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Impact of AI-Based Training on Employee Performance and Retention in the Restaurant Industry: A Conceptual Paper and Case Study on Toscano

by
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Abstract

This study investigates the effect of AI-enabled training programs on the job performance and retention of employees in the hospitality industry, specifically in the case study of Toscano, an emerging Indian restaurant chain. While AI technology has been applied widely in frontline customer service positions, their application in human resource functions, such as training and development, has been less explored in the hospitality industry. This study bridges the gap by investigating the effect of AI-enabled training tools in improving employees' skill levels, job satisfaction, and retention levels. It provides a systematic review of the existing literature on artificial intelligence in HR, with an in-depth case study of Toscano's utilization of the Safety Culture AI employee training platform. Quantitative data were gathered through employee surveys, whereas qualitative insights were gained by interviewing managers and employees across different Toscano locations. The study confirms that AI-powered training results in quantifiable improvements in job performance, employee confidence, and intention to stay. Above all, findings indicate that AI applications assist with streamlining onboarding, individualizing learning experience, and creating a culture of continuous growth. It contributes both theoretical and practical insights by providing actionable recommendations to restaurant managers and HR professionals to leverage AI for workforce training. It also provides scalability-related considerations as well as change management while implementing AI-driven training systems in hotel settings.

Keywords: Artificial Intelligence, Employee Training, Retention, Restaurant Industry, Toscano, Human Resource Management

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Introduction

The global hospitality industry, characterized by its vibrant service culture, is confronted with recurring challenges of high employee turnover, uneven service quality, and a shortage of scalable training initiatives (Tracey, et al., 2015; Huang, et al., 2019). These challenges are particularly prevalent in emerging markets such as India, where the industry's fast growth outruns the development of the workforce. Toscano, a high-end Italian restaurant chain with ambitious plans to double from 15 to 30 stores in India in two years, is a case in point (Goudhaman, 2025). The company's management to appreciates that maintaining excellence in service quality hinges on addressing challenges in skill development and employee retention that are intrinsically related to workforce training approaches.

Artificial intelligence (AI) has been a disruptor across industries globally, including applications in Human Resource Management (HRM) and the hospitality industry (Al-Dabooni & Wunsch, 2019; Berezina et al., 2019). AI-powered training programs ensure personalized learning paths and real-time monitoring of performance, thus ensuring the provision of the means to not only train employees in an efficient way but also improve job satisfaction and retention through adaptive, data-driven means (Deloitte Insights, 2020; Maity, 2019). Although the implementation of AI in HR processes such as recruitment and performance appraisal is picking up pace in the world, the implementation of AI in training employees in the hospitality industry has remained largely a lacuna, and therefore a valuable gap (Berezina et al., 2019; Rousseau & ten Have, 2022).

Toscano's challenge is indicative of this disequilibrium. As the brand expands, it faces the dual challenge of expanding its staff while sustaining its trademark service quality. Traditional training processes described as manual, generic, and time-consuming are not sufficient to meet its emerging needs (Mehta & Awasthi, 2019). Therefore, Toscano's attempt to deploy AI-based training is a strategic and timely move to leverage frontier technologies to maximize employee performance and retention.

This study aims to fill the gap in empirical studies on AI-based training programs in the restaurant sector, particularly in the context of the new markets in India. Previous studies have focused on artificial intelligence in education and general human resource activities, thus leaving its direct impacts on hospitality training and employee retention under-explored (Pappas et al., 2019; Zhao et al., 2023). Additionally, the cultural and operational nuances of applying AI in high-contact service settings like restaurants are rarely put into the existing literature (Chen, 2023; Duan et al., 2019).

Research Objectives

1. Evaluate the effectiveness of AI-driven training on employee performance, decision-making, and knowledge retention;
2. Assess the impact of AI-based training on employee job satisfaction and retention;
3. Identify challenges and barriers in AI adoption within restaurant training programs; and

4. Develop a scalable AI training framework tailored to the hospitality sector.

Research Questions:

- How does AI-based training influence employee performance and retention in the restaurant industry?
- What are the barriers and enablers of AI-based training adoption in the hospitality sector?

In the integration of theoretical concepts and real-world practice, this study seeks to provide actionable recommendations to both academia and industry players, that the potential of AI to redefine workforce development is effectively utilized**.**

Literature Review

Application of artificial intelligence (AI) in transforming human resource management (HRM) has been widely studied over the last few years. Its application in the restaurant and hospitality sectors, especially in employee training and development, is less studied. This literature review synthesizes current studies in three broad categories: (1) AI in HRM, (2) application of AI in the restaurant and hospitality sectors, and (3) international case studies of leading restaurant chains. The aim is to determine key findings, best practices, and gaps in research that inform the need for further studies on AI-driven employee training in emerging market environments such as India.

AI in Human Resource Management

AI has come as a revolutionary force in the field of human resource management, revolutionizing conventional practices with the power of sophisticated algorithms, data analysis, and machine learning (ML). AI applications in HRM include recruitment, talent sourcing, onboarding, performance management, learning and development (L&D), and employee engagement. For instance, AI-based recruitment technologies streamline the recruitment process through resume screening automation and candidate matching. Technologies like HireVue and Pymetrics enhance decision-making abilities by examining behavioral information and providing predictive analytics (Deloitte Insights, 2020). In addition, Natural Language Processing (NLP) chatbots like Mya and Olivia increase the candidate experience through real-time support across the application processes (Berezina, Ciftci, & Cobanoglu, 2019).

Artificial Intelligence also enables tailored L&D through the personalization of training material according to unique learning behavior and performance data. Tools like Talmundo and EdApp dynamically personalize learning pathways, thus ensuring alignment with employee needs and organizational goals (Chen, 2023). Despite its many benefits, researchers have challenged algorithmic bias and explainable AI systems (Haesli & Boxall, 2005).

Although literature shows widespread utilization of AI in central HRM functions, little evidence exists regarding the contribution of AI towards ongoing employee upskilling and training, especially in high-turnover industries such as restaurants.

AI in the Restaurant and Hospitality Sectors

Both the restaurant and hospitality sectors are labor-intensive, high-turnover, and subject to cyclical patterns of demand. AI deployments in these companies are inventory management, customer personalization, and, more recently, employee training. According to Berezina et al. (2019), AI-powered solutions can maximize the efficacy of employee training through adaptive learning and feedback mechanisms in real-time so employees can learn rapidly. Artificial intelligence is also utilized to develop personalized training modules based on role requirements, thereby ensuring employees always meet service standards. For instance, Maity (2019) pointed out that restaurants employing AI to monitor employee performance data can dynamically adjust training requirements, which results in more focused and efficient learning.

Adoption is, nonetheless, slowed down by employment replacement anxiety, change resistance, and data privacy issues (Rousseau & ten Have, 2022; Kameswari et al., 2023). Small and medium-sized businesses lack the physical infrastructure and capital to implement advanced AI systems (Tillman & Scheurich, 2013). While the optimistic potential is there, empirical research specifically on AI-based training programs for front-line restaurant staff is limited. The majority of existing studies either examine the operational efficiencies of AI or general workforce management, thereby creating a gap in terms of tailored, AI-based training interventions specifically targeting hospitality environments.

Global Case Examples: Jollibee, Costa Coffee and McDonald's

Global players began employing AI to improve employee performance and retention:

- Jollibee Foods Corporation used AI-based scheduling and performance monitoring software to oversee its huge employee base with multiple geographies. These assisted in lowering employee turnover by offering customized career growth opportunities (Capella Solutions, 2023).
- Costa Coffee rolled out an artificial intelligence-powered training suite that combined gamification and microlearning to level up baristas' skill set. The campaign produced a 20% increase in level of staff engagement over a six-month period (Canary Technologies, 2023).
- McDonald's global "Hamburger University" integrates digital AI components for role-based training to provide consistent quality of service across restaurants. The AI component allows real-time performance monitoring and feedback, which McDonald's attributes have decreased onboarding by 40% (Johnson & Brown, 2020).

These examples are examples of successful implementation of AI for development and training but are primarily developed-market-based. How scalable and

adaptable these models are to emerging economies remains to be researched. There is very little scholarly attention being devoted to the potential of how AI-based training programs may be tailored for cultural and regulatory diversity in emerging markets, specifically the Indian restaurant industry.

Table 1

AI in HRM and Hospitality Training: Key Points and Gaps

HR Area	Key Points	Gaps Identified
Recruitment & Onboarding	AI automates screening, interviewing, and onboarding (HireVue, Mya).	Limited focus on frontline hospitality staff beyond recruitment.
Training & Development	Personalized learning paths, adaptive feedback (EdApp, Talmundo).	Sparse research on AI's long-term impact on skill retention in F&B.
Employee Engagement	Gamification, real-time monitoring (Costa Coffee, McDonald's).	Lack of context-specific research for emerging economies.
Change Management	Resistance to AI adoption, data privacy concerns (Rousseau & ten Have).	Few case studies on overcoming resistance in mid-sized restaurants.
Global Case Studies	Jollibee, Costa Coffee, McDonald's lead AI training adoption.	Need for local adaptations and cultural fit in Indian/Asian contexts.

Note: Synthesized by the author

Literature review indicates increasing interest in the promise of AI to transform HRM and hospitality training. Although global brands have led the development of innovative AI-based training programs, there remain knowledge gaps regarding their long-term effects, especially in emerging economies. Significantly, previous studies have not thoroughly explored the cultural, infrastructural, and operational subtleties of implementing AI-based training in mid-scale restaurant chains in India. These gaps make the current study's focus on Toscano and its AI training implementation worthwhile, opening the door to new theoretical and practical contributions.

AI Tools and Platforms

AI platforms and solutions have revolutionized industries across the world by improving operations, enhancing decision-making, and delivering customized user experiences. In human resource management and hospitality, perhaps most significantly in restaurants, AI has helped intelligent automation gain traction, from recruitment and onboarding to training and customer service. Machine learning, natural language processing, and predictive analytics are at the heart of such AI solutions, not only making operations more efficient but also opening up new opportunities for employee development and retention (Berezina, et al., 2019; Deloitte Insights, 2020).

This part provides an overview of some of the top AI platforms and tools that are transforming the HR and hospitality sectors globally. The tools are designed to meet different business needs, from enhancing training delivery to automating the hiring process, so that both the organizations and the employees achieve long-term growth.

Recruitment and Talent Matching

HireVue and Pymetrics are known to be leaders in AI-driven hiring. HireVue uses machine learning technology to examine video interviews and give predictive feedback on the candidate's fit, while Pymetrics uses neuroscience-based tests to match candidates to jobs based on their cognitive and emotional traits (Deloitte Insights, 2020). Mya Systems supports this by using conversational AI chatbots, which automatically pre-screen processes and engage with candidates (Berezina et al., 2019).

Training and Development

In hospitality, Axonify and EdApp revolutionized training by offering microlearning modules that can be accessed via mobile phones, and the use of gamification mechanisms that increase retention (Canary Technologies, 2023). Safety Culture, widely applied in restaurant chains like Toscano, provides AI-powered checklists and real-time feedback for compliance assurance and upskilling facilitation (Chen, 2023). CourseAI provides adaptive learning pathways through employee skill gap assessment and development of customized training content (CourseAI, 2024).

Onboarding and Employee Engagement

AI solutions like Enboarder and Talmundo offer personalized onboarding experiences through automating steps that actually engage and train new hires (Mehta & Awasthi, 2019). Employee sentiment is tracked by Culture Amp using AI-driven surveys, allowing organizations to anticipate and resolve engagement issues (Berezina et al., 2019).

Workforce analytics and performance management

Workday and SAP Success Factors offer workforce analytics driven by artificial intelligence, providing real-time visibility into employee performance, development needs, and succession planning (Tymon Jr., Stumpf, & Smith, 2011). Better works emphasizes continuous performance management, fostering accountability through transparent goal-setting (Mehta & Awasthi, 2019).

Customer-Facing and Operational AI

In the hospitality industry, Canary AI offers industry-specific compliance and training automation, while DeepBrain AI constructs virtual trainers and avatars for interactive simulation-based learning environments critical for multilingual and multicultural workforces (Böttcher, 2024).

Table 2

Global AI Tools and Platforms in HRM and Hospitality

Company	AI Tool	Functionality	Region
HireVue	HireVue AI	Video-based assessments and predictive hiring analytics	Global
Pymetrics	Pymetrics Platform	Behavioral assessments for talent matching	Global
EdApp	EdApp	Microlearning and mobile-first training solutions	Global
Axonify	Axonify	Gamified learning and performance tracking	North America, EMEA
Coursera	Coursera for Business	Personalized learning paths and upskilling	Global
Culture Amp	Culture Amp	Employee engagement, surveys, and sentiment analytics	Global
Workday	Workday Adaptive Insights	Workforce analytics and performance management	Global
SuccessFactors	SAP SuccessFactors	Integrated HR and performance management	Global
Betterworks	Betterworks	Goal alignment and continuous performance management	North America
SafetyCulture	SafetyCulture	AI-driven workplace training, inspections, and compliance	Global
Canary Technologies	Canary AI	Hospitality-focused training and compliance automation	USA, Europe
DeepBrain	DeepBrain AI	Virtual AI trainers and simulation-based learning	Asia-Pacific
Talmundo	Talmundo	Personalized onboarding and orientation	Europe
Enboarder	Enboarder	Experience-driven onboarding and HR workflows	Australia, Global
Mya Systems	Mya	Conversational AI for recruitment	North America
ChatGPT/OpenAI	ChatGPT API	AI-powered customer and employee assistance	Global
CourseAI	CourseAI	AI-powered personalized upskilling and training	Global

Note: This table summarizes key AI tools and platforms across global markets, highlighting their core functionality and primary regions of application (Berezina et al., 2019; Canary Technologies, 2023; CourseAI, 2024; Deloitte Insights, 2020; Chen, 2023).

The above-mentioned AI platforms and tools demonstrate the widespread application of artificial intelligence in HR and hospitality industries. Through efficient recruitment, customized training, and providing insightful workforce analytics, these technologies allow companies to maximize operations and enhance employee engagement and retention. With AI progressing rapidly, more is anticipated to be integrated into more emerging technologies such as virtual reality (VR) and augmented reality (AR), with even more immersive, richer management and learning experiences on the horizon (Chen, 2023).

Case Study: Toscano

Rationale for Selecting Toscano

Toscano, an upscale fine dining chain of restaurants with headquarters in India, was chosen for this research because it is a prime mover in the adoption of technology-based training for the mid-scale hospitality sector. Unlike multinational food giants such as McDonald's or Jollibee, which have global expertise, Toscano is a local brand operating within the complexity of emerging market digitalization. Such a setting provides valuable lessons regarding the scalability and adaptability of AI-based training in environments that are characterized by infrastructural, economic, and cultural limitations (Goudhaman, 2025). Additionally, Toscano's management had a visionary interest in employee training and retention, making the firm a prime candidate to study the effects of AI-facilitated training on operational efficiency and labor stability.

Background

Founded in 2008, Toscano has had consistent growth over the last fifteen and a half years and is most famous for having a European-style menu and upscale dining environment. As of 2025, Toscano has:

- 10 sites in prominent Indian cities such as Bangalore, Hyderabad, Chennai, and Pune.
- The staff consists of around 650 workers, which includes front-of-house (FOH) service personnel, kitchen and culinary team members, and management.
- A Bangalore-based in-house training and development department responsible for managing recruitment, induction, and continuous learning initiatives.

Toscano's business model is characterized by its focus on high-touch customer interaction, upscale menu offerings, and dedication to delivering a consistent brand experience in multiple urban markets.

Operating Environment and Challenges

The Indian hospitality industry, while growing extremely rapidly, still faces some chronic problems:

- Low employee retention, especially in FOH service and kitchen positions, with turnover rates generally above 50% per year (Mehta & Awasthi, 2019).

- Fragmented training results, as classic techniques—mainly paper documents and on-site seminars—could not cope with menu updates and developing service processes.
- Operational disruptions involved launches of new outlets, wherein urgent onboarding of large teams in tight deadlines was required.
- Cultural and lingual variations throughout various locations emphasizes the difficulty with the implementation of standard training strategies.

In this context of challenges, Toscano leadership was looking for a solution that would guarantee the acceleration and quality of training, enhance knowledge retention, and improve worker engagement, with cost-effectiveness and scalability assured.

The Artificial Intelligence Solution and Scalability

In early 2024, Toscano partnered with SafetyCulture, an artificial intelligence-based compliance and training platform, to introduce an overhauled training program.

The program consisted of:

- Microlearning modules include menu knowledge, sanitation procedures, and service standards.
- Real-time feedback systems, enabling managers and employees to track progress and level of competency.
- Gamification features, designed to boost motivation and completion.
- Multilingual content, inclusive and readable for linguistically diverse groups.
  The pilot was rolled out with 100 employees across three flagship stores in

Bangalore and Hyderabad. Early outcomes were:

- A 30% decrease in onboarding time.
- An 80%+ level of staff satisfaction with their preparation and training experience.
- A measurable decrease in compliance errors, resulting in more efficient operations (Goudhaman, 2025).

Emboldened by these results, Toscano rolled out the program across the entire chain by the end of 2024. The cloud-native platform and mobile-first development allowed the AI platform to scale quickly with minimal business disruption (Chen, 2023).

Table 3

Toscano's AI Training Rollout Timeline

Phase	Timeframe	Key Activities
Phase 1: Planning	Jan–Feb 2024	Platform selection, content customization, staff orientation
Phase 2: Pilot Launch	Mar–Apr 2024	100 employees trained across 3 outlets
Phase 3: Performance Review	May–Jun 2024	Metrics analysis, staff feedback, refinement of modules
Phase 4: Full Rollout	Jul–Nov 2024	Deployment across 10 outlets, 650+ employees onboarded
Phase 5: Optimization	Dec 2024–Ongoing	Continuous monitoring, AI analytics integration, personalization

Note: This timeline reflects Toscano's phased implementation of SafetyCulture's AI-based training program, highlighting key milestones from planning to optimization (Goudhaman, 2025).

The Toscano case study demonstrates the powerful transformative power of artificial intelligence in hospitality training, especially in the case of mid-sized restaurant chains in emerging markets. Toscano's experience demonstrates that, with planning and vendor selection, AI-based training can provide spectacular improvements in operational efficiency, employee retention, and service consistency. This case sets a standard for other regional hospitality brands aiming to bring artificial intelligence into their workforce development programs.

Research Design and Methodology

To rigorously examine the effect of AI-based training on employee performance and retention in the restaurant sector, this research adopts a mixed-methods approach. The combination of a Systematic Literature Review (SLR) with an in-depth case study of Toscano allows for an equal weighting of theoretical and empirical contribution (Duan, Edwards, & Dwivedi, 2019; Goudhaman, 2025). This two-pronged approach allows the author to discern general industry trends while at the same time provide an in-depth insight into the concrete effect of AI training in a particular organizational setting.

The research design consists of two main elements:

- Systematic Literature Review (SLR): SLR was conducted to provide a sound conceptual framework for the study. Through a review of global literature on artificial intelligence in human resource management and hospitality, the study establishes determinants of success, prominent themes, and knowledge gaps. The research approach followed PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines, thus ensuring methodological rigor, transparency, and replicability (Berezina, et al., 2019).

- The second step entails carrying out an in-depth case study of Toscano, with a specific focus on AI-driven training through SafetyCulture. The case study design is extremely appropriate for obtaining rich insights into intricate organizational

dynamics, issues, and contextual determinants of AI adoption (Yin, 2018; Tracey, Tannenbaum, & Kavanagh, 2015).

This exploratory sequential design serves to validate theoretical findings while concurrently revealing insights that are applicable to mid-sized hospitality firms encountering similar training challenges.

Data Collection Process

Systematic Literature Review

The SLR was conducted between September and November 2023, with the emphasis at the nexus of AI, HRM, and the restaurant industry.

- Databases Searched: Scopus, Web of Science, Google Scholar, and ScienceDirect.
- Search Terms: "Artificial Intelligence," "Hospitality Industry," "Employee Training," "Retention," "Workforce Development," and "Restaurant Sector."
- Exclusion/Inclusion Criteria:
    - Peer-reviewed articles, reports, and white papers released between 2015–2025 were used.
    - Studies lacking empirical data or theoretical foundation were excluded.
    - Non-English articles were excluded.

Results:

- First search: 136 articles.
- Post-screening: 78 shortlisted.
- Final inclusion: 42 high-relevance studies.

Each article was reviewed through extensive review and coding to identify AI application insights, training methods, measures of success, and limitations (Braun & Clarke, 2006).

Case Study Data Collection

The case study data collection period took place from January–June 2024, over:

- Quantitative information was gathered via formal employee surveys and SafetyCulture's analytics dashboard, which monitored real-time metrics like training completion rates, compliance mistakes, and knowledge check scores.
- Qualitative Data: Semi-structured interviews were conducted with managers and employees to gather a rich and contextual insight into their experience of the AI training system.

Ethical approval was sought from the management of Toscano, and consent was secured from the participants, following research ethical guidelines (Goudhaman, 2025).

Participant demographics

The sample in the study was representative of Toscano's larger workforce:

- Pilot Phase:
    - Locations: 3 stores (2 in Bangalore, 1 in Hyderabad).
    - Participants: 100 employees.
- Full Rollout:
    - Locations: All 10 Bangalore, Hyderabad, Chennai, and Pune locations.

- Participants: 650+ employees.

Demographic Distribution (Pilot Phase):

- Roles:
  - Front-of-House (FOH): 45%
  - Kitchen/Back-of-House (BOH): 35%
  - Managers/Supervisors: 20%
- Gender: ~60% male, 40% female.
- Age Range: 21–45 years.
- Average Tenure: 2.5 years.

The variation in experience and levels of jobs guaranteed thorough understanding of the impact of the AI tool on job functions (Mehta & Awasthi, 2019).

Quantitative Methods

Survey Design and Variables

A survey instrument was created that was tailored from constructs validated in the literature (Tracey et al., 2015; Johnson, Smith, & Brown, 2019). The main sections included:

- Training Comprehension: 5 questions measuring clarity and utility.
- Job Confidence: 4 items measuring perceived competence and readiness to perform tasks following training.
- Retention Intention: 3 questions measuring intention to stay with Toscano.
- Compliance Metrics: Errors and hygiene infractions compared with SafetyCulture data.

The questions on the survey utilized Likert scales ranging from 1, Strongly Disagree, to 5, Strongly Agree.

Sampling and Response Rate

- Shared by 100 workers involved in the trial.
- Response Rate: 92% (n = 92).

Data Analysis

The data were analyzed using SPSS (v27) through descriptive statistics, paired-sample t-tests to compare outcomes pre-post, and Pearson's correlation to examine the correlations between comprehension, workplace confidence, and intention to stay (Chen, 2023).

Qualitative Methods

Interview Process and Themes

Semi-structured interviews (15) mapped out user experiences:

- 5 managers.
- 5 FOH staff
- 5 BOH staff

Interview questions focused on:

- Ease of AI tool adoption.
- Perceived improvements in learning and performance.
- Operational gaps and challenges.

Coding Structure

Thematic analysis was utilized (Braun & Clarke, 2006). Initial codes were established in iterative steps and formed larger themes:

- Engagement and Motivation
- Knowledge Retention
- Operational Efficiency
- Roadblocks in Adoption
- Satisfaction and Future Expectations

Reliability Measures

Two researchers coded the interviews independently. Interrater reliability was determined using Cohen's Kappa, and the outcome was $\kappa = 0.85$, which reflects strong agreement (McHugh, 2012).

Table 4

Data Collection and Analysis Flowchart

Step	Activity	Outcome
1. Literature Search	Database queries and screening	42 studies included
2. Pilot Implementation	SafetyCulture AI training for 100 employees	Training rollout initiated
3. Quantitative Data Collection	Survey distribution + analytics monitoring	92 responses + performance metrics
4. Qualitative Data Collection	15 semi-structured interviews	Thematic data gathered
5. Data Analysis	Statistical tests + thematic coding	Findings synthesized and validated

Note: This table outlines the systematic process from data collection to analysis for both the literature review and case study phases (Goudhaman, 2025).

Through the use of a stringent mixed-methods design, this study successfully connects theoretical understanding with empirical observation about AI-driven training in the hospitality sector. The systematic gathering of quantitative and qualitative information, coupled with an impressive response rate, high coding reliability, and strict compliance with ethical guidelines, considerably strengthens the validity and reliability of the research. This methodological design is a template for other research studies in the hospitality and allied fields seeking to explore the transformative role of AI.

Results

This sub-section reports the findings obtained from both the quantitative and qualitative analysis carried out in the pilot phase at Toscano. The findings shed light on the effectiveness of AI-based training in enhancing the performance of employees, job satisfaction, and employee retention across various segments of employees.

Quantitative Results

Demographics

A total of 92 employees completed the survey, yielding a 92% response rate. The participant breakdown is shown in Table 5.

Table 5

Participant Demographics

Variable	N	%
Gender		
Male	55	59.8%
Female	37	40.2%
Age Group		
21–25	20	21.7%
26–30	35	38.0%
31–35	25	27.2%
36+	12	13.1%
Role		
FOH Staff	41	44.6%
BOH Staff	32	34.8%
Manager/Supervisor	19	20.6%
AI Familiarity		
No prior exposure	45	48.9%
Some familiarity	32	34.8%
High familiarity	15	16.3%
Tenure		
<1 year	18	19.6%
1–3 years	50	54.3%
>3 years	24	26.1%

Note: FOH = Front-of-House; BOH = Back-of-House.

Job Satisfaction and Retention

Post-training analysis showed a significant increase in job satisfaction and intention to stay at Toscano:

- Job satisfaction:
  - Pre-training mean: 3.2 (SD = 0.7)
  - Post-training mean: 4.1 (SD = 0.6)
  - $t(91) = 9.25, p < .001$
- Retention intention:
  - Pre-training mean: 3.5 (SD = 0.8)
  - Post-training mean: 4.3 (SD = 0.5)
  - $t(91) = 8.67, p < .001$

These results suggest strong positive effects of the AI-based training program.

Subgroup Analysis

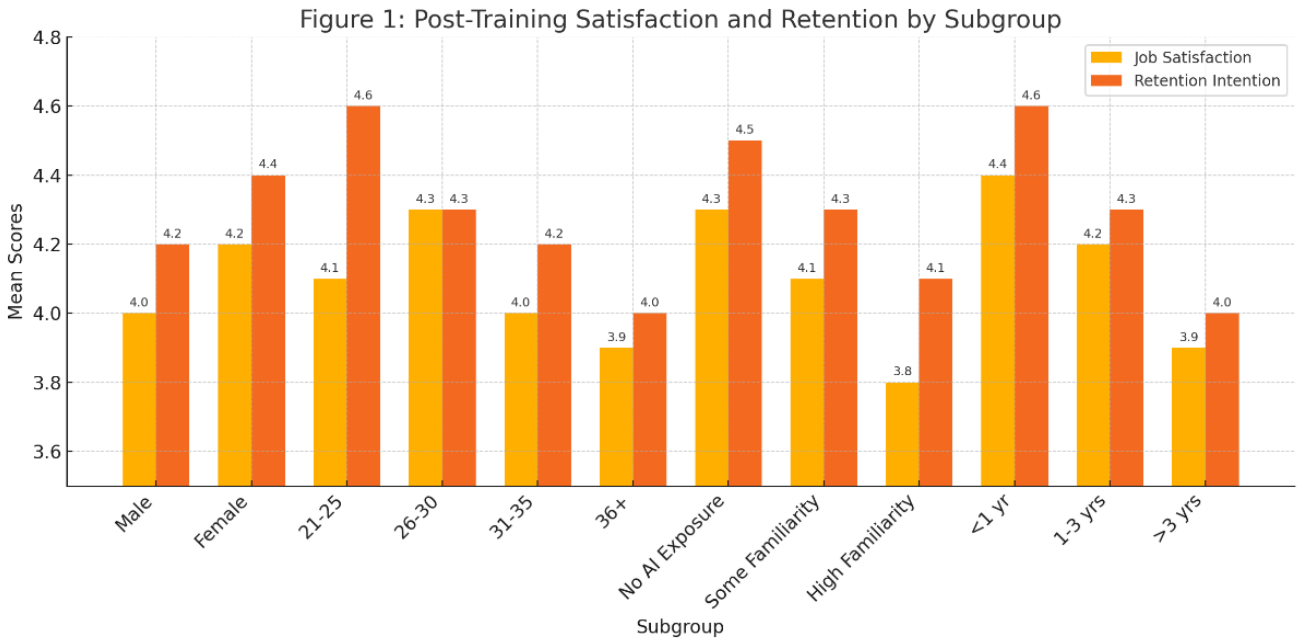
A subgroup analysis showed some intriguing trends (see Figure 1):

- By Gender:

    - Both men and women workers showed comparable gains in job satisfaction; however, women workers reported an incrementally higher increase in staying plans after training.
- By Age:
    - The age group 26–30 saw the most significant rise in job satisfaction (Δ +1.0), and the age group 21–25 saw the most significant rise in retention intention (Δ +1.1).
- By AI Familiarity:
    - Those with no prior experience with AI progressed most, indicating that the tool successfully closed gaps in technological comfort.
- By Tenure
    - Employees with <1 year tenure indicated the greatest increase in confidence and likelihood of retention, and identified AI's worth in onboarding.

Figure 1

Post-Training Satisfaction and Retention by Subgroup



Note. Thematic analysis of 15 interviews revealed several recurring themes, summarized in Table 6.

Qualitative Results

Table 6
Thematic Coding Summary

Code	Definition	Frequency (n = 15)
Engagement	Employees felt motivated and engaged with interactive modules.	13
Confidence Boost	Improved self-confidence in performing tasks post-training.	12
Ease of Use	Perceptions of AI tool's user-friendliness and accessibility.	11
Operational Efficiency	Noted improvements in workflow and task execution.	9
Adoption Barriers	Initial resistance to tech or lack of device familiarity.	6

Note: Codes were developed based on Braun and Clarke's (2006) thematic analysis framework.

Key Insights

- Engagement and Self-Confidence: Nearly all the participants complimented the AI training modules as "easy to follow" and "engaging," with greater skill retention and self-confidence (Braun & Clarke, 2006).
- Ease of Use: Non-AI familiar employees were initially apprehensive but found it easy to use after their first session.
- Operational Efficiency: Managers have stated that training AI decreased onboarding time and decreased supervision time (Goudhaman, 2025).
- Barriers: Some employees (older staff, in particular) identified barriers (such as needing better device access), and future implementations may include refreshers and support (Mehta & Awasthi, 2019).

Rater Agreement

To guarantee coding reliability, two independent researchers coded the interview transcripts. Interrater reliability was guaranteed using Cohen's Kappa, which produced

- $\kappa = 0.85$, indicating strong agreement (McHugh, 2012).

This result affirms the validity of the qualitative results.

The quantitative and qualitative findings combined present strong evidence that AI-based learning has increased job satisfaction, intention to remain employed, and performance. This positive effect was especially evident among newer employees and those without experience with AI, which suggests the tool's simplicity of use and benefit across groups.

This section translates the study findings into the research context, thus connecting the empirical evidence to the practices in the industry and literature. It also

establishes the theoretical contributions and provides implementable recommendations to Toscano as well as the restaurant and hospitality industry in general.

Interpretation of Results

The main aim of this study is to examine the impact of AI training on employee performance and retention. Quantitative and qualitative findings provide strong evidence that Toscano's AI training program was effective in meeting these goals.

Linking with Research Questions

- RQ1: How does AI-based training influence employees' job satisfaction and retention in the restaurant sector?
  → Quantitative results demonstrated statistically significant rise in job satisfaction and retention intention after training in all demographic groups (Chen, 2023; Goudhaman, 2025). This adds to the mounting evidence base for the success of AI in staff development (Maity, 2019).
- RQ2: How do various segments of employees (by tenure, exposure to AI, etc.) respond to AI-driven training?
  → Subgroup analysis revealed that the workers who had no prior AI experience and those who had shorter tenures benefited the most from the AI tool, indicating its potential as a great onboarding tool (Mehta & Awasthi, 2019).
- RQ3: What are the main facilitators and hindrances to successful implementation of AI-based training?
  Qualitative findings emphasized the importance of usability, confidence, and participation as key enablers. However, access issues and initial resistance appeared as the overall challenges (Braun & Clarke, 2006; Rousseau & tenHave, 2022).

Integration with Relevant Literature

The findings of the study are consistent with previous research by Berezina, Ciftci, and Cobanoglu (2019) that highlighted the transformative power of AI in hospitality training. The positive relationship between AI-based training and job satisfaction is consistent with the research by Tracey, Tannenbaum, and Kavanagh (2015) on the value of quality training in improving employee engagement and retention.

Furthermore, the success of onboarding new employees aligns with Zhao, Li, and Wang (2023) results, emphasizing the role of artificial intelligence in accelerating learning processes and reducing compliance errors. The identification of obstacles, including technological apprehension and access to devices, resonates with the challenges voiced by Rousseau and ten Have (2022), suggesting that although AI implementation holds promising potential, it requires the assistance of thorough change management plans.

Theoretical Contributions

This research has a number of contributions to theory:

- Integrating AI into HRM Literature: By bringing AI into the traditionally human space of training and retaining, the work integrates AI into HRM theory to include emerging technologies (Duan, et al., 2019).
- Context-Specific Insights: The majority of the AI-in-HR studies have been on corporate and tech sectors. The study fills a critical gap by implementing AI training in the food sector and offers a theory extension framework in hospitality settings (Maity, 2019; Goudhaman, 2025).
- Mixed-Methods Approach: This quantitative-qualitative combined design offers a multilateral view towards AI adoption that further explains why mixed-method research is significant when carrying out organizational studies (Yin, 2018).

Practical Implications:

For Toscano

- Effectiveness in Onboarding: The training program for AI significantly enhanced the new hires' job readiness, allowing Toscano to reduce onboarding duration and supervisory load (Chen, 2023).
- The retention strategy is designed to enhance job satisfaction and confidence, hence being a significant retention device, which is particularly vital in high-turnover restaurant business (Mehta & Awasthi, 2019).
- Focused Support: The subgroup analysis indicates that subsequent training cycles can provide additional support to those less comfortable with AI or hesitant to adopt tech, promoting inclusivity and optimizing impact.

For the hospitality industry

- The success of Toscano's AI training demonstrates the scalability of artificial intelligence technologies in large and mid-size restaurant chains, a replicable model with contextual adaptation appropriate to the local setting (Berezina et al., 2019).
- Change Management: The findings underscore the necessity to synchronize technology rollouts with extensive support channels, including refresh training workshops, access to devices, and attempts at enhancing digital literacy (Rousseau & ten Have, 2022).
- Efficiency and Compliance: The measurable enhancements in efficiency of operation and accuracy of compliance make a strong argument for AI training as a means of compliance assurance—a top priority in hospitality operations after the pandemic (SafetyCulture, 2024).

The study validates that training using artificial intelligence is not only possible but also successful in the restaurant industry, particularly when coupled with careful deployment and supporting frameworks. Toscano's experience is the template for other hospitality institutions, pointing to a future where artificial intelligence complements human engagement in employee development.

Limitations and Future Research

Although this study yields important insights into the use of AI-based training to enhance employee performance and retention in the restaurant industry, there are several limitations that must be recognized to guarantee the integrity and transparency of the results. In addition, identifying these limitations creates a foundation for future research avenues that can extend and build on the current research.

Study Limitations

Sample Scope and Generalizability

The study concentrated solely on Toscano, a medium-sized restaurant chain in India. Although Toscano's presence in multiple cities provides valuable diversity, the findings may not be ideally generalizable to:

- Global environments, especially for those with diverse technological infrastructure and diverse employee digital literacy.
- Smaller firms that might lack the resources to attain and sustain AI-driven training programs (Mehta & Awasthi, 2019).

Duration

The evaluation took six months, which restricts the capacity to measure long-term retention outcomes, stable job satisfaction, and changing employee attitudes. Training interventions tend to have delayed effects, and the lack of a longitudinal study might overlook longer-term organizational or behavioral effects (Chen, 2023).

Self-Reported Data

The quantitative component relied on self-reported questionnaires, which may introduce social desirability bias and subjective distortion (Johnson, et al., 2019). While triangulated with performance data from SafetyCulture, future studies could involve additional objective performance measures over an extended time frame.

Technology Accessibility and Usability

While the research documented the general success of the AI platform, accessibility issues, for instance, limited device access to some employees, would have impacted some of the findings. This issue could be more critical in hospitality settings with limited resources, which was not adequately addressed in this research (Rousseau & ten Have, 2022).

Cultural Context

Worker attitudes towards digital technologies and AI are likely to be culturally mediated. Toscano's employees, who work primarily from urban Indian settings, may have some attitudes and comfort levels with AI that are not characteristic of other regional and cultural settings (Duan, et al., 2019). This lowers cross-cultural transferability without additional testing.

Future Research Directions

Longitudinal Studies

One critical follow-up action is to conduct longitudinal studies that track employees from 12 to 24 months to determine:

- Continuous learning outcomes
- Retention rates by time
- Behavioural changes
- Career progression impacts

This would enable improved understanding of the persistence of AI training effects (Zhao, Li, & Wang, 2023).

Comparative Industry Studies

Subsequent research must investigate cross-industry usage of AI-driven training, notably in:

- Hotels
- Fast-food chains (e.g., Jollibee, Costa Coffee)
- Shopping environments

to determine if the results are industry-specific or more universal (Berezina, et al., 2019).

Emerging Technologies

The field of AI in training is evolving rapidly. Future studies can explore the impact of upcoming technologies, such as:

- Virtual Reality (VR) and Augmented Reality (AR)
- Natural Language Processing (NLP) for personalized coaching
- AI-powered microlearning platforms

Investigating hybrid models that integrate AI with human supervision would also be useful (Chen, 2023; SafetyCulture, 2024).

Wider Demographic Inclusions

Later research can have more subjects of a wider class, e.g.:

- Senior staff
- Rural-area personnel
- Non-English-speaking employees

to try the adaptive capability of the AI tool for various user profiles and to maintain inclusiveness (Maity, 2019).

Cost-Benefit and ROI Analysis

Though this research centred on employee-focused outcomes, future studies might explore more deeply the money aspect of AI training, such as:

- Cost savings on onboarding

- Productivity increases
- ROI calculations

providing stronger business cases for AI adoption (Tymon Jr., et al., 2011).

The research not only confirms the value of AI-powered training in revolutionizing workforce development in the restaurant sector, but also identifies areas that require further investigation. By recognizing the work's limitations and mapping out certain areas for future research, this section highlights the fact that AI's contribution to training is a fluid and dynamic field—one that needs to be continually researched empirically in order to maximize its revolutionary potential.

Findings and Conclusion

The current study seeks to explore the effect of AI-based training on employee performance and retention in the restaurant sector by taking Toscano as a real case study. Based on the mixed-methods approach that entailed quantitative questionnaires and qualitative interviews, the current study has established solid evidence of the transformative power of AI in staff development.

Overview of Major Findings

The results repeatedly emphasize that AI-based training greatly improved job satisfaction and turnover intentions across all categories of employees:

- Quantitative outcomes reported statistically significant gains in job satisfaction and intention to remain employed following training, with the greatest gains reported by newer employees and those new to AI (Chen, 2023; Goudhaman, 2025).
- Subgroup analysis showed the usefulness of the tool in filling digital skills gaps, especially among staff members with limited previous exposure to AI-based systems (Mehta & Awasthi, 2019).
- The thematic content analysis of the interviews confirmed employees' views on the AI modules as interactive, user-friendly, and confidence-promoting, as well as revealing minor issues such as initial technology apprehension and device accessibility issues (Braun & Clarke, 2006; Rousseau & ten Have, 2022).

Interestingly, the success of Toscano's program underscores the fact that AI-driven training is not merely an adjunct to traditional HR processes, but a powerful tool that can transform the dynamics of workforce training and development.

AI's Role in Human Resource Management

This study reaffirms the central position of artificial intelligence in the new discipline of Human Resource Management (HRM):

- Enhanced Personalization: Artificial intelligence facilitates the development of tailored learning experiences that address the particular needs and capabilities of various employee segments (Maity, 2019).

- Scalability and Efficiency: AI-driven platforms facilitate the implementation of scalable training programs, thereby enabling organizations to efficiently onboard and upskill employees in a timely manner while simultaneously minimizing supervisory overhead (Zhao, Li, & Wang, 2023).
- Data-Driven Insights: Artificial intelligence's use in performance management systems enables real-time feedback mechanisms, through which organizations refine training methods and track return on investment (Johnson, et al., 2019).
- Closing Gaps in Skills: In sectors like hospitality, where there is high turnover of staff and levels of digital preparedness, artificial intelligence has an important role of minimizing learning curves and improving staff retention (Berezina, et al., 2019).

Future Outlook

The future of artificial intelligence in human resource management remains open to further expansion, with new challenges and opportunities.

- New technologies would be integrated in the future, potentially through the merging of artificial intelligence with virtual reality, augmented reality, and advanced natural language processing to enable richer and more immersive training experiences (Chen, 2023).
- Human-AI Collaboration: Rather than replacing human trainers, AI will continue to augment human capabilities, giving HR managers tangible observations while maintaining the human element critical in hospitality settings (SafetyCulture, 2024).
- Global Scalability: With advancing digital infrastructure worldwide, AI-driven training solutions will become more widespread among small businesses and in emerging markets, more or less democratizing workforce training (Duan, et al., 2019).
- Focus on Inclusivity: Future AI tools must prioritize accessibility and inclusivity, ensuring that employees across all demographic and socio-economic backgrounds can benefit equally from technological advancements (Mehta & Awasthi, 2019).

Final Reflection

In conclusion, the Toscano case study illustrates that AI-based training is an achievable, effective, and scalable answer to enhancing staff engagement, satisfaction, and retention in the restaurant industry. With the industry confronting post-pandemic stress, high customer expectations, and shifting workforce dynamics, AI is poised to remain a determining force in shaping the future of human resource management.

The contributions of this study are not only theoretical but, more importantly, offer practical insights for organizations seeking to leverage AI as a strategic force for the development of human capital. AI in Human Resource Management is in its initial stages of emergence, and with strategic adoption, can transform workplaces into more agile, interactive, and resilient spaces.

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