

Impact of Microlearning on On-the-Job Hard Skill Application and Employee Retention among IT Employees in Chennai City

Dr. G. Tamilselvi¹ | Keerthana V^{2*}

¹Assistant Professor, Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women, Chromepet.

²Research Scholar, Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women, Chromepet.

*Corresponding Author: keerthanav.phdjune@gmail.com

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Abstract

As the information technology industry continues to evolve rapidly, many companies have started using microlearning to develop their employee skills. This study attempts to examine the impact of microlearning on the use of hard skills and retention of IT employees in Chennai city. An Explanatory research methodology has been used, where the sample was chosen using a convenience sampling method from 144 IT employees in Chennai city. Data analysis has been done using Smart PLS to perform Structural Equation Modelling (PLS-SEM). The results showed that the accessibility of learning content and knowledge retention helped greatly to increase the on-the-job application of hard skills. But at the same time, no statistically Significant effect was found for Learning Flexibility. In addition, on-the-job application of hard skills became the most significant predictor of employee retention and mediator of the relationship between microlearning dimensions and employee retention. Therefore, microlearning contributes to employee retention through on-the-job application of hard skills, but the significance of Learning Flexibility needs more study to be consistent with the learning preferences of employees.

Keywords: Microlearning, On-the-Job Hard Skill Application, Employee Retention, Accessibility of Learning Content, Learning and Development, PLS-SEM, Human Capital Theory, Knowledge Management Theory.

Introduction

Technology has developed rapidly, and the requirements in the workplace have changed. Hence, there is an urgent need to learn and develop skills on an ongoing basis in the IT sector. Many organisations are using different types of innovative training techniques to improve the technical skills of employees, which increases productivity of the employees and provides a competitive edge to their organisation. Traditional training is considered to be lengthy and less effective in a fast-moving environment, and therefore, many organisations are adopting the concept of micro-learning as an effective way of training. Micro-learning gives organisations the ability to make use of small learning modules that provide learning in a timely and flexible manner. (Yu et al., 2024) have found that micro-learning increases flexibility in learning, retention of knowledge, and employee satisfaction, thereby improving the performance of the organisation. Similarly, (Kassabi& Khaldi, 2026) found that micro-learning allows organizations to conduct effective training in a shorter period of time, Despite these advantages as well as some challenges are remains however, as organisations are begin to use microlearning as an effective learning strategy, although microlearning increased access to learning and improved technical skills, there are still difficulties that organizations encounter regarding the application of the hard skills that were learned to real-world job-related work. Even though the employees have been trained effectively through the modules, the ability to apply them to the task becomes challenging, which can lead to productivity issues, as well as issues within the training

process. The retention of employees becomes one of the biggest problems in the IT industry because of the high turnover rates in this industry, and the current literature mainly focuses on the learning outcomes and learner engagement; very few papers have been written about the relationship between microlearning, hard skill application in the workplace, and IT employee retention, so further research is needed. The literature review is mainly focused on microlearning, learning engagement, and knowledge retention. Nevertheless, there is almost no literature that focuses on whether employees use hard skills obtained through microlearning in practice or how this affects employee retention. That is why the purpose of this study is to investigate the influence of microlearning on workplace hard skills application among IT employees in Chennai. It further explores the relationship between workplace hard skills implementation and employee retention, and also the moderating effect of workplace hard skills implementation between microlearning and employee retention. In this way, the research contributes to the literature regarding how microlearning helps in transferring skills in the workplace application and retention of employees in the IT industry.

Review of Literature

• Microlearning

The microlearning approach has become one of the most valuable options for learning in the workplace, as it makes it possible to ensure the development of continuous professional training with the help of structured learning materials easily accessible. It was established that the implementation of the approach based on personalised and competency-based learning would result in the improvement of knowledge, skills, and performance of learners ([Emerson & Berge, 2018](#)). Another study has pointed out that the factors influencing the efficiency of using microlearning platforms included motivation of learners, self-regulation, appropriate content, and organisational learning culture ([Karlsen et al., 2023](#)). The increasing use of digital learning is adding another dimension to workplace learning through offering flexible, interactive, and technology-based learning activities that foster continuous learning among employees ([Brown, 2021](#)). Likewise, efforts towards continuous learning and development through digital learning and microlearning have been identified to promote employee adaptability, performance and competitiveness ([PravinDurai & Jose, n.d.](#)). Additionally, digital transformation has facilitated organisational learning culture through enabling continuous learning and sharing of knowledge through technology-enabled learning systems ([Kohli, 2023](#)). Microlearning has also been recognised as an efficient tool for the transfer of knowledge and facilitates knowledge sharing and organisational learning through learning activities in small chunks ([Beste, 2023](#)). It has become possible to stimulate organisational learning through the use of concise and appealing learning modules in the same way. The implementation of microlearning as part of organisational learning systems has been correlated with improved knowledge retention, job satisfaction, and employee retention ([Yu et al., 2024](#)). The review of relevant literature has consistently indicated that microlearning is associated with lifelong learning and increased levels of learner engagement and performance of organisations ([Kannan, 2024](#)). Besides, studies have revealed that through the use of bite-sized and customised instructional materials, microlearning contributes to cognitive, behavioural, and affective learning processes ([Monib et al., 2025](#)). Further, by creating flexible learning environments, gamification combined with microlearning has also been demonstrated to positively impact employee motivation, career development, and retention ([Azzaakiyyah & Junaidi, 2025](#)). In the recent past, ([Kassabi & Khaldi, 2026](#)) concluded that microlearning would be more effective when it is goal-oriented, incorporates multimedia elements, and is just-in-time learning.

• On – the – Job Hard Skill Application

Workplace use of hard skills is the capability of employees to apply the knowledge and technical skills gained in their job performance. Microlearning plays an important role in competency-based training since it helps employees to be able to apply new skills in the workplace through targeted learning experiences ([Emerson & Berge, 2018](#)). Well-designed training programs ensure that employees gain confidence, communication skills, and improved organisation ([Ojkorotu, n.d.](#)). Investments in human capital through continuous learning and training of employees have proven to greatly improve the performance, innovation, productivity, and competitiveness of employees ([Arokiasamy et al., 2023](#)). Moreover, the adoption of AI-driven HRM has led to continuous reskilling and competency building, making employees able to gain the necessary technical skills needed for fast-changing workplaces ([Mer & Viridi, 2023](#)). In the same way, competency-based and modular learning practices have contributed to workplace capability building through the provision of practical learning embedded in the everyday work tasks of employees ([Saaristomaa, 2024](#)). Moreover, HRM strategies that focus on continuous learning, talent building, and supportive organisational cultures have proved to increase the competence levels of

employees and organisational performance ([Murdiono et al., 2024](#)). Also, the practices of HRM 4.0 help build the digital competencies of employees using integrated workplace learning practices ([Jovanović et al., n.d.](#)). However, studies related to skills development reveal that the effectiveness of training systems in minimising the skill gaps in the workplace and enhancing the technical skills of the employees needed in the organisational changing environment ([Breen et al., 2023](#)). The adoption of artificial intelligence and digital transformation in the organisation requires continuous upskilling for the development of digital skills, adaptive skills, and problem-solving skills for performing job tasks ([Kaushik et al., n.d.](#)).

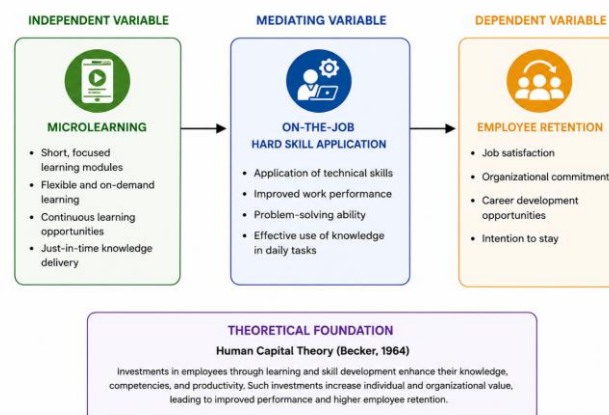
• Employee Retention

Employee retention is currently one of the strategic priorities of many organisations because they wish to retain talented employees in highly competitive labour markets. Various training and development programs, such as microlearning, have been shown to have a positive effect on the achievement of employee development and retention objectives by creating supportive organisational environments ([Sanya & Omotunde, 2021](#)). Various human resource activities, such as supportive work environments, role clarity, training, and development, have been proven to significantly impact employee retention, particularly among young employees ([Ali et al., 2024](#)). Moreover, well-managed human resource management systems have been known to improve employee behaviour, motivation, and performance by aligning HRM functions with employee needs, thereby enhancing employee retention ([Groenewald et al., 2024](#)). Likewise, efforts at workplace learning focusing on mentoring, experience-based learning, and e-learning have been known to boost employee development and organisational commitment ([Easton & Steyn, 2025](#)). In addition, an extensive review of the literature regarding employee retention indicated that job satisfaction, organisational commitment, communication, mentorship, compensation, and supportive work environments are the main factors impacting employees' decision to stay with the organisation ([Lehnen & Günther, 2024](#)). Learning experiences must be created by organisations for employees to become engaged in their work and perform better in the long term ([Krishna & Agrawal, 2024](#)). Moreover, training activities that are relevant and motivational for the employees, as well as consistent with their workload, indirectly improve job satisfaction and retention by increasing work motivation and reducing stress at work ([Alfarizi et al., 2026](#)).

• Theoretical Foundation

▪ Human Capital Theory

The Human Capital Theory, as suggested by ([Becker, 1975](#)), indicates that the investments made in terms of education, training, and skills of human resources result in an improvement in the knowledge, skills, productivity, and value of the employees in the organisation. The Human Capital Theory assumes that the knowledge and skills of the employees can be seen as the organisational assets helping in improving the performance of both individuals and organisations. By making consistent investment in the learning of their human resources, organisations help in developing their competencies, resulting in better performance of employees. In the context of the current study, the use of microlearning is a strategic investment in human capital through which employees can acquire their technical competencies and learn effectively. The learning intervention facilitates IT employees' learning and allows them to apply the acquired hard skills effectively on the job.

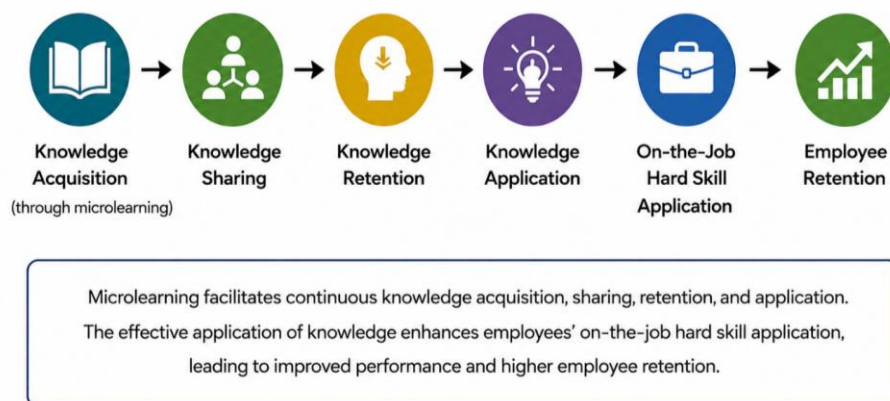


When employees become more competent and productive, they will experience increased job satisfaction, career development, and organisational commitment and thus improve their retention. Consequently, Human Capital Theory creates an effective theoretical foundation for understanding the positive effects of microlearning on IT employees' hard skill application and retention.

▪ Knowledge Management Model

The Knowledge Management Model developed by [\(Beste, 2023\)](#) focuses on the fact that organisations gain value by efficiently acquiring, sharing, keeping, and using knowledge. The knowledge management model indicates that constant learning mechanisms help to transfer knowledge, develop employees' competencies, and increase organisational efficiency. Microlearning enables the process as it provides employees with short-form learning lessons, which help in continuously gaining knowledge and applying it at work. In the case of the present study, the knowledge management model serves as a supporting theory since microlearning helps in acquiring and keeping technical knowledge, which allows IT employees to use their gained skills effectively at work.

KNOWLEDGE MANAGEMENT MODEL (Beste, 2023)



Increased application of knowledge improves employees' performance at work and helps in achieving better employee retention due to continuous professional development. Thus, the Knowledge Management Model Supplements Human Capital Theory and explains the process of knowledge transfer, which affects the application of hard skills and employee retention through microlearning.

• Hypotheses Development

▪ Accessibility of Learning Content and On-the-Job Hard Skill Application

Learning Content Accessibility is a key attribute of microlearning, which allows employees to have access to the training materials when necessary. Learning content accessibility makes it easier for employees to learn continuously by accessing the learning content anytime when needed. This also assists in the transfer of the knowledge acquired from the learning content to the work environment efficiently. As per [\(Karlsen et al., 2023\)](#), it was observed that appropriate learning content was one of the most critical factors that had an impact on the efficacy of microlearning platforms. On the other hand, according to [\(Yu et al., 2024\)](#), microlearning enhances knowledge retention and workplace learning through organised and accessible learning content.

H¹: Accessibility of learning content positively influences workplace hard skills application.

▪ Knowledge Retention and On-the-Job Hard Skill Application

Knowledge retention ensures that the employees are able to remember and use the learned knowledge while performing tasks at work. Microlearning helps knowledge retention by ensuring the provision of concise learning material, which makes it easier for learners to remember and learn. [\(Yu et al., 2024\)](#) discovered that microlearning helps improve knowledge retention and learning among employees. [\(Monib et al., 2025\)](#) similarly found that bite-sized learning modules help cognitive learning and skill development. Knowledge retention helps employees develop the capacity to use technical skills at work.

H₂: Knowledge retention positively influences workplace hard skills application

▪ **Learning Flexibility and On-the-Job Hard Skill Application**

The learning flexibility helps employees to be able to use learning materials depending on their preferred time, pace, and work needs. Learning flexibility environments help in encouraging continuous involvement in learning activities at the workplace and help employees in upgrading their technical skills. [\(Yu et al., 2024\)](#) found that learning flexibility increases employee satisfaction and learning efficiency. Additionally, [\(Azzaakiyyah & Junaidi, 2025\)](#) stated that learning environments that are flexible and personalised help in developing and growing the careers of employees. Therefore, learning flexibility will increase the application of the hard skills of employees.

H₃: Learning flexibility positively influences workplace hard skill application.

▪ **On-the-Job Hard Skill Application and Employee Retention**

The utilisation of hard skills at the workplace helps employees carry out their work-related duties in an effective manner and contributes to their career growth. Employees who can make proper use of their technical skills tend to enjoy better job performance, confidence, and career development that contribute to their desire to stay in the organisation. According to [\(Ali et al., 2024\)](#), programs aimed at the development of employees can lead to their retention, whereas [\(Lehnen & Günther, 2024\)](#) have pointed out training and supportive working conditions as determinants of retention. In addition, [\(Alfarizi et al., 2026\)](#) have stated that training programs, which motivate employees and relate to their work, positively affect retention through job satisfaction and motivation.

H₄: on- the- job hard skills application positively influences employee retention.

▪ **Mediating Role of On-the-Job Hard Skill Application**

Microlearning supports employee development through increased access to learning content, enhanced knowledge retention, and increased learning flexibility. Nevertheless, such improvements in learning will lead to improved employee retention, provided that employees can utilise the learned technical skills on the job. The utilisation of learned technical skills on the job is thus the process by which microlearning yields favourable organisational results. For this reason, the current study hypothesises that: **H₅:** on-job hard skills application mediates the relationship between accessibility of learning content and employee retention. **H₆:** on-job hard skills application mediates the relationship between knowledge retention and employee retention. **H₇:** on-job hard skills application mediates the relationship between learning flexibility and employee retention.

Research Methodology

• **Research Design**

The study applied an explanatory design to assess the effects of microlearning on the application of hard skills on the job and employee retention among IT workers in Chennai. The study used a quantitative design in order to establish the relationships between the variables of the study through hypothesis testing.

• **Population and Sampling**

The target population consisted of IT professionals from software and IT firms based in Chennai. A convenience sampling method was employed where only those respondents who were easily accessible and willing to take part in the research were selected, and a total of 144 valid responses were collected and used for the analysis.

• **Data Collection and Measurement**

Data collected from primary sources was collected through a structured questionnaire conducted among the IT Employees of Chennai. The survey had questions measuring Accessibility of Learning Content, Knowledge Retention, Learning Flexibility, On-the-Job Hard Skill Application, and Employee Retention. All the variables were measured using a five-point Likert scale.

• **Data Analysis**

The collected data were analysed using SmartPLS 4.0. Partial Least Squares Structural Equation Modelling (PLS-SEM) was used to examine the measurement model and the structural model. In terms of measurement model analysis, indicator loadings, Cronbach's Alpha, Composite Reliability (CR), Average Variance Extracted (AVE) and discriminant validity were used. For the structural model,

the following parameters were used for hypothesis testing: path coefficients (β), coefficient of determination (R^2), and effect size (f^2).

Results

• Demographic Profile

Table 1: Percentage Analysis of Demographic Profile

Variables	Dominant Group	Percentage
Age	25–30 years	29.9%
Gender	Female	72.2%
Educational Qualification	Undergraduate	47.9%
Type of IT Employment	Software Development	36.8%
Current Role Level	Mid-level Employee	39.6%
Years of Experience	Less than 1 yr / 1–3 yrs / 3–5 yrs (Equal)	24.3%
Monthly Income	₹25,001–₹50,000	53.5%
Participation in Microlearning Programs	Yes	80.6%

According to the demographic description, the majority of the participants were in the age group of 25-30 years (29.9%), females (72.2%), and had an undergraduate degree (47.9%). The majority of the participants were working in software development (36.8%) and mid-level designations (39.6%). Regarding work experience, the maximum number of participants was evenly spread among the individuals who had experience less than 1 year, 1-3 years, and 3-5 years (24.3% each). Also, the maximum number of respondents had a salary of ₹25,001-₹50,000 per month (53.5%), and 80.6% of respondents were involved in the workplace microlearning program.

• Measurement Model Assessment

Table 2: Reliability and Convergent Validity (Cronbach's Alpha, Composite Reliability, AVE)

Construct	Cronbach's Alpha	Composite Reliability (ρ_a)	Composite Reliability (ρ_c)	AVE
Accessibility Learning Content	0.771	1.018	0.859	0.673
Employee Retention	0.906	0.909	0.927	0.680
Learning Flexibility	0.900	1.019	0.935	0.828
Knowledge Retention	0.901	0.914	0.928	0.720
On-the-job Hard Skill Application	0.911	0.911	0.929	0.653

Cronbach's Alpha and composite reliability measures for all constructs are higher than 0.70, while AVE measures are higher than 0.50. Thus, it is evident that the measures are reliable and possess high convergent validity. It means that all the variables used to measure constructs are consistent and valid.

Table 3: Discriminant Validity – Fornell-Larcker Criterion

Construct	ALC	ER	LF	KR	OJHSA
Accessibility Learning Content (ALC)	0.820				
Employee Retention (ER)	0.328	0.825			
Learning Flexibility (LF)	0.773	0.074	0.910		
Knowledge Retention (KR)	0.464	0.640	0.274	0.849	
On-the-Job Hard Skill Application (OJHSA)	0.417	0.905	0.202	0.642	0.808

The values on the diagonals (square root of AVE) for most of the constructs are greater than the correlation of those constructs with other constructs. It must be noted that there is quite a high correlation between the construct "accessibility of learning content" and "learning flexibility" (0.773), but overall, there is sufficient discriminant validity.

Table 4: R Square

Construct	R-square	R-square adjusted
Employee Retention	0.819	0.817
On-the-job Hard Skill Application	0.444	0.432

R-Square value of employee retention is 0.819, indicating that 82% of the variance in employee retention is explained through the application of on-the-job hard skills, which is a fairly high value. The R-Square value of on-job hard skills is 0.444, indicating a fairly high level of variance explained by accessibility, knowledge retention, and learning flexibility.

Table 5: F-Square

Path	f-square
Accessibility of Learning Content -> On-the-job Hard Skill Application	0.055
Knowledge Retention -> On-the-job Hard Skill Application	0.420
Learning Flexibility -> On-the-job Hard Skill Application	0.024
On-the-job Hard Skill Application -> Employee Retention	4.510

Knowledge retention is highly correlated to on-job hard skill application (effect size 0.420) while accessibility of learning contents (effect size 0.055) and learning flexibility (effect size 0.024) have minimal influence. The on-the-job hard skill application has an extremely high effect size (4.510) on employee retention, thereby validating that it is the strongest variable in the model.

Table 5: Path Coefficients – Mean, STDEV, T value, P values

Path	Original (O)	Sample Mean (M)	STDEV	T statistics	P values
Accessibility of Learning Content -> On-the-job Hard Skill Application	0.302	0.299	0.120	2.518	0.012
Knowledge Retention -> On-the-job Hard Skill Application	0.552	0.566	0.062	8.859	0.000
Learning Flexibility -> On-the-job Hard Skill Application	-0.184	-0.183	0.126	1.459	0.145
On-the-job Hard Skill Application -> Employee Retention	0.905	0.906	0.015	60.309	0.000

H1: Accessibility of learning content has a significant effect on hard skills applied on-the-job ($\beta = 0.302$, $p = 0.012$) – supported. H2: Knowledge retention has a significant effect on hard skills applied on-the-job ($\beta = 0.552$, $p = 0.000$) – supported. H3: Learning flexibility has no significant effect on hard skills applied on-the-job ($\beta = -0.184$, $p = 0.145$). H4: Application of hard skills on the job is a factor that has a high level of influence on employee retention ($\beta = 0.905$, $p = 0.000$) – supported. From the findings, availability, knowledge retention, and application of hard skills on the job are significant, while learning flexibility is insignificant.

• Structural Model Assessment

Hypothesis

- H₁:** Accessibility of learning content positively influences workplace hard skill application.
- H₂:** Knowledge retention positively influences workplace hard skill application.
- H₃:** Learning flexibility positively influences workplace hard skill application.
- H₄:** On-the-job hard skills application positively influences employee retention.
- H₅:** On-the-job hard skills application mediates the relationship between accessibility of learning content and employee retention.
- H₆:** On-the-job hard skills application mediates the relationship between knowledge retention and employee retention.
- H₇:** On-the-job hard skills application mediates the relationship between learning flexibility and employee retention.

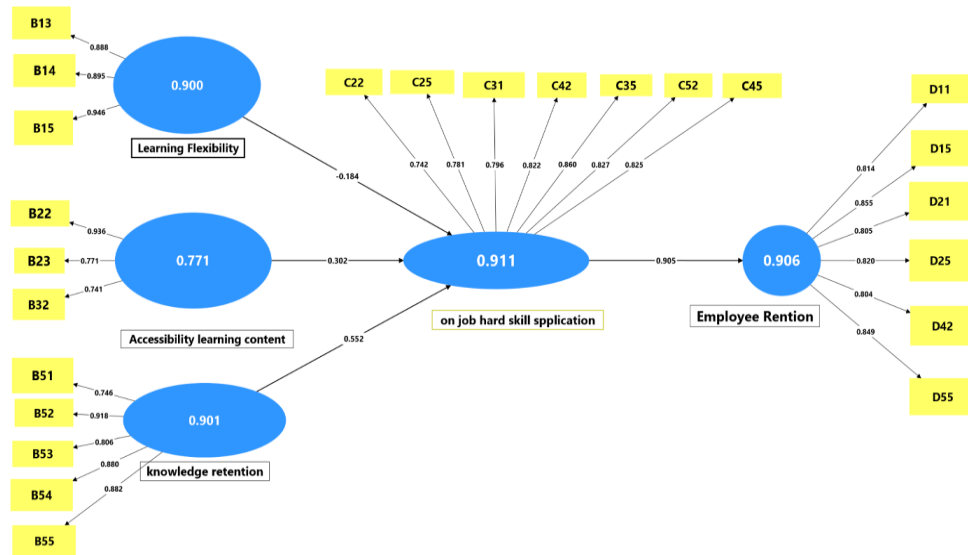


Table 6: Total Effects – Mean, STDEV, T value, P values

Path	Original (O)	Sample Mean (M)	STDEV	T statistics	P values
Accessibility of Learning Content -> Employee Retention	0.274	0.271	0.109	2.507	0.012
Accessibility of Learning Content -> On-the-job Hard Skill Application	0.302	0.299	0.120	2.518	0.012
Knowledge Retention -> Employee Retention	0.499	0.513	0.059	8.501	0.000
Knowledge Retention -> On-the-job Hard Skill Application	0.552	0.566	0.062	8.859	0.000
Learning Flexibility -> Employee Retention	-0.166	-0.166	0.114	1.453	0.146
Learning Flexibility -> On-the-job Hard Skill Application	-0.184	-0.183	0.126	1.459	0.145
On-the-job Hard Skill Application -> Employee Retention	0.905	0.906	0.015	60.309	0.000

The above-mentioned table is clear evidence that access to learning contents and knowledge retention have a strong effect on employee retention (both having $p = 0.012$ and $p = 0.000$, respectively), mostly due to their effects on the practical application of hard skills at work. The total effect of learning flexibility on employee retention is statistically insignificant ($p = 0.146$).

• Mediation Analysis

Table 6: Indirect Effects – Mean, STDEV, T value, P values

Path	Original (O)	Sample Mean (M)	STDEV	T statistics	P values
Accessibility of Learning Content -> Employee Retention	0.274	0.271	0.109	2.507	0.012
Knowledge Retention -> Employee Retention	0.499	0.513	0.059	8.501	0.000
Learning Flexibility -> Employee Retention	-0.166	-0.166	0.114	1.453	0.146

H5: On-the-job hard skills application significantly mediates the effect of learning content accessibility on employee retention ($p = 0.012$) – Supported. H6: On-the-job hard skills application significantly mediates the effect of knowledge retention on employee retention ($p = 0.000$) – Supported. H7: On-the-job hard skills application does not significantly mediate the effect of learning flexibility on employee retention ($p = 0.146$) – Not Supported, which is evident that on-the-job hard skills application is an effective mediator of accessibility and knowledge retention, but not learning flexibility in influencing employee retention.

Discussion

• Discussion of Findings

The results obtained from this research empirically demonstrate that microlearning leads to employees' development by increasing the use of technical skills in their work. On the three-dimensional microlearning that was used in this research, it was shown that accessibility of learning content and knowledge retention have significantly improved on the on-the-job hard skills application, supporting H1 and H2. From these results, it can be concluded that accessible learning materials and effective knowledge retention have a positive influence on the transfer of learned knowledge into practice in the workplace. This result is also in line with the studies conducted by Karlsen et al. (2023) and Luo et al. (2024), where the importance of access to learning materials and knowledge retention was stressed. Monib et al. (2025) also proved the influence of microlearning on practical knowledge application.

Conversely, learning flexibility did not significantly influence on-the-job hard skill application, resulting in the rejection of H3. However, previous studies have highlighted flexibility as an important feature of microlearning (Luo et al., 2024; Azzaakiyyah & Junaidi, 2025). Results from the current study imply that flexibility by itself is insufficient for achieving better workplace skills performance. The reason why this is the case is that workers may care less about the flexibility of training programs and more about their quality and relevance.

The study findings indicated that on-the-job hard skill application had a strong positive influence on employee retention, supporting H4; however, finding indicates that employees who can apply newly acquired technical skills in their work are more likely to remain with their organisations. This outcome concurs with Ali et al. (2024) and Guenther & Lehnert (2025) that employee development and human resource management practices play a vital part in retaining employees.

The mediation analysis showed that on-the-job hard skill application significantly mediated the relationships between accessibility of learning content, knowledge retention, and employee retention, thereby supporting H5 and H6. Hence, the mediating effect between learning flexibility and employee retention was not significant, leading to the dismissal of H7. The results show that the positive impact of microlearning on the retention of employees is mainly realised through the successful implementation of technical skills by the employees. In summary, the research underscores the significance of on-the-job hard skill implementation as the crucial link between microlearning and employee retention of IT employees in Chennai.

• Discussion of Theoretical Implications

The study contributes to the theory of Human Capital by showing that investment in microlearning results in employee development via the application of hard skills at the workplace. In this regard, the paper stresses that the value for the organisation of the learning process comes from the ability of the employees to transfer acquired knowledge and skills into performance at the workplace.

The study reinforces the Knowledge Management Model by highlighting the importance of knowledge application as a key stage in the knowledge management process. Together, the findings provide theoretical evidence that the effectiveness of workplace learning depends not only on acquiring knowledge but also on employees' ability to apply that knowledge effectively in their work. Therefore, this helps to a deeper understanding of the relationship between microlearning, on-the-job hard skill application, and employee retention.

• Discussion of Practical Implications

The findings of the study offer various implications for organisations, especially those in the IT field. Organisations need to emphasise the creation of microlearning content that is relevant, accessible, and applicable to help employees apply their hard skills in their jobs. Learning and development (L&D) teams need to develop microlearning programs that help retain knowledge in employees by way of developing concise and practical learning sessions where employees can apply the skills that they have learned. As the on-the-job hard skill application is a good indicator of retention, HR managers are advised to create chances for employees to apply their technical skills in the working environment. Despite the lack of significance of the role of learning flexibility, organisations need to assess the learning and work requirements of the employees to create appropriate flexible learning programs.

Limitations and Future Research

The various limitations in this research need to be taken into account while analysing the results of the research. First of all, the research was done among 144 IT workers in Chennai City, and as a result, the results cannot be generalised for other industries or other geographical locations. Secondly, using convenience sampling can reduce the representativeness of the sample. Thirdly, a cross-sectional research design measures the perception of employees only during one period of time and does not analyse changes in the outcomes of microlearning over time.

The future research needs to use probability sampling methods and larger samples from various industries and geographical locations. Longitudinal research is needed as well in order to analyse the influence of microlearning on the application of hard skills and employee retention in the workplace over time. Moreover, future research can be carried out with other mediator/moderator variables, including organisational support, learning culture, employee engagement, and digital learning readiness.

Conclusion

The study has investigated the effects of microlearning on the on-the-job application of hard skills and on employee retention in the case of IT workers in Chennai City. Results have shown that the availability of learning content and knowledge retention have made significant contributions toward on-the-job application of hard skills, whereas learning flexibility did not prove to be a significant factor. Hence, it has also been discovered that on-the-job hard skill application made a significant contribution to employee retention and played the role of mediator between accessibility of learning content, knowledge retention and employee retention. Thus, it can be seen that the effectiveness of microlearning is determined not only by the opportunity for employees to learn but also to utilise the acquired skills in practice. In the rapid evolution of information technology, organisations can enhance their efficiency for long-term Sustainability.

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