MASTER'S IN TOURISM HOSPITALITY AND FOOD

FIRST-YEAR DISSERTATION

Transformation of Hotel Management with the Use of AI

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Main Headings

General Introduction

The transformation of hotel management in the digital age is rapidly being redefined by the integration of Artificial Intelligence (AI). This thesis investigates the multifaceted impact of AI on hotel management, focusing on changing management roles, reconfiguring staff responsibilities, and the overall impact on organizational dynamics in the hospitality sector. As AI technologies evolve from merely futuristic concepts to indispensable tools in modern business practices, their application in the hotel business leads to both significant efficiency gains and significant human resource challenges. These changes form the core of an emerging field of study that intersects the domains of technological innovation, organizational change, and cultural adaptation in the context of hospitality management.

At its heart, the thesis explores a central research question: **How does the integration of Artificial Intelligence in hotel management transform the roles and responsibilities of managers, and what are the implications for staff management and employee engagement?** This question is particularly pertinent as hotels seek to use AI for dynamic pricing, demand forecasting, guest personalization, and operational efficiency, while simultaneously grappling with issues such as employee resistance, job security concerns, and ethical dilemmas related to surveillance and privacy. The research problem is deeply rooted in a rapidly changing environment, where digital transformation is not only a tool for optimizing operational activities, but also a driver for deep organizational restructuring.

The field of study covers the global hospitality industry with a focus on two distinct regions : Asia and Europe. In Asia, countries like Singapore, Japan, China, and South Korea exemplify leading-edge innovation with AI, where rapid technological advances are closely linked to evolving management practices. In contrast, European hotels, operating under severe regulatory frameworks and with deeply rooted cultural traditions

of personalized service, provide a comparative lens through which the diverse manifestations of AI adoption can be understood. This dual regional approach enables a nuanced examination of universal trends as well as region-specific challenges and opportunities, thereby enhancing the theoretical and practical relevance of the study.

The structure of the dissertation is organized into several interrelated parts. The first part provides a literature review and historical exploration of AI, tracing its evolution from early data-driven theories and pioneering works to its current applications in business and hospitality. This section lays the theoretical foundation for the study. It is followed by Part 2, which presents a series of empirical case studies and managerial analyses that examine how AI integration is reshaping operational practices within hotels across diverse cultural and regulatory contexts. The findings from these case studies illustrate both the benefits, such as enhanced dynamic pricing, improved guest personalization, and streamlined operations, and the challenges, including managerial resistance and workforce adaptation issues. Finally, Part 3 details the research methodology, which employs semi-structured interviews with key managerial stakeholders and thematic data analysis to capture the nuanced experiences of managers in both Asia and Europe. Together, these parts refine the initial hypotheses and ultimately lead to the development of actionable professional recommendations. This integrative approach not only deepens theoretical understanding but also prepares the way for an action research phase in Year 2, where refined hypotheses will be tested in real organizational settings during the Master's 2 internship project.

By addressing both the theoretical implications and practical challenges of AI integration, this thesis aims to contribute to the broader academic discourse while offering actionable insights for industry practitioners striving to balance technological innovation with human-centric management strategies. The research thus provides a holistic perspective essential for navigating the ongoing digital transformation in hotel management.

I. Understanding AI in Hospitality : Origins, Trends, and Applications

Part 1 : Introduction - Literature Review and Exploration

The rapid evolution of artificial intelligence is transforming hotel management in unprecedented ways. In recent decades, AI has moved from a futuristic concept to a practical tool that enhances dynamic pricing, demand forecasting, guest personalization, and operational efficiency. Studies such as those by Shaik (2024) and Arshad (2024) demonstrate how hotel operators are using AI-driven algorithms to adjust room rates in real time and optimize resource allocation based on historical data, market trends, and competition. Simultaneously, the literature reveals that the integration of AI systems is not without challenges. Research by Liu et al. (2024) highlights employee resistance, feelings of insecurity, and ethical dilemmas. Especially concerning surveillance and privacy, can undermine AI adoption. Such findings are complemented by insights into the broader organizational impacts of AI. As hotels adopt these new technologies, aspects like decision-making, workforce dynamics, and regulatory compliance all gain renewed complexity.

In sum, this part of the study reviews the potentials and drawbacks of AI in hospitality management, setting the stage for a deeper investigation into how these technological advances are reshaping the internal dynamics of hotels.

Chapter 1 : History of Artificial Intelligence

Summary:

Year	Event
1927	AI depicted in the film Metropolis
1940s	Birth of computing technology, the foundation for AI
1950	Alan Turing proposes the Turing Test
1956	Dartmouth Conference, AI officially coined
1960s	ELIZA, the first chatbot, created by Joseph Weizenbaum
1997	IBM's Deep Blue defeats Garry Kasparov in chess
2022	ChatGPT launched, becoming a global sensation

The origins of artificial intelligence (AI) go back to the existence of computing machines, through stories and myths of the most intelligent artificial beings.

One of the first public depictions of AI was in the German film (*Metropolis (1927) - Full HD Movie* 2024)[1] in 1927, directed by Fritz Lang. This silent science fiction film presents a distant future where society is divided into two social classes: the wealthy elite and the working class. It explores the human idea that a machine could be as intelligent as a human.

The main character, False Maria, is an android with a human appearance. Initially a simple mechanical robot, it is later transformed into an exact copy of the heroine, Maria. This machine was created to manipulate the workers, unlike the real Maria, who is peaceful and advocates for unity. The mission of the False Maria was to stir up the workers against the city of Metropolis by destroying the machines on which the city depended.

The film poses some pertinent questions: the nature of human and machine relations, misinformation, and the growing power of machines in modern society.

However, it was not until the 20th century that the birth of computing technology in the 1940s laid the foundation for AI research (« 1940 | Timeline of Computer History |

[1] Metropolis film 1927

Computer History Museum »)[2]. The first AI program that emulated human intelligence appeared during that time, capable of solving various mathematical problems and playing chess. In a 1950 article, the British mathematician Alan Turing posed the problem of the model for the first time: "Can a machine think?". This article proposed what has since been called the famous Turing test to assess whether a machine behaves "like" human intelligence (« History of artificial intelligence | Dates, Advances, Alan Turing, ELIZA, & Facts | Britannica » 2025)[3].

The AI notion was coined during the Dartmouth conference in 1956, guided by John McCarthy, Marvin Minsky, Nathaniel Rochester, and Claude Shannon. This reunion aimed to create intelligent machines to perform as intelligently as a human being, learn from previous experience, critically analyze, and solve various problems. Nevertheless, they realized that they were ahead of their time by being too ambitious and constrained by the limitations of the technologies of their era. Despite this, the event made a huge impact on history. It set an agenda for future years, sparking discussions, funding, and awareness about humanity and the potential societal impact of AI, inspiring researchers in their development efforts.

McCarthy is often referred to as the "father of AI". Defined, in his introductory speeches, the term Artificial Intelligence and several AI research objectives: making machines capable of using language, forming abstract concepts, and improving their performance. This conference played a pivotal role in the development of AI, defining the objectives and scope of AI research (McCarthy et al.)[4].

In the 1960s, ELIZA was the first chatbot created by Joseph Weizenbaum. Her purpose was to give the impression of conversing with a real person. ELIZA was designed as a therapist, asking open-ended questions and responding to follow-ups by analyzing input and using previous keywords or phrases. She generated responses by employing those keywords from pre-programmed answers.

Weizenbaum, the inventor of ELIZA, however, did not believe that computers could

[2] Computer History Museum. 2023. “Timeline: 1940.” Accessed April 26, 2025. https://www.computerhistory.org/timeline/1940/.

[3] " *Encyclopædia Britannica*. Encyclopædia Britannica, Inc. Accessed April 26, 2025. https://www.britannica.com/science/history-of-artificial-intelligence

[4] Dartmouth College. (1956). *The Dartmouth Summer Research Project on Artificial Intelligence*.

ever reach the same level of intelligence as humans. Instead, **he argued that this technology was merely a tool and an extension of human intellect.**

In the 1990s, the chess-playing supercomputer IBM's Deep Blue became a pivotal invention. In 1997, it marked a turning point as the world turned its attention to this historic event, realizing that AI could truly surpass humans in specific contexts. Garry Kasparov, the world's best chess champion, was defeated by Deep Blue, a chess computer. It was the first machine that achieved such success.

In the 21st century, the internet expanded, helping AI grow smarter and paving the way for advancements in deep learning, speech recognition, and image recognition. By November 2022, ChatGPT was launched, showcasing abilities like reasoning, statistical analysis, and more. Within a month, it became a global sensation, proving its effectiveness (Park 2025)[5].

Chapter 2 : Understanding of Artificial Intelligence

We have seen the history of artificial intelligence briefly. However, what does it mean exactly? AI is a part of computer science, it is used in tasks where humans are required. Despite that fact, it is still to be defined if machines can think at the same level as humans, but progress is ongoing (Staff 2025)[6]. Nowadays, for example, the tool is used to monitor social media against dangerous content or false news. In addition, songs or TV show recommendations from Spotify and Netflix are generated through analyses of AI from the users' activities.

AI splits into two categories:
1. Narrow AI or Weak AI: simulates human intelligence and focuses on doing one precise task.
2. Machine learning: can learn from available data but also through tests and mistakes

[5] TechCrunch. 2025. "ChatGPT: Everything to Know About the AI Chatbot." Accessed April 26, 2025. https://techcrunch.com/2025/03/21/chatgpt-everything-to-know-about-the-ai-chatbot/.
[6] Coursera. "What Is Artificial Intelligence?" Coursera, November 10, 2021. Accessed April 26, 2025. https://www.coursera.org/articles/what-is-artificial-intelligence.

with minimal human intervention, sometimes going further than expected, as defined by ISO (« Machine learning (ML) »)[7]. An example: mentioned earlier recommendations on Spotify or Netflix machine learns from everyday life by analyzing interests.

Machine learning consists of :

- Supervised learning operates with labeled datasets, and it is often used for accurate predictions.
- Unsupervised learning operates with unlabeled datasets. Often used for marketing profiling.
- Reinforcement learning operates with a software agent that reduces human interaction in the learning process, often used for AI gaming.

On the other hand, Artificial General Intelligence, or Strong AI, is a theoretical concept that states that a machine is capable of thinking like a human and resolving various problems at the same time. In industries like hospitality, predictive AI is being adopted to improve efficiency and customer satisfaction.

Chapter 3: Types of Management Styles

Management is defined as the process of planning, organizing, leading, and controlling resources to achieve organizational goals effectively and efficiently. According to Henri Fayol's principles, these key functions form the foundation of management practices are crucial for overseeing day-to-day operations while seeking long-term objectives. As noted in foundational resources, such as the Business LibreTexts (« 1.5 » 2020)[8] and Motion Blog (« The Four Functions of Management (with Examples) »)[9], these activities

[7] ISO, "Artificial Intelligence and Machine Learning," ISO. Accessed April 26, 2025. https://www.iso.org/artificial-intelligence/machine-learning.
[8] Business LibreTexts. *Introduction to Principles of Management*. "Planning, Organizing, Leading, and Controlling." Accessed April 26, 2025. https://biz.libretexts.org/Bookshelves/Management/Principles_of_Management/01%3A_Introduction_to_Principles_of_Management/01.5%3A_Planning_Organizing_Leading_and_Controlling.
[9] Motion Blog. "Four Functions of Management." Accessed April 26, 2025. https://www.usemotion.com/blog/four-functions-of-management.

ensure that organizations remain adaptable and goal-oriented, enabling leaders to address challenges and scale opportunities effectively.

1. Different Types of Management Styles

Management styles vary among managers, reflecting the diverse approaches they take to guide their teams and organizations. These styles cover a wide spectrum of methods, each tailored to specific organizational goals, team dynamics, and leadership philosophies. Notable examples include Visionary Management, Autocratic Management, Democratic Management, Laissez-Faire Management, Transformational Management, and the emerging Management with AI. As highlighted by HubSpot (« Chart Your Leadership Path With These 10 Management Styles » 2024)[10] and Popa et al. 2025 [11], these styles guide teams with varying emphasis on innovation and adaptability.

Visionary management emphasizes the importance of articulating a clear and inspiring long-term vision. Managers motivate their teams through effective communication, fostering trust and engagement. By offering employees autonomy and the freedom to implement this vision, organizations cultivate an environment that encourages innovation and creativity, paving the way for transformative success.

Another approach is **Autocratic Management**, characterized by one-side decision-making that enhances productivity but might affect employee satisfaction due to limited involvement. In the hospitality industry, Chef Gordon Ramsay exemplifies this style (Sallee)[12]. Known for his strict standards on food preparation, safety, and presentation, Ramsay's decisive approach ensures excellence in the kitchen. While his

[10] HubSpot. "10 Common Management Styles." Accessed April 26, 2025. https://blog.hubspot.com/marketing/management-styles.

[11] Popa, Ion, Simona Cătălina Ștefan, Andrei Josan, Corina-Elena Mircioiu, and Nicoleta Căruceru. "Artificial Intelligence as a Catalyst for Management System Adaptability, Agility and Resilience: Mapping the Research Agenda." *Systems* 13, no. 1 (2025): 47. Accessed April 26, 2025. https://www.mdpi.com/2079-8954/13/1/47.

[12] Sallee, Glen. *The Leadership Style of Chef Gordon Ramsay*. University of La Verne. Accessed April 26, 2025. https://talentbucket.weebly.com/uploads/3/8/7/5/38753157/the_leadership_style_of_chef_gordan_ramsay.pdf

methods can challenge morale, Ramsay balances discipline with a transformational aim elevating chefs into culinary artists who uphold integrity and achieve mastery.

Democratic Management reinforces collaboration by involving employees in decision-making processes, promoting a sense of ownership while the manager retains final authority. This approach highlights the importance of recognizing team inputs, as "people are the key to a team's success".

A further method is **Laissez-Faire Management**, which allows employees significant freedom to make decisions independently, working well for highly skilled and self-motivated teams.

Meanwhile, **Transformational Management** centers on inspiring employees to unlock their full potential and drive organizational change, proving especially effective in fast-moving industries that depend on innovation and adaptability.

Finally, the emerging **Management with AI** style leverages artificial intelligence to streamline operations, enhance decision-making, and foster innovation. AI tools support managers by analyzing data, automating repetitive tasks, and delivering valuable perspectives for strategic planning, marking an evolution in modern management practices.

2. Management with AI or a New Frontier

The integration of artificial intelligence into management practices represents a significant shift in how organizations operate. AI driven management utilizes advanced technologies to improve decision-making, optimize operations, and foster innovation. According to Popa et al. (2025), AI enhances adaptability, agility, and resilience in management systems by automating routine tasks and providing data driven insights. For example, AI tools can analyze employee performance metrics, predict market trends, and optimize resource allocation, enabling managers to focus on strategic initiatives.

Moreover, AI facilitates personalized employee engagement by identifying individual strengths and areas for development. This approach aligns with transformational

management principles, where leaders inspire and empower their teams to achieve organizational goals. However, the successful implementation of AI in management requires strong organizational support, including adequate training, technological infrastructure, and a culture that adopts innovation.

3. Management in Europe

Management styles in Europe are diverse, reflecting the cultural and economic differences across the continent. According to Perlitz and Seger (2004) [13], European management can be categorized into five cultural areas: Anglo-Saxon, Germanic, Nordic, Latin, and Eastern European. For example, **Nordic** countries, such as Sweden and Denmark, emphasize participative and egalitarian management styles, where decision-making is collaborative and employees are encouraged to contribute ideas. In contrast, **Germanic** countries, including Germany and Austria, focus on structured and hierarchical management, placing a strong emphasis on rules, efficiency, and precision. **Eastern European** countries, such as Poland and Hungary, are increasingly embracing participative management styles while retaining elements of centralized decision-making, creating a blend of traditional and modern practices. Meanwhile, **Latin management** styles in Southern European countries, such as France, Italy, and Spain, combine hierarchical systems with interpersonal relationships. Managers leverage personal connections to foster loyalty and cohesion, balancing authority with adaptability. **Anglo-Saxon** management, common in countries such as the United Kingdom, emphasizes decentralization and individual accountability. Managers adopt a results-oriented approach, focusing on performance-based rewards and measurable outcomes.

These variations highlight the influence of cultural dimensions, such as individualism versus collectivism and uncertainty avoidance, on management practices across Europe.

[13] Perlitz, Manfred, and Frank Seger. "European Cultures and Management Styles." *International Journal of Asian Management* 3, no. 1 (2004): 1–26.Accessed April 26, 2025. https://link.springer.com/article/10.1007/s10276-004-0016-y.

4. Management in Asia

Asian management styles are deeply rooted in cultural traditions and values, such as **Confucianism** in East Asia and **Collectivism** in Southeast Asia. According to Piasecka-Głuszak (« Piasecka_Gluszak_Asian_vs._European.pdf »)[14], Japanese management, for instance, is characterized by a strong emphasis on teamwork, harmonization, and long-term relationships. Managers often act as facilitators rather than authoritative figures, fostering a sense of unity and loyalty among employees. In contrast, Chinese management is deeply rooted in Confucian principles, emphasizing hierarchy, harmony, and respect for authority. According to the Commisceo Global guide (« The Chinese Management Style »)[15], organizations in China often operate within well-defined vertical power structures, with managers taking on a paternal role to guide and support their teams. This style fosters loyalty and mutual respect among employees while utilizing the concept of guanxi or personal networks, which plays a pivotal role in building trust and facilitating business relationships. Decision-making in Chinese organizations is primarily data driven and rational, with a strong emphasis on facts and statistics. At the same time, maintaining harmony in the workplace is a top priority, as managers strive to avoid public criticism of employees to protect their "face" (mianzi), a concept tied to dignity and reputation. While traditionally more prudent, modern Chinese management has shown increasing openness to change and innovation, blending traditional values with modern business strategies.

These approaches reflect the broader cultural emphasis on harmony, respect for authority, and group cohesion in Asian societies.

[14] Piasecka-Głuszak, Agnieszka. "Asian vs. European (Western) Management Style - The Position of Manager in Enterprise." *Research Papers of Wrocław University of Economics*, no. 126 (2010): 1–15.Accessed April 26, 2025. https://dbc.wroc.pl/Content/120060/Piasecka_Gluszak_Asian_vs._European.pdf.

[15] Commisceo Global. "China Management Guide." Accessed April 26, 2025. https://www.commisceo-global.com/resources/management-guides/china-management-guide.

5. Differences Between Management Styles in Europe and Asia

The management styles in Europe and Asia differ fundamentally in their cultural foundations, approaches to leadership, decision-making processes, and employee dynamics. While European management emphasizes diversity and adaptability across regions, Asian management prioritizes harmony and group cohesion, reflecting deeply rooted cultural traditions.

One key contrast lies in the foundation of **leadership** styles. In Europe, leadership approaches, such as Anglo-Saxon or Nordic management, emphasize decentralization and equitable participation, allowing employees to exercise autonomy and contribute to decisions. On the other hand, Asian management, as seen in Japanese or Chinese styles, often centers on hierarchical structures where managers act as facilitators or mentor leaders, fostering loyalty and maintaining authority without weakening interpersonal harmony.

Another notable difference is the role of **relationships in organizational success**. European managers, particularly in Latin styles, leverage interpersonal connections strategically to build loyalty and adaptability, whereas Asian managers rely heavily on cultural concepts such as *guanxi* (networks) and *mianzi* (face) to establish trust and preserve dignity within workplace relationships. These elements are crucial to collaboration and stability in Asian organizations.

In terms of **decision-making**, European styles often favor structured, goal-oriented processes, exemplified by Germanic precision and Nordic collaboration, while Asian management employs collaboration methods, integrating personal and cultural values into organizational decisions. For instance, Japanese managers achieve decisions through teamwork, while Chinese managers focus on pragmatic solutions rooted in hierarchical rationality.

Finally, **adaptability** demonstrates a key evolution in both regions. European management styles increasingly integrate collaborative and innovative practices across geographical boundaries. Similarly, Asian management is blending traditional values

with modern data driven and technology enabled approaches to meet the demands of an interconnected global economy. This dynamic adaptation illustrates how cultural foundations continue to influence, but not restrict, management evolution.

Chapter 4 : The Role of AI in Hospitality, Business Management, and Organization

The hospitality business is steadily influenced by the evolution of society and the impact of AI. By introducing innovative tools, AI transforms this industry internally as a management tool and externally as a product or service delivered to clients. Its role **enhances management efficiency** and **optimizes organizational processes**. Figure 1, by Duchessi, O'Keefe, and O'Leary explores the interactions of artificial intelligence with management and organizations (Duchessi, O'Keefe et O'Leary 1993)[16].

1. AI impact on Management

AI assists management in dynamic pricing, demand forecasting, and guest experience personalization. Expert Systems, a type of AI, play a key role in enabling these processes by providing precise analysis and real time decision-making capabilities. Studies show that AI drives Lang Chain models[17] significantly and improves these

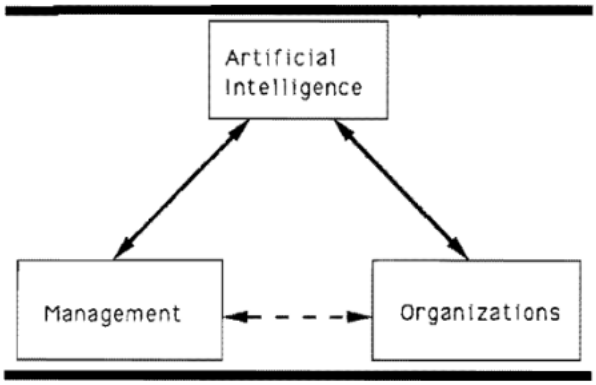

Figure 1 A simple framework for considering the interaction between AI, management and organizations.

[16] Duchessi, Peter, Robert O'Keefe, and Daniel O'Leary. "A Research Perspective: Artificial Intelligence, Management and Organizations." *University at Albany, Albany, NY; Rensselaer Polytechnic Institute, Troy, NY; University of Southern California, Los Angeles, CA.* Pages 151-159. Accessed April 26, 2025. https://msbfile03.usc.edu/digitalmeasures/doleary/intellcont/Artificial%20Intelligence%20Management%20and%20Organizations-1.pdf.

[17] **Lang Chain Models** (Shaik 2024) - evolve AI-driven analytical frame. Used in the hospitality industry to enhance revenue management, process large datasets, predict customer behaviors, and dynamically optimize pricing strategies in real-time. By integrating Industry 4.0 technologies such as touchless solutions and blockchain, Lang Chain models aim to improve operational efficiency, maximize profitability, and enhance customer experience in smart hospitality ecosystems.

processes by analyzing market trends, historical booking patterns, and customer data in real time (Shaik)[18].

Firstly, **dynamic pricing** is used to adjust room rates in real time. Evolved AI algorithms analyze market competitors' pricing, the history of previous bookings on similar dates, and current customer demand to optimize pricing strategies. For example, Marriott International adjusts room rates dynamically in real time based on conditions, demand, and competition. This technique allows Marriott to maximize revenue by dynamically adjusting room rates to ensure competitive and optimal pricing (« (10) Navigating the New Horizons: Embracing Change and Innovation in Hotels and Resorts | LinkedIn »)[19].
Secondly, **demand forecasting** involves anticipating future demand with the help of artificial intelligence. AI can evaluate local events, use predictive models, and assess past occupancy rates. Consequently, it helps managers allocate resources efficiently, such as optimizing staffing levels and inventory planning. As an illustration, Hilton implements strategies to foster demand through its Revenue Management Consolidated Centre (RMCC), focusing on targeted marketing, enhancing loyalty programs to attract specific customer segments and create tailored guest experiences.
Lastly, **for guest experience personalization,** AI systems can analyze previous stays and customer feedback to anticipate future customer needs, which leads to increased guest satisfaction. As for Accor Group, which exploits loyalty program data to anticipate future customer needs and enhance guest satisfaction, they focus on identifying valuable guests and offering them personalized discounts and packages. This strategy helps diversify revenue channels while simultaneously enhancing guest satisfaction and fostering loyalty.

Duchessi defines Expert Systems (ES) as a powerful utensil in the creation of custom products. This application is exemplified by a **configuration system** that provides precise instructions for product construction by analysing preferences of customers.

[18] Mahaboobsubani Shaik, "AI-Driven Revenue Management Using Lang Chain Models in Hospitality," *International Journal of Latest Research Papers*, Volume 5, Issue 3, March 2024, Accessed April 26, 2025.
https://www.ijlrp.com/papers/2024/3/1120.pdf.
[19] Arshad, Zaid. 2024. "Navigating New Horizons: Embracing Change and Innovation in Hotels." *LinkedIn Pulse*. Published September 1, 2024. Accessed April 26, 2025.
https://www.linkedin.com/pulse/navigating-new-horizons-embracing-change-innovation-hotels-arshad-ff6jc/.

The Implementation of ES can support competitive positioning through offensive or defensive approaches. Offensive actions involve product innovation and fostering client relationships, while defensive actions aim to maintain market position by improving internal processes, such as training to skill the workforce. ES uses AI when inspecting the workforce, in performance information and identifies deviances in employees skills. This enables the tailoring of educational training programs to align with organizational needs. As a result, it reduces errors, improves efficiency, and ultimately benefits companies by lowering labor costs and making services more attractive to customers. For instance, Marriott International uses a system to evaluate staff productivity, identifying their weaknesses. According to Neupane and Khanal, these systems help design effective training sessions tailored to employees' lack of skills. This personalized method boosts productivity and leads the organization to success (Neupane et Khanal 2022)[20]. By exploiting AI for dynamic pricing, demand forecasting, and guest experience personalization, management ensures operational excellence and competitive advantage.

2. Management impact on AI

Management is a key actor in admitting AI by inserting it into the organization. There are two central ways to approach this, behave as a champion and provide resources. Management influences this process significantly.

First and foremost, a **champion** refers to the higher-up person who promotes AI and helps the personnel adapt to it. This champion, stands up for the implementation of technologies, ensuring that it becomes a priority in the organization, and fosters as a support. Based on studies, strong backing from top management leads to greater success in implementing AI mechanisms and boosts employees' confidence in their effective use. A real life example comes from Hilton Hotels (« AI in Hospitality »)[21].

[20] Neupane, Rajendra, and Tanka Raj Khanal. "Evaluation of the Impacts of Training on Employee Performance in the UK Hotel Industry: An Analysis of Employees' Perspectives at Marriott International." *International Journal of Research - Granthaalayah* 10, no. 3 (2022): 57–85.
[21] "AI in Hospitality." *Lingio*. Accessed April 26, 2025. https://www.lingio.com/blog/ai-in-hospitality.

Hilton has been a leader in adoption of AI technologies, namely AI powered chatbots and personalized booking systems. Whilst prioritizing the implementation of AI, management ensured that staff received sufficient training to use these tools effectively. For instance, Hilton's Chief Commercial Officer, Chris Silcock, to improve client experience and deliver services, underlined the need for incorporating AI into their business operations. This strong leadership and support from higher-ups helped foster a culture of innovation and boosted employees' confidence in using AI tools.

Next point, management needs to provide enough **provision of resources** to succeed AI, like budgeting, staff, and time. Duchessi and O'Keefe highlights', the fact that when management prioritizes AI implementation, equally as for critical business activities, it has a positive impact on the adoption process. This mindset guarantees smoother implementation and operational prosperity for the technology. As seen earlier with Marriott International's dynamic pricing strategy, management achieved success by allocating sufficient resources for their AI-driven pricing algorithms. They ensured that the necessary funds, time, and training were available during the establishment of AI as a pivotal aspect of business operations. This approach not only facilitated adoption but also maximized operational efficiency.

3. AI impact on Organization

The effects from AI on organizations change work by affecting roles, decision-making, costs, services, and staffing. These are the main impacts:

At the time that AI utensils like ES take charge of roles from some employees, it can **shift power** within the organization. For example, AI powered concierge systems (Gomez 2025)[22] and automated housekeeping schedulers (« AI-Powered Housekeeping »)[23].

[22] "AI-Powered Virtual Concierges: The Future of Guest Services in 2025." *Cressco*. Accessed April 26, 2025. https://www.cressco.dev/post/ai-powered-virtual-concierges-the-future-of-guest-services-in-2025.

[23] *Interclean Show*, "AI-Powered Housekeeping Innovations in the Hospitality Sector." Accessed April 26, 2025. https://www.intercleanshow.com/news/data/ai-powered-housekeeping-innovations-in-the-hospitality-sector.

In some hotels, AI chatbots (« AI Concierge in Travel & Hospitality »)[24] are implemented, which handle guest inquiries instantly for the common questions such as room service propositions or local attractions. This tool serves both employees and customers. This concierge reduces the workload of front desk staff by giving them time to focus on personalized service and interactions with clients. Furthermore, it empowers guests to access information independently and privately (*Gomez 2025)*. For example, hotels like Hilton (« Hilton Introduces AI Customer Service Chatbot as Part of New Move in Digital Strategy » 2020)[25] use AI powered chatbots to handle guest inquiries 24/7. Hilton's chatbot, "Xiao Xi," launched in China, provides a one-stop source for travel advisory services, including hotel information, local weather, and Hilton Honors promotions. Since its introduction, Xiao Xi has responded to over 50,000 customer inquiries with a 94% satisfaction rating, showcasing its effectiveness in enhancing guest experiences and streamlining operations. Additionally, automated schedules, like housekeeping (Vathana 2025)[26] ones, optimize work per employee based on guest check ins and check outs, streamlining operations and improving efficiency. For instance, “Hashed Analytic's” cutting-edge program cuts expenses in labor costs and improves guest satisfaction through intelligent scheduling, live tracking for guest requests, task progression - if it is in treatment and room status updates (rooms are occupied, vacant, or ready for cleaning), as well as proactive maintenance. For example, the Ritz-Carlton in San Francisco implemented an AI system to streamline room cleaning schedules by considering factors such as guest check out times, priority rooms, and staff work patterns. This resulted in a 20% increase in housekeeping efficiency and enhanced guest satisfaction.

These shifts not only enhance operational effectiveness but also redistribute decision-making power within the organization. As mentioned earlier, Marriott International’s dynamic pricing strategies also showcase the importance of AI in

[24] "AI Concierge in Travel and Hospitality: 2024 Guide." *DialZara*. Last modified 2024. Accessed April 26, 2025. https://dialzara.com/blog/ai-concierge-in-travel-and-hospitality-2024-guide/.
[25] "Hilton Introduces AI Customer Service Chatbot as Part of New Move in Digital Strategy." *Hospitality Technology*. Accessed April 26, 2025. https://hospitalitytech.com/hilton-introduces-ai-customer-service-chatbot-part-new-move-digital-strategy.
[26] *Hashed Analytic*, "Automated Housekeeping in Hospitality." Accessed April 26, 2025. https://hashedanalytic.com/automated-housekeeping-in-hospitality/.

ensuring competitive room rates and operational success (« AI Concierge in Travel & Hospitality »). Tools like these highlight the pivotal role of management in fostering an environment where AI mechanisms can thrive (« AI-Powered Housekeeping »).

Second, AI has a possibility to take over **decision-making** and assume some responsibilities traditionally handled by humans. One example is the analysis of guest reviews and feedback to identify areas for improvement. For instance, platforms like « Reviewpro »[27] automate the categorization and prioritization of guest complaints, transferring decision-making duties from customer service teams to AI systems (Abode 2024)[28]. Alternatively, some hotels now employ AI powered predictive maintenance tools to monitor equipment such as HVAC (Heating, Ventilation, and Air Conditioning) systems, elevators, and kitchen appliances. These systems analyze data to predict maintenance needs, taking over decisions that were traditionally made by facility managers. This shift not only streamlines operations but also ensures timely repairs, reducing downtime and enhancing guest satisfaction.

AI systems can **reduce costs** on labor by automating tasks and making processes more efficient. Faster and precise solutions can improve services, at the same time helping staff assist customers effectively. Many hotels and restaurants have implemented self-service kiosks for check ins, check outs, and food ordering. These kiosks reduce the need for front desk or counter staff, cutting costs while providing guests with faster and more efficient service. As shown in Figure 2, Yotel hotel in New York use self service kiosks for check-ins and luggage storage like “YOBOT”. There are several types of storage. Some are like YOBOT, while others consist of a large room operated by a robotic arm, often including luggage storage features. Guests can securely store their luggage by using the kiosk to access automated lockers or storage systems. This has become a hallmark of Yotel's tech-driven hospitality approach. For luggage storage, the "YOBOT" robot provides a secure and automated solution,

[27] Shiji Group. "ReviewPro Reputation Features." Accessed April 26, 2025. https://www.shijigroup.com/reviewpro-reputation/features.
[28] Abode Worldwide. "AI in the Hospitality Industry: 15 Real-World Examples." Last modified September 12, 2024. Accessed April 26, 2025. https://abodeworldwide.com/ai-hospitality-industry.

allowing guests to store their belongings efficiently (« Smart Tech-led Stays at YOTEL | YOTEL »)[29] .

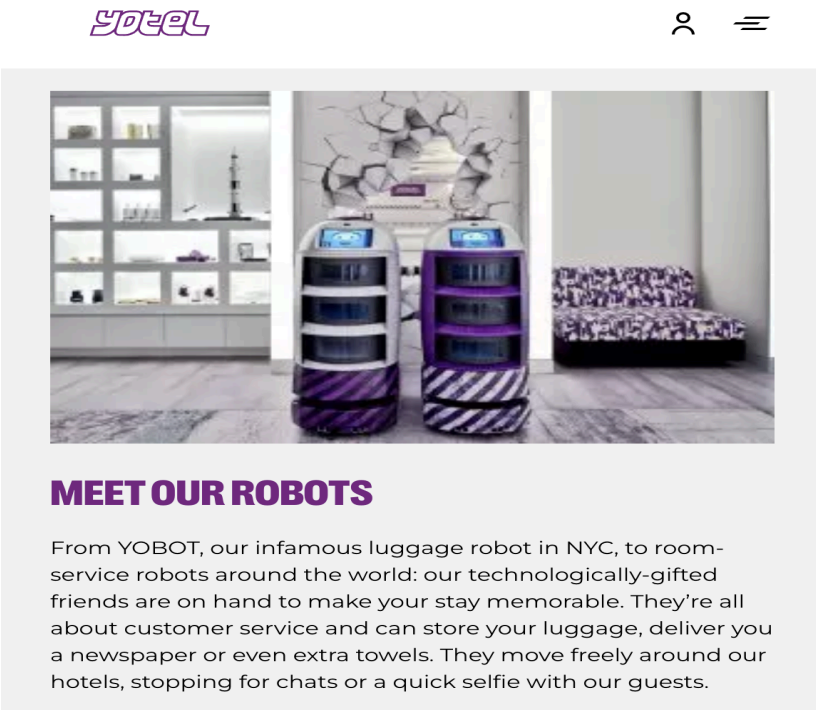

Figure 2 : Yobot from Yotel hotel, "Tech-Driven Hospitality"

Personnel shifts and downsizing due to AI implementation are evident in the hospitality industry, where maintaining AI systems often incurs significant expenses and requires specialized support teams. For example, the Henn Na Hotel in Japan, known for its extensive use of robots, initially replaced a large portion of its human staff with 243 robotic systems to manage tasks such as check-ins, luggage delivery, and concierge services. However, the hotel soon faced challenges with frequent malfunctions and inefficiencies, leading to increased reliance on human staff to address these issues. To ensure smooth operations, the hotel had to hire a dedicated team of technicians and engineers to maintain and troubleshoot the robots, adding to its overhead costs. Despite these challenges, the hotel reported that robotic services

[29] YOTEL, "Tech," Accessed April 26, 2025, https://www.yotel.com/en/tech.

improved operational efficiency by 30% in repetitive, standardized tasks, such as luggage delivery, and simultaneously reduced direct labor costs. This case demonstrates how AI can replace specific roles and reduce staffing expenses, while necessitating increased investment in support personnel to sustain the technology (Hertzfeld 2019)[30]*;* (Pronk) [31].

4. Organization impact on AI

AI systems are adopted and utilized based on how organizations are structured and operate. Information Systems (IS) play a vital role in this process, using technology to store, process, and transform data into valuable information for decision-making. However, the adoption of AI systems, including ES, can influence budgets and financial planning within organizations. Moreover, factors such as technological awareness, organizational culture, and available resources significantly impact the effectiveness and scope of AI deployment. This analysis will explore several key aspects influencing AI adoption, including the incentives provided to users for engaging with AI systems, the role of external organizations, the impact of organizational structure and the importance of organizational support. These elements offer a comprehensive perspective on how AI reshapes industries, particularly in terms of operational efficiency, budgetary considerations, and organizational dynamics.

For AI systems to succeed, **users** need **motivation** and benefits **to adopt** them. For instance, the CONFIRM project launched in 1988, a collaborative effort among AMR Corporation, Marriott, Hilton Hotels Corporation, and Budget Rent-A-Car. The project aimed to create a unified platform for airline, hotel, and car rental reservations, reflecting the growing demand for integrated technological solutions in the travel industry at the time. Despite its advanced technical capabilities, the initiative faced numerous obstacles

[30] "Japan's Henn-na Hotel Fires Half Its Robot Workforce." *Hotel Management*. Accessed April 26, 2025. https://www.hotelmanagement.net/tech/japan-s-henn-na-hotel-fires-half-its-robot-workforce.
[31] Söderberg Granström, Daniel Erik André, Aya Mai Pronk, and Noel Criscione-Naylor. "Robotic Services in the Hotel Industry: An Examination of Henn Na Hotels." *International Journal of Gaming Hospitality and Tourism* 3, no. 1 (2023). Accessed April 26, 2025. https://stockton.edu/light/documents/ijght_vol.3no.1/robotic_services_henn_na_hotels-6.7.23.pdf.

that eventually led to its discontinuation. Hilton Hotels encountered difficulties integrating the system into their operations due to its complex user interface, which did not align with their established workflows. Additionally, employees resisted its adoption as the system lacked incentives and failed to demonstrate direct advantages for its users. Cultural and operational differences among the participating organizations further intensified these issues. Although 125 millions dollars was invested and the project spanned three and a half years, the lack of alignment with user needs and organizational culture resulted in its failure, highlighting the importance of addressing such factors in AI implementation (Oz 1994)[32].

External organizations, such as unions and regulators, play a significant role in shaping the implementation of AI systems in the hospitality industry. For example, the Chateau Marmont Hotel, located in Los Angeles, California, faced union-led negotiations that influenced the integration of new technologies. The union's involvement ensured that workers' rights were protected while aligning the hotel's business model with technological advancements. These negotiations resulted in a collective negotiation agreement that addressed concerns about job security and fair wages[33], demonstrating how external organizations can mediate the balance between innovation and workforce considerations (« Chateau Marmont Hotel Union Labor Negotiation Case Study »)[34]. Similarly, on the Las Vegas Strip, the introduction of AI powered robots in casinos has sparked discussions about job displacement and regulatory oversight. These robots, showcased at Consumer Electronics Show (CES) 2024, are designed to perform tasks such as preparing coffee and serving customers, raising concerns among labor unions about their impact on employment (« Robot baristas and AI chefs caused a stir at CES 2024 as casino union workers fear for their jobs | AP News »)[35]. These examples highlight the critical role of external organizations

[32] Oz, Effy. "When Professional Standards Are Lax: The CONFIRM Failure and Its Lessons." *Communications of the ACM* 37, no. 10 (October 1994): 29–36. Accessed April 26, 2025. https://course.ccs.neu.edu/is2000f10/readings/CONFIRM.pdf.
[33] Fair wages - adequate earnings aligned with industry standards.
[34] Nick Law. "Union Negotiations at Chateau Marmont." Accessed April 26, 2025. https://getnicklaw.com/business-integrity/independent-monitoring/case-studies/union-chateau-marmont/ .
[35] AP News. "CES 2024 Robots on Vegas Strip Raise Concerns." Accessed April 26, 2025. https://apnews.com/article/ces-2024-robots-vegas-strip-casino-jobs-8bd3fd4f404a0cda90e69e539a19fb01.

in ensuring that AI deployment aligns with both business goals and employee welfare, fostering a more balanced approach to technological adoption.

By Drucker (1988)[36], modern **organization structures** are moving away from rigid hierarchies - like stovepipe structures, where information flowed vertically within isolated departments, with little to no communication or collaborations across different parts of the organization. This shift is toward more adaptable frameworks, such as flexible setups like self-managed teams and decentralized decision-making. AI supports this shift by improving the consistency and reliability of decisions. Based on industry research by Juniper Networks (« citizenM Redefines Hospitality With Juniper's AI-Driven Enterprise Solutions | Juniper Networks US »)[37], CitizenM Hotels has adopted a decentralized and technology-driven approach to redefine hospitality. By leveraging Juniper's AI-driven network solutions, CitizenM empowers its staff to operate more independently while maintaining a consistent guest experience across its global locations. The AI systems enable seamless communication, efficient operations, and personalized guest engagement, allowing employees to focus on delivering high-quality service without relying on rigid, top-down management structures. Additionally, Juniper Networks (« citizenM Hotels Case Study | Juniper Networks UK&I »)[38] approach aligns with CitizenM's vision of "affordable luxury" and its commitment to innovation, demonstrating how AI can support modern organizational structures in the hospitality industry.

Organizational support, including assistance from management, staff involvement and resources, is critical to the success of AI systems. The adoption of AI-driven systems by hotels in Hotels Ho Chi Minh City, Vietnam, offer a pertinent example of this, as

[36] Drucker, Peter. "The Coming of the New Organization." *Harvard Business Review* 66, no. 1 (1988): 45–53.
[37] Juniper Networks. "citizenM Redefines Hospitality with Juniper's AI-Driven Enterprise Solutions." Accessed April 26, 2025. https://www.juniper.net/us/en/the-feed/topics/ai-and-machine-learning/citizenm-redefines-hospitality-with-junipers-ai-driven-enterprise-solutions.html.
[38] Juniper Networks. "citizenM Hotels Case Study." Accessed April 26, 2025. https://www.juniper.net/gb/en/customers/2023/citizenm-hotels-case-study.html.

explored in a study published in published in *Theseus* (« Opportunities of artificial intelligence in hospitality industry for innovative customer services »)[39]. These establishments have implemented AI technologies such as chatbots, self-check-in kiosks, and machine learning algorithms to enhance customer experiences. The success of these initiatives, as highlighted by To Linh Lu, hinges on strong organizational support. Hotels that invested in comprehensive training programs ensured that employees were equipped with the necessary skills to use AI tools effectively, fostering a positive and adaptable environment for innovation. Conversely, Lu's research identified significant challenges where organizational support was lacking. For example, in cases where chatbot systems were deployed without proper training for front-line staff or designed with unintuitive interfaces, employees often resorted to traditional methods, avoiding the AI tools completely. These missteps underline the critical role of adequate preparation, including resource allocation and ability to address the users needs, in maximizing AI adoption. Lu's findings further demonstrate that hotels which prioritized tailored training initiatives and allowed staff sufficient time to adapt to AI technologies achieved smoother transitions and greater operational success. Moreover, these hotels received improved customer feedback, emphasizing the long-term benefits of robust organizational support. This case illustrates how meeting user requirements, ensuring the availability of adequate technological resources, and fostering a supportive environment can significantly enhance the effectiveness and sustainability of AI systems in the hospitality industry.

Chapter 5 : The dark side of AI in Hospitality Management

AI has revolutionized the hospitality industry, offering efficiency and innovation. However, its integration also brings challenges that must be addressed to ensure balanced and ethical adoption. This chapter explores the darker aspects of AI in hospitality management, focusing on employee resistance, job displacement, environmental concerns, and the loss of personalization.

[39] Lu, To Linh. "Opportunities of Artificial Intelligence in Hospitality Industry for Innovative Customer Services: Case Hotels in Ho Chi Minh City, Vietnam." *Theseus*. Accessed April 26, 2025. https://www.theseus.fi/bitstream/handle/10024/266899/AI-Thesis-Final-Version-converted.pdf?sequence=2.

1. Employee Frustration and Resistance to AI Integration

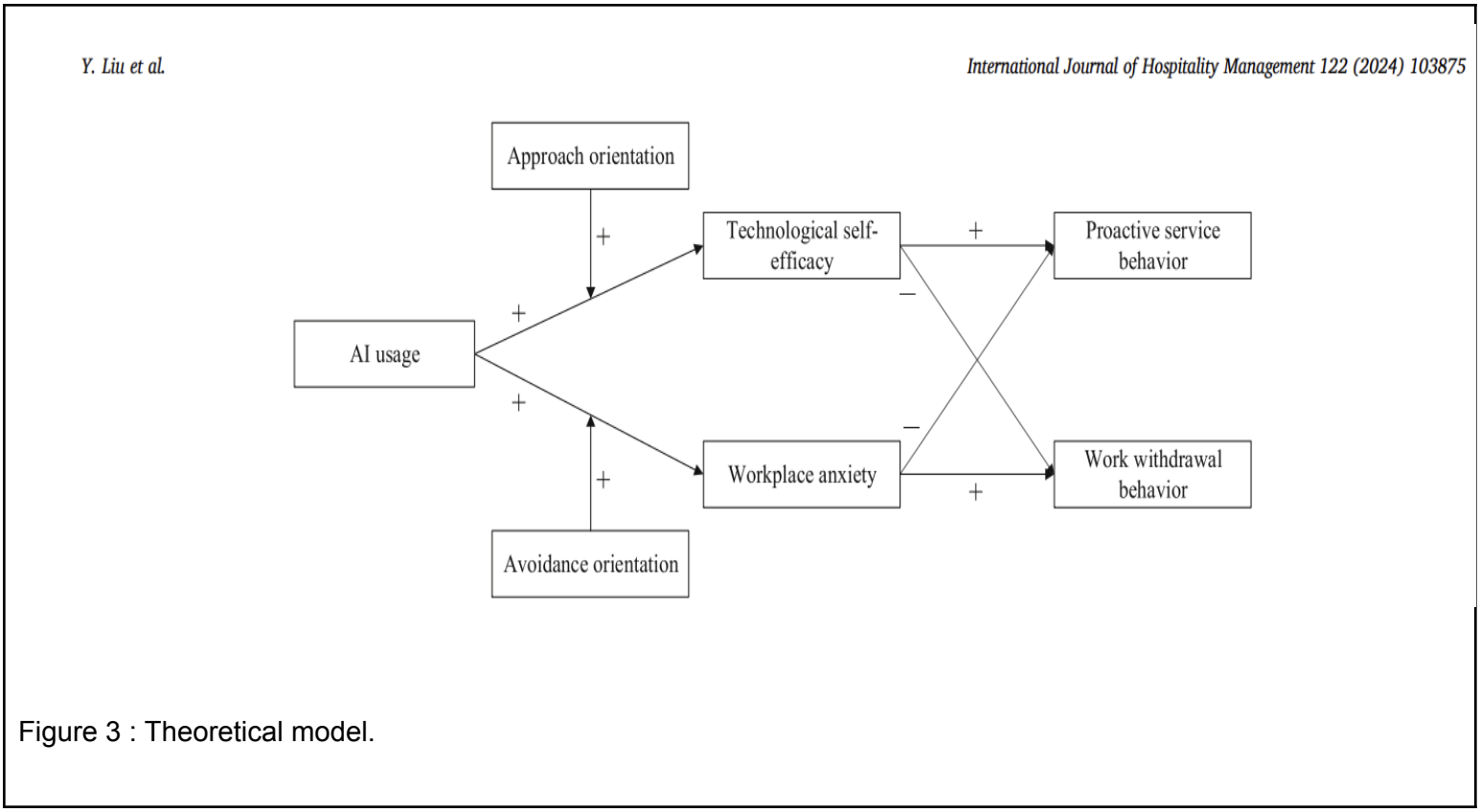

Figure 3 : Theoretical model.

The integration of AI in the hospitality industry has brought significant advancements, but it has also led to challenges, particularly in terms of employee frustration and resistance. According to the study published in the *International Journal of Hospitality Management* (Liu et al. 2024)[40], AI usage affects employees through complex psychological and behavioral mechanisms. Figure 3 illustrates a theoretical model that explores how AI influences workplace dynamics. It highlights two opposing directions : a positive impact through approach orientation, leading to technological self-efficacy and proactive service behaviors, and a negative impact via avoidance orientation, resulting in workplace anxiety and work exclusionary behaviors.

[40] Liu et al. "The Two Faces of Artificial Intelligence (AI): Analyzing How AI Usage Shapes Employee Behaviors in the Hospitality Industry." International Journal of Hospitality Management 118 (2024): Article 103216. Accessed April 26, 2025. https://www.sciencedirect.com/science/article/abs/pii/S0278431924001877.

For example, the study examines automated check-in systems in hotels, which streamline operations and improve guest convenience. However, these systems have also created frustration among front-line staff, who feel their interpersonal skills are undervalued. This frustration originates from the perception that AI reduces the human touch in guest interactions, creating isolation and resistance to change. Figure 3 underscores the importance of balancing these contrasting effects, as organizations must address the negative behavioral responses alongside fostering technological self-efficacy.

Ethical concerns further compound these challenges. The use of AI for employee surveillance, such as monitoring performance or tracking activities, can erode trust and morale within the workforce. Employees may perceive these systems as invasive, leading to intensified wariness and resistance toward AI integration. Effy Oz (*"When Professional Standards Are Lax: The CONFIRM Failure and Its Lessons"*) emphasizes that neglecting the ethical considerations of AI application aggravates employee opposition, weakening its effectiveness.

Regulatory challenges also present significant barriers to AI adoption in the hospitality industry. Conformity with laws like the General Data Protection Regulation (GDPR) (« What is GDPR, the EU's new data protection law? » 2018)[41] in Europe requires organizations to implement strong safeguards for guest and employee data. These regulations necessitate careful management of sensitive information, adding multiple complications to AI application. Neglecting adherence to GDPR or similar regulations can lead to legal consequences and reputational damage. It highlights the need to balance legal obligations and cultural considerations during implementation.

To overcome resistance, researches emphasizes the importance of fostering a supportive organizational culture that prioritizes employee involvement. Comprehensive training programs can enhance technological self-efficacy, helping employees build confidence in using AI tools. Transparent communication about the benefits and

[41] European Union. *General Data Protection Regulation (GDPR)*. Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016. Official Journal of the European Union, L119, May, 2018. Accessed April 26, 2025. https://gdpr.eu/what-is-gdpr/.

limitations of AI integration can alleviate fears and promote acceptance, ensuring that employees remain engaged and motivated in the evolving workplace.

2. Job Displacement and the Future Role of Humans in Hospitality

AI's ability to automate repetitive tasks has raised significant concerns about job displacement in the hospitality sector. Predictions suggest that roles such as front desk staff, reservation agents, and even housekeeping may be replaced by AI driven systems. While AI enhances efficiency and reduces operational costs, it also forces the industry to rethink the role of humans in delivering personalized service. Experts argue that the future of hospitality lies in balancing AI automation with human-centric roles that emphasize empathy, creativity, and the unique ability to build meaningful connections with guests (FSW 2025)[42]*;* (« What percentage of human employees in hospitality will be replaced by technology by 2030? »)[43].

The hospitality workforce is evolving rapidly, with AI positioned as both a game-changer and a destroyer. Industry professionals highlight that AI's biggest impact may not be direct job loss but rather job evolution. For instance, AI can handle routine tasks such as check-ins, reservations, and data processing, freeing human employees to focus on strategic decision-making and guest experience, developed earlier. This shift allows professionals to leverage their interpersonal skills and creativity, ensuring that the human touch remains a cornerstone of hospitality.

However, the transition is not without challenges. As AI adoption accelerates, the industry must address concerns about workforce displacement and the ethical implications of automation. Some experts envision a hybrid model where AI complements human labor rather than replacing it entirely. In this model, humans take on roles that require emotional intelligence, adaptability, and cultural understanding,

[42] "The Future of Hospitality Labor: ITB 2025 Predictions & Insights." *Food Service Weekly*. Accessed April 26, 2025. https://foodserviceweekly.com/the-future-of-hospitality-labor-itb-2025-predictions-insights/.

[43] "Job Displacement and the Future Role of Humans in Hospitality." *Hospitality Net*. Accessed April 26, 2025. https://www.hospitalitynet.org/viewpoint/125000243.html.

while AI handles repetitive and data driven tasks. This approach not only preserves jobs but also enhances employee satisfaction by allowing workers to engage in more fulfilling and impactful roles.

3. Negative Impact of AI on Ecology and Sustainability

AI systems in hotels contribute to environmental challenges, such as increased energy consumption and electronic waste. While AI can optimize resource use, its implementation often relies on energy-intensive technologies. For instance, smart systems that automate lighting and heating can reduce waste but also require significant power to operate (« The Environmental Impact of AI in Hotels » 2024)[44]. Research highlights that the computational power required for AI systems generates considerable carbon emissions, further aggravating environmental concerns. For example, the training and deployment of AI models demand high-performance computing equipment, which consumes large amounts of electricity and water for cooling (Yu et al. 2024)[45].

Additionally, the manufacturing and disposal of electronic components used in AI systems contribute to electronic waste, posing long-term sustainability challenges. To address these issues, experts advocate for the adoption of renewable energy sources, such as solar panels and wind turbines, to power AI systems. Incorporating energy-efficient technologies and recycling electronic waste are also critical steps toward reducing the environmental impact of AI in hospitality.

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[44] "The Environmental Impact of AI in Hotels: Toward Sustainable Hospitality Practices." *Panda Pod Hotels*. Accessed April 26, 2025. https://pandapodhotels.com/the-environmental-impact-of-ai-in-hotels-toward-sustainable-hospitality-practices/.

[45] Yang Yu, Jiahui Wang, Yu Liu, Pingfeng Yu, Dongsheng Wang, Ping Zheng, and Meng Zhang. "Revisit the Environmental Impact of Artificial Intelligence: The Overlooked Carbon Emission Source." *Frontiers of Environmental Science & Engineering* 18, no. 158 (2024). Accessed April 26, 2025. https://doi.org/10.1007/s11783-024-1918-y .

4. The Over-Reliance on AI and Loss of Personalization

Over-reliance on AI risks reducing the personal touch that defines hospitality. Automated systems, such as chatbots, may streamline guest interactions but lack the empathy and adaptability of human staff. Excessive dependence on AI can lead to impersonal guest experiences, ultimately undermining customer satisfaction (Katz 2025)[46]. For instance, while AI-driven chatbots can handle routine inquiries and provide 24/7 support, they often fail to address complex or emotionally sensitive situations that require human understanding (Lee et Intradiem)[47].

Experts emphasize that the hospitality industry must integrate AI in ways that complement human roles rather than replace them entirely. AI can be a valuable tool for automating repetitive tasks, such as managing reservations or answering frequently asked questions, freeing human staff to focus on delivering personalized and empathetic service. However, when AI is overused without a clear strategy, it risks creating disconnected and generic guest experiences that fail to meet the emotional and cultural expectations of travelers.

To address these challenges, hospitality leaders must adopt a balanced approach that leverages AI to enhance, rather than replace, human interactions. By strategically deploying AI to handle transactional tasks, hotels can empower their staff to concentrate on building meaningful connections with guests, ensuring that the human touch remains a cornerstone of the hospitality experience.

[46] "AI in Hospitality: A New Era of Efficiency and Personalization." *Withum*. Accessed April 26, 2025. https://www.withum.com/resources/ai-in-hospitality-a-new-era-of-efficiency-and-personalization/.
[47] "Balancing Tech and Human Touch: How AI Enhances Guest Experiences in Hospitality." *Hospitality Technology*. Accessed April 26, 2025. https://hospitalitytech.com/balancing-tech-and-human-touch-how-ai-enhances-guest-experiences-hospitality.

5. The Risks of Over-Dependence on AI in Hospitality: Electricity Outages and Workforce Challenges

The hospitality industry's increasing reliance on AI poses significant risks in the event of electricity outages. AI systems, which automate critical operations such as reservations, check-ins, and guest services, are heavily dependent on uninterrupted power supply. A sudden blackout could lead to operational paralysis, leaving hotels unable to function effectively (Boakye 2016)[48]. This dependence on AI systems increases vulnerabilities, as staff trained to rely on technology may lack the skills to manage manual operations during crises. The absence of qualified personnel capable of handling non-AI operations could result in panic and chaos, further weakening guest satisfaction and trust.

Electricity interruptions also highlight the fragility of AI-driven systems in maintaining resilience during emergencies. Research emphasizes the need for robust emergency plans to mitigate the impact of power disruptions on AI dependent industries (Dominici)[49]. For instance, hotels must invest in backup power solutions, such as generators or renewable energy systems, to ensure continuity of operations. Additionally, cross-training staff to perform essential tasks manually can reduce reliance on AI and enhance preparedness for unforeseen disruptions.

[48] Boansi, Boakye. "The Impact of Power Outage 'Dumsor' on the Hotel Industry: Evidence from Ghana." *Academia.edu*. Accessed April 26, 2025. https://www.academia.edu/103882360/The_Impact_of_Power_Outage_Dumsor_on_the_Hotel_Industry_Evidence_from_Ghana.

[49] Dominici, Francesca. "The Dilemma Between a Strained Power Grid and Sustainable AI." *Forbes*. Accessed April 26, 2025. https://www.forbes.com/sites/francescadominici/2025/02/16/the-dilemma-between-a-strained-power-grid-and--sustainable-ai/

The over-dependence on AI not only risks operational breakdowns but also raises concerns about workforce readiness. As AI replaces traditional roles, the hospitality industry faces a shortage of skilled personnel capable of delivering personalized service without technological assistance. This shift could lead to a workforce ill-equipped to handle crises, creating a "panic shock" scenario during power outages. To address these challenges, hospitality leaders must prioritize human-centric strategies, such as retaining qualified staff and fostering adaptability through comprehensive training programs. By balancing AI integration with human expertise, hotels can build resilience and ensure seamless operations even in the face of electricity outages.

Part 1 : Conclusion

In conclusion, the literature indicates that AI solutions offer significant advantages in terms of efficiency, cost reduction, and improved service delivery, they also raise important concerns. The challenges include employee frustration due to automation, ethical issues in surveillance and data handling, and the complexities of integrating AI into existing organizational structures. These dual dimensions innovation on one side and resistance, disruption on the other - underscore the need for a balanced approach to AI adoption in hospitality. This synthesis of the literature provides the foundation for the next phase of the study, where we will critically examine the nuanced effects of these technological transformations on managerial roles and staff responsibilities, as well as the broader implications for employee engagement. In the subsequent part of this thesis, the focus will shift to presenting the problem in depth and exploring how the emerging dynamics in hotel management call for a rethinking of traditional leadership and human resource strategies. This synthesis of the literature provides the foundation for the next phase of the study. Will delve into case analyses of AI integration in hotel management across two distinctive contexts, one in Asia and one in Europe. These case studies will offer insight into how AI reshapes managerial roles and organizational practices in different cultural and operational environments. In doing so, the study will later introduce the central research problem and outline the hypotheses to be tested, consequently providing a comprehensive view of the transformation and its implications in contemporary hospitality management.

II. AI Transformation in Hospitality Management : Case Studies, Managerial Adaptation, and Future Workforce Perspectives

Part 2 : Introduction

The hospitality industry is experiencing a significant transformation with the integration of AI. AI tools are reshaping traditional processes, from automating routine tasks to creating personalized guest experiences, leading to profound changes in managerial roles and workforce dynamics. This shift evokes the central question: **How does the integration of Artificial Intelligence in hotel management transform the roles and responsibilities of managers, and what are the implications for staff management and employee engagement?**

This section builds on organizational change theories and human resource adaptation frameworks to explore these developments. These theoretical perspectives provide insights into how managerial functions evolve in response to AI adoption and how staff engagement and morale can be sustained during transitions.

Problematization arises in the balance between AI's benefits and challenges. While AI enables managers to focus on strategic decision-making, it necessitates new competencies such as data analysis and digital leadership. Similarly, AI enhances workforce productivity but introduces concerns about job security and resistance to technological change. These complexities underline the need for a nuanced exploration of AI's dual impact.

Part II will examine case studies, managerial adaptation strategies, and workforce responses across diverse contexts, offering actionable insights into leveraging AI effectively while addressing its human-centered challenges. The findings aim to inform practices that harmonize technological innovation with the human values central to hospitality management. Additionally, this section will present three key hypotheses derived from both the literature review and empirical research.

Chapter 6 : Case Study and Management Perspective of AI Adoption in Asia in Hospitality.

In Asia, hotels are embracing AI to improve operational efficiency but also to redefine managerial roles and workforce practices. This chapter examines two interwoven dimensions of AI integration in Asian hospitality. First, it presents an in-depth case study of AI adoption in the region by drawing on recent research findings. Second, it discusses how managers are leading this transformation, addressing both technical and human challenges. In doing so, discussions from Shin, Ryu, and Jo demonstrate the need for agile leadership and workforce transformation, while the case of Japan's Henn-na Hotel and a homegrown Singaporean hotel chain provide practical examples of strategic implementation and challenges faced throughout the process.

1. Case Study : AI Adoption in Asia

AI is being integrated into Asian hotel operations with the dual aims of boosting efficiency and enhancing customer experience. One study that provides a wide-ranging examination is "*Navigating Artificial Intelligence Adoption in Hospitality and Tourism: Managerial Insights, Workforce Transformation, and a Future Research Agenda"* (Shin, Ryu et Jo 2025)[50]. Their work reveals that AI implementation in hotels is not just about new technologies but also about transforming work processes and redefining employee roles. The authors argue that traditional job functions are evolving as managers introduce automated tools for revenue management, guest interaction, and operational decision-making.

One key insight from Shin, Ryu, and Jo is the emphasis on "managerial insights" in successfully adopting AI. They state that managers must serve as leaders of progress, communicating the benefits of the technology and ensuring that adequate training and support systems are in place. For example, the study explains how workforce

[50] Shin, Hakseung, Jiyoon Ryu, and Yujeong Jo. *Navigating Artificial Intelligence Adoption in Hospitality and Tourism: Managerial Insights, Workforce Transformation, and a Future Research Agenda*.

transformation occurs when employees are re-skilled to cooperate with AI systems rather than being laid off because of them. In practice, this means that tasks once performed manually, like processing guest reservations or managing room rates, are increasingly supported by AI tools that analyze vast amounts of data in real time. The authors present data showing that hotels that invested in targeted training programs saw a significant reduction in employee resistance and an increase in technological self-efficacy among staff.

Another illustrative example comes from the work "*Service Robots in the Hospitality Industry: The Case of Henn-na Hotel, Japan"* (Reis et al. 2020) [51]. Henn-na Hotel made headlines as one of the first to deploy service robots at a large scale. These robots were assigned to a range of tasks, from check-ins to luggage handling and their integration demonstrated potential efficiency gains. However, Reis et al. report that the rapid launch of these robots also exposed several operational challenges. For instance, frequent system malfunctions necessitated not only an reassessment of maintenance protocols but also a significant change in the organizational setup to include dedicated technical teams. The study highlights that while automation reduced the workload on front-line staff, it simultaneously increased the hotel's dependency on adjusting technical interventions. This duality shows that AI's promise of cost reduction and efficiency must be balanced with investments in technical support and emergency planning.

Complementing these findings, in "*Crafting an Organizational Strategy for the New Era: A Qualitative Study of Artificial Intelligence Transformation in a Homegrown Singaporean Hotel Chain"* (Tan et al. 2025)[52] provide insights into how strategic planning and organizational culture shape successful AI integration. In their study, Tan and co-authors describe a Singaporean hotel chain that approached AI transformation as a holistic strategic initiative. They detail how senior managers prioritized aligning AI projects with the hotel's core vision. In this case, the leadership not only secured the necessary technical infrastructure and funding but also fostered an environment of

[51] Reis, Joao, Nuno Melao, Juliana Salvadorinho, Bárbara Soares, and Ana Rosete. *Service Robots in the Hospitality Industry: The Case of Henn-na Hotel, Japan*.
[52] Tan, Kim-Lim, Peik-Foong Yeap, Kevin Chuen-Kong Cheong, and Shanu Rekha Loganathan. *Crafting an Organizational Strategy for the New Era: A Qualitative Study of Artificial Intelligence Transformation in a Homegrown Singaporean Hotel Chain*.

continuous training and open communication. The study reports that by tailoring AI applications to fit the hotel's culture, the resistance among employees was minimized. Moreover, managers actively involved frontline staff in the development process and solicited feedback to improve the technology. Such practices created a sense of ownership among employees, consequently smoothing the implementation process.

In summary, the case studies from Asia suggest that AI adoption is multifaceted and must be supported by a robust strategy involving clear managerial leadership, workforce transformation, and the selective investment in technical infrastructure. While advanced technologies, such as automated revenue management systems and service robots are central to these transformations, their successful deployment depends on how well they are integrated into existing organizational practices and culture. Shin, Ryu, and Jo emphasize that continuous skills development and technological self-efficacy are key factors in overcoming initial resistance. Additionally, Reis et al. and Tan et al. illustrate that practical challenges, such as system malfunctions and cultural mismatch, can be mitigated through comprehensive technical support and strategic, culture aware organizational planning.

2. Management Perspective of Leading AI Transformation in Hospitality in Asia

To maintain their competitive edge, Asian hospitality leaders are driving a profound transformation by introducing AI technologies while rethinking management norms and organizational culture.

According to Shin et al., effective AI adoption in Asian hotels begins with proactive leadership. They argue that managers must serve as champions for AI by actively promoting its benefits, securing adequate resources, and offering comprehensive training programs. By improving technological self-efficacy among staff, managers can reduce fears of job displacement and reduce resistance to new ways of working. Shin et

al. note that when managers invest in training and open communication, employees develop a clearer understanding of AI's role, which in turn facilitates smoother operational transitions.

In addition to these insights, Tan et al. provide a closer view of strategy in the Singaporean context. Their managers have been required to align AI initiatives with both the hotel's long-term vision and local cultural values. The study explains that successful transformation depends on tailoring AI projects to fit within existing organizational practices. Tan et al., research highlights that clear policies, consistent resource allocation, and ongoing employee engagement are all essential for building trust in AI systems. By involving staff in pilot programs and decision-making processes, managers in Asia are better able to mitigate resistance and foster a sense of ownership throughout the organization.

The practical challenges of AI adoption are further underscored by the example provided by Reis et al., Japanese managers encountered unique difficulties when integrating service robots into daily operations. Although these robots streamlined routine tasks such as guest check-ins and luggage delivery, frequent technical malfunctions compelled management to establish dedicated technical support teams. Managers had to find a delicate balance, they were tasked to use technology to reduce costs while also ensuring sufficient reliable human supervision to handle unexpected failures. Reis emphasize that such challenges require Asian managers to be both visionary and pragmatic, continually recalibrating strategies to maintain service quality in the face of technological breakdowns.

Collectively, these studies illustrate that the transformation of management in Asian hospitality goes far beyond technical implementation alone. Managers are redefining their roles increasingly acting as facilitators of change rather than only supervisors. They are responsible for integrating AI into the fabric of their organizations in a manner that respects traditional hospitality values while driving operational innovation. With initiatives ranging from extensive employee training to the careful customization of AI

applications, Asian hotel managers are developing practices that enable them to stay ahead in a fast-evolving market.

From the perspectives provided by Shin et al. as well as Tan et al., it becomes evident that the success of AI transformation in Asia is largely determined by leadership that is both adaptable and inclusive. By fostering an environment that values continuous learning and by strategically aligning AI with broader business goals, managers are turning potential challenges into opportunities for growth. This dual focus on technological and human factors is central to ensuring that the integration of AI not only enhances efficiency but also strengthens overall employee engagement and service excellence in the hospitality industry.

To conclude, the Asian case study shows that successful AI integration in hospitality depends not only on advanced technology but also on strong managerial leadership and cultural adaptation. As Shin et al. note, providing comprehensive training and promoting technological self-efficacy are key to reducing employee resistance. Meanwhile, Reis et al. 's insights from Henn-na Hotel reveal that addressing technical challenges and establishing support systems are essential. Tan et al. further emphasize the importance of aligning AI initiatives with an organization’s strategic vision and local culture. Overall, these studies suggest that a balanced approach combining technical innovation with human and cultural considerations is crucial for sustainable AI transformation in Asian hospitality.

Chapter 7 : Case study Europe

In Europe, the hospitality sector is experiencing a profound digital transformation, as hotels increasingly rely on AI to enhance guest satisfaction and streamline operations. This chapter examines how European hotels are implementing AI and how managers guide these digital transformations. The discussion builds on findings by Makivić et al.

(2024)[53] and Hradecky et al. (2022)[54] to show how data driven decision-making and strong organizational readiness are key to success.

1. **Case Study : AI Adoption in Europe**

European hotels have adopted AI to offer tailor-made services and improve efficiency. In Serbia and Hungary, Makivić et al. (2024) found that AI systems continuously track guest behavior and preferences. These systems process data from every guest interaction, from check-ins to in-hotel service usage.This allows managers to adjust pricing, enhance room recommendations, and modify dining options in real time. This data driven customization not only elevates guest satisfaction but also encourages loyalty through personalized experiences.

Furthermore, AI tools in Europe are not limited to routine tasks. The ability to monitor guest trends helps hotels anticipate shifting needs. For instance, if guests show a growing preference for local cultural experiences, managers can quickly incorporate these elements into their service offerings. This adaptive strategy gives hotels a competitive edge in rapidly changing markets.

Hradecky et al. emphasize the importance of organizational readiness in these digital transformations. Many European hotels have established robust IT infrastructures, enhanced communication channels, and implemented comprehensive training programs. Such investments ensure that AI systems integrate smoothly into daily operations without disrupting the personal service that guests expect. The readiness to adapt and invest in technology plays an essential role in deriving tangible benefits from AI.

[53] Makivić, Ranko, Dragan Vukolić, Sonja Veljović, Minja Bolesnikov, Lóránt Dénes Dávid, Andrea Ivanišević, Mario Silić, and Tamara Gajić. 2024. “AI Impact on Hotel Guest Satisfaction via Tailor-Made Services: A Case Study of Serbia and Hungary.” *Information* 15, no. 11: 700.
[54] Hradecky, David, James Kennell, Wenjie Cai, and Rob Davidson. “Organizational Readiness to Adopt Artificial Intelligence in the Exhibition Sector in Western Europe.”

2. Management Perspective of Leading AI Transformation in Europe

Alongside the technological implementation, European hotel managers are reshaping their roles to lead the AI transformation. According to Makivić et al. (2024), managers now rely on real-time data from AI systems to drive high-level strategic planning rather than just overseeing day-to-day tasks. They use detailed dashboards to notice trends, forecast market fluctuations, and adjust operational strategies accordingly. This shift allows for more informed decisions and innovative service models tailored to guest needs.

Managers in Europe also focus on blending digital tools with the human element. Instead of perceiving AI as a replacement for personal service, managers view it as a way to enhance their intuition and experience. Hradecky et al. highlight that investing in training programs and cross-departmental communication is essential. By doing so, managers foster an environment where staff members confidently use AI applications, reducing fears of job displacement while ensuring operational continuity. This approach helps maintain the warmth and personal touch that are central to hospitality.

Moreover, European leaders recognize that strategic alignment is crucial. As Tan et al. have noted in similar studies, aligning AI initiatives with an organization's long-term vision and local cultural practices paves the way for smoother change. By engaging frontline staff through pilot projects and open feedback channels, managers build trust and create a shared sense of ownership over the new technologies. This collaboration between human insights and digital analytics forms the backbone of a resilient, forward-thinking organization.

In summary, European hotels are transforming their operations by adopting AI systems that offer real-time, personalized services. As shown by Makivić et al. (2024) and supported by Hradecky et al., robust technological integration, combined with comprehensive training and effective communication, enables hotels to quickly adapt to guest needs. Simultaneously, European hotel managers are evolving into strategic

leaders who integrate AI insights with human judgment to create innovative service models. This balanced approach ensures that while operations become more efficient, the personalized guest experience remains at the heart of European hospitality.

Chapter 8 : Comparative Analysis : Asia vs. Europe

Across both Asia and Europe, the use of AI in the hospitality industry is transforming operations and management. While hotels in both regions are using AI to improve guest experience and increase operational efficiency, there are clear differences in their priority areas and the cultural and regulatory environments shaping implementation.

Comparative Table

Dimension	Asia	Europe
Managerial Transformation	Managers proactively drive change by re-skilling staff and emphasizing agile leadership. They focus on transforming traditional roles through targeted training and open communication.	Managers shift from overseeing day-to-day tasks to using real-time data for strategic planning. Their leadership emphasizes data driven decision-making and innovative service design.

Enhanced Guest Experiences	AI applications, such as service robots and automated revenue management, support personalized guest services. These systems tailor offerings based on direct guest interaction and feedback.	AI systems continuously monitor guest behavior and preferences to offer tailor-made services. Dynamic adjustments in pricing, dining, and amenity offerings help build guest loyalty.
Challenges in Staff Management	Both regions face the challenge of staff resistance and the need for robust training. In Asia, proactive communication and technical support are key to easing these transitions.	European hotels invest in comprehensive training and robust IT infrastructures to integrate AI smoothly, ensuring that automation complements rather than replaces the human touch.
Focus Areas	The focus is on workforce transformation and adapting management roles. This is illustrated by the integration of service robots and re-skilling initiatives, to meet rapid technological advances.	The focus lies on leveraging data analytics for strategic insights and aligning AI projects with long-term vision, ensuring that technology enhances personalized service in competitive markets.
Cultural &Regulatory Factors	Local cultural values support rapid innovation, with management practices tailored to the accelerated adoption of new technologies while maintaining flexibility.	Organizational readiness in Europe is also driven by regulatory conformance and a strong emphasis on preserving the personalized, high-quality service that guests expect.

The table above highlights several key similarities and differences between the two regions. Both Asia and Europe exhibit significant managerial transformation, yet Asian managers are notably focused on re-skilling and agile, hands-on leadership, while European managers pivot toward strategic, data driven decision-making. Enhanced guest experiences are central in both regions. However, the methods differ : In Asia, the adoption of service robots and automated systems accentuates operational efficiency and direct guest interaction, whereas in Europe, continuous data analysis supports dynamic service customizations that build long-term loyalty.

Staff management challenges are common, as both regions face resistance to change. Asian hotels address this through proactive communication and technical support, when European establishments rely on strong organizational readiness and comprehensive training programs. Finally, the focus areas vary, Asia concentrates on rapid workforce transformation and adaptation, while Europe prioritizes strategic alignment of AI initiatives with long-term business goals. Cultural and regulatory factors further differentiate the regions. Asian organizations benefit from flexible adaptation, while European hotels must carefully balance innovation with strict regulatory frameworks and high service standards.

In summary, while both Asia and Europe are successfully integrating AI into hospitality, their approaches differ in focus and context. Asian hotels emphasize rapid technological adaptation and workforce transformation, whilst European hotels leverage data driven strategies and regulatory adherence to enhance personalized service. This perspective, as outlined in the table, provides insight to industry leaders seeking to effectively leverage AI in their unique regional environment.

Chapter 9 : Future Perspectives – AI Transformation and Universal Basic Income in Hotel Management.

As AI continues its rapid integration into hotel management, its impact stretches far beyond simple automation. AI is now at the heart of dynamic pricing, personalized guest services, and strategic decision-making in hotels. However, as AI reshapes the landscape of hospitality, questions arise about the future of human work. With technology increasingly replacing routine tasks, the need to support affected workers has become urgent. One promising policy response is Universal Basic Income (UBI), which offers a financial safety net during periods of significant labor market transformation. This chapter explores the future of hotel management in the face of AI-driven change and examines how UBI is being considered in both European and Asian contexts.

1. The Future of Hotel Management and the Role of AI

The evolution of hotel management in the era of AI is profound. Modern systems go beyond automating check-ins or enabling predictive maintenance. They offer real-time data insights that allow hotels to optimize resource allocation, dynamically adjust room rates, and craft personalized guest experiences. This transformation means that managers are increasingly using AI dashboards to forecast market trends and refine service offerings. In doing so, these systems unlock efficiencies that were once unimaginable in the hospitality sector.

At its core, the impact of AI in hotels is dual. First, it drives operational efficiency by automating repetitive tasks and exploiting big data to anticipate guest needs. Second, it redefines managerial roles. As AI takes over routine duties, managers are freed to focus on innovative and strategic functions, such as designing new guest experiences and strengthening customer relationships. This new focus not only helps in keeping pace with technology but also supports the overall quality and personalization of service.

However, the flip side is the potential for significant job displacement, which calls for supportive measures to facilitate workforce transition.

2. Universal Basic Income in Europe : A Response to Technological Eruption

Europe has taken important steps toward experimenting with UBI as a result of technological disruptions. Over the past few years, several pilot programs have been launched to assess whether a guaranteed income can offer financial stability when traditional roles are diminished by automation. For instance, Finland's UBI experiment, which provided participants with around 560 euros per month, was initiated with the goal of alleviating poverty and reducing stress among those increasingly exposed to job insecurity. Although the results were mixed regarding employment levels, the experiment underscored improvements in overall well-being and reduced anxiety among receivers (« Finland is launches universal basic income pilot of 560 Euros a month » 2017)[55].

The European Basic Income document published by FEPS Europe (Afscharian et al. 2021)[56] further outlines how UBI might be integrated into existing welfare systems. The idea is that UBI can serve as a safeguard for workers in sectors, such as hospitality, where AI has the potential to eliminate routine jobs. In this context, UBI not only promises economic security but also encourages individuals to invest in retraining and upskilling, ensuring they remain competitive in a changing labor market. With UBI as part of the policy mix, European hotels could see a more resilient and agile workforce that is better prepared for the challenges of digital transformation.

[55] The Independent. "Finland's Universal Basic Income Pilot: 560 Euros a Month in Helsinki." The Independent. Accessed April 26, 2025. https://www.the-independent.com/news/world/europe/finland-universal-basic-income-pilot-ubi-560-euros-a-month-helsinki-poverty-unemployment-a7506696.html.
[56] FEPS Europe. "PS: The European Basic Income." December 2021. Accessed April 26, 2025. https://feps-europe.eu/wp-content/uploads/2022/01/ps-the-european-basic-income_3.pdf.

3. Universal Basic Income in Asia: Emerging Ideas and Future Directions

In contrast to Europe, Asian interest in UBI is still emerging. The rapid pace of AI adoption in Asia has already transformed many aspects of hotel management, such as through the deployment of service robots and automated systems. Despite that fact, it has also raised concerns about mass layoffs. Academic discussions and previous research, like the article in the Stanford Social Innovation Review (SSIR) (« Is Universal Basic Income the Key to Happiness in Asia? »)[57], raise the question of whether UBI could be the key to sustaining happiness and economic security in Asia.

While large-scale UBI pilots are scarce in Asia, initial studies indicate that introducing financial security measures could reduce stress and improve mental health among displaced workers. Research published by the National Center for Biotechnology Information (Pinto et al. 2021)[58], has highlighted that when workers receive economic support, they are more likely to engage in vocational retraining and adapt to new roles that AI cannot easily automate. Given the importance of family and community networks in many Asian cultures, any UBI pattern here would likely need to be adapted to complement traditional support systems. Perhaps through hybrid models that integrate both universal and targeted benefits.

4. Comparative Analysis : Asia vs. Europe

The integration of AI and the exploration of UBI as a policy response demonstrate both common challenges and different approaches across regions. The following table summarizes the core similarities and differences:

[57] SSIR. “Is Universal Basic Income the Key to Happiness in Asia?” SSIR. Accessed April 26, 2025. https://ssir.org/articles/entry/is_universal_basic_income_the_key_to_happiness_in_asia?utm_source=chatgpt.com.
[58] National Center for Biotechnology Information. “PMC8206888: Exploring different methods to evaluate the impact of basic income interventions: a systematic review.” Accessed April 26, 2025. https://pmc.ncbi.nlm.nih.gov/articles/PMC8206888/.

Aspect	Europe	Asia
Policy Maturity	Multiple pilot programs (e.g., Finland) provide robust data on UBI's effects.	UBI is emerging in theory and small-scale pilots; large-scale programs are still under exploration.
Social Impact	Experiments have demonstrated improvements in well-being and reduced anxiety, even though employment effects are mixed.	Early research suggests that UBI could enhance mental health and social stability, important for rapidly automated sectors.
Integration with Technology	UBI acts as a complementary policy that supports retraining and a smoother transition in highly digitalized industries.	UBI is viewed as a potential softer against rapid automation, fostering an environment conducive to skill development and adaptation.
Cultural & Economic Contexts	European models emphasize regulatory frameworks and established welfare systems to support UBI.	Asian contexts may require hybrid UBI models, integrating with strong family and community networks to address unique social needs.

This table reveals that while both regions recognize the revolutionary potential of AI, Europe is slightly ahead in testing UBI models. In Europe, UBI is seen as a method to sustain social well-being among rapid technological changes. However, in Asia UBI is still in the early stages of theoretical development and pilot testing, with a keen focus on adapting such policies to local cultural and economic realities. Both regions are desiring to balance technological innovation with human and social support, nevertheless in ways that reflect their specific social structures.

The future of hotel management in an AI-driven era will depend not only on technological progress but also on the strength of social safety nets like Universal Basic Income. In Europe, pilot projects have demonstrated UBI's potential to ease worker transitions and promote well-being, even as AI transforms operational and managerial practices in hospitality. In Asia, emerging research indicates that UBI could serve as an important policy tool if tailored to local cultural values and social structures. As AI continues to redefine hotel management, transforming roles from routine tasks to strategic and creative functions. Achieving this transformation requires a balanced approach that integrates cutting-edge technologies with supportive policies. Such a strategy will ensure that while hotels enjoy enhanced operational efficiency and innovative service delivery, the human workforce remains secure, engaged, and ready for future challenges.

Chapter 10 : Introduction to Hypothesis

Over the past decades, AI has evolved from a futuristic concept to a critical tool in modern hotel management. In hotels around the world, AI systems extend beyond routine automation tasks to power dynamic pricing models, predictive maintenance programs, personalized guest services, and strategic decision-making frameworks. As hotels increasingly adopt these technologies, the traditional roles of managers and staff are undergoing profound changes. At the same time, the displacement of routine jobs raises important questions regarding the future of the workforce. In response, many scientists and practitioners have begun to explore supportive policies, such as UBI, as a potential way of strengthening worker security during times of rapid technological change.

These developments, discussed thoroughly in the second part of this dissertation (*"AI Transformation in Hospitality Management: Case Studies, Managerial Adaptation, and Future Workforce Perspectives"*), illustrate how AI's capabilities are reshaping

managerial roles and transforming operational practices in the hospitality industry. Equally, as reviewed in the first part, *“Understanding AI in Hospitality: Origins, Trends, and Applications”*, integrating AI into the hospitality industry is not without its challenges. These include workplace resistance, job security concerns, and a substantial need for workforce upskilling.

These opportunities and challenges taken for this chapter to introduce three central hypotheses that will guide the subsequent empirical investigation. These hypotheses address the transformation of AI on hotel management, the improvements it brings to workforce optimization, and the human-centric challenges it has created.

1. **Hypothesis 1: Transformation of Managerial Roles**

AI’s integration in hospitality is creating a significant shift in the roles and responsibilities of hotel managers. Traditionally, managerial duties centered around daily operational functions, such as monitoring reservations, managing guest satisfaction, and overseeing personnel. AI tools, however, are now automating many of these repetitive functions, freeing managers to focus on high-level strategic decision-making. Sophisticated AI dashboards provide predictive analytics on market trends, guest behavior, and operational performance, enabling managers to dynamically refine their service offerings and optimize resource allocation.

Empirical insights from case studies, such as AI adoption by global hotel groups like Hilton and Marriott, reveal that AI allows managers to pivot towards innovation and creativity. For instance, Marriott International uses AI-powered systems for revenue optimization, thanks to what pricing strategies are adjusted in real time based on a combination of historical data, competitor pricing, and market demand (Shaik 2024; Arshad 2024). Similarly, Hilton’s adoption of AI-driven chatbots like “Xiao Xi” demonstrates how automated systems can free managers from daily inquiries, allowing them to focus on creating meaningful guest experiences and long-term strategic goals.

Meanwhile, with this shift comes the necessity for managers to develop new competencies in areas such as data analytics, digital transformation, and agile

leadership. These changes signal a clear shift from traditional supervisory roles to ones that require strategic foresight and adaptability. In this evolving environment, leadership is no longer defined solely by operational expertise but by the ability to exploit AI's potential for innovation.

To further strengthen Hypothesis 1, findings from Shin et al. analysis emphasize that Asian hotel managers adopting AI have transitioned into roles requiring proactive leadership and cultural alignment. Managers act as "champions" of AI implementation by improving technological self-efficacy within teams, offering comprehensive training programs, and fostering a culture of openness to change. Similarly, Tan et al.'s research on a Singaporean hotel chain illustrates that managers successfully implement AI within long-term organizational vision, tailoring digital tools to fit local cultural frameworks while empowering employees to take ownership during implementation phases.

Additionally, case studies from Makivić et al. on hotels in Serbia and Hungary reveal how European hotel managers leverage real-time AI dashboards to forecast guest behavior, refining service models and operational strategies in response to fluctuating demands. The comparative analysis across Europe and Asia highlights that managers increasingly focus on integrating AI-driven insights into broader decision-making processes, shifting the emphasis from routine oversight to strategic planning and innovation.

Thus, **Hypothesis 1** emerges: **The integration of Artificial Intelligence in hotel management alters managerial roles by shifting the focus from routine tasks to strategic decision-making and innovation.**

This hypothesis is founded on the understanding that as AI takes over the mechanical aspects of hospitality management, managers' roles will be reoriented toward tasks that demand creativity, strategic foresight, and strong leadership qualities. These tasks include strategic planning and innovation.

2. Hypothesis 2 : Enhancement of Staff Management Through Advanced AI Tools

Beyond reshaping managerial roles, AI brings significant advancements to staff management, improving productivity and job satisfaction through better performance monitoring, scheduling, and training systems. With tools like automated scheduling platforms and predictive analytics, hotels are able to efficiently manage their workforce, reducing operational inefficiencies while enhancing employee satisfaction. Predictive scheduling systems, for example, use guest data to determine the required staffing levels, ensuring optimal coverage during peak and off-peak times. Similarly, real-time performance monitoring tools offer actionable feedback, enabling managers to design personalized training programs to address skill gaps and foster professional growth (Neupane and Khanal 2022).

Marriott International demonstrates the effectiveness of AI-driven staff management tools. Marriott employs AI to monitor employee productivity and tailor training programs to meet individual needs, which boosts operational efficiency while empowering employees with targeted learning opportunities. By focusing on building skill sets relevant to emerging technologies, employees become more confident and adept at utilizing AI-powered systems (*Lingio, "AI in Hospitality"*). This strategy not only improves workforce morale but also reduces operational errors caused by a lack of appropriate skills.

In addition, findings from Makivić et al. highlight similar advancements in European hotels, where AI systems continuously analyze staff productivity levels and guest interaction feedback to optimize training protocols and shift scheduling. This approach ensures that employees are equipped to meet the growing demands of personalized service, contributing to improved performance and higher job satisfaction. Similarly, research from Shin et al. underscores the importance of technological self-efficacy in the Asian hospitality workforce. Managers who actively invest in continuous training programs create an environment where employees feel empowered to collaborate with AI systems, rather than resisting their integration. Proactive workforce engagement and

skill development reduce anxiety and build confidence among staff, ensuring smoother transitions during AI adoption.

Given these outcomes, **Hypothesis 2** is formulated as follows: **Advanced tools enabled by AI enhance staff management by improving productivity and job satisfaction through better performance monitoring, scheduling, and training.**

This hypothesis is supported by evidence from both Asia and Europe, where AI-driven staff management tools have proven to increase operational efficiency and empower employees to thrive in technologically advanced environments.

3. **Hypothesis 3 : Challenges of AI Adoption**

While AI brings immense benefits to operational efficiency and guest satisfaction, its adoption in hotel management also presents challenges that must be carefully navigated. One of the most significant concerns is employee resistance to change, fueled by fears of job displacement and the erosion of interpersonal guest interactions. Research from Liu et al. (2024) shows that employees may feel devalued when routine tasks, which traditionally required human judgment and interpersonal skills, are automated. These fears can lead to decreased morale and hesitancy to engage with new technologies, ultimately blocking the adoption process.

In Asia, case studies such as the Henn-na Hotel in Japan illustrate the complexities of overcoming such resistance. While service robots streamlined tasks such as check-ins and luggage delivery, frequent malfunctions required substantial human intervention and technical support. Employees who initially viewed robots as competitors ultimately had to adapt to roles that focused on troubleshooting and maintaining these systems (Reis et al. 2020). Similarly, Tan et al. highlight the importance of fostering employee ownership and trust during AI transitions in a Singaporean hotel chain. By involving staff in pilot programs and decision-making processes, managers mitigated resistance and cultivated a collaborative environment where employees were more willing to engage with AI systems.

In Europe, ethical concerns and regulatory challenges are making it difficult to implement AI. Studies from Makivić et al. (2024) emphasize that staff often perceive AI-powered monitoring systems as invasive, eroding trust between employees and management. Additionally, accord with regulations such as GDPR requires careful handling of sensitive employee data, adding complexity to the adoption process. To overcome these obstacles, European managers have prioritized transparency and comprehensive training programs to ease anxieties and foster technological self-efficacy (Hradecky et al.).

From Chapter 9, discussions around UBI highlight a potential avenue for addressing workforce concerns in AI-driven environments. Both European and Asian contexts suggest that UBI could act as a safety net during transitions, enabling employees to invest time in upskilling and reducing fears of job displacement. While UBI remains in the exploratory stage in Asia, it has shown positive impacts on workforce stability and morale in European pilot studies, such as Finland's experiment. These findings underscore the importance of pairing technological advances with robust social policies to support employees during periods of change (FEPS Europe; SSIR).

Thus, **Hypothesis 3** is stated as follows: **The adoption of AI introduces challenges such as resistance to change, job security concerns, and the need for upskilling among employees.**

This hypothesis is supported by findings from Chapters 6, 7, 8, and 9, which collectively highlight the human-centered challenges of AI adoption across diverse cultural and operational contexts. Whether through proactive employee engagement strategies or supportive policies like UBI, hospitality leaders must address these challenges to ensure successful and sustainable AI integration.

4. Synthesis and Research Implications

The three hypotheses outlined above capture the dual nature of AI's impact on hotel management. On the one hand, there are considerable benefits : the transformation of managerial roles and the enhancement of staff management practices can push the

hospitality industry to greater efficiency, innovation, and adaptability. Managers are increasingly transitioning to strategic, data-driven decision-making, while advanced AI tools optimize workforce management, improve productivity, and foster employee satisfaction. On the other hand, the challenges posed by AI, ranging from resistance to change and job security concerns to the need for constant upskilling and ethical dilemmas necessitate a careful, balanced approach to its implementation.

The implications of these hypotheses are significant for both theoretical research and practical applications. The hypotheses provide a structured framework to explore the interaction between technological advancements and human resource management. Comparative studies across different cultural and operational environments, such as Asia and Europe, will provide detailed understanding of how AI is transforming management responsibilities, workforce dynamics, and overall organizational culture. After testing these hypotheses on the field and during interviews, we can identify general trends and region-specific challenges, enriching the research on AI integration in hospitality. For industry practitioners, understanding these dynamics is vital to navigating the complexities of AI adoption. Hotels that successfully balance technological innovation with human-centered management strategies will be better positioned to thrive in an increasingly digital environment. Proactive measures, such as comprehensive training programs, transparent communication about the role of AI, and robust support systems for staff, are critical to fostering workforce adaptability and acceptance. Furthermore, policies such as UBI offer a potential solution to mitigate workforce disruptions caused by automation by providing workers with the financial stability needed for retraining and personal development. These measures will ensure that the benefits of AI, such as optimized operations, enhanced guest satisfaction, and improved workforce engagement, are used in a way that contributes to operational success. They also ensure the long-term well-being of employees. By addressing potential challenges while leveraging the transformative potential of AI, the hospitality industry can achieve a harmonious integration of human expertise and technological innovation.

Part 2 : Conclusion

In summary, the integration of AI in hotel management is set to transform managerial roles and staff dynamics significantly. The first hypothesis states that AI shifts managerial focus from routine tasks to strategic innovation. The second hypothesis suggests that advanced AI tools can enhance staff management by improving productivity and job satisfaction through better performance monitoring, scheduling, and training. The third hypothesis asserts that the adoption of AI also introduces challenges, such as resistance to change and the need for continuous upskilling. They underscore the importance of balancing technological advancements with human-centric support strategies to ensure that the evolution of hotel management remains sustainable and inclusive. The forthcoming empirical research will test these hypotheses - and seek to provide practical recommendations for hotel managers navigating this rapidly shifting landscape.

However, the complexities of integrating AI into hotel management present notable issues. These include overcoming resistance to change among employees, addressing ethical concerns like AI-driven monitoring, and ensuring consistent upskilling efforts to match the pace of innovation. Managers must simultaneously leverage the technological benefits of AI while creating an inclusive work environment that fosters trust and adaptability.

Looking ahead, the next section will outline the methodology for the empirical research, focusing on research design, data collection methods, and analytical approaches. This will bridge the gap between theoretical insights and empirical validation, offering actionable strategies for effectively addressing AI’s dual impact on operations and workforce dynamics in hotel management.

III. Research Methodology and Data Collection Plan

Part 3 : Introduction to Methodology

This part of the thesis outlines the research methodology that will guide the investigation into the transformative impact of Artificial Intelligence in hotel management. The study adopts a qualitative, exploratory research design to capture the nuanced practices, experiences, and perceptions of hospitality managers in the context of AI adoption. Data will primarily be collected through semi-structured interviews with managers, offering the flexibility to probe deeply while maintaining a consistent framework across different participants. The research targets hotels in Asia with a strong focus on leading AI-adopting countries such as Singapore, Japan, China, and South Korea. Additionally employs a comparative perspective by including selected cases from Europe, where different cultural and regulatory contexts influence AI adoption.

Field access will ideally be secured through an internship placement (Plan A), which would provide direct engagement with hotel managers, but alternative strategies (Plan B) involving professional networks and academic contacts will be used if necessary. The collected interview data will be analyzed using thematic analysis to identify key themes, patterns, and regional differences. This methodological approach not only aims to unravel the current landscape of AI integration within hotels but also establishes a crucial link with the second-year action research phase, during which the refined hypotheses will be tested in real-world settings. In this way, the methodology forms the backbone of the study, connecting exploratory insights to practical, actionable recommendations for industry stakeholders.

Chapter 11 : Research Design

1. Research Approach

The study employs a qualitative and exploratory research design, which is particularly appropriate for investigating complex human behaviors, perceptions, and cultural nuances in the context of AI adoption within hotel management. Qualitative methods such as in-depth interviews and direct observations offer the advantage of capturing the rich, detailed narratives of managers and stakeholders, insights that numerical data alone cannot provide. Focusing on understanding the practices, experiences, and perceptions of hospitality managers requires a flexible and frequentative research approach. This framework takes into account the dynamic and multifaceted nature of AI implementation, allowing the study to explore not only established practices but also new trends and unexpected challenges that arise as the technology becomes more deeply integrated into operational processes.

The exploratory approach of this research is justified by several factors. First, AI integration in the hospitality sector is still evolving with significant variations across different regions and organizational contexts. There is a need to understand how different hotels are adapting to new AI solutions and how these changes impact both managerial responsibilities and employee experiences. Second, innovation in hospitality is highly influenced by human and cultural factors, which are best understood through detailed conversations rather than through quantitative surveys. Third, the qualitative approach enables identifying patterns and themes that may be specific to the local context of the regions studied. This is crucial in an industry where the pace and form of AI adoption varies significantly from country to country.

Furthermore, the chosen methodology aligns with the guidelines for exploratory studies in early academic research. Adopting a qualitative position allows for a deep dive into the subjective aspects of technological change, alongside building a solid foundation for the next stages of the research. This approach also supports the development of a repeated framework through which emerging concepts and insights can inform and refine the ongoing study.

2. Field of Study

The geographical scope of the study covers two distinct regions : Asia as the primary focus and Europe for comparative analysis. These regions were selected based on their unique approaches to AI innovation and hotel management practices.

Asia is prioritized due to its reputation as a leader in integrating cutting-edge technology into the hospitality sector. Countries such as Singapore, Japan, China and South Korea are at the forefront of AI innovation, where rapid technological advancements and progressive digital strategies are frequently observed. In these environments, AI is not only used to streamline service delivery but also to redefine organizational structures and managerial roles. The dynamic nature of AI adoption in Asia makes it an ideal setting for understanding how emerging technologies are reshaping the operational and strategic functions within hotels.

In contrast, Europe has been chosen as a comparative field due to its particular regulatory frameworks, cultural contexts, and established hospitality traditions. Countries like France, Germany, and Spain offer varied approaches to AI integration, characterized by stringent regulatory requirements and a strong emphasis on maintaining high levels of personal service. By including European hotels in the study, it is possible to compare and contrast the drivers, challenges, and outcomes of AI adoption between regions where innovation is driven by differing cultural and economic imperatives.

Participants for this study will be selected from a range of managerial positions across various hotel departments. The diversity in roles is crucial to obtaining a comprehensive picture of AI’s impact. The targeted participant groups include :

Hotel General Managers - responsible for overseeing all hotel operations and ensuring that service delivery meets strategic objectives.
Human Resources Managers - who manage workforce planning and design training programs tailored to the evolving needs of staff in an AI-driven environment.

Sales and Marketing Managers - who leverage AI tools to implement dynamic pricing methods and create personalized marketing strategies aimed at enhancing guest experiences.
Finance Managers - tasked with analyzing cost-saving measures and revenue management strategies, ensuring that the financial implications of AI adoption are well understood.
IT and Innovation Managers - who are directly involved in the implementation, management, and continuous improvement of AI technologies within the hotel's operations.

The selection of these participant groups allows for a multi-dimensional exploration of AI integration. It is anticipated that the data collected from these diverse roles will reveal not only the operational benefits of AI but also the challenges related to strategic supervision, workforce management, and technological adaptation.

By focusing on both Asia and Europe and involving managers from several functional areas, the study is designed to yield a holistic understanding of the transformative impact of AI in hotel management. This comprehensive field of study will illustrate the interaction between advanced technological systems and the human elements that stay central to hospitality, thus providing insights into the future trajectory of the industry.

Chapter 12 : Data Collection Plan

This chapter outlines the methods and strategies for collecting qualitative data to examine the integration of AI in hotel management. The aim is to capture the experiences, practices, and perceptions of hospitality managers from different regions, and to gain a comprehensive understanding of how AI is implemented and the challenges it presents in this field.

1. Methods of Data Collection

The primary data for this study will be gathered predominantly through semi-structured interviews. This method offers a consistent yet flexible framework that allows for the

exploration of in-depth insights while ensuring comparability across different participants. To complement the semi-structured approach, structured and unstructured interviews will also be utilized where appropriate, providing additional opportunities to capture spontaneous and nuanced responses. Alongside these interviews, detailed field notes will be taken during internship periods and workplace observations. These notes, sometimes recorded incognito, are intended to document everyday organizational practices involving AI use and to provide contextual background that enriches the interview data.

Given that face-to-face interactions often yield the most detailed accounts, in-person interviews will be prioritized whenever feasible. However, to account for geographical constraints, particularly with participants from Asia, online interviews via platforms such as Zoom, Microsoft Teams, Tencent Meeting in China or Line Works in Korea will be conducted. Video conferencing will serve as a reliable backup method, ensuring that high-quality data can be collected regardless of location.

2. Interview Guide

A comprehensive interview guide will be developed to direct the conversation during each session. The guide is structured around several key themes, including managers' experiences with AI in hotel operations, the types of AI technologies utilized (such as chatbots, dynamic pricing systems, and facial recognition), and the benefits and challenges observed during AI implementation. Additional topics will focus on staff training and adaptation, customer feedback regarding AI-driven services, and the influence of regional cultural factors on technology adoption. Sample questions might ask participants to describe specific examples of AI integration in their operations, discuss challenges their teams have faced, and reflect on how regional culture influences the adoption and effectiveness of AI innovations. Each interview is expected to last between 30 and 60 minutes, providing enough time to explore these areas in depth.

3. Sampling Strategy and Access to Participants

A purposive sampling strategy will be employed to select participants who possess in-depth knowledge and direct experience with AI implementation. The study aims to conduct 10 to 15 interviews with managers representing a broad range of functional roles. These roles include hotel general managers, who are responsible for overseeing overall hotel operations and ensuring that strategic goals are met; human resources managers, who manage workforce planning and training initiatives; sales and marketing managers, who use AI tools to drive dynamic pricing and foster personalized guest experiences; finance managers, who evaluate cost-saving and revenue management strategies; and IT-innovation managers, who directly facilitate the introduction, implementation, and continuous improvement of AI systems.

Participants will be recruited mainly from hotels in Asia, where AI adoption is advancing rapidly, with a comparative sample drawn from selected European countries. Access to these participants is envisaged through an internship placement within a hospitality or consultancy company in Asia, scheduled for February 2026. In the event that the primary recruitment strategy does not secure a sufficient number of participants, alternative methods such as leveraging professional networks, contacting academic colleagues, and utilizing platforms like LinkedIn will be used to identify suitable candidates, particularly for the European context.

4. Ethical Considerations

Ensuring the ethical integrity of data collection is central to this study. Prior to participation, all prospective interviewees will be provided with detailed information regarding the study's purpose, methods, and intended outcomes. Informed consent will be obtained from each participant, and they will be assured of the anonymity and confidentiality of their contributions. Data will be stored securely and used exclusively for academic research purposes. Moreover, participants will retain the right to draw out from the study at any stage without negative consequences. When conducting incognito observations or taking field notes, care will be taken to protect both the identity of the participants and the integrity of the collected data.

Chapter 13 : Data Analysis Plan

This chapter describes the systematic approach that will be employed to analyze the qualitative data collected throughout the study. The overall objective is to explore how managers in the hospitality industry perceive and implement AI solutions, and to understand the factors that facilitate or slow its adoption in different regional contexts. To achieve this objective, a thematic analysis will be conducted on the interview transcripts, with particular attention paid to identifying key themes, emergent patterns, and regional differences. In addition, various tools will be used to support and enhance the data analysis process.

1. Thematic Analysis

Thematic analysis is ideally suited for exploring complex, context-sensitive phenomena such as the integration of AI in hotel management. This method involves a series of methodical steps that allow researchers to refine raw qualitative data into clear, interpretable themes that can be compared across cases and regions.

Transcription and Familiarization

The analysis begins with the complete transcription of each interview. Every recorded interview will be transcribed fully to capture all verbal nuances and context that the participants offer. Transcription is a time-consuming but important step, as it ensures that all the data are available in textual form for systematic analysis. Once the interviews are transcribed, careful reading of each document will be conducted. This familiarization phase allows the researcher to delve deeper into the data, noting previous observations and potential areas of interest.

Coding Process

Following familiarization, the transcripts will be systematically coded. During the coding stage, significant phrases, expressions, and passages will be highlighted as they relate to the research objectives. Coding involves assigning descriptive labels or "codes" to segments of text that capture specific ideas or concepts. Codes may express a range of ideas. For instance, codes such as “cultural barriers,” “managerial resistance,” “staff

adaptation," and "AI benefits" might emerge from the data. The initial coding will be descriptive in nature, ensuring that the data are justly represented. This process will be repetitive, periodically reviewing and refining codes as new insights emerge from the data.

Grouping Codes and Theme Development

After the initial coding is completed, similar codes will be grouped together to form broader themes. This process involves a careful review of the coded data to identify patterns and underlying constructs that recur across different interviews. For example, codes that refer to organizational challenges, technical difficulties, and resistance to change may be clustered under a broader theme such as "Managerial Resistance and Organizational Challenges." Similarly, codes associated with positive outcomes, such as enhanced productivity and improved guest satisfaction, may consolidate into a theme labeled "Benefits of AI Integration." The grouping process not only organizes the data into meaningful categories but also facilitates the synthesis of complex information across participants.

Comparative Analysis Between Regions

One of the critical objectives of this study is to compare AI adoption and its implications between Asia and Europe. Therefore, once broad themes have been established, the analysis will focus on contrasting these themes across the two regions. The comparisons will help to identify both universal and region-specific factors that influence AI integration in hotel management. For example, the extent and nature of "cultural barriers" may differ notably between Asian and European contexts, while "managerial innovation" might display a more consistent pattern across regions. This comparative phase will involve without losing sight of the contextual factors that inform each theme, and differences in regulatory, cultural, and economic settings will be carefully noted and interpreted.

Depth of Analysis

The thematic analysis is not limited to identifying and describing themes. It also aims to interpret the data by exploring how various themes interact and influence one another. The research will delve into the underlying reasons why certain challenges arise, the efficacy of various strategies adopted by managers, and the cooperations between technological factors and human behaviors. This depth is achieved through constant comparison, reflection, and validation against the raw data. By clarifying the complex interplay between identified themes, the analysis is expected to reveal deeper insights into the transformative impact of AI in hotel management.

2. Tools for Data Analysis

To facilitate the rigorous execution of thematic analysis, a combination of manual and software-assisted coding methods will be employed. Initially, manual coding will be conducted using readily available tools such as Microsoft Word or Excel. These tools allow for detailed annotation and organization of the interview transcripts. For instance, color coding and comment features in Word or the use of tables in Excel will enable systematic tracking of codes and themes.

If the volume of data or the complexity of the thematic patterns require additional assistance, free software can be used for qualitative data analysis. Software such as RQDA or QDA Miner Lite can provide additional functionality for coding and visualizing themes. The use of such software is designed to complement the manual approach, enhancing the overall efficiency and accuracy of the analysis process. Audio transcription software may also be employed to reduce the time required for converting recordings into text, though all automated transcriptions will be meticulously verified through manual review to ensure fidelity to the original data.

Furthermore, the selection of these tools and methods is motivated by the need to maintain a transparent and reproducible analytical process. Detailed records of coding decisions, theme development, and comparative analyses will be maintained to ensure that the analysis can be audited and replicated in future studies. This rigorous approach

is essential for producing reliable, high-quality research findings that can contribute to the academic groundings on AI in hospitality management.

Chapter 14 : Challenges, Limitations, and Ethical Considerations

This chapter discusses the challenges and limitations anticipated in the data collection process and outlines the ethical standards that will be rigorously followed throughout the study. The discussion encompasses practical issues, such as internship uncertainty, cultural differences and time constraints. Then addresses the ethical framework governing consent, anonymity, data security, and cultural sensitivity in working with diverse participants.

1. Challenges and Limitations

One of the primary challenges concerns internship uncertainty. The ideal scenario involves conducting data collection through an internship placement in Asia, which would provide ready access to hotel managers via in-person interviews. If this internship does not take place, the research will have to be conducted remotely to collect the necessary data. Remote interviewing presents its own set of challenges including : ensuring reliable internet connections, managing potential technical difficulties, and possibly losing some of the nuanced, in-person communication cues that facilitate depth in discussions.

Cultural differences across regions may also present limitations during the data collection phase. Participants from Asia and Europe are likely to communicate in culturally influenced ways, which could affect both the flow of conversation and the depth of the responses. Variations in communication style, indirect versus direct verbal expression, and differences in comfort when discussing sensitive topics can all influence the quality and interpretation of the data. In order to mitigate these limitations, careful cultural sensitivity will be applied in the development of interview questions, and

translators or cultural consultants may be engaged if necessary to ensure that nuances are accurately captured.

Time constraints represent another significant challenge. The target participants, who are managers across various departments in the hotel industry, often have busy schedules, which limit the availability for interviews. Coordinating interview sessions that fit into their demanding timetables could result in shorter-than-ideal sessions, delayed responses, or difficulties in scheduling follow-up interviews. These constraints may affect the comprehensiveness of the data collected and necessitate flexibility in the interview design and scheduling process.

2. Ethical Considerations

In parallel with addressing practical challenges, ethical considerations form an integral part of the research design. The study will adhere to established ethical standards to ensure that all activities are conducted with integrity and respect for participants.

All potential participants will be fully informed about the purpose and scope of the research before the commencement of any interviews. Informed consent will be obtained from every participant, ensuring that their involvement is entirely voluntary and that they understand their rights throughout the study. Clear and comprehensive information will be provided so that participants are aware of the aims, potential risks, and benefits of the research, as well as how the data will be used.

Maintaining anonymity is another critical ethical mandate in this study. The identities of the participants, along with any identifying details of the hotels involved, will be kept confidential. This measure is intended to protect the privacy of the participants and ensure that the data cannot be traced back to any individual or organization. Any published findings will use pseudonyms or aggregated data formats to prevent the disclosure of sensitive information.

Data security is also highly important. All interview recordings and transcripts will be securely stored on password-protected devices, and access to these files will be restricted to the research team. Digital copies of the data will be encrypted when stored

or transmitted, ensuring that unauthorized individuals cannot access the information. This approach guarantees that the integrity of the data is maintained and that participant confidentiality is preserved.

Finally, the study emphasizes respect and cultural sensitivity when interacting with participants from diverse backgrounds. Recognizing that cultural contexts influence communication styles and perceptions, the research process will be tailored to honor these differences. Interview protocols, language used during interactions, and any follow-up communications will be designed to respect cultural norms and sensitivities. Special care will be taken to ensure that all participants feel comfortable and valued during the entire data collection process. Researchers will remain mindful of potential power imbalances, ensuring that each interaction is conducted with empathy and professionalism.

Chapter 15 : Future Outlook

This chapter outlines the next phase of the research, which is planned for Year 2, and discusses anticipated challenges and limitations that may impact the research process. The preliminary field exploration conducted during the current Master's research serves as a foundational step that will help refine the hypotheses and guide the more in-depth action research project scheduled for Year 2 during the professional internship.

1. Link to Year 2 Research

In the second year of the research project, a deeper action research study will be conducted as part of the professional internship. During this period, the research will focus on implementing and testing refined hypotheses in real organizational settings. The preliminary findings and field explorations from the current study will inform the development of more targeted research questions and specific intervention strategies. The insights gained will allow for the adaptation of methodologies and improvement of data collection instruments based on the challenges and themes identified in the initial

phase. This extended research phase intends to create a comprehensive understanding of how AI transforms hotel management practices by capturing longitudinal changes, practical outcomes, and organizational responses over time. The findings from Year 2 are expected to contribute actionable recommendations for managers in the hospitality industry and provide clear evidence for the integration of AI-driven strategies in operational and strategic decision-making processes.

2. Anticipated Challenges and Limitations

The study faces several expected challenges that may affect data collection and the overall depth of the study. One major potential challenge is securing a sufficient number of interviews. If the internship opportunity in Asia does not materialize, this could limit access to key managerial participants within the hotel industry, thereby constraining data diversity and depth. Additionally, cultural and language barriers during interviews in Asia are expected to pose significant challenges. Such barriers could influence the clarity and detail of communication, affecting both the depth of the responses and the efficiency of the data collection process. Another challenge is the variability in participant availability and willingness to engage in interviews across different regions. Differences in work practices, cultural norms, and professional commitments may result in region-specific disagreements that complicate scheduling and the consistency of the qualitative data gathered. Lastly, time limitations proper to the Master's timeline could restrict the scheduling and conduction of interviews, potentially reducing the opportunity for follow-up discussions or frequent data collection that might enrich the analysis.

3. Mitigation Strategies

In order to address the potential challenges and limitations, several alternative strategies are planned. Early planning and flexible scheduling will be essential to secure interviews with busy managers. In cases where an internship placement in Asia is not feasible, remote interviews conducted via online platforms will be used to ensure continuous data collection. To overcome cultural and language barriers, the research may employ translators or cultural mediators who can facilitate more effective communication and enhance the depth of the discussions, mentioned earlier. Employing

a mixed-method approach that integrates both online and in-person interviews is also planned to maximize participation and data quality across different regions. These strategies aim not only to mitigate potential setbacks but also to ensure that the research remains robust and adaptable. The flexibility inherent in the research design will allow for adjustments based on emerging challenges, thereby preserving the overall integrity of the research process.

Chapter 16 : Link to Second Year Research

The exploratory research conducted in Year 1, along with additional data anticipated from Year 2, will form the pivotal foundation for the action-research dissertation scheduled for the second year. This stage is designed to refine the initial hypotheses, target specific challenges in AI adoption in hotel management, and develop concrete professional recommendations during the Master's internship project. The insights generated from early qualitative investigations will thus play an integral role in driving forward a deeper and more contextual study in the coming year.

1. Consolidating Exploratory Data

The qualitative data collected throughout Year 1 have already provided a rich canvas of insights into how various managerial roles perceive and implement AI solutions within the hospitality sector. Themes such as technological benefits, organizational resistance, and cultural influences, along with other nuanced challenges, have emerged from semi-structured interviews, unstructured discussions, and detailed field observations. This exploratory data offers several advantages. First, it has enabled the identification of recurring patterns and contextual differences between regions - particularly between Asia and Europe. Second, the data have helped to highlight both opportunities and limitations in AI adoption, which in turn will guide the formulation of more precise research questions and hypotheses for the next phase of the study.

As additional data are gathered in Year 2, these exploratory findings will be revisited and examined in greater depth. The iterative process of data collection and analysis is expected to refine the initial hypotheses by identifying any gaps or unanticipated factors that were not fully visible in the preliminary phase. This consolidation of data forms the basis for targeted research that not only deepens theoretical understanding but also informs the practical dimension of AI integration in hotel management.

2. Refining Hypotheses and Targeting Specific Challenges

One of the main functions of the exploratory phase is to refine the research hypotheses that address the transformative impact of AI on hotel management. Preliminary findings have already suggested that AI adoption shifts managerial roles from routine operations to strategic innovation, enhances staff management through advanced AI tools, and introduces a range of challenges, such as resistance to change and the need for continual upskilling. These themes will be interrogated further in the action-research phase.

The second year of research will focus on addressing specific challenges identified during the exploratory phase. For example, it is anticipated that issues related to cultural barriers, regional adaptations, and managerial resistance will present unique obstacles in different hotel contexts. By leveraging the exploratory data, the subsequent phase of research will target these challenges directly. The refined hypotheses will be subjected to rigorous testing through action-oriented interventions during the Master's internship. This empirical work will allow for an in-depth examination of the causal mechanisms underlying successful or problematic AI integration strategies, while simultaneously identifying best practices that can be generalized or customized for different organizational environments.

3. Designing Concrete Professional Recommendations

A parallel objective of the second-year research is to translate the academic findings into practical, actionable recommendations for the hospitality industry. During the professional internship, action research methodologies will be employed to implement and assess various interventions designed to address the challenges identified in the preliminary phase. The exploratory studies have exposed both strengths and limitations in existing AI adoption practices. Drawing on these findings, the research will develop a set of well-grounded recommendations aimed at enhancing operational efficiency, addressing workforce concerns, and fostering a culture of innovation within hotels.

These recommendations will be formulated in close collaboration with industry experts and managerial practitioners. By utilizing a repeated process, which includes feedback loops from on-site evaluations, additional interviews, and real-time problem solving. The action-research phase will produce insights that are not only academically robust but also directly applicable to everyday management challenges. The end goal is to offer hotel managers clear guidance on integrating AI in a way that enhances service quality, improves staff engagement, and ultimately drives long-term organizational success.

4. IIntegration and Future Research Directions

The link between the exploratory phase and the future action research is underpinned by the need to bridge theoretical exploration with practical implementation. The preliminary data provide a critical evidence base that will enable further refinement of hypotheses, ensuring that the research remains sensitive to real-world challenges. This integrative approach supports a more holistic understanding of AI adoption dynamics and will contribute to building a comprehensive framework for future studies.

In the second year, the focus will shift to a more action-oriented research design. This design will allow for the testing of specific interventions and the generation of temporal data, thereby capturing the evolution of AI integration over time. The insights obtained will not only validate the refined hypotheses but will also offer a road for navigating technological disruptions within the hospitality sector. The work conducted in Year 2 is envisioned to culminate in a set of professional recommendations that are grounded in empirical evidence and tuned to the unique challenges faced by hotels in different cultural and organizational contexts.

Part 3 : Conclusion

In summary, the methodology detailed in this part lays the foundation for a comprehensive study of the impact of AI on hotel management. By employing a qualitative, exploratory design and utilizing semi-structured interviews, the study is positioned to uncover the complex dynamics of managerial practices and cultural influences both in Asia and Europe. The dual approach to field access through an internship or alternative professional contacts ensures that robust, in-depth data will be gathered despite potential challenges. The planned thematic analysis will facilitate a systematic exploration of the collected data, highlighting recurring themes and regional nuances critical to understanding AI adoption. Moreover, this methodological framework not only supports the current exploration but also creates a vital bridge to the forthcoming action research in Year 2, where practical interventions and time-series insights will further refine the study's findings. Ultimately, this integrated approach is designed to yield clear, evidence-based recommendations that will help guide strategic innovation in the hospitality industry.

General Conclusion

This thesis has explored the multifaceted impact of AI on hotel management by integrating theoretical insights with empirical evidence from diverse case studies and managerial analyses. The literature review and historical exploration contextualized AI's evolution, while the case studies presented in Part 2 highlighted how AI is revolutionizing operational practices and reshaping managerial roles across different cultural contexts. The methodological framework, detailed in Part 3, enabled the systematic collection and thematic analysis of qualitative data, revealing recurring patterns such as the shift from routine operational tasks to strategic innovation and the challenges arising from cultural differences and workforce adaptation.

The findings have underscored both the potential benefits of AI integration, such as improved operational efficiency, dynamic guest service management, and data-driven decision-making. The significant challenges it poses, including resistance to change and the need for continuous upskilling. The insights gained throughout this exploratory phase not only refine the initial hypotheses but also serve as a critical foundation for the forthcoming action research in Year 2, where these refined hypotheses will be tested in real-world hospitality settings.

In conclusion, this research contributes to the existing body of knowledge on AI in hotel management by offering a comprehensive, multi-regional perspective that blends academic rigor with practical insights. The results point toward a balanced integration of technological innovation and human-centric management strategies, which is essential for sustaining long-term organizational success. The action research planned for Year 2 will build on this foundation, further illuminating pathways for effectively harnessing AI to drive both operational excellence and enhanced employee engagement in the dynamic hospitality industry.

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Annexe : Acronyms and abbreviations

1. AI – Artificial Intelligence
2. ES – Expert Systems
3. GDPR – General Data Protection Regulation
4. IS – Information Systems
5. UBI – Universal Basic Income

Transformation de la Gestion Hôtelière par l'Utilisation de l'Intelligence Artificielle

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Résumé

Cette thèse étudie l'impact de l'intelligence artificielle (IA) sur la gestion hôtelière, en se concentrant sur la transformation des rôles managériaux, l'évolution des pratiques de gestion du personnel et l'optimisation des opérations. En retraçant l'évolution de l'IA de ses premières théories à ses applications actuelles, la recherche adopte une approche qualitative et exploratoire. La recherche sera fondée sur des entretiens semi-structurés avec des managers en Asie et en Europe. L'analyse thématique met en évidence un basculement d'une supervision opérationnelle vers une prise de décision stratégique, ainsi que des défis tels que la résistance au changement, les questions éthiques et l'influence des différences culturelles. Ces résultats préliminaires permettent de formuler des hypothèses destinées à être approfondies lors d'une prochaine phase de recherche-action. L'objectif ultime est de proposer des recommandations pratiques pour intégrer l'IA de manière équilibrée - alliant innovation technologique et gestion centrée sur l'humain, afin d'assurer l'efficacité et la pérennité des établissements hôteliers.

Mots-clés : Intelligence artificielle; gestion hôtelière; transformation managériale; innovation; adaptation culturelle; tarification dynamique.

Transformation of Hotel Management with the Use of Artificial Intelligence

Abstract

This thesis explores the impact of Artificial Intelligence (AI) on hotel management, focusing on the transformation of managerial roles, staff practices, and operational efficiency. Tracing AI's evolution from early theories to current applications, the study adopts a qualitative, exploratory approach. The research will be based on semi-structured interviews with managers in Asia and Europe. The thematic analysis reveals a shift from routine supervision to strategic decision-making, along with challenges such as resistance to change, ethical concerns, and cultural influences. Preliminary findings serve as the basis for refined hypotheses to be tested in a subsequent action research phase. The ultimate aim is to offer practical recommendations that balance technological innovation with human-centered management to ensure sustainable growth in the hospitality sector.

Keywords : Artificial Intelligence; Hotel Management; Managerial Transformation; Innovation; Cultural Adaptation; Dynamic Pricing.