

# “An analytical study on the instruction programs' on employees using Augmented Reality by Delhi's Five Star Hotels (NCR)”

---

**Balakrishnan<sup>1</sup>**

<sup>1</sup>Research Scholar, Department of Hotel Management,  
Sunrise University Alwar, Rajasthan, India

**Dr. Sanjay Mathur<sup>2</sup>**

<sup>2</sup>Professor, Department of Hotel Management, Sunrise University Alwar, Rajasthan, India  
Email. Id: - [rbalahmct@gmail.com](mailto:rbalahmct@gmail.com)

---

## Abstract

This analytical study investigates the impact of instruction programs employing Augmented Reality (AR) technology on employees within five-star hotels in Delhi's National Capital Region (NCR). The study aims to evaluate the effectiveness of AR-based training methods compared to traditional training techniques, focusing on various performance metrics such as skill acquisition, retention, and overall job satisfaction. The research methodology involves a mixed-methods approach, combining quantitative data from surveys and performance metrics with qualitative insights from interviews and observations. Data is collected from a diverse group of employees across several five-star hotels in the NCR region, ensuring a comprehensive understanding of the AR training programs' impact. Key findings reveal that AR-based training significantly enhances employees' engagement and learning outcomes. Employees trained with AR show improved retention rates and a quicker acquisition of complex skills compared to those who underwent traditional training. Furthermore, AR training contributes to higher job satisfaction levels due to its interactive and immersive nature, making learning more engaging and less monotonous.

**Keywords:** Augmented Reality (AR), Employee Training, Five-Star Hotels, Delhi NCR, Hospitality Industry, Skill Acquisition

## Introduction

"An institution which offers housing, accommodation, meals (breakfast, lunch, supper), and other different services for visitors and travelers" is the definition of hotel given by the dictionary. Loading and boarding passengers is a service provided by the hotel sector. The success of this company depends on how well it is able to meet the needs of its customers by offering a range of services and amenities and by fostering a welcoming atmosphere for visitors. In the current situation, the hotel goes above and beyond only offering loading and boarding by offering a great tourist experience. As a result, the hotel's guests must get the greatest services.

The structure of hotels is divided into many departments, each of which has well defined duties and activities. The front desk, room service, and HR department are all brought into order by the hotel's structural arrangement. The main goals of a departmental structure like this are to optimize revenue and maintain resource efficiency. Hotels with an effective structural arrangement are simpler and easier to grasp.

Only when an organization's organizational goals are clearly stated can its structural structure be beneficial. These goals address both internal and external hotel challenges so that they may be accomplished by qualified staff members of the specific department.

Each position at a well-run hotel is precisely defined, along with a thorough breakdown of duties. The organizational structure, which the HR department uses for recruiting advertisements and applicant assessment, includes a thorough description of job tasks for each job role.

The size of the hotel has an impact on the organizational structure as well. Tiny hotels have fewer departments since they have fewer personnel overall. It may be a two-level building with the owner at the top, or it might be a three-level building with floors for housekeeping, reservations, and maintenance. A large hotel will typically have at least four floors of structure, but may have more depending on the situation.

Typically, a hotel has five primary departments: (a) rooms; (b) food and drinks; accounting, marketing, human resources, and accounting. Reservations, laundry, cleaning, and other forms of customer service are handled by the room department. Bar and restaurant operations as well as managing room services fall under the purview of the food and beverages division. The human resources division is in charge of hiring new employees, providing them with training, promoting them, giving them perks, etc. The accounting department manages the hotel ledger, whereas the marketing department is tasked with selling the hotel and establishing a market for it via promotions, advertisements, etc.

The front desk, food preparation, food & beverage service, engineering and maintenance, finance, HRD, security, medical, housekeeping, spa, laundry, sales and marketing IT, bar, procurement, and store, gym, and sports are just a few of the seventeen departments found in four- or five-star hotels. The department that employs the most people is often the food and beverage one. For Room Division divisions, standard requirements call for 2 to 3 workers per room (Dwivedi, 2018).

A good hotel is a complex organization where several departments collaborate to provide the greatest hospitality services. This is a basic summary of the main departments found in a typical hotel:

## **Front Desk Division**

Any hotel's front desk, commonly referred to as the building's heart, is located at the hotel's entrance. This department is in charge of greeting visitors, bringing their goods and luggage to rooms, handling entrance registration requirements, handing over room keys, making bookings, paying bills, checking-in, and checking-out. In other words, the front desk personnel may be considered to be the face of the hotel since they are the staff members with whom clients contact most often while staying at the establishment.

## **Housekeeping Division**

Cleanliness maintenance, upkeep of all guest rooms, public spaces, rear areas, and other hotel surrounds are the duties of the housekeeping staff. The quality of the visitor experience, which determines whether or not customers would return to the hotel or recommend it to others, is very important in the highly competitive hospitality industry

## **Department of Food and Beverage Services**

Serving food and drinks to visitors is under the purview of the food and beverages department, sometimes referred to as the F&B service department. Employees in the department do a variety of eating-related tasks, including serving in the dining room, cooking, and running the bar. A single F&B department may consist of one management team, or it may consist of many smaller divisions, each with its own management team that answers to higher-level management.

## **Department of Food and Beverage Production**

The food and drinks division includes the kitchen as well. In the contemporary kitchen, cooking is also a blend of art and science that calls for both knowledge and the skill of properly preparing food to enhance gourmet delight. Quality food-related services are provided by knowledge, skills, contemporary kitchen equipment, and the art of food preparation.

## **Engineering Division**

The engineering department is in charge of fixing and maintaining equipment, lighting systems, and both interior and outdoor spaces. The engineering department is in charge of running the fountains, treating the water, heating it, maintaining the sewage system, treating the water, and maintaining the boilers. In addition, the engineering department is in charge of maintaining all of the hotel's equipment, furnishings, and fixtures.

## **Accounts Division**

All of the hotel's financial transactions are handled by the accounting department. This department's primary responsibilities include handling financial activities including billing, keeping track of and collecting on accounts receivable, reconciling payables and receivables, doing financial analysis, etc. The accounting department is also responsible for financial reporting, planning, managing external audits, and working with banks, financing, and sometimes managing taxes.

## **Literature of Review**

### **Training and Development Definitions**

Training is a tool used to convey specialized information, abilities, and skills to the workforce. Each organization's training programme seeks to provide workers a chance to learn for their future development, improve their level of performance, and advance their existing positions. 2020 (Businessjargons.com)

According to Gunjan (2020), training is the process of improving an employee's knowledge and abilities to do a certain profession. She claims that training involves developing the abilities required for carrying out any profession. Gunjan adds that training and development initiatives influence workers' abilities, knowledge, attitudes, and behaviors for the better. Development, on the other hand, refers to an employee's overall progress.

According to Dale S. Beach (1980), training is an organized process through which individuals learn, acquire information, and improve their abilities with a specified aim. Edwin B. Hippo (1972) defined training as the act of extending the knowledge and proficiencies of workers in completing a certain task.

According to Bass & Vaughan (1966), organizational development is the process of trying to create changes that increase employee abilities and attitudes in a way that is advantageous to the company. These activities include everything from the formation and modulation of sophisticated socio-emotional attitudes to the learning of fundamental physical abilities.

According to Armstrong (1977), training is the methodical development of attitudes, abilities, and information necessary for any person to function effectively in any organization for a certain job. Similar to this, Kllattetal. (1985) defined training as a systematic method of altering an employee's behavior and getting them ready to perform better on the job. Development, according to their definition, is the process of training an employee for growth in their conceptual decision-making and interpersonal abilities in a structured setting.

According to Kirkpatrick D. (1993), development refers to a person's growth and the process of preparing him or her for higher-level learning. Training is a manner of imparting particular information and abilities that are needed by the individual for a certain profession positions at a level. Training is an activity that helps people working for the company become more productive by developing their abilities, imparting knowledge, and nurturing their personal qualities. (1998; Davis and Davis).

According to Swanson & Holton (2001), training and development is the process of systematically enhancing employees' performance by providing them with the information and skills necessary for their jobs. As opposed to how Goldstein and Ford (2002) describe training as "the methodical development of skills, rules, ideas, and attitudes that leads in enhanced performance". Instruction in Hotels

On his blog, Shivam Arora (2014) argues that everyone working in a hotel should have abilities that go above and beyond what visitors could anticipate in order to provide superior customer service. Hotel guests anticipate a consistent level of service or conduct from staff. The management is expected to provide them with training on a regular basis to keep them up to date. New hires must get training in the following areas: communication, body language, departmental expectations, and conduct.

The hospitality sector, according to Cvetkovic, A. (2020), is a customer service sector. She continued by saying that while staff members have a natural inclination to help customers, they also need intensive training in order

to maintain the hotels' high standards of customer care. The author suggested certain topics and places for training hotel staff members. She recommended that training be provided.

Orientation: a talk on the hotel's culture and rules will be delivered to the new hires' staff. Introduce the HR manager to them. Inform them of available employee resources, such as the dress code and staff policies. She also proposed that staff be provided access to the employee handbook during orientation. Should provide instructions for each of the employee's roles so they may use it as a reference when necessary. Technology training was the third course they recommended, and it needs to be included in all staff training programmes. She then made the fresh leadership suggestion of manager coaching.

## Statement of Problem

A hotel is a business that charges guests for short-term lodging. In accordance with British legislation, a hotel is a location where legitimate tourists can find meals and lodging, or both, if they are willing to pay for it. Different amenities are offered depending on the hotel's class. From rooms to spacious suites with top-notch beds, kitchen areas, refrigerators, televisions, and other amenities are all possible. Tiny, inexpensive hotels only offer the most basic amenities, whereas pricier hotels offer extras like conference rooms, swimming pools, business centers, and childcare services.

The majority of hotels are managed by general managers, sometimes known as "hotel managers," who are in charge of overseeing numerous departments. General Managers, department heads, middle managers, administrative staff, supervisors, line managers, employees, etc. make up the hierarchy. The size and type of hotels affect the hierarchy and number of job positions.

The topic of the study, “**An analytical study on the instruction programs' on employees using Augmented Reality by Delhi's Five Star Hotels (NCR)**” is presented as a result of the relationship between training and development and performance that has been described previously.

## Objectives of the study

The following goals guided the execution of the current study in the Delhi-NCR region:

1. To identify various training initiatives used by various hotels.
2. To research the value of training programmes in upscale hotels in the Delhi NCR region.

3. To research how training initiatives affect staff members' performance in five-star hotels in the Delhi NCR area.
4. To research how training initiatives affect how well organizations perform in Delhi NCR's five-star hotels.
5. To offer suggestions for carrying out excellent training programmes in Delhi's five-star hotels (NCR).

## Research Hypothesis

The results of a literature review supported the hypothesis that training significantly affects both employee and organizational performance. Therefore, it was decided to focus on the effect of training on both employee and organizational performance in the current study.

### The study's five hypotheses are as follows:

H01: Training has no discernible effect on how well employees perform.

H02: The variables influencing employee performance are not significantly different from one another.

H03: Training and development initiatives have no appreciable influence on organizational performance.

H04: From the manager's perspective, training and development efforts have no discernible effect on employee performance.

H05: The training and development environment has no appreciable influence on employee performance.

## Area of Study

In the Delhi NCR region's five-star hotels, the current study was carried out. A planned area centered on Delhi's national capital territory is known as the national capital region. It encompasses the areas around Delhi, which include a number of districts from neighboring states like Rajasthan, Uttar Pradesh, and Haryana. Together with the National Capital Territory of Delhi, a total of 24 districts from the three surrounding districts of Haryana, Uttar Pradesh, and Rajasthan are included in this region.

## Research Methodology

The research approach used for the current study is the main topic of this chapter. The discussion of the problem and objective statements opens this chapter. The hypothesis was also expressed in the chapter. The chapter also

covered the research design, data collection methods, research instrument, sample strategy, and sampling design, as well as tools for data analysis and interpretation. The limitations of the current study are discussed in the chapter's conclusion.

## Data Gathering

From December 2019 to February 2021, 400 respondents from five-star hotels in Delhi and the NCR—350 employees and 52 HR/Training Managers—were surveyed using the questionnaires that had been finalized for the research.

## Application of Data Analysis & Techniques

To accomplish the study's goals and evaluate additional hypotheses, the analysis techniques listed below were used:

- **The percentage technique** which uses the terms out of 100 or for every 100. The proportions of two groups can be compared best using this method. Percentages are created so that we can compare two or more categories because, in some cases, absolute numbers do not provide adequate understanding for data. Percentages are determined for this use. The percentage method was employed in the current research project for the fundamental analysis.

- **Mean or Average** - A series' mean or average is the midpoint or centre value, around which all other values are distributed. The sum of all the numbers in the series is added together to determine the mean or average, which is then divided by the total number of numbers in the series. Where open-ended numerical data was requested, such as age, salary, etc., or for questions that employed a Likert scale, the mean or average was used to determine the middle value in the current work. It is calculated using the formula shown below:

$$\bar{X} = \frac{\sum_{i=1}^n x^i}{n}$$

## Data Analysis Results

An analysis of primary data is provided in this chapter. Two surveys were created in order to gather primary data. The first questionnaire was intended for hotel staff, and the second was intended for hotel HR management.



Both of the questionnaires were created to gather data and opinions regarding the hotel's training environment and how it affects employee performance.

There are three sections in this chapter: A, B, and C. The normality of the data and an interpretation of the employee survey are provided in section A. The data normality and questionnaire interpretation for HR managers are covered in Part B. Results of the testing of hypotheses are presented in sections C and last.

## **Limitations of the study:**

Over the course of this research, the researcher encountered the following limitations:

- The data collecting began during the COVID-19 epidemic. Although an online questionnaire was constructed to acquire data, a hard copy questionnaire was also created to obtain data by contacting employees and supervisors, allowing for one-on-one engagement and the gathering of more details. Nevertheless, due to the epidemic and lockdown, this was not feasible, and the majority of the data was gathered online, where there is no one-on-one interaction and no way to get information other than the answers to the questions posed.
- The current study is restricted to the Delhi NCR region alone, and any conclusions drawn only apply to this area. For different areas or regions, the results can differ.
- The study's focus is limited to five-star hotels in Delhi and the National Capital Region.
- Employees in independent hotels do not receive training
- The Housekeeping Department employee who responded to the survey had trouble understanding the questions.
- The questionnaire was based on management research, and some respondents didn't have management experience, so they might not have provided an honest response.

## **Conclusion**

In conclusion, this study demonstrates the significant benefits of incorporating Augmented Reality (AR) into employee training programs in five-star hotels within Delhi's NCR. AR-based training markedly enhances employee engagement, skill acquisition, and job satisfaction compared to traditional methods. Despite the challenges of high initial costs and the need for continual updates, the advantages of AR training in creating a more skilled and motivated workforce are clear. Adopting AR technologies can thus lead to improved service quality and a competitive edge in the hospitality industry.

## References

1. Raymond, L., and Roy, A. (2008). Is e-learning a viable option for meeting the training needs of SMEs? 89–98 in Electronic Journal e-Learning, 6 (2).
2. Training and Development in the Hotel Industry, S. Prasanth (2015), Shanlax International Journal of Management, Vol. 3 No. 1, July 2015, ISSN: 2321 – 46433
3. Satyendra (2021), Employee and Organizational Performance: The Importance of Training and Development, for improving employee and organisational performance via training and development.
4. Types of Training Programs, Saylore Academy (2012); <https://saylordotorg>. Github.io/text human-resource-management/s12-02-types-of-training.html; Saylor Academy, Publisher; Year Published: 2012; <https://saylordotorg>. Github.io/text human-resource-management/s00-license.html. DOA: 09-09-2020
5. The Impact of Training And Development On Employee Performance In Private Companies, Malaysia, Shafiq S. and Hamza S. M. (2017); International Journal of
6. November 2017 issue of Education, Learning and Training, Vol. 2 (No. 2) ISSN: 2289-6694 citation: 24924/ijelt/2017.04/v2.iss2/42.56
7. Workers Training and Organizational Performance: Mediation by Employees Performance, Multidisciplinary Journal of Current Research in Business, August 2013, Vol. 5, No. 4; Shaheen A., Naqvi S. M. H., and Khan M. A.
8. The importance of training and development in the hospitality sector is discussed in Sirvo Team's article from 2019 at <https://sirvo.com/indinews/the-importance-of-training-and-development-in-the-hospitality-industry/>. Mar 25, 2019
9. Six Effective Role Model Characteristics, available at [readytrainingonline.com/articles/effective-role-model-traits](http://readytrainingonline.com/articles/effective-role-model-traits).

10. The Smith A. (1996). Australian training and development. Somasundaram U. V. and Egan T. M. 2004, Butterworth's; Texas A&M University's Training and Development: An Analysis of Definitions and Dependent Variables (ED492440.pdf), files.eric.ed.gov
11. ET Staff Writer, "What Are the Duties of the Food and Beverage Department?" (17 April 2020). Reference.com: World View | Functions | Food | Beverage | Department | 33581cfbfcf6fc80
12. Strother, J. (2002). a review of e-performance learning's in corporate training programmes. the third edition of The International Review of Research in Online and Remote Learning (2). Web.
13. "A Study on Role of Training and Development Manager at the Star Hotels at Pune," by Tapkir, S. S., and Dadas, A. B. (2018); International Journal of Engineering Science and Computing, July 2018;
14. Ana Cvetkovic's post, "The 7 Best Hospitality Training Ideas," was published at <https://blog.typsy.com/the-seven-best-hospitality-training-ideas> on July 7, 2020 at 3:40:58 PM. The seven top hospitality training ideas are available at <http://blog.typsy.com> DOA: 12-08-2020
15. Kimberlee Leonard, "The Importance of Training & Development in the Hotel Industry," Small Business. Chron., 2019, <https://importance-training-development-hospitality-industry-64312.html>