.1	4
6	Group discussions in conventional training enhance learning	4	6
7	Conventional training improves my job performance	3.95	7

Source: Primary Data

The analysis shows that respondents have a positive perception of conventional training effectiveness. Face-to-face interaction (Mean = 4.30) is ranked first, indicating that direct personal interaction is the most valued aspect of conventional training. This is followed by effective clarification of doubts (Mean = 4.22) and better understanding of concepts (Mean = 4.18), highlighting the importance of instructor support. Motivation and practical knowledge also received relatively high mean scores, suggesting that classroom environments encourage active learning. However, improvement in job performance (Mean = 3.95) and group discussions (Mean = 4.00) received comparatively lower ranks, indicating potential areas for enhancement. Overall, the findings suggest that conventional training is particularly effective in promoting interaction, clarity, and understanding, making it a strong method for knowledge transfer.

1.6.3 Comparative Effectiveness - Mean Score Analysis:

Comparative Effectiveness refers to the evaluation and comparison of two or more methods, approaches, or systems to determine which one performs better in achieving desired outcomes.

Table 1.4 Comparative Effectiveness – Mean Score Analysis

S. No	Statement	Mean Score	Rank
1	Digital training is more flexible than conventional training	4.32	1
2	Conventional training is more effective than digital training	3.95	6
3	Digital training is cost-effective	4.2	2
4	Conventional training provides better communication	4.1	4
5	Digital training enhances self-learning ability	4.18	3
6	Conventional training builds stronger interpersonal skills	4.05	5
7	Overall, digital training is more effective than conventional training	3.98	7
8	I prefer digital training over conventional training	3.9	8

Source: Primary Data

1.6.4 Performance Effectiveness of Digital Training and Conventional Training – Discriminant Analysis:-

Discriminant analysis is used to determine which variables differentiate between groups in this case, Digital Training Effectiveness, Conventional Training Effectiveness, and Comparative Effectiveness. The objective is to identify which factors (variables) significantly discriminate between the effectiveness of digital and conventional training methods.

The discriminant function can be expressed as:
$D = \alpha + b1X1 + b2X2 + b3X3 + \ldots + bnXn$

Where:

- D = Discriminant score
- X1, X2... Xn = Independent variables (training effectiveness items)
- b1, b2... bn = Discriminant coefficients

Table 1.5 Performance Effectiveness of Digital Training and Conventional Training – Discriminant Analysis

Function	Eigenvalue	Canonical Correlation
1	0.68	0.64

Source: Primary Data

Table 1.6 Performance Effectiveness of Digital Training and Conventional Training – Discriminant Analysis

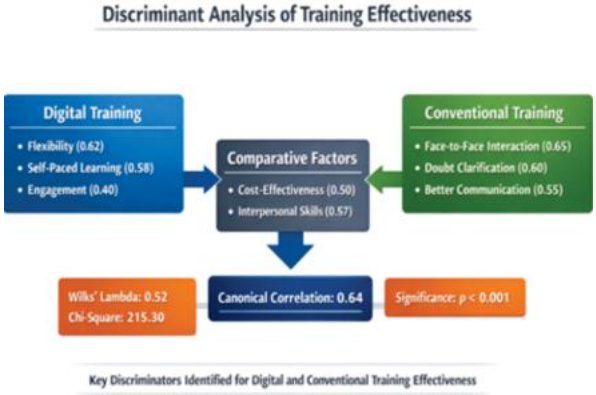
Wilks' Lambda	Chi-square	Sig.
0.52	215.3	0

Source: Primary Data

Table 1.7 Performance Effectiveness of Digital Training and Conventional Training – Discriminant Analysis

S.No	Variable	Coefficient
1	Flexibility (Digital)	0.62
2	Self-paced learning (Digital)	0.58
3	Engagement (Digital)	0.4
4	Face-to-face interaction (Conventional)	0.65
5	Doubt clarification (Conventional)	0.6
6	Communication (Conventional)	0.55
7	Cost-effectiveness (Comparative)	0.5
8	Interpersonal skills (Conventional)	0.57

Source: Primary Data



The discriminant analysis reveals that both digital and conventional training variables significantly differentiate training effectiveness. Among digital training factors, flexibility and self-paced learning are the strongest discriminators, indicating that learners value convenience and autonomy in digital platforms. In contrast, face-to-face interaction, doubt clarification, and communication are the most influential variables in conventional training, highlighting the importance of human interaction and immediate feedback. Comparative factors such as cost-effectiveness and interpersonal skills also contribute moderately to distinguishing between training methods.

The significant Wilks' Lambda value confirms that the model effectively differentiates between the groups. The canonical correlation suggests a strong relationship between the discriminating variables and training effectiveness.

1.7 CONCLUSION

The study on the effectiveness of digital and conventional training in enhancing performance highlights that both training methods play a significant role in improving learning outcomes and employee efficiency. The findings indicate that digital training is highly effective in terms of flexibility, accessibility, cost-effectiveness, and self-paced learning. It enables learners to acquire knowledge conveniently and enhances technical skills through interactive tools and resources. On the other hand, conventional training remains essential for its strengths in face-to-face interaction, immediate feedback, effective doubt clarification, and the development of interpersonal skills. Participants reported better understanding of concepts and higher motivation levels in classroom-based training environments.

The comparative analysis reveals that neither method is superior in all aspects; instead, each has unique advantages that contribute to performance enhancement. Digital training supports independent learning and technological adaptability, while conventional training fosters communication, collaboration, and practical understanding. Therefore, the study concludes that a blended training approach, integrating both digital and conventional methods, is the most effective strategy for maximizing performance outcomes. Organizations and educational institutions should adopt a balanced training model that leverages the benefits of both approaches to meet diverse learning needs and improve overall effectiveness.

REFERENCES

[1] Angeli, C. (2005) 'Transforming a teacher education method course through technology: Effects on preservice teachers' technology competency', Computers & Education, vol. 45, No. 4, pp. 383 - 398.
[2] Alinier, G., Hunt, B., Gordon, R. and Harwood, C. (2006) 'Issues and innovations in nursing education: Effectiveness of intermediate-fidelity simulation training technology in undergraduate nursing education', Journal of Advanced Nursing, vol. 54, no. 3, pp. 359-369.
[3] Armatas, C., Holt, D. and Rice, M. (2003) 'Impacts of an online-supported, resource-based learning environment: Does one size fit all?' Distance Education, vol. 24, no. 2, pp. 141–158.
[4] Bennison, A. and Goos, M. (2010) 'Learning to teach mathematics with technology: A survey of professional development needs, experiences and impacts', Mathematics Education Research Journal, vol. 22, No. 1, pp. 31–56.
[5] Bennett-Levy, J., Hawkins, R., Perry, H., Cromarty, P. and Mills, J. (2012) 'Online cognitive behavioural therapy training for therapists: Outcomes, acceptability, and impact of support', Australian Psychologist, vol. 47, no. 3, pp. 174–182.
[6] Boghikian-Whitby, S. and Mortagy, Y. (2008) 'The effect of student background in e-Learning-Longitudinal study', Issues in Informing Science & Information Technology, vol. 5, pp. 107–126.
[7] Brown, K. G. (2005) 'A field study of employee e-learning activity and outcomes', Human Resource Development Quarterly, vol. 16, no. 4, pp. 465–480.