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“How may AI help you?” The impact of AI in Portuguese Luxury Hospitality Sector

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Masters in Management

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BUSINESS
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Resumo

Portugal continua a afirmar-se como um dos destinos turísticos mais procurados do mundo. Os residentes acolhedores, clima, história e gastronomia, fazem com que o país dependa fortemente do turismo e hotelaria para a empregabilidade e crescimento económico. Nos últimos anos, o setor direcionou-se para a hotelaria de luxo, privilegiando a personalização do serviço e experiências únicas para cada hóspede.

O impacto da revolução tecnológica é visível nas tarefas diárias. A Inteligência Artificial e os Assistentes Virtuais ajudam a otimizar a eficiência da pesquisa, acelerar respostas e reunir informação em menos tempo, satisfazendo as necessidades dos clientes e possibilitando experiências personalizadas. A presença da IA sente-se em funções internas, como reservas ou recursos humanos, com aprendizagem automática, e em tarefas externas, na receção e restauração, com assistentes virtuais.

Dada a importância económica do turismo em Portugal e a crescente adoção de assistentes virtuais baseados em IA, este estudo explora o seu impacto na hotelaria de luxo. Compreender como estas tecnologias melhoram a experiência do cliente e a eficiência operacional fornece informações valiosas para o setor.

Através da abordagem qualitativa, com entrevistas semiestruturadas a especialistas de Lisboa e do Porto que trabalham com IA e na hotelaria de luxo, aplicando o método de Bardot e o Excel para análise de dados, o estudo observa o impacto da IA na experiência dos hóspedes, na eficiência e no futuro da empregabilidade. Os resultados mostram que a IA melhora a personalização e redefine funções, mas manter o "toque humano" continua a ser um desafio central.

Palavras-chave: Portugal, Luxo, Hotelaria, Inteligência Artificial, Empregabilidade, Automatização.

Classificações JEL:

- O330 *Technological Change: Choices and Consequences; Diffusion Processes*

- Z320 *Tourism and Development*

Abstract

Portugal is one of the most sought-after tourism destinations in the world. A mix of friendly residents, excellent weather, history, and gastronomy made the country depend heavily on tourism and hospitality for employment and economic prosperity. In recent years, the sector has shifted toward luxury hospitality instead of mass-market hotels, prioritizing personalized service and unique guest experiences.

The impact of the fourth industrial revolution is evident in daily operations. Artificial Intelligence and Virtual Assistants help maximize research efficiency, speed up responses, and gather information quickly, satisfying customer needs and enabling a tailor-made experiences in each hotel. AI is present across tourism and hospitality, not in back-of-house functions such as reservations or human resources, with Machine Learning but also in front-of-house roles like reception and F&B with Virtual Assistants.

Given the economic importance of tourism in Portugal and the growing adoption of AI-driven virtual assistants, this study explores their impact in the luxury hospitality sector. Understanding how these technologies enhance customer experiences and operational efficiency provides valuable insights for stakeholders competitiveness in a rapidly evolving market.

Using a qualitative approach with semi-structured interviews of specialists from Lisbon and Porto working with AI in luxury hospitality and applying Bardot's method with Excel for data categorization and analysis, the study examines the impact of AI on guest experience, operational efficiency, and employability.

Findings indicate that AI enhances service responsiveness and personalization while redefining staff roles and skills. However, maintaining the "human touch" remains a central challenge.

Keywords: Portugal, Luxury, Hospitality, Artificial Intelligence, Employability, Automation.

JEL Classifications:

- O330 *Technological Change: Choices and Consequences; Diffusion Processes*

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CHAPTER 1

Introduction and Background

The Portuguese hospitality sector presents itself as a pillar in the country´s economy, especially through the strong link with tourism. In 2023, revenues related to tourism represented 16.5% of Portugal´s GDP (PORDATA,2025), securing the position of one of the biggest reasons for economic growth. Not only by its financial impact, but this sector also contributes highly to job creation, innovation, and regional development outside of big cities. When the COVID-19 pandemic struck, many involved in the sector thought it would be a downfall, but hospitality and tourism have demonstrated a fantastic comeback, reaching new records of growth and revenue. In 2024, the Gross Value Added Generated directly by Tourism (VAGBT) represented 9.1% of the GDP, while Tourism Consumption in the economic Territory (CTTE), increased by 6.5 p.p., better than the average growth in Portugal´s economy that year (INE,2025).

Hospitality can be defined as providing comfort, service, and memorable experiences to guests by offering lodging, food and beverage, event management, and leisure (Jones,2018). The core principle in hospitality is to make guests feel welcome and valued. This principle is very much relevant in Portugal, where tourism and hospitality are central to cultural identity and prosperity in the region. Employment represents further trends in the sector's improvement. Even though unemployment in Portugal increased to 6.5% in 2024 (PORDATA,2025), the industry of hospitality remained a pillar of job creation. For the coming years, it is estimated a development of 11,000 new hotel rooms, reflecting investors´ confidence in the market growth. Lisbon, between Portugal´s heavily tourism-reliant regions, maintains its position as the largest employer for luxury hospitality, representing approximately 27 % of the country´s offer (Horwath HTL, 2023).

In line with the economic expansion, the hospitality industry accompanied the path for technological transformation. The integration of Artificial Intelligence (AI) and Virtual Assistants (VA) has changed the operational perspective with the technologies implemented influencing and impacting not only customer-facing processes but also administrative roles and standards. Systems with AI permitted better efficiency, reduction of expenses and increased personalization, while VAs such as chat bots, voice assistants and automatic reserve controllers contributed to service availability and responsiveness (Lu, Cai & Gursoy,2022).

Following Ivanov and Webster (2019), AI technologies help in improving service personalization by observing customer data in real time and analyzing it. Viewing an example, for a returning guest with specific preferences or allergies in food, AI can anticipate the choices of the customer, creating a very tailored service experience.

Luxury hotels have seen these innovations to deliver hyper-personalized experiences for clients. As Lu et al. (2021) refer, VAs provide continuous service, which is a crucial aspect in luxury contexts, when exclusivity, uniqueness, and quick answers are expected. The growing adoption of AI and VA systems reflects not only a response to operational challenges such as difficulty in finding new labour and rising costs but also a strategic effort to maintain a sustainable competitive advantage in service excellence.

The market and contributors for Portuguese luxury hospitality sector has increased vastly in recent years, as the country follows along with international trends facing travels and digital transformation. The country's appeal adds from its geographic diversity, rich cultural heritage, and affordability compared to other European destinations. Lisbon, Porto, the Algarve, and Madeira have consolidated their positions as luxury hubs, attracting international travellers seeking exclusive and authentic experiences (Travel BI, 2025).

The period after the pandemic that struck the world accelerated digital transformation across the global tourism industry (Sigala, 2020), and Portugal followed this trajectory. With AI-driven systems searching for better efficiency, sustainability, and personalization all at the same time, the industry is observing a targeting change: technology is already part of hospitality. Although this may be true, this transformation also concerns the specialists, as issues such as ethical, social, and economic questions, particularly regarding human labour and maintaining authenticity are brought to the table.

1.1. Research Focus

The main focus of this research is to observe how VAs and AI tools are used and integrated in the luxury hospitality sector in Portugal. This study aims to understand and explore the role that technologies have in increasing guest experience, improving operations, and responding to challenges related to collaborators. The research will also evaluate the differences and opinions of experts in terms of usage of AI as a replacement for human staff or if it is viewed as a supportive tool to let human labour connect more profoundly with guests. The luxury hospitality industry places itself in a fantastic position to benefit from implementing VAs and other digital tools, based on the goals to deliver personalized and high-end services (Kotler &

Keller, 2016). However, the industry must navigate potential challenges, such as ensuring that the integration of AI does not compromise the human-centered nature of luxury experiences. By addressing this issue, the study wants to understand how the future may look and what may change in the biggest source of employability in the country based on the opinions of specialists and members of the industry. The speedy integration of Artificial Intelligence (AI) and Virtual Assistants (VA) in the hospitality sector has guided the sector to significant changes in service delivery, guest experience, and workforce organization. Luxury hotels, along with companies that lead each sector, are tempted to adopt these technologies to enhance personalization and operational efficiency. Nevertheless, as AI systems become more capable, there is an urgent need to study their impact on employability and openness to implement, particularly in Portugal, where the hospitality industry plays a key role in the national economy (Ivanov & Webster, 2019; Tussyadiah, 2020). AI-driven automation is already transforming guest interactions, as it can be observed in websites, where chatbots handle reservations over information provided by the customers and predictive analytics optimizing guest experiences (Berezina et al., 2020; Lu et al., 2022). In luxury hospitality, the content of these tools enables hyper-personalization by analyzing guest preferences and anticipating their needs, creating an exclusive service experience (Tung & Au, 2018). One of the major concerns associated with AI adoption in hospitality is its effect on human employment. Experts argue that while AI reduces the need for repetitive, administrative roles, it simultaneously creates demand for new skill sets, particularly in digital operations and AI management (Ivanov & Webster, 2021; Tuomi et al., 2020).

1.2. Problem Statement

Despite the clear advantages of AI and virtual assistant technologies, their integration into daily operations presents multiple challenges. The hospitality sector is characterized by unpredictability and a people-to-people (P2P) model that relies heavily on emotional intelligence and emotional perception (Murphy, Gretzel, & Pesonen, 2019). There are still concerns observing and addressing data privacy, cybersecurity, GDPR compliance (Law No. 58/2019), and the ultimate risk of not possessing what makes every experience unique, “human touch”. Even though intelligent systems improve efficiency, an overreliance in automating tasks can lead to the fundamental aspect of hospitality, which is authenticity and human (Murphy et al., 2019). Researchers already studying the matter often express the necessity of a better understanding of how VAs will impact tourism and hospitality, mentioning that an undersized

collection of data leads to an incognit and misspreparation of professionals for the changes ahead (Tussyadiah, 2020; Lu et al., 2022). Moreover, the adoption of AI in the sector is happening at a faster pace than what regulators and managers expected, making it essential to evaluate the implications for future employment models (Ivanov et al., 2020). While many studies focus the potential of AI to improve the guest experience and operational efficiency, there is still a remaining shortage of empirical research addressing the implications it may have in employment models, organizational culture and ethical governance. The bigger portion of research to date addresses consumer-level perspectives and does not lean towards the managerial and employer´s dimensions (Ivanov, Webster, & Berezina, 2020; Gretzel, 2021). The discussions about AI and VAs are on a global view, instead of focusing on specific regions such as Portugal, despite the country´s dependence on tourism (WTTC, 2023). This lack of specific evidence motivates the present study, which seeks to address the conceptual and empirical gaps.

1.3. Objectives of the Study

The main objective of this study is to examine how Virtual Assistants and other IT systems are applied in Portugal's luxury hospitality sector and to assess their impact on customer experience and employability.

Regarding the objectives that this study aims to fulfill, it focuses on three empirical objectives:

1. To explore the concept of virtual assistants and AI in hospitality
    - Define and describe how virtual assistants and AI technologies operate in the hospitality context.
    - Examine the main functions in automating tasks and supportive guest interactions.
    - Identify the contribution to service efficiency, improvement and personalization.
2. To understand in which sectors of hospitality are using AI and VAs and in what way
    - Observe areas of luxury hospitality where AI and VAs are most frequently implemented.
    - Analysing how these technologies help in operations such as reservations, communication with guests, and service delivery
    - Compare the different levels of adoption in departments or across different hotel types in the sector.
3. To analyse the impact of integrating VA and AI in hospitality.

- Observe and evaluate the benefits of AI integration, focusing in efficiency gains and improved customer experiences.
- Investigate potential challenges and setbacks like unemployment, GDPR and expensive implementation processes.
- Evaluate the perception of customers and employees regarding the usage of digital tools and systems.

1.3.1. Research Questions and Focus

To guide the study the following research questions were developed:

1) In which hospitality sectors are virtual assistants being implemented?

This research question aims to identify the specific sectors within the hospitality industry where virtual assistants and artificial intelligence are currently applied. It enables a better understanding of how different service areas are using technological advances and where further adoption may be beneficial.

2) How do these technologies contribute to improving operations and customer experiences?

Investigating this question allows for an examination of how VAs and AI support and increase efficiency and enhance customer experiences. It focuses on the ways these technologies optimise service, streamline processes, and contribute to overall guest satisfaction.

3) What are the main differences between using virtual assistants and AI as a replacement versus as a support tool?

This question aims to distinguish AI function as an entire substitute for some functions versus being implemented as an assistive tool. It is critical for comprehending the impact on workforce structures, service quality, and the integration of digital tools alongside human capabilities.

4) What challenges and opportunities do hospitality companies face when adopting virtual assistants and AI?

The last research question examines both the potential barriers and benefits associated with adopting these technologies. It provides insights into key considerations such as implementation costs, data privacy, customer acceptance, and the opportunities for generational improvement, and how to mould human labour skills in future generations.

1.4. Importance of the Study

This research offers both academic and practical relevance. Academically, it adds to the limited body of knowledge on the intersection of artificial intelligence, employability, and luxury service delivery in Portugal. It extends the discussion beyond the consumer perspective to include organizational, managerial, and workforce implications.

From a theoretical perspective, the study offers hotel managers and other interested parties a different observation into the adoption of AI and VAs, highlighting the need to align automation strategies with brand identity, employee training, and ethical data management. Additionally, it captures the role of digital transformation in maintaining Portugal's competitive position in the global luxury hospitality market. The findings of this research will contribute to a deeper understanding of how digital transformation is transforming Portugal's luxury hospitality sector. It will aim to understand the perception of the client as well in the luxury sector of hospitality, as the usage of the virtual assistants is part of the hotel's staff and may also substitute the interaction of the client with labour. The structure of this thesis will be a master's dissertation in the Cognitivist perspective and will be supported by data with a qualitative approach. Regarding the key concepts to be studied, there are three main concepts: Virtual Assistants and Hospitality in Portugal, the impact on guest experience, and the impact on employability in Portugal.

Observing the economic importance of the tourism sector in Portugal and the increase in adoption of AI and VAs in hotels, this study seeks to examine their impact, specifically in the luxury hospitality sector. By understanding how the tools can improve matters such as customer satisfaction and efficiency, the research will provide a better view for stakeholders who seek to remain competitive in a constantly developing business.

1.5. Research Gap

Although international literature on AI in hospitality has expanded significantly over the last few years, empirical studies within the Portuguese context aren´t visibly present in the market. The existing work tends to examine automation in mass-market or midscale hotel segments, leaving a lack of research on luxury hospitality, where service quality and emotional connection are essential. There is also a limited understanding of how Portuguese managers will balance innovation with tradition, or how the collaborators adapt when AI is integrated. By addressing these flaws still pending questions, this dissertation contributes specific empirical evidence and

managerial insights that enhance the international discourse on digital transformation in hospitality.

The findings of this research will contribute to understanding how digital transformation is reshaping Portugal's luxury hospitality sector.

1.6. Structure

This dissertation is divided into five different chapters with equal importance, each of which concerns a specific stage of the research process:

The Introduction, where the study is presented, gives context and a background, problem statement, objectives, research questions and relevance of the topic.

Afterwards is a literature review on key concepts such as tourism on luxury hospitality, digital transformation, and the application of Artificial Intelligence and Virtual Assistants in service industries.

The third chapter defines the research methodology, including the qualitative design, data collection methods, participant selection, and analytical procedures by using the Bardin Approach.

In chapter four, the study presents and analyses the findings according to the Research Questions (RQs) and Interview Questions (IQs), discussing the results in light of the literature.

The last chapter, number five, concludes the dissertation, summarizing the main findings and practical contributions, observing as well limitations of the study and suggesting new approaches for new investigators.

CHAPTER 2

Literature Review

2.1. AI & Luxury Hospitality

2.1.1. Definition and Scope of AI in Hospitality

Artificial Intelligence (AI) includes a large range of digital systems capable of simulating human cognitive functions such as learning, problem-solving, and decision-making (Lu, Cai & Gursoy, 2022). Within hospitality, AI manifests itself through tools like Machine Learning (ML), natural language processing (NLP), predictive analytics, and service automation (Ivanov and Webster, 2019). While Lu et.al (2022) increase AI´s potential to enhance operational efficiency and predict guest needs, Gretzel (2021) observes that the overuse of automation can decrease the emotional and cultural aspects that define hospitality. In the same wave, Tussyadiah (2020), suggests that AI should support human service and not substitute it, enabling employees to focus on higher value interactions.

In Portugal, specialists are proceeding cautiously and digital tools such as AI and Virtual Assistants, corresponding to automated check-ins, smart room systems, and others are being evaluated for integration in luxury hotels, combining with efforts to improve personalization and sustainability (Silva,2024). Inanov and Webster (2019) refer these applications are part of a shift in management models, where decisions relying on the data enhance strategic agility while reducing operational inefficiencies.

Tourism refers to the movement of individuals to destinations outside of their usual environment for leisure, business, or other purposes for less than one year (UNWTO, 2021). As a global industry, tourism is divided into accommodation, gastronomy, transportation, entertainment, and cultural experiences. In Portugal, the tourism sector has proven to be fundamental for the economic stability in the country, representing almost 16% of the national GDP and creating several working functions (INE, 2023).

Luxury is commonly defined as providing products or services associated with exclusivity, exceptional quality, and a high level of craftsmanship (Kapferer & Bastien, 2012). The estimated value does not limit itself to the material; it also includes emotional satisfaction, a sense of privilege, and symbolic meaning. In hospitality, luxury refers to the delivery of highly personalized, flawless service that combines comfort, discretion, and authenticity (KO et al,2019). Luxury hospitality can also be characterized by attention to detail, tailored experiences, and service that is based on emotional connection.

Companies seek to create a unique a meaningful experience that meets or even tends to surpass the guests´ expectations regarding exclusivity and excellence (Silva, 2024; Mendes, 2022).

2.1.2. AI Integration in Portugal's Luxury Sector

Over the last years and especially post-pandemic crisis, Portugal has changed the core business of tourism, shifting from mass-market to quality, sustainable, and high-end travel experiences (Pereira, 2019; Turismo de Portugal, 2023). This approach aligns with global trends and capital cities, where travellers prefer authenticity, personalization, and exclusivity in the experiences (Pine & Gilmore, 1999; Yeoman, 2011). The integration of AI in Portugal´s luxury hospitality sector has been growing even deeper in since the first implementation, aligning with the market´s digital transformation. Hotel groups with a lot of presence in the sector, such as Pestana, Vila Galé and Four Seasons, implemented digital tools to improve guest relations, automate back-office functions, and analyze customer feedback through post check-out surveys (Martins et al., 2022).

Mendes (2022) defines the procedure as a necessity to be able to maintain competitiveness, causing a bigger improvement in tasks where customers do not expect this amount of digital interactions. In the same perspective, Lima (2019) observes that luxury experiences are often supported by discretion and empathy, soft skills difficultly achieved by the digitalization of processes. This being said, whilst Mendes regards this change as technological progress, Lima increase in the value of emotional intelligence.

This dichotomy is very much observed in Portugal´s boutique hotels, which Silva (2024) describes as balancing "*technological sophistication with cultural authenticity"*. In the properties previously mentioned, digital tools are set to augment the personal connection often distinguished in luxury service, instead of replacing the human workforce.

2.1.3. The Acceleration of Digitalization Post-COVID-19

The global pandemic that struck the world in early 2020 was a booster for the quick adoption of digital technologies in hospitality (Sigala,2020). The imposed limitations of physical interaction propelled businesses to search for contactless solutions that maintained service flow without infringing any law and the safety of guests and employees (Neves et al, 2021). In the Portuguese hospitality sector, COVID-19 sped up the implementation of AI-driven chatbots, virtual assistants, and automation tools for chain hotels, as the likes of Pestana, Sana, and Accor. These digital tools guaranteed operational resilience by facilitating and creating new options in the examples of remote check-ins, digital concierge, and automated guest communications (Martins et al., 2022). What at the time was crucial to be able to keep up with business striving has now transformed into the digital implementation being now almost mandatory for a better guest experience. This digital investment is not a response to a crisis but a long-term shift marching onto better efficiency, personalization, sustainability, and sustained growth for the sector (Gretzel et al., 20222).

2.1.4. Challenges, Opportunities and Case Studies

The biggest challenge regarding implementation lies in harmonizing automation with authenticity. While Ivanov and Webster (2019) underline AI´s operational benefits like cost reduction, precision, decreased error margin and efficiency, Gretzel (2021) alerts for the overuse of automation tools, which may demolish the emotional engagement. Tussyadiah (2020) suggests a balanced approach, where technology should be utilized mainly for managing routine tasks, leaving to humans the skills associated with human interaction, such as empathy and personalization.

In the Portuguese context, Silva (2024) and Mendes (2022) share the same view for AI, defining it as a complementary tool that empowers collaborators´ performance. Lima (2019) adds that "*Portuguese hospitality´s warmth and attentiveness constitute a cultural asset that must be safeguarded during technological transitions"* (cit.). Therefore, AI in Portugal's luxury hospitality can be interpreted as a selective innovation—its success depends not only on adoption but also on alignment with service values and the cultural identity of hospitality itself. In Portugal, luxury brands such as Ritz-Carlton, Pestana CR7, and boutique hotels are adopting VAs to streamline guest services while preserving their commitment to personalized, high-touch experiences (Silva et al., 2022). Several attempts were observed of trying to implement, as the likes of "ChatBotIr" from Marriott and Connie, Hilton´s concierge VA.

In the same line of thought for advanced learning, MHI creates a page for online courses for its employees.

Luxury brands like Four Seasons and Ritz Carlton adopted digital tools, but while implementing, there was also an investment in staff training, ensuring that service maintains its personal and attentive character (Dedeiras, 2023).

2.2. Guest Experience in the Portuguese Luxury Hospitality Sector

2.2.1. Definition and Dimensions of Guest Experience

Guest experience (GX) directs cognitive, emotional, and sensory interactions between guests and service providers (Han & Hyun, 2019). In luxury hospitality, it involves not just satisfaction, but also symbolic and affective dimensions, where comfort is directly related to meaning and identity (Gilmore & Pine, 2007).

While Pine and Gilmore (1999) first conceptualized experience as almost a stage performance, Yeoman (2011) developed the concept to include authenticity and emotional affection, and intelligence. In Portugal, more specifically in the hospitality luxury market, it is emphasized by Turismo de Portugal (2023) that by designing high perceptual value and personalized experiences, the country is moving away from mass tourism. This transition reflects the repositioning of Portugal, from mass market tourism to a quality and cultural depth destination (Correia et al., 2017)

2.2.2. Digital Transformation and Personalization

The role of AI is proving to be ultimately transformative in the way hotels shape guest experiences. Lu et al. (2022) show that intelligent systems enhance personalization by processing behavioural and preference data, permitting hotels to provide more attentive services before, during, and for subsequent stays. In contrast, Gretzel (2011) stresses that excessive automation may cause the risk of depersonalizing interactions and decreasing guests' overall satisfaction. Ivanov and Webster (2019) mention how AI can help to predict guest needs, streamlining operations, whereas Silva (2024) argues that the emotional quality of service remains fundamental, even more so in concepts such as boutique hotels. This interplay demonstrates how Portuguese luxury hospitality nowadays is adopting a hybrid model, by using AI and other digital tools to anticipate preferences but securing the human workforce for empathic interaction. Furthermore, Tussyadiah (2020), suggests that the fusion of human and

digital touchpoints helps to promote continuous engagement, securing and preserving the relationship with the customer in all stages of the guest stay. While Tussyadiah highlights relational continuity, Mendes (2022) points out that the workforce must be trained to interpret digital supportive data meaningfully and converting analytics into genuine empathy. Guests in the luxury segment always anticipate high levels of empathy, discretion, and cultural knowledge and presence, something AI struggles to fully replicate (Lima, 2019). AI is also cementing its role in the transformation of luxury hotel marketing. The arrival and usage of AI-driven search tools, as the likes of ChatGPT, Claude, and many others, have made a big impact on how travellers search and book accommodations. These tools use natural language processing to return contextual and personalized results, requiring hotels to optimize the content for AI-based tools, use preferably rather than traditional keyword searches (Samwell, 2024). Many hotels have introduced mobile and before-arrival check-in technologies, reflecting an industry-wide shift toward convenience, personalization, and service automation. AI-powered chatbots and virtual assistants are set to be essential to companies, in order for hotels to be able to accompany and care for customer needs on a 24/7 schedule. The adaptive reuse of heritage buildings into luxury accommodations represents a mix between cultural preservation and modern comfort (Silva, 2024).

These hotels, often deriving from the rebuilding and restoration of noble and antique buildings, offer guests immersive experiences that connect them to local history and identity (Pritchard & Morgan, 2006). Service customisation extends to in-land experiences, such as private vineyard tours, wellness programs, and culinary workshops. This approach aligns with the growing demand for authenticity and individualized service in luxury tourism (Yeoman, 2011; Han & Hyun, 2019).

2.2.3. Authenticity, Emotional and Technology Balance

Authenticity remains the core of Portuguese Hospitality. Silva (2024), along with Pritchard & Morgan (2006), illustrates how the adaptive reuse of heritage buildings, like palaces, vineyards, and convents, connects the guest to the local culture and historical heritage.

Wellness tourism has gained significant traction, with high-end hotels offering integrated wellness retreats, including spa treatments, fitness programs, and Yoga classes (Smith & Puczkó,2014; Global Wellness Institute, 2022). Gastronomy also plays an important role, with Portuguese culinary excellence and richness helping the country to become a notable destination. The rise of restaurants with Michelin stars and locally sourced products demonstrates how gastronomy contributes to the luxury value proposition (Savils, 2025; Hall & Gössling, 2016). Sustainability is affirmed in a deeper sense as a pillar of evaluation, as luxury travellers increasingly seek environmentally responsible experiences. High-end properties are adopting sustainable practices, such as eco-friendly architecture, locally sourced products, and initiatives engaging the community (Gössling & Higham, 2021; FALLZ HOTELS,2024).

This mix of wellness, gastronomy, and sustainability enables Portugal to be positioned as a highly recommended location for luxury travel and has been regarded several times as the best travel destination in the world (The Portugal News, 2024).

A combination of natural assets, cultural richness, and sophisticated service offers is what is supporting Portugal´s competitive position in the luxury hospitality sector. Beautiful landscapes, the climate, and privileged locations within a short distance to most of the European city-break destinations contribute highly to the attractiveness (Correia et al., 2017; World Economic Forum,2021). Destinations like Lisbon and Porto offer urban cultural experiences, while the Douro Valley and the Algarve are renowned for scenic beauty, wine tourism, and exclusive retreats. The continued expansion of five-star properties and boutique hotels is indicative of sustained demand for luxury experiences (INE,2023; Savills,2025). While Silva (2024) views AI as enhancing cultural storytelling through personalization, Lima (2019) reminds us that emotional intelligence and discretion are not replaceable by algorithms. Mendes (2022 synthesizes these positions, advocating a “high-tech, high-touch” approach where technology increases human hospitality.

Thus, the guest experience in Portuguese luxury hotels evolves through coexistence; digital tools enrich personalization, while human presence preserves emotion and cultural depth.

2.3. Employability in Portuguese Tourism and Hospitality

2.3.1. The Role of Tourism in National Employment

Tourism and hospitality are crucial to Portugal´s socio-economic structure, generating nearly 16% of GDP and sustaining a large proportion of national employment (INE,2024). Quantifying this contribution in macroeconomic terms may be reasonable, but Turismo de Portugal (2023) mentions the human impact, creating roles across hotel operations, food services, and cultural tourism, reaching historic highs. In 2023, VABGT (Gross Value Added generated directly by Tourism) accounted for 9.1% of the national GDP in 2023 and Tourism Consumption in the Economic Territory (CTTE) recorded nominal increases of 6.5%, revealing slightly higher growth than that of the national economy, national GVA and GDP grew by 6.2% and 6.4%, respectively (INE,2025).

The VABGT represented 8.1% of the national VAB in 2024, and the CTTE was equivalent to 16.6% of GDP, with the values of this indicator remaining at historic highs.

The Lisbon region is the largest employer and the focus of hospitality in our country, with 27.5% of the whole country´s offer existing in one of the main tourism travel destinations in Europe. Additionally, the number of five-star hotel establishments has risen from 43 in 2023 to 56 in 2024, sustaining the shift toward premium experiences and reflecting a growing in clients´ search for these kinds of establishments.

With 31.6 million guests and 80.3 million overnight stays recorded in 2024, the sector continues to expand vastly (Savills, 2024). Ivanov and Webster (2021) argue that as AI technologies expand, the industry must redefine the nature of employment. While these authors highlight automation's potential to improve efficiency, Silva (2024) emphasizes that Portugal´s hospitality recovery after the pandemic was mainly based on human resilience, an attribute often associated with the Portuguese, and not technological substitution.

2.3.2. Technological Change and Workforce Adaptation

The digitalization of hospitality brings new professional challenges. Martins et al. (2022) observe that hotel chains adopted training programs containing hybrid methods in order to prepare employees for AI-supported operations. In the same direction, Neves et al. (2021) observe a persistent skills gap between industry needs and the traditional attributes employees had up until the digital implementation.

While Martins et al. (2022) also mention the opportunity of using AI as a skill diversification, Neves et al. (2021) highlight the need for caution and rapid adaptation, otherwise it might signify digital exclusion. Mendes (2022) connects these opinions, noting that AI requires not fewer but "smarter" workers, who are capable of combining data literacy with emotional awareness. Importantly referred, smaller independent hotels in the country face additional barriers, including limited access to digital infrastructure (Dedeiras,2023). This different level of adoption may cause a separation in the labour market: on one side, hotels and work technologically advanced, on the other, businesses maintain a more traditional approach.

2.3.3. Skills Development and Future Perspectives

While Pereira (2019) views digital transformation as an opportunity to improve skills, Murphy et al. (2019) alert to the ethical challenges in monitoring the workforce and data use. Tussyadiah (2020) conveys the view by mentioning the importance of having AI transparency and governance in hotels and workplaces. Silva (2024) reinforces the emergence of hybrid skill profiles, combining technological proficiency with human empathy. Mendes (2022) concurs, noting that the future of Portuguese employability depends on employees' ability to interpret AI data emotionally—to translate insights into personalized service.

In this sense, Portugal's luxury hospitality is evolving toward an augmented labour model, where technology enables professionals to focus on creativity, cultural storytelling, and emotional engagement. As Ivanov and Webster (2021) summarize, the goal is not substitution but to achieve between human and machine capabilities.

While these tools enhance convenience and efficiency, their purpose is not to replace face-to-face interactions but to supplement them by reducing routine workloads for human staff (Ivanov et al., 2020).

2.4. Analytical Summary

The literature collectively reveals that Portugal's luxury hospitality operates at the intersection of technological sophistication, cultural authenticity, and human expertise.

While Ivanov and Webster (2019) emphasize AI´s operational advantages, Gretzel (2021) and Lima (2019) warn that excessive digitalization may risk erasing personalization, proven to be so important in Portugal´s hospitality sector. Silva (2024) and Mendes (2022) accompany these positions, reinforcing that AI´s effectiveness must come from the synergy with human empathy.

In the domain of guest experience, Tussyadiah (2020) alerts of relational prevalence through digital engagement, whereas Silva (2024) underlines emotional authenticity as the defining factor for the success of the industry. These two different perspectives represent Portugal's hospitality as both technologically adaptive and culturally stuck in some cases, particularly in small boutique hotels. Concluding literature, mentioning employability, Martins et al. (2022) and Neves et al. (2022) both highlight that adaptability from the workforce is a necessity for continuous innovation. When the former mentions opportunity, the latter alerts to inequality, asserting that success depends on education, ethics, and access to technology.

Concluding, this literature review supports the view that Portugal´s luxury hospitality industry exemplifies a “humanized digital transformation”, combining innovation, emotion, and need for employability to maintain a sustainable competitive advantage during the paradigm shift occurring globally. The literature review is supported by the articles mentioned in the table presented in Attachment A.

CHAPTER 3

Methodology

This methodology chapter details the approach and methods chosen and utilized to investigate the of Artificial Intelligence (AI) and Virtual Assistants (VA) in the luxury hospitality sector in Portugal. The study follows a qualitative approach to explore how these technologies are being implemented, their effects on service delivery and operations, and the opportunities and challenges they present. In this chapter will be presented the research design, approach, data collection and analysis methods, participant selection criteria, ethical considerations, and research limitations.

According to Creswell and Poth (2018), the methodology defines the procedures and techniques used to collect and analyse data necessary to answer research questions. By choosing the appropriate methodology, something proven to be crucial, it is necessary to ensure the validity and reliability of the results, as well as to provide a thorough understanding of what is being studied and analysed. In this chapter, the methodology adopted will be presented, explaining in detail the quality approach chosen for the research.

Depending on the purpose of each investigation, according to Vilelas (2009), it is possible to segment two different types of information collection dimensions: in terms of ends and means. The first refers to exploratory research where the author is directly involved in generating information, while information gathering in terms of means consists of bibliographic research carried out by other authors.

After defining the type of information gathering, the methodological approach can be quantitative or qualitative. The quantitative approach is more supported by numerical data and values that lead to more direct and less flexible conclusions. The qualitative approach, on the other hand, focuses on non-numerical values, observation, and interpretation of information, with the goal of finding relationships and answers to different research problems (Vilelas, 2009).

3.1. Research Approach and Strategy

For this dissertation, which is exploratory in nature, it was chosen to use a qualitative approach. This choice is made since the topic is exploratory in nature and seeks to understand in depth the perceptions, experiences, and challenges that luxury hotels face in the context of applying

artificial intelligence in day-to-day operations, observing the impact on guest experience and employability in the sector. The qualitative approach allows for detailed and contextualised research into the social and technological occurrences in question (Denzin & Lincoln, 2018).

The usage of qualitative methods tends to facilitate the exploration of managerial perceptions, operational adjustments, and emotional responses relating to the integration of AI and VAs systems in the luxury hospitality sector in Portugal.

Given that the implementation of set digital systems in Portugal luxury hotels is a phenomenon gaining a lot of attention, this approach allows for the identification of patterns, meanings, and contextual nuances that using quantitative methods would overlook. As Creswell (2018) observes, qualitative research is particularly effective in capturing participants´ lived experiences and interpretations. This orientation is suitable for examining a dynamic topic, such as the main study of this thesis- AI adoption in luxury hospitality- where evidence remains limited.

3.2. Sampling and Participant Selection

A purposive sampling method was applied to ensure participants possessed relevant expertise or decision-making authority concerning the adoption or management of AI technologies. In an area regarding both hospitality leaders, who decide and test the digital tools integrating the systems in hotels, and where there is the necessity of evaluating, comprehending the tools, and implementing VAs and AI in the best possible manner, but as well as the specialists. This method privileges managerial insight and strategic reflection for implementation, rather than front-line staff experience. There was an intention to choose these specialists, specifically to understand adoption decisions, perceived benefits, and workplace implications of virtual assistants and allied AI systems within luxury settings. This being said, not only General Managers were inducted in the study but also investors in hospitality related to AI, AI implementors, and front-of-the-house members with decision-making roles.

The final sample comprised 10 participants representing a focused view of Portugal's luxury hospitality sector: *3 General Managers* of five-star or boutique luxury hotels; *2 Heads of Operations* from major hotel chains; *1 Consultants* specialized in integrating AI in Hospitality; *1 Investors* specialized in hospitality innovation; *2 F&B Managers* working directly with hotel digital systems; *1 Administrator* from one of the biggest hotel chains in Portugal. The distribution by function can be observed in the following pie chart.

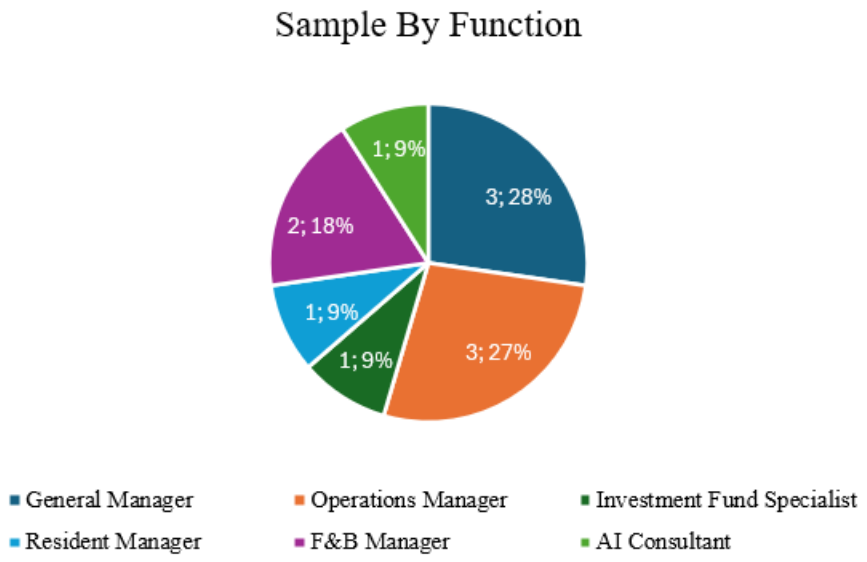

Figure 3.1. Sampling by Function in absolute and relative frequency.

Font: Made by the Author

Geographically, the sample covered the Lisbon and Porto regions mainly, ensuring representation from the country's principal luxury tourism destinations.

In relation to the gender of the participants, the panel was mainly composed of men, with nine participants (90%) and one woman (10%). This data represents the regularity of hospitality patterns, where even though there are more collaborators in the hospitality sector from the female gender, 56% (Turismo de Portugal,2024), there are more men in decision-making roles.

Each participant had a minimum of five years of experience in luxury hospitality, with ages ranging between 35 and 65 years old. There was an intention of including companies and hotels in the first or second year of production, as there was a higher possibility of implementing AI and VAs from the start and getting to form the employees already with the technological skills. This diversity provided both managerial and strategic perspectives on AI integration and the description of the participants is observed in the following table.

Table 3.1. Description of sample participants. Font: Made by the Author

	FUNCTION	SECTOR	COMPANY CATEGORIZATION	AGE	COMPANY AGE
1	Head of Hospitality	Capital Investment	Investment in Hospitality	35	4
2	General Manager	Hospitality	Hotel	60	6
3	Operations Manager	Hospitality	Cluster Hotel	43	35
4	Admnistrator	Hospitality	International Hotel Chain	56	25
5	Operations Manager	Hospitality	Hotel	60	6
6	Resident Manager	Hospitality	Hotel	45	25
7	F&B Manager	Hospitality	Hotel	38	14
8	AI Consultant	Consultancy and Implementation	Consultant BIG 4	56	30
9	F&B Manager	Restaurant	HORECA	50	2
10	General Manager	Hospitality	Hotel	55	1

3.3. Data Collection Methods

Regarding the data collection methods, semi-structured interviews were chosen for their flexibility, allowing participants to elaborate freely on their experiences while ensuring consistency across core themes. The interview guide was designed according to the study's four Research Questions (RQs), and Empirical Objectives (EOs), resulting in 13 Interview Questions (IQs).

Semi-structured interviews provide greater flexibility in conducting questions according to aspects considered important by the participant. In addition, they allow the researcher to also be a producer of knowledge in the process itself (cit.).

Interviews were conducted via Zoom or Microsoft Teams, depending on participant preference. Each session lasted between 45 and 60 minutes and was recorded (with explicit consent) for transcription and later analysis. For Ethical considerations, all participants were given a consent form, regarding the preference of anonymity, participation in the study, and publication of results as for the master's dissertation, as it is expressed in the Attachment B.

The interview guide was designed according to the study's literature review, relying on the objectives and research questions defined previously to be able to gather and distribute the information as best as possible. This method relying in the Four Research Questions (RQs), and three Empirical Objectives (EOs) defined to be the centre of the investigating theme, resulted in 13 Interview Questions (IQs) to form an interview guide, which all of the participants received before the interview, and as presented in the Attachments C and D, the participants were able to conduct it Portuguese or in English.

3.4. Data Analysis and Interpretation

The analyses of the data collected utilising the qualitative method followed the procedures present in Bardin´s (2013) content analysis framework, structuring the approach in three main stages:

1. Pre-Analysis: The semi-structured interviews were transcribed and read multiple times for the researcher to be able to familiarize with the content and identify significant trends beforehand.

2. Exploration of the material: By exploring in a more thorough and detailed way the content present in the results, relevant parts of the answers given by participants were coded manually using Microsoft Excel, creating themes and segments from the text answers given. This process permitted identifying patterns, understanding challenges, and benefits in the implementation of the digital tools.

3. Treatment, inference and interpretation: The grouped codes were polished and branched into different categories sustaining the study´s main topics of analysis, such as AI integration, guest experience, and employability. These categories were then interpreted by connecting the findings to the supporting literature, evaluating empirical objectives and observations to theoretical insights developed in Chapter 2. For the treatment and analysis of the data, the focus was on the Research Questions (RQs) for connecting the data and answers provided by participants, as separated through Interview Questions (IQs).

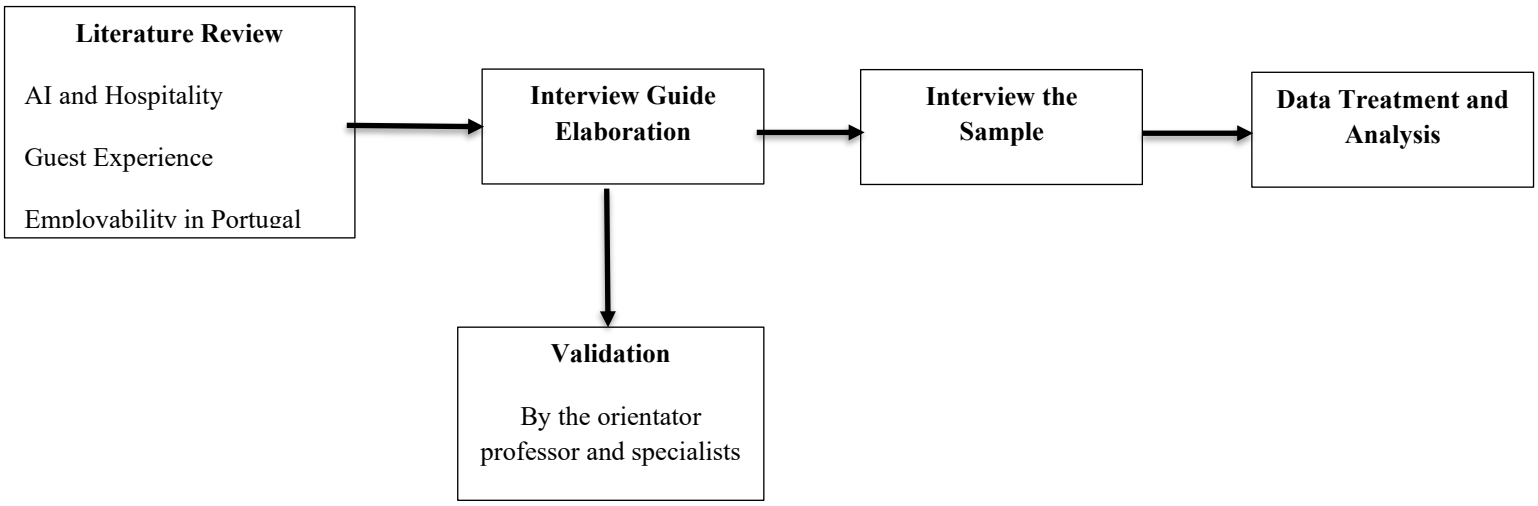

Figure 3.2. Flow of Data Gathering and Analysis. Font: Made by the Author

This approach ensured analytical consistency between the research design, data collection, and interpretation phases. Manual coding enabled a better understanding of participants' meanings and avoided the reductionism sometimes associated with automated software.

CHAPTER 4

Demonstration and Analysis of Results

Using the Bardin Method, as mentioned in the methodology chapter, the collected data were analysed using the Excel tool. Starting by observing the correlation existing in the Research Questions (RQs) defined in the Introduction Chapter (One), for data aggregation and characterization. For a clearer a more composed view and to acquire a literature basis, a board was prepared to link and observe which literature review would be able to support and have a scientific basis for the research questions, as seen in the following association.

Table 4.1. Literature Support for Research Questions. Font: Made by the Author

Research Question (RQ)	Key Thematic Alignment	Key Academic Finding & Quote (Post-2015)	Author & Year
RQ1 - How do these technologies contribute to improving operations and customer experiences?	Efficiency & Personalization. AI streamlines Back-of-House (BOH) tasks to free up staff for Front-of-House (FOH) value creation.	*"The true value of AI in customer experience lies not in simple automation, but in its ability to facilitate hyper-personalization by analysing vast datasets to predict and proactively satisfy guest needs, making the service feel intuitive and highly exclusive."*	Wirtz et al. (2018)
	Operations & 24/7 Availability. AI's operational role in automation.	*"AI-powered tools enhance operational efficiency in hospitality by automating monotonous tasks, such as handling basic customer inquiries, translation, and scheduling, which frees up human employees to focus on complex and value-added interactions."*	Tussyadiah (2020)
RQ2 - In Which Hospitality Sectors are AI and VAs being implemented?	FOH vs. BOH Split. Application across the entire value chain.	*"AI applications in hospitality can be broadly segmented into front-of-house (e.g., virtual concierges, chatbots for interaction) and back-of-house (e.g., dynamic pricing, demand forecasting, energy management), confirming its integration across the entire service value chain."*	Ivanov & Webster (2017)
	Physical Service Limitation. The distinction between information-processing and physical roles.	*"While AI excels in information-processing and communication-intensive tasks, its integration into high-touch, physical service roles, such as personalized room cleaning or complex culinary preparation, remains marginal due to technological and ethical constraints."*	Yu (2018)
RQ3 - What are the main differences between using AI as a replacement vs as a support tool?	Complement vs. Replacement. The philosophy of augmentation over substitution, especially in luxury.	*"The consensus in luxury service contexts is that AI systems should function as 'co-pilots,' augmenting human capabilities by handling routine data analysis, allowing human employees to concentrate on emotional labour and empathetic problem-solving."*	Buhalis et al. (2019)
	Emotional Connection & Human Touch. Identifying the unique human element.	*"Emotional intelligence, empathy, and the ability to handle unpredictable or emotionally charged situations are exclusively human competencies that AI cannot fully replicate."*	Ozesmi & Ozesmi (2021)
RQ4 - What challenges and opportunities do hospitality companies face when adopting virtual assistants and AI?	Challenges: Cost & Legacy Systems. Validation of integration difficulties.	*"A major impediment to AI adoption is the significant initial capital investment and the difficulty of integration with existing, often outdated Property Management Systems (PMSs), which creates operational friction."*	Li et al. (2020)

	Opportunities: Staff Development. The new role of the human employee.	*"The successful integration of AI transforms the role of the frontline employee from a procedural automaton to an 'experience curator', using strategic investment in upskilling and cross-training programs that prioritize human-centric and social competencies."*	Leung & Schuckert (2020)

By sustaining the literature, having used Bardin´s method and the Excel tool for attributing and dividing the information, each Interview Question in the Interview guide was correlated with Research Questions, for better understanding and data grouping as it can be observed it the following table.

Table 4.2. Research Question and Interview Question Correlation. Font: Made by the Author

RQ & IQ Correlation

RQ	IQ				
RQ1	Q5	Q6	Q7		
RQ2	Q1	Q2	Q3	Q4	
RQ3	Q5	Q6	Q8	Q9	Q11
RQ4	Q6	Q10	Q12	Q13	

The study´s results are based on semi-structured interviews with a sample of ten professionals active in or related to Portugal's luxury hospitality sector. Participants, by the time interviewed between April 2025 and August 2025, were occupying strategic and operational roles — primarily General Managers, Heads of Operations, and senior consultants/investors — and were selected by representing decision-making perspectives and implementation of digital technologies in luxury hotels across Portugal. All interviews were conducted remotely, lasted approximately 45–60 minutes, and were recorded with consent, transcribed, and afterwards analysed.

4.1. Technology Contributions for Operations Improvement and Customer Experience

Across the eleven interviews, participants consistently highlighted that artificial intelligence (AI) and virtual assistants (VAs) are playing an increasingly relevant role in enhancing operational efficiency and refining the customer experience within Portuguese luxury hospitality. Although the degree of implementation varied among properties and types of hotels and regions, as well as target customers, most of the participants view virtual assistants as a minimizer of risk and errors, and with a massive potential.

4.1.1. Operational Efficiency

Regarding operational efficiency, eight of the ten participants explicitly linked AI to gains in speed, accuracy, and automation of routine tasks.

Respondents reported that AI systems had *"made everything smoother,"* particularly in administrative and repetitive processes such as reservations, communication management, and data analysis, but for it happen, it is needed to prepare the application, whether it is a VA, chatbot, or any other form. If the system is not constantly updated and improved, or if it does not facilitate or shorten the time of waiting or search, it can become *"just another misused and not relevant system."*

4.1.2. Personalized Attention

Several participants emphasized that automation allowed employees to *"use this extra time to give guests personalized attention,"* suggesting that technology is not replacing staff but rather reallocating their focus toward higher-value interactions.

Operational continuity was also a key benefit identified by five managers, who noted that AI-enabled systems provide *"24/7 service, 365 days a year,"* allowing hotels to respond instantly to guest needs regardless of time zone differences. This capability was seen as especially valuable in global operations where the clients come from more foreign countries and in multichain hotels, when it is very difficult for an employee to learn several languages and find it very hard to know all the relevant information to satisfy the clients´ needs. In relation to customer experience, nine participants associated AI with personalization, convenience, and agility.

Managers mention that automation in communication tools, digital concierge services, and predictive systems contributes to improving guest journeys, but they need to be very well programmed before installing, otherwise it will be only one more *"product discontinued automatically and never used again".*

4.1.3. Minimize Errors and Accelerate Processes

Moreover, the use of predictive analytics and self-learning algorithms was mentioned to minimize errors and *"avoid mistakes"*, improving decision-making and reducing the pressure on front-line staff.

Six interviewees described AI as a *"facilitator"* or *"enabler"* that supports back-of-house optimization through integrated systems capable of managing data more effectively. The participants also mentioned the evolution from traditional hotel systems to AI-supported platforms that can analyse sales, forecast occupancy, and compare market performance with the competitive set. This improved analytical capacity was described as a *"key competitive advantage"*, giving managers better control over resource allocation and service quality.

The elimination of waiting times and the consistency of service quality were often cited as major improvements. One respondent noted that after integrating AI into communication systems, *"it prevents the customer from calling reception 50 times and even getting the wrong answers"*, referring to reliability and coherence as core benefits.

When used correctly, AI was said to enhance the guest journey through predictive recognition of needs, faster responses, and improved service consistency, while freeing employees to provide more attentive and personalized hospitality.

4.1.4. Guest Experience

Nonetheless, participants were cautious in their optimism, recognizing that luxury hospitality relies heavily on emotional connection. Seven of the participants described AI as a system that enhances capacities, instead of dominating the guest experience, and digital solutions must be implemented in a way that is discreet, intuitive, and aligned with guests´ *"expectations of exclusivity and privacy"*.

Overall, there was a strong consensus that the integration of AI and VAs will contribute directly to increasing operational efficiency and lead to a more positive customer experience. The majority of respondents viewed these technologies as tools for optimization and support, not as substitutes for human interaction. Participants consistently argued that digital systems should serve to "elevate efficiency while preserving authenticity*."*

4.1.5. Synthesis

The analysis reveals that AI's perceived value lies in its dual function: reducing operational complexity while simultaneously enabling a more responsive and individualized service. The combination of automation, personalization, and human touch defines the ideal balance envisioned by luxury hospitality leaders in Portugal.

For the customer perspective and perception, many of the participant referred that there are two main points to have into consideration using AI in luxury hospitality: firstly "the guest must feel they have a choice" and it is not imposed, and secondly to still maintain as referred "if it becomes intrusive or mechanical, it can harm the sense of exclusivity. Guests generally appreciate efficiency and convenience, as long as it doesn't feel impersonal".

There was also the mention of going back in time, to use more rustic approaches, such as handwritten cards, as nowadays it is uncommon, and for the new generation of clients who were born while already existing technology, *"it's a novelty"*.

Table 4.3. Benefits of Implementing AI. Font: Made by The Author

Answer	Frequency of Answer	Participant
Improve Personalization	5	1, 3,6,7,8
Better Time Distribution	7	1,2,4,5,6,8,9
Acceleration of Process	3	1,3,10
Non Digital Experience	4	2,5,6,9

4.2. Implementation of AI and Virtual Assistants in Hospitality

For the second research question, the topic was divided into three interview questions (IQ1,IQ2,IQ4), regarding the opinion each specialist had on virtual assistants and how each one viewed the AI in hospitality, if there was usage and presence of set tool in hospitality, and in which departments it was being implemented.

Table 4.4. Usage of AI and/or VAs by Participants. Font: Made by the Author

Usage of AI and/or VAs	Frequency of Answer	Participant
Already Using	5	1,3,4,6,10
Not Using	2	2,5
Implementing	2	7,9

As observed and as mentioned before, some hotels are already progressing with the usage of these systems, believing that the testing phase is already passed. Regarding those who have not yet implemented, refer that the hotel has done *"some tests even, more at the work level, saying everything and asking this and that. There are funny parts, there are parts that are still scary for me, and we are doing training on how this tool can help us with artificial intelligence"* (cit.).

Some hotel manager mentions that the reason of not implementing is that "our customer who does not yet value the experience and physical contact with the receptionist very much" (cit.) so does not feel the necessity to go there.

4.2.1. BOH vs FOH Usage

The interviews reveal that AI and virtual assistants (VAs) are progressively present in both front-of-house (FOH) and back-of-house (BOH) operations within Portuguese luxury hospitality, albeit at differing levels of maturity. While operational processes such as revenue management, forecasting, and reservation systems are already being automated, guest-facing AI applications — including chatbots, virtual concierges, and smart room technologies remain at earlier stages of implementation, particularly constrained by the expectations of luxury clientele for personalization and human connection.

4.2.2. Back-of-House Applications

Most participants emphasized that AI adoption is currently more advanced in non-guest-facing operations, where efficiency and precision are essential. Systems for dynamic pricing, demand forecasting, and energy management are commonly integrated into property management systems (PMS) and customer relationship management (CRM) tools some functions that did not exist a few years ago. One manager noted that "*our recruitment platform already uses AI to analyze candidate profiles and match them with vacancies*", reflecting the trend of implementing first in administrative areas. This finding is in consensus with Buhalis et al. (2019), who mention that AI-driven tools are increasingly reshaping managerial and operational practices, enhancing data-based decision-making, and reducing waste and inefficiency. Likewise, Ivanov and Webster (2017) describe these applications as part of a "*backstage automation wave*," which allows hotels to redistribute human labour toward more value-adding activities.

One respondent explained, *"AI streamlines processes like housekeeping, reservations, and revenue management,"* aligning with Ozesmi & Ozesmi (2021), who argue that the integration of AI within service ecosystems contributes to long-term sustainability by reducing resource waste and enabling real-time monitoring of operations.

4.2.3. Front of House Applications

In the front-of-house domain, AI has been implemented more selectively and cautiously. Technologies such as virtual concierges, chatbots, and smart room assistants are being introduced mainly to enhance guest convenience and personalization without eliminating the human element, as in luxury hospitality, these solutions do not engage with service personalization and human touch. Participants reported that digital assistants are now supporting check-in/check-out automation, guest communication, and personalized service recommendations.

As one interviewee stated, *"AI can help personalize the guest experience and improve communication flow, but it cannot replace perception or empathy."* This stance reflects the argument of Tussyadiah (2020) that in high-contact service environments, AI adoption is focused on the authenticity of the interaction. Similarly, Leung and Schuckert (2020) found that while service robots and AI interfaces can enhance service delivery, excessive automation may influence negatively trust and emotional connection, especially among traditional or conservative luxury clients.

Interestingly, some participants mentioned that AI is used differently across generational guest segments. Older guests tend to value personal contact with reception or concierge staff, whereas younger travellers show greater acceptance of AI-mediated experiences. This generational distinction compares to Yu (2018), who found that consumer attitudes toward AI-based service interactions are largely determined by prior exposure to technology and cultural norms around human service expectations. This argument supports that even though there is a lot of potential for the future generation of consumers, the technology is not appreciated by all customers, especially for the group with more buying power, and for this reason, the implementation is not being activated by all hotels, and some units are proceeding cautiously and testing before implementing.

4.2.4. Dual Impact and Sectoral Balance

When comparing FOH and BOH impacts, interviewees agreed that while AI improves efficiency and accuracy in operations, the real transformative value lies in enabling employees

to dedicate more time to the human aspects of service delivery. As one participant put it, *"AI is there to support us, not to replace us — it gives us back time to focus on what truly matters: people."*

This synthesis goes in line with what was mentioned in Wirtz et al. (2018), who define AI in hospitality as part of a *"service augmentation paradigm,"* where machines assume analytical and repetitive functions while humans retain relational and emotional control. Li et al. (2020) similarly emphasize that employees who work alongside AI experience increased job satisfaction when automation complements, rather than competes with, their professional judgment.

4.2.5. Synthesis

Overall, the Portuguese luxury hospitality sector demonstrates a hybrid adoption pattern, where AI acts as a silent enabler behind operational systems and as a facilitator in guest interaction moments. Hotels proceed being strategically cautious, implementing technologies that improve and increase operational precision and personalization without compromising the emotional guest experience dimensions that define luxury. This approach resonates with a maturing technological shift process: AI is being integrated not as a disruptive tool, but as a partner for excellence and creation of differentiation.

4.3. AI Roles

The third research question, combining IQ5, IQ6, IQ8, and IQ11, focuses on the impact of using AI and VAs, and whether it should be seen as a replacement for employees or as a support tool, and what is the perceived experience by the customers when frequenting a hotel implementing set digital helpers.

4.3.1. AI as a Supportive Tool

The interviews reveal a strong consensus among Portuguese luxury hotel managers that artificial intelligence (AI) and virtual assistants should function primarily as supportive instruments rather than substitutes for human labour. Participants consistently mentioned the importance of emotional intelligence, personalization, and authenticity — elements viewed as *"irreplaceable"* within luxury hospitality. This stance aligns closely with the literature, which argues that AI's role in service contexts should enhance, rather than replace, the human contribution to customer experience (Wirtz et al., 2018; Tussyadiah, 2020).

Nine out of ten interviewees explicitly stated that AI technologies are intended to augment staff performance and not diminish the need for human employees. As one of the specialists referred, *"AI gives employees more time to focus on delivering authentic, human-centred service."* Others described it as a *"facilitator"* that takes care of repetitive tasks, such as data entry and reporting, permitting the workforce to focus on interactions with guests. This opinion is synchronized with the argument of Buhalis et al. (2019), who mention that digital transformation in hospitality reaches its peak of effectiveness when technology empowers employees and helps to create new opportunities for personalization. AI's role in supporting human decision-making was also evident in several statements. Managers noted that the ability to analyse large datasets allows them to anticipate demand, optimize pricing, and allocate resources more intelligently. This view goes hand in hand with Wirtz et al. (2018), who argue that AI's strategic advantage lies not in its autonomy but in its capacity to enhance managerial insight and operational responsiveness.

4.3.2. AI as a Replacement

Only a minority (two respondents) acknowledged that, in some contexts, AI could potentially replace limited, routine tasks. These included *"very repetitive functions"* or processes that rely heavily on standardization, such as booking confirmations or inventory management. However, even those who recognized this possibility framed it as functional substitution, not relational replacement.

4.3.3. Adaptation and Role Change

Several participants also mentioned the emergence of new roles — such as data analysts, quality managers, analysing competitors´ results, and revenue managers, when in the past the rates would be fixed, *"set in October for the following year"* and changed in an archaic mode, but *"nowadays, we press a button and change prices everywhere".*— suggesting a qualitative transformation of employment rather than a quantitative reduction. This aligns with Li et al. (2020), who argue that the evolution of smart tourism ecosystems demands new forms of digital literacy and analytical capability among hospitality professionals.

4.3.4. The Human–Machine Synergy

Participants maintained that while AI can simulate personalization through recommendations, it cannot replicate empathy and genuine human care. One manager observed, *"AI can make suggestions based on patterns, but it will never have that sixth sense that a good concierge*

has." This sentiment reinforces Yu (2018), who affirms that although AI systems can mimic aspects of personalization, they lack contextual emotional understanding — the very element that defines luxury hospitality experiences.

The interviews also revealed a collective scepticism toward fully automated guest service. Managers frequently described hospitality as *"a business of people for people,"* suggesting that human presence remains fundamental to the identity and perceived value of luxury experiences. This aligns with Leung and Schuckert (2020), who stress that customer satisfaction in high-end hospitality remains rooted in trust, warmth, and human discretion — qualities not easily programmed into digital systems, because "*serving is a noble art".*

Most interviewees advocated for a symbiotic model, where AI and employees co-create service value. Respondents emphasized that *"replacing people would be a mistake, especially in luxury,"* while others envisioned AI as a *"silent partner"* operating backstage to ensure precision, sustainability, and operational flow.

The literature supports this vision. Ozesmi and Ozesmi (2021) highlight that AI contributes most effectively when integrated into hybrid systems that combine digital speed and precision with human emotional engagement. Likewise, Tussyadiah (2020) suggests this as *"augmented hospitality,"* in which technology amplifies human capacity for personalization without overshadowing the guest–staff relationship.

4.3.5. Synthesis

Overall, the findings illustrate a clear distinction between AI as an enhancer and AI as a replacer. While implementing digital tools can optimize repetitive and administrative processes, the core value of luxury hospitality remains centered on humans, relying on empathy, anticipation, and social connection.

The convergence between interview data and theoretical perspectives underscores a growing managerial philosophy: AI should complement human roles, not compete with them. By redistributing cognitive and operational tasks, AI permits the workforce to focus on creativity, emotional empathy, and connections, reinforcing the human essence.

In this sense, Portuguese hospitality leaders seem to embrace a balanced digital transformation, which aligns with the model proposed in the literature (Buhalis et al., 2019; Li et al., 2020).

Table 4.5. Comprehending AI and/or VAs by Function. Font: Made by the Author

Usage of AI and/or VAs	Frequence of Answer	Participant
AI as Supportive Tool	9	1,2,3,5,6,8,9,10
AI as Partial Replacement	2	2,3

4.4. Challenges and Opportunities Adopting Virtual Assistants and AI

The last group of result analysis focuses on the future that AI and VAs, what are the advantages and disadvantages, how to maintain customer satisfaction, the impact it may have on the collaborators, observing the staff skills, and how to prepare the team from a managerial point of view. For this analysis, the Interview Questions related were IQ6, IQ10, IQ12 and IQ13.

4.4.1. Technological and Infrastructural Challenges

The analysis of the interviews reveals that the integration of artificial intelligence (AI) and virtual assistants (VA) in the Portuguese luxury sector still presents some challenges for managers to be able to acquire the necessary and ideal balance between operational opportunities and organizational and cultural challenges. The interviewees consistently mention three central themes: firstly, technological and infrastructural barriers. Secondly, organizational and human challenges. And lastly, ethical and cultural resistance. A recurring theme among participants was the difficulty of integrating AI systems with the existing lack of capable infrastructures, particularly outdated Property Management Systems (PMS), that "*don't talk to each other.*" This fragmentation does not support data flow, interoperability, and real-time analytics, leading to inefficiencies in both guest service and back-office operations. Respondents describe the systems as sometimes being almost like "*dinosaurs*" requiring constant time-consuming upgrades, which presents as unnecessary and unwanted cost for the unit. This finding aligns with Buhalis et al. (2019), who identified digital fragmentation and legacy integration as major barriers to service innovation in hospitality.

Similarly, Ivanov and Webster (2017) mention that despite the potential that AI brings to streamline operations, many organizations underestimate the capital investment and technical harmonization required to achieve full automation.

4.4.2. Organizational, Ethical, and Human Challenges

Participants mentioned concerns about data privacy, quality, and security. One of the interviewees notes that "*many hotels hesitate around data consent*," acknowledging an

awareness of the legal and reputational implications of AI-driven data collection. These concerns are also highlighted by Ozesmi and Ozesmi (2021) in their study of AI-enabled services. These infrastructural and regulatory barriers may suggest that digital transformation is not as simple as being a technological process but also a governance issue, and as well as an issue regarding ethics. Beyond technology, the interviews mention the human resistance to change and lack of adaptation as one of the most notable obstacles. Respondents expressed the need all the collaborators have for continuous learning, mentioning that *"those who are unable to keep up to date with new technologies will be left behind."* This affirmation goes hand in hand with Li et al. (2020), who found that employees´ digital literacy has an impact on the level of acceptance of AI in luxury hospitality, influenced by morale, and may cause turnover intention. A related challenge lies in cultural resistance, both among employees who are afraid of obsolescence and guests who perceive automation as a threat and the vanishing of human presence. As one participant stated, "*this is a people business… we can optimize processes, but it must not go to extremes.*" This fear reflects Tussyadiah´s (2020) observation that in P2P (people to people) service models, excessive automation risks negatively influencing authenticity and emotional connection. Leung and Schuckert (2020) similarly warn that trust in AI depends if the digital tool can remain "*invisible yet intelligent*", increasing human service and quality rather than replacing it. The interviews also suggest that leadership capabilities are crucial in navigating this transition. Managers stressed the need for *"digital vision and human sensitivity*," resembling Wirtz et al. (2018), who argue that effective AI adoption requires leaders capable of integrating technological competence with emotional intelligence and ethical awareness.

Table 4.6. Biggest Challenges while Implementing AI. Font: Made by the Author

Challenges and Disadvantages	Frequence of Answer	Participant
RGPD Concerns	4	2,3,6,8
Infraestrucutural Concerns	3	1,4,6
Human Resistance	5	1,3,5,6,7,9
Teams Resistance	4	5,9,10,3

4.4.3. Ethical and Cultural Dimensions

The luxury segment introduces unique ethical and experiential challenges. Respondents emphasized that AI implementation must respect the emotional dimension of service, where empathy, discretion, and choice are central to guest satisfaction. One manager explained:

"Luxury is about freedom of choice — if I want a mobile app, fine, but if I want a waiter, that has to be available." This highlights a need for hybrid service models where technology enhances without overshadowing personal interaction. Yu (2018) observed the same paradigm in consumer responses to robotic and AI-mediated services, where convenience and human connection are both very much appreciated. The answers given in each interview confirm the importance and how delicate this balance is in the luxury hospitality sector in Portugal, where visitors expect warmth and relational attentiveness, characteristic of the Portuguese culture and fundamental for the perceived value of the guest.

4.4.4. Opportunities and Improvements

For strategic opportunities, the specialists mentioned personalization, sustainability, and workforce empowerment. Despite the existing challenges, the participants observed various opportunities directly consequent of integrating AI in service. Many identified personalization at scale as the most transformative benefit, allowing hotels to "*treat 500 guests as if they were unique.*" Through predictive analytics and machine learning, hotels can anticipate guest preferences, optimize resource allocation, and enhance sustainability through "*predictive operations*" such as energy efficiency and waste reduction.

These insights are consistent with Buhalis et al. (2019) and Ozesmi & Ozesmi (2021), who argue that AI contributes to both operational sustainability and experiential differentiation. Moreover, by automating repetitive administrative tasks, AI enables staff to focus on *"authentic, human-centered service"*, reinforcing the emotional value proposition of luxury hospitality.

4.4.5. Training and Upskilling

Finally, the interviews reveal a general consensus recognition that training and upskilling are essential. Participants state that *"training people is just as important as purchasing the technology,*" and that future success in the workforce will rely not only on soft skills but as well in developing digital literacy, adaptability, and emotional intelligence among the collaborators. This resonates with what is mentioned by Li et al. (2020), and Wirtz et al. (2018), when highlighting the assertive collaboration between human and machine as essential to achieve a sustainable digital transformation in the hospitality sector.

In synthesis, the Portuguese luxury hospitality sector faces a transformation challenge divided into two perspectives: technological modernization and human formation. For modernization with digital tools is necessary to integration, investment, and continuous learning. For labour formation and development, it is required cultural openness, leadership, and continuous learning. The opportunities stand in utilizing AI and VAs not as substitutes for the workforce, but as tools to enable efficiency, personalization, and sustainability, while preserving the essence of hospitality.

4.5. Synthesis and Interpretation

After observing the four research questions, is a pattern emerging and a common opinion among the participants. The interviewees consider AI and VAs a tool for enhancement and improvement in support and not as substitutes, emphasizing their potential to reinforce service excellence, streamline operations, and support and give substance to decision-making. The findings align with the literature review utilized and established to define the study, mainly in the works of Ivanov and Webster (2019), Mendes (2022), and Silva (2024), who mention that integration of intelligent systems must preserve human authenticity while increasing digital fluency. There are still matters to be answered, such as legal data protection, a big theme in Portugal, the value for money perceived by a client in a luxury hotel, due to their necessities not being attended to by a human flesh collaborator. Even though there are still some challenges, the possibility of mass-scale personalization, the chance for employees to focus on human interaction and attention to the client, and the idea of diminishing the lead times for booking are very interesting for a specialist on the verge of implementing AI in the unit. Moreover, the data confirm Bardin's (2013) proposition that qualitative content analysis can uncover latent meanings beyond explicit statements — here revealing a managerial mindset that views innovation as both a technological and cultural evolution. The Portuguese Luxury Hospitality sector demonstrates a very particular balance: implementing and adapting AI and digital tools, but always reinforcing the uniqueness and vitality of human touch and service.

CHAPTER 5

Conclusion

The study had as a main objective to analyse the impact of AI in luxury hospitality, for guest experience and employability in the sector. Digital systems, such as Artificial intelligence (AI) and virtual assistants (VA) are being increasingly integrated into the luxury hospitality sector in Portugal, primarily as tools to enhance operational efficiency and service personalization rather than to replace human interaction, even though some of the specialists are still proceeding cautiously in implementing the tools, testing firstly and making sure the potential and improvements it can bring to the daily operations in hotels. Aligning the arguments of Wirtz et al. (2018) and Buhalis et al. (2019), the study shows that automation optimizes repetitive and very data-loaded functions, such as reservations, guest communication, while allowing employees to dedicate more time to emotionally rich and personalized service to the customers, ensuring and increasing guest satisfaction.

The results demonstrate that guests value AI-driven convenience only when it complements genuine human contact and not replaces it, confirming what is highlighted by Leung and Schuckert (2020) between technological advancement and hospitality's human essence. This being said, AI functions as a silent enabler that improves precision, responsiveness, and attention to detail, as observed with the digital transformation trends identified by Li et al. (2020) and Ozesmi and Ozesmi (2021).

In synthesis, the 4.0 revolution emerges not as a disruptor but as a collaborator in the co-creation of luxury experiences, ensuring that primary skills such as human empathy, emotional intelligence, and digital intelligence will become essential for modern hospitality and will continue to affirm itself in this path. As for the managers, it is not required to programme and be technologically gifted, but to be capable of using it in a primarily support and time management function, and to understand the data collected, so the decisions and standards of service are well thought out and implemented, ensuring the quality of service that luxury hotels want to achieve.

Regarding employees, a continuous actualization of processes and study will be needed, as it has been the biggest differentiating factor for the sector: adaptability.

Combining service excellence by integrating AI as a tool to operational efficiency and a complement to front-of-the-house and back-of-the-house collaborators in a discreet way, allowing the customer to live an amazing experience, will permit the luxury hospitality sector in Portugal to continue to evolve and maintain as one of the key GDP and employability members in the country.

5.1. Contributions of the Study

Academically, this dissertation enriches the emerging discourse on AI adoption in service industries by providing a thorough, very niche exploration of the Portuguese luxury hospitality sector from the implementor's opinion—a field that remains underrepresented in global research. It supports the propositions of Ivanov and Webster (2017) and Tussyadiah (2020), who argue that digital innovation in tourism must be studied through a socio-technical perspective that considers both technological capacity and human adaptability.

The study amplifies this framework by demonstrating how managerial attitudes, operational challenges and opportunities, and cultural expectations form the results of technological adoption. Increasingly, it contributes to hospitality management theory by highlighting AI's role in redefining professional competencies, suggesting that digital literacy, emotional intelligence, and data-driven decision-making will become essential skills for future leaders.

The study also gives voice to specialists in the matter, to those who are directly involved in the sector, to express concerns and vision of the future for the sector, and how it may shape and adapt for the coming years, and the new type of consumer and visitor.

5.2. Limitations of the Study

The limitations considered in this study can be presented when observing and interpreting the data. Firstly, using a qualitative approach based on a limited amount of semi-structured interviews evolved in the Portuguese luxury hospitality sector. The results presented are based on individual opinions and experiences throughout the career and involvement in the industry, which limits to generalize conclusions across different market segments even inside Portugal. The data may reflect subjective interpretations instead of standardized industry measures. Thirdly, with the rapid and constant evolution in technology, the study and research may become obsolete and outdated at a very fast pace.

5.3. Suggestions for Future Investigators and Studies

Future researches could utilise not only the qualitative approach but also the quantitative method, in order to incorporate a wider variety of answers and perspectives within the industry. This would enable researchers to measure in a more effective way the impact of AI in hotel performance, guest satisfaction, employee engagement, and investing and directing the research towards the collaborator who utilizes the digital tools every day, and not only the managerial perspective.

Future studies might also explore guest perceptions of AI and VA service interactions to understand how cultural and generational differences influence acceptance and satisfaction. For the investigators, it could also be very useful to conduct a comparison in various regions with the same market segment and observe the level of implementation and reasons why it may differ. Also, in multichain hotels, which tends to implement the technology more easily to be able to standardize processes.

Finally, integrating sustainability frameworks—considering how AI contributes to energy efficiency and waste reduction—would expand the theme onto responsible innovation in luxury hospitality.

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Attachments

Attachment A. Authors and Articles Supporting Literature Review

Author(s)	Year	Method	Focus / Context	Key Findings
Ivanov & Webster	2019	Case study	AI in hospitality	Improves efficiency but requires human oversight
Tussyadiah	2020	Systematic review	AI and ethics in tourism	Calls for transparent governance and human–AI balance
Gretzel	2021	Literature review	Digital transformation	Warns of emotional detachment risk
Neves et al.	2021	Qualitative	Portuguese hotels	Skills gap in digital education
Mendes	2022	Interviews	AI in luxury hospitality (Portugal)	AI complements emotional intelligence
Martins et al.	2022	Mixed methods	Post-pandemic adaptation	AI fosters hybrid roles and resilience
Dedeiras	2023	Comparative	Global vs Portuguese brands	Digital investment strengthens competitiveness
Silva	2024	Case studies	Heritage hotels (Lisbon, Porto)	AI enhances authenticity and efficiency
Samwell	2025	Quantitative	AI in travel search	300% rise in AI planning; personalization key
Pereira	2019	Policy review	Employability and innovation	Skills transformation supports sustainable growth

Attachment B. Informed Consent for Participation

INFORMED CONSENT FORM

This study is conducted as part of a Master's Dissertation at ISCTE Business School. The purpose of the research is to contribute to the advancement of knowledge within the scope of the study.

ISCTE is the entity responsible for processing your personal data, which will be collected and treated solely for this research, based on your explicit consent, in accordance with Article 6(1)(a) and, where applicable, Article 9(2)(a) of the General Data Protection Regulation (GDPR).

The study is conducted by Luís Vasconcelos Dias (email:luiscbvd@iscte-iul.pt), whom you may contact if you wish to clarify any doubts, share a comment, or exercise your rights concerning the processing of your personal data. You may use this contact to request access, rectification, erasure, or restriction of processing of your personal data.

Participation in this study is confidential. Your personal data will always be processed by authorized personnel bound by duties of secrecy and confidentiality. ISCTE ensures the implementation of appropriate technical and organizational measures to safeguard your personal information. All researchers are required to maintain the confidentiality of personal data. Your personal data will be retained from September 2024 to November 2026, after which it will be destroyed or anonymized. All study results will be presented in an anonymized form for statistical, academic, or scientific communication purposes. ISCTE does not disclose or share your personal data with third parties. In some cases, data may be shared with other research teams or service providers acting under our direction and responsibility. Any such sharing will be duly identified and justified. I hereby declare that I have understood the objectives of this study as explained by the researcher, that I have had the opportunity to ask all questions regarding this research, and that all such questions were answered clearly. I freely agree to participate in this study and consent to the processing of my personal data in accordance with the information provided.

Yes ☐ No ☐

_____ (Place), _____ / _____ / _____ (Date)

Name: _____

Signature: _____

Attachment C. English Interview Guide

- Section 1: Background and Context

Can you briefly describe your role and how long you've been working in tourism/ something related to luxury hospitality?

Can you tell me a bit about your company/hotel — the size, brand, and targeted main client?

What is your general perspective on digital innovation and AI in luxury hospitality?

- Section 2: Implementation of AI and Virtual Assistants

In which hospitality sectors are virtual assistants and AI being implemented/ Where do you think we can implement the VA and IA?

Is your hotel currently using any form of artificial intelligence or virtual assistants (e.g., chatbots, smart room features, predictive tools)?

If yes: Which departments or services are using it?

If no: Are there any plans or hesitations to adopt it in the future?

What motivated your hotel to adopt (or consider adopting) these technologies?

Do you see these tools more as guest-facing (front of house) or back-of-house solutions? Why?

- Section 3: Impact on Operations and Experience

How do these technologies contribute to improving operations and customer experiences?

In your experience, how have AI tools affected operational efficiency (e.g., check-ins, guest requests, communication)?

How do guests typically react to AI-based services in a luxury setting?

Have you noticed any change in staff productivity or roles due to these technologies?

- Section 4: Human vs Machine Balance

Differences between AI as a replacement vs support

Do you see AI and virtual assistants as tools to support staff or as partial replacements?

How do you maintain the 'human touch' that luxury guests expect, while introducing digital systems?

Do you think AI can ever replicate personalized service at a luxury standard? Why or why not?

- Section 5: Challenges and Opportunities

Challenges and opportunities in adopting AI

What have been the main challenges in adopting or implementing AI in your hotel?

(e.g., cost, training, integration, guest perception)

And what do you see as the biggest opportunities in the future?

What skills or changes do you think hospitality leaders will need in the future due to digital transformation?

Do you think companies or hotels should be investing in the staff skills?

Is there anything else you'd like to add about the role of AI in luxury hospitality?

Attachment D. Portuguese Interview Guide

- Secção 1: Antecedentes e contexto

Pode descrever brevemente a sua função e há quanto tempo trabalha no turismo/em algo relacionado com hotelaria de luxo?

Pode falar-me um pouco sobre a sua empresa/hotel — o tamanho, a marca e o principal cliente-alvo?

Qual é a sua perspetiva geral sobre a inovação digital e a IA na hotelaria de luxo?

- Secção 2: Implementação de IA e assistentes virtuais

Em que setores da hotelaria os assistentes virtuais e a IA estão a ser implementados? Onde acha que podemos implementar os assistentes virtuais e a IA?

O seu hotel utiliza atualmente alguma forma de inteligência artificial ou assistentes virtuais (por exemplo, chatbots, funcionalidades inteligentes nos quartos, ferramentas preditivas)?

Se sim: quais departamentos ou serviços os utilizam?

Se não: há planos ou hesitações em adotá-las no futuro?

O que motivou o seu hotel a adotar (ou considerar adotar) essas tecnologias?

Vê essas ferramentas mais como soluções voltadas para o hóspede (front of house) ou para a equipa de organização (back of house)? Porquê?

- Seção 3: Impacto nas operações e na experiência

Como é que essas tecnologias contribuem para melhorar as operações e a experiência do cliente?

Na sua experiência, como as ferramentas de IA afetaram a eficiência operacional (por exemplo, check-ins, solicitações de hóspedes, comunicação)?

Como os hóspedes normalmente reagem aos serviços baseados em IA em um ambiente de luxo?

Notou alguma mudança na produtividade ou nas funções da equipe devido a essas tecnologias?

- Secção 4: Equilíbrio entre humanos e máquinas

Diferenças entre a IA como substituto e como apoio

Considera a IA e os assistentes virtuais como ferramentas de apoio aos funcionários ou como substitutos parciais?

Como mantém o «toque humano» que os hóspedes de luxo esperam, ao mesmo tempo que introduz sistemas digitais?
Acha que a IA pode replicar um serviço personalizado com um padrão de luxo? Porquê ou por que não?

- Secção 5: Desafios e oportunidades

Desafios e oportunidades na adoção da IA

Quais têm sido os principais desafios na adoção ou implementação da IA no seu hotel?
(por exemplo, custo, formação, integração, perceção dos hóspedes)
E quais considera serem as maiores oportunidades no futuro?
Que competências ou mudanças acha que os líderes da hotelaria precisarão no futuro devido à transformação digital?
Acha que as empresas ou hotéis devem investir nas competências dos funcionários?