

# PREVALENCE OF MOBILE LEARNING AMONG THE HOTELIERS, AND ITS BENEFITS TO THE HOTELS IN DELHI NCR

**\*Neeraj Pande<sup>1</sup> and Divya Bose<sup>2</sup>**

<sup>1</sup>Student M.Sc. (HA), <sup>2</sup>Faculty, Institute of Hotel Management, Catering and Nutrition, Pusa, New Delhi

nrjpd419@gmail.com

## ABSTRACT

**Background:** *With the change in time every generation has observed a change in the way learning took place, from the time when books were merely teachings written on dry leaves and learning and training took place in a bounded place, to the present where we have all advanced devices like Laptops, Projectors, Mobile phones etc. The technology, the present generation deals with, is not bound to space and time, learning is not confined to any specific place or location, and this has been possible by the introduction of a device known as Mobile phone. This research paper is focused on how Mobile learning came into existence, its significance as a new concept in hospitality and what are the basic problems with the traditional training systems, then how mobile devices can be used in learning, a glimpse of what augmented reality is and how the concept of mobile learning and augmented reality benefit the hotels.* **Objective:** *To sensitize the hotel employees about the concept of mobile learning, how mobile learning can be used to train employees using augmented reality as a tool.* **Methodology:** *The study was done by circulating the questionnaire to 50 employees working in various departments of the hotels in Delhi and NCR through Google forms.* **Results:** *The employees (respondents) are now well aware and sensitized about the concept of Mobile Learning and Augmented Reality and also about how it can be beneficial for them as well as the industry.* **Conclusion:** *The study indicates that though the employees feel that the current learning methods used in their hotels are effective, but they also feel that Mobile learning can be introduced and implemented in their respective hotels as they find it very easy and convenient to learn things from mobile phones.*

**Key Words:** *Mobile Learning, Augmented reality, Training Methods.*

## INTRODUCTION

According to educationappstorethe concept of mobile learning took a slow start in 1970's,when the photocopier company, Xerox developed "Dynabook", a personal dynamic medium that was portable and was about the size of a book. The advantage of the "Dynabook" was that anyone could use it and it had high definition simulations and material from around the world, which was an amazing concept 40 years ago. Education and Training has evolved to a great height, i.e. from D-Learning (Distance Learning) to E-Learning (Electronic Learning) to M-Learning (Mobile Learning). Since ages it has been observed that, with the introduction of every new technology there has been a change made in the education system. There was an idea related to personalizing education by using teaching machines, though it was limited to automating instructions for independent learning, targeted and self pacedlessons, but the machine had a limited functioning and a very specific use. In past technologies like camera, projector, television, radio, computers, had limited usability because of high cost hence low affordability, low penetration, lack of mobility, huge sizes, technological disadvantages, etc.

The traditional training methods which encourages the use of training manuals, white board and markers, charts, etc. use of these tools restricts in providing the extra information about a topic or subject covered during the training session this is basically referred to as, "one learning level". One learning level does not communicate subject matter on a variety of levels also restrict the two way communication between the learner and the teacher also, the trainer may lose interest in the training, Bower and Hilgard (1981) stated that while the hospitality industry has grown and become more global, both internally and externally, the formats used in the traditional method have been found to be insufficient and lacking in effectiveness. These formats also restrict the amount of interaction between the learner and the trainer, though in this format, learners can get to know each other in a better way, but some introverted learners might not be willing to interact with other learner or the trainer. In mobile learning learner can spend more time to process information internally before interacting with others. Thus the medium is naturally appropriate for introverted learners Leung and Chang (2003). The linear training structure, i.e. lectures to groups, viewing video tapes or on the job training which is often rote memorization of tasks, are limited to one way communication, it neither stimulates nor permits the individual learner's involvement.

Though many of these methods are still used to train and make employee learn about their jobs, there have been no or very less changes made into the training and learning methods used in hospitality industry, it is said to be the most trending industry still new trends in training and learning are yet to be introduced in many places around the globe.

Hospitality as an industry has grown pretty old, with the passing of time there were some training and learning methods made by experts in order to make the employees comfortable at work. The present day technology, i.e. the mobile technology, especially mobile phones are more affordable, and have a huge market and greater penetration as they have reached the most remote and rural part of the world.

They have a very compact size, efficient battery life, multimedia support, interactive user interfaces, is available at cheaper prices, can be connected to the internet, and can be personalized too.

Mobile learning is the ability to obtain or provide educational content on personal pocket devices such as PDAs(Personal Digital Assistant),smart phones and mobile phones. Educational content refers to digital learning assets which includes any form of content or media made available on a personal device. This concept and technology, has developed over recent years, from the use of handheld devices, to support learning in context and on the move, towards a broader investigation of learning in a mobile society.It can also be defined as,"Any sort of learning that happens when the learner is not at a fixed, predetermined location, or learning that happens when the learner takes advantage of the learning opportunities offered by mobile technologies " O'Malley et al (2003).

Crompton (2013) defines mobile learning as "learning across multiple contexts, through social and content interactions, using personal electronic devices." Learning can be directed by others or by self, it can also be an unplanned, spontaneous experience, the setting can be formal or informal and the physical environment may or may not be involved in the learning experience.

It's true that hospitality sector is heavily dependent on skilled labor force, the level of quality required has become broader and more in depth than it was in the past Reid and Sandler (1992). So in order to meet that requirement the human resource department in the hotels should push for new techniques and new methods which can be used for the learning and training developments of the staff , the introduction of mobile learning in hotels as a new tool for teaching and training the staff can be very useful as the world today has over seven billion mobile devices and the number is increasing at a very high rate, mobile provides an effective and efficient way to reach, and to train the employees, at present learning is not bound with space and location. Mobile learning is not restricted to delivering content to mobile; it is also about creating learning opportunities in a variety of environments, sharing new techniques, encouraging knowledge retention through new techniques.

Mobile learning can be beneficial in hotels as it can increase productivity, profits, improve staff retention, it is very flexible, for industry such as the hospitality industry; it allows new lessons to be distributed quickly to the employees that too anywhere, anytime. Learning can be scheduled according to the student. Also it is perfect for Just in Time training. So it is fast and efficient learning method, it also provides structured training modules that can be completed within set time, also there is no requirement for any book or classroom space, and there is no need for a student to sacrifice hours of their time to attend class, as it always creates problems for the rest of the employees. The learner is free to organize his time as he/she wishes, so it saves on both time and space.

There have been many evidences that the hospitality industry is not using the information technology (IT) strategically or the amount of money being invested in IT is too high and the industry is not able to gain the worth of the money invested. Ting (2005) suggested that as the mobile networks and portable

devices are gaining popularity, the companies have the opportunity to implement handheld devices and use them effectively for the operations. Mobile Learning provides the learners with accessible learning resources, strong search capabilities, and rich interaction anytime and anywhere Chen et al (2003). It has been researched that mobile learning is improving the teaching and learning in the schools. For example, “mobile butterfly watching” had a learning system which is based on a wireless network mining technology using PDA’s.

As we all know perfection is merely a myth so as there are issues related to other technology like the convergence of wireless infrastructure with handheld devices, the smoother delivery of learning content, and the innovations in content creation. There are a few challenges in mobile learning listed below by Ting (2005):-

- Designing instructional strategies and learning content to adapt to a learner profile and personal needs.
- Exploring methods in guiding learners to be involved in the active – learning process without the support of external presentation, and
- Sending prompt responses to learners within the expected time frame.

Mobile learning can provide ULE (Ubiquitous Learning Environment). The term “ubiquitous” refers to pervasive, omnipresent, ever present and everywhere present, and the term “environment” implies surroundings, setting, situation, and atmosphere Jones and Jo (2004). When the user can use the computer system as a part of everyday environment where users can interact with the system at any time it is referred to as Ubiquitous computing. The best device for this type of learning is a cell phone, ubiquitous learning provide much scope for designing innovative learning experiences which could be indoor or outdoor. The existing literature is, however, associated with a wide range of ULE, E-learning, mobile devices and also with their usage.

Characteristics of Ubiquitous learning are:

- Permanency- learning processes are recorded and stored.
  - Accessibility- information can be accessed by the learner from any location.
  - Immediacy- any useful information required can be easily accessed immediately.
  - Interactivity- there is a diverse scope of interactions between learner and the experts or teachers.
- Chen et al (2003); Li et al (2005).

If we look into our routine life, we spend most of our time using our phones, it is mainly for personal use, but if we talk about our professional lives we are still dependent on books, laptops etc. It is very much necessary for the management to fully understand the factors which influence a user’s acceptance before they actually implement any new thing into an organization.

There are basically three technology acceptance theories,

1. Technology Acceptance Model (TAM) - it has been accepted as a good or useful model to measure

technology acceptance behavior of any individual, it is basically determined by, perceived ease of use and usefulness.

2. Innovation Diffusion Theory (IDT) – it is a base model which helps in exploring an individual's intention to use or adopt mobile technology.
3. Theory of Planned Behavior (TPB) – it deals with the behavior, in which an individual has incomplete volitional control, a new variable i.e., perceived behavioral control was added which acts as a determinant of attitude and behavior in TPB. It is also referred “an individual's perception of the presence or absence of requisite resources and opportunities necessary to perform the behavior” (Ajzen and Madden, 1986).

The beauty of mobile learning is that it is very effective and flexible; it provides the Human Resource department with a lot of new tools with the help, of which the set goals can be achieved, “Implementation no doubt takes energy and commitment, but if it is done in the desired way it can significantly impact the bottom line”.

There are much new advancement in the technology, which are now taking learning to a new level, as the world today talks about a new type of learning and training which blends reality with digital, i.e. augmented reality which can help in significant improvement in the employee training. Augmented Reality comprises of a live view of a real-world environment (“reality”) with computer-generated input (including sound, graphics, text, video, and GPS information) supplementing (“augmenting”) the visual elements in the view.

It has a very high potential to change the way of mobile learning, it basically works best with situated activities or contextual experiences, where the employee can learn through functions of activity, rather than as a result of learning in a classroom, this makes it perfectly suited for the highly interactive environment of hotel.

Augmented Reality can be used in these areas of hotel:-

- Housekeeping- It is way too difficult for a floor supervisor to maintain consistency and cleanliness of rooms, Augmented reality helps in simulating ‘mess’, testing the employee's ability to identify any object that is out of place, or should not be there, and speed by which they are able to do this, it also takes into consideration time and motion study of the tasks performed, and can suggest the accuracy level and timing according to the standard operating policies.
- Food & Beverage Service- It is very helpful for new and inexperienced employees, it helps to train them by simulating F&B scenarios in the same restaurant. It has different tasks which are included like, serving virtual customers, handling multiple tasks in a (virtual) busy restaurant.
- Food Production- These days the chefs as well as the guest both focus on the eye appeal of the food, through augmented reality chefs can learn as well as practice new plating techniques, and can relate to each detail required.
- Front Office- Taking check-in and check-out seems to be an easy process but it is a bit difficult

part as there is a set of rules to be followed, also handling guest complains as well as guest calls is a task to be done very carefully, so to practice these things real life experience is must, which can easily be gained using augmented reality.

Mobile learning has revolutionized the way of learning and skill development, the data generated enables the hotels to make better, wiser decisions in hiring and promoting employees. With the help of augmented reality, mobile learning has reached to the next higher level as it provides with almost real-life demonstration of how the employee should interact with the guest and use their skills in the art of hospitality.

The significance of the study is that as the trend is changing at a very high pace, the hotel industry in Delhi NCR region is lagging behind in providing proper training and learning environment to the employees. Hotels in Delhi are still following the traditional training methods, which are quite outdated now, seeing the world today, it can be observed that people are more indulged in mobile phones as compared to other material devices, and as the hospitality industry in Delhi need a new system or method which can prepare the staff better for the upcoming challenges in the industry with the changing time. India has the 3rd largest Smartphone market in the world, Pathak (2015), according to a report published by Telecom Regulatory Authority of India TRAI (2015), the total number of mobile phone users in India was 952.34 million out of a total of 979.21 million (mobile + wire-line) users as per January, 2015. The monthly growth rate was 0.89%. Interestingly, 58.11% of the users belonged to an urban population, while a comparable 41.89% belonged to rural areas. According to IAMAI's report, India is also the 2nd largest number of internet users (354 million) by the end of June 2015 (Daze, 2015). 213 million of those accessed internet from their phones (60% of the total internet users) and a sizeable chunk belonged to the rural population of India. The number of mobile internet users is estimated to go up to 314 million users by the end of 2017. It shows that India has a great market of mobile phones so the chances of successful implementation of mobile learning are at a higher end. It is very important that with the change in time, we should know what is in demand, and how would it help in growing and developing of the industry we are indulged with, mobile learning is a whole new concept in the hotel industry, it has many benefits to the industry, it will save the time of the employee and will make training and learning easier. No traces of this concept have been found in any of the hotels in Delhi, so it will be a whole new experience for the staff and the management; there is a need for change as the time waits for none we should be the one to cope up with it by using technology available. The basis of the research is to spread knowledge among the staff regarding the new concept in the hotel industry, which can be of great use as a good tool once implemented

## **OBJECTIVES:**

- To sensitize the hotel employees about the concept of mobile learning.
- To sensitize employees how mobile learning can be used in training using Augmented Reality as a tool.

## METHODOLOGY

The study was conducted among the staff and the management of 10 major hotels of Delhi (NCR), which included (Leela Ambiance, Courtyard by Marriott, Taj Hotel, ITC, Westin Gurugram, WelcomHotel Dwarka), the study was based on a simple survey in which 50 employees were involved. The research tool used was a questionnaire. A questionnaire was designed and was distributed among the staff and management through Google Forms, ([https://docs.google.com/forms/d/e/1FAIpQLSdI5UMu72hBVidNDy3DUM2vRiuPvbZFP3ylO\\_KYrrIJd3zuA/closedform](https://docs.google.com/forms/d/e/1FAIpQLSdI5UMu72hBVidNDy3DUM2vRiuPvbZFP3ylO_KYrrIJd3zuA/closedform)), which included online filling of questionnaire, 10 questions were framed in order to find out, are they even aware of what mobile learning and augmented reality is, is the current training system used in their hotels effective, should the HR push to introduce mobile learning in their hotels and will the employees accept it as a positive change, etc.

## RESULTS AND DISCUSSION

It was found in the results that 94% of the respondent's (i.e., the employees), have a smart phone, so as the majority of the employees use smart phones on a daily basis it will not be a problem for the firm to deliver learning and training on mobiles.

Around 86% of the employees were aware of what mobile learning is, which basically depicts that most of them are aware of the new trends coming up in the industry. As most of the employees are already aware or have brief information it would be easy to implement the concept in the hotels. This shows that the staff is well aware of the current scenario.

Around 82% employees preferred learning anywhere and everywhere i.e. mobile learning, but 18% chose the traditional training & learning method i.e. sitting in a room (board and marker, charts, lectures, etc). It is possible because the generation today does not find it appropriate that learning can be conducted just by sitting in a room, the definition has changed to a very new level which says employees can learn whatever they want to, however they wish to, where ever they want to, whenever they wish to, through mobiles.

It was found that 6% of the employees had gone through the training where board and markers were only used to make them learn and train them. 28% confirmed that there was a use of laptops and projectors in their hotels as training tools. Whereas 66% had experienced that all the tools as, board and marker, laptops and projectors, charts, books and modules, were used during staff training. It shows that still old methods of learning and training are preferred in the hotels of Delhi NCR region which should be revised to increase the staff productivity.

It is often seen that in any of the departments of the hotels in a few employees have to undergo through a training session, even at the time when the guest foot fall is high, then the subordinates

feel more work pressure as the manning went low at that time, 70% of the employees felt more work pressure because their subordinates were indulged in training, but 30% were not affected by this Cross departmental training is good for the development of the employees interpersonal as well as over all skill development, but it was observed that in the places where already there was less staffing a few more employees had to leave their designated work and go for their training to the other departments because of this the staff left in the department has to suffer if the work load increases.

Around 52% respondents find the traditional method more effective for learning and training, whereas 48% felt that it was not that effective. The majority staff feels that the method used at present in their organization is effective as with time the have developed a habit and have got used to the traditional method but it can be changed very easily as there are many people who do not find it that effective. It was found that the 6% of the employees were comfortable learning only from the white board and marker, 8% only form laptops, 2% from flip-charts, and 42% wanted to learn and with the help of mobile phones and 42% were comfortable with all the devices mentioned above. The employees are ready to experience the change as the people now a days are more comfortable in using mobile phones than laptops and other devices as mobile is easy to use and carry than any other device.

Augmented Reality is a whole new concept which can help in learning and training, but still 52% of the employees were aware of what it is, but 48% of the employees didn't had a clue what it actually is. Mobile learning is making bench mark, as employees can see news, as social media itself is a very great source of information, employees can now keep a track of whatever they want to and whatever they need to, employees these days are more logical as well as aware of everything through their mobile devices.

Though there were many employees who didn't have any knowledge about what augmented reality is, but 90% of the respondents agreed on getting trained in a virtual environment, to gain experience of the different situations they may face during their jobs as an employee in hotels, whereas 10% didn't want to give it a try. This basically shows that everyone fears to face a situation which is very new to them, that to in hotels, employees cannot make a guess or cannot judge every situation as there are chances that at times the situation can get worse, so employees want to be aware and ready for the different situations by practicing them in virtual environment i.e. Augmented Reality.

It was observed that 94% employees wanted their Human Resource Department to push for the introduction of mobile learning in their respective hotels, which shows that the employees are ready to accept the change in the training methods and are positively looking for mobile learning to be implemented as a new learning and training method, but 6% were against this proposal. As the majority of employees felt that changes should be made into the training methods that change is introduction of mobile learning.

**Table 1: Views about Mobile Learning in Hotel**

| Statement                                               | Yes<br>N (%) | No<br>N (%) |
|---------------------------------------------------------|--------------|-------------|
| Do you have a smart phone                               | 47 (94)      | 3 (6)       |
| Are you aware of the term mobile learning               | 43 (86)      | 7 (14)      |
| Work pressure because subordinates are in training      | 35 (70)      | 15 (30)     |
| Are the current learning and training methods effective | 26 (52)      | 24 (48)     |
| Are you aware of the term Augmented Reality             | 26 (52)      | 24 (48)     |
| Would you prefer training in a virtual environment      | 45 (90)      | 5 (10)      |
| H.R should push to introduce Mobile Learning in Hotels  | 47 (94)      | 3 (6)       |

**Table 2: Methods of Learning in Hotels**

| Statement                                                             | Options                            | Frequency<br>N (%) |
|-----------------------------------------------------------------------|------------------------------------|--------------------|
| Preference of method of learning                                      | 1.Sitting in a room                | 41 (82)            |
|                                                                       | 2.Learning anywhere and everywhere | 9 (18)             |
| Method of training used in Hotels                                     | 1. Board and Marker                | 3 (6)              |
|                                                                       | 2. Laptop and Projector            | 14 (28)            |
|                                                                       | 3. Charts                          | 0 (0)              |
|                                                                       | 4. Books and Modules               | 0 (0)              |
|                                                                       | 5. All of the above                | 33 (66)            |
| Preference of device and tools by the staff for learning and training | 1. Whiteboard and Marker           | 3 (6)              |
|                                                                       | 2. Laptop                          | 4 (8)              |
|                                                                       | 3. Mobile Learning                 | 21 (42)            |
|                                                                       | 4. Flipchart                       | 1 (2)              |
|                                                                       | 5. All of the above                | 21 (42)            |

## CONCLUSION

The staff feels that the training methods prevailing in the hotels of Delhi NCR are effective for learning and training, but they strongly feel a need for the introduction of some new methods and techniques of training as they have to suffer more work pressure, they are not that comfortable with the old methods as the involvement of time is more and also because they are more comfortable with their mobile phones, so mobile learning can be implemented as a new training and learning method in hotels.

## REFERENCES

1. Ajzen, I. & Madden, T.J. (1986). "Prediction of goal-directed behavior from attitudinal and normative variables", *Journal of Experimental Social Psychology*. 22, 453-74.
2. Bower, G.H. & Hilgard, E.R. (1981). *Theories of Learning*, Prentice-Hall, Englewood Cliffs, NJ.
3. Chen, Y.S., Kao, T.C. & Sheu, J.P. (2005). "Realizing outdoor independent learning with a butterfly-watching mobile learning system", *Journal of Educational Computing Research*. 33, (4), 395-417.
4. Crompton, H. (2013). A historical overview of mobile learning: Toward learner-centered education. In *Handbook of mobile learning*. 3-14.
5. Daze info, 'Internet Users In India: 354M, 60% Access from Mobile Report– Daze info'. (2015) (2015, October 22).
6. History and future of mobile learning:<http://www.educationalappstore.com/blog/history-future-mobile-learning-part-1/>. Retrieved November 10, 2017.
7. H.R Departments should push for mobile learning in their hotels. Retrieved November 13, 2017. <http://ehotelier.com/insights/2017/03/08/hr-departments-push-mobile-learning-hotels/>.
8. Jones, V. & Jo, J.H. (2004), "Ubiquitous learning environment: an adaptive teaching system using ubiquitous technology", in Atkinson, R., McBeath, C., Jonas-Dwyer, D. and Phillips, R. (Eds), *Proceedings of the 21st ASCILITE (Australasian Society for Computers in Learning in Tertiary Education) Conference*, Perth, Australia.
9. Li, L., Zheng, Y., Ogata, H. & Yano, Y. (2005), "A conceptual framework of computer supported ubiquitous learning environment", *Journal of Advanced Technology for Learning*, 2 (4), 187-9.
10. Leung, H.C. & Chan, Y.Y. (2003), "Mobile learning: a new paradigm in electronic learning", *The Third Annual Meeting of the IEEE International Conference on Advanced Learning Technologies*, Athens, Greece, July.
11. O'Malley, C., Vavoula, G., Glew, J.P., Taylor, J., Sharples, M. & Lefrere, P. (2003). 'Guidelines for Learning/Teaching/Tutoring in a Mobile Environment. MOBIlearn project report, D4.1.
12. Pathak, T. (2015) 'Market Monitor: Q1 2015: Handset & Smart phones India'. Counterpoint Technology Market Research. N., 2015. (2015 October 22).
13. Reid, R.D. & Sandler, M. (1992), "The use of technology to improve service quality", *The Cornell Quarterly*, 33 (3), 68-73.
14. Telecom Regulatory Authority of India (TRAI), *Highlights of Telecom Subscription Data as on 31st January, 2015*. New Delhi: TRAI, (2015). (2015, October 22).
15. Ting, Y.R. (2005), "Mobile learning: current trend and future challenges", *Proceedings of the Fifth IEEE International Conference on Advanced Learning Technologies (ICALT)*, Houston, TX, USA, November 27-30.