

Digital technologies for Knowledge Management Processes: Exploring managers' perspectives in an Italian luxury hotel group¹²

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Abstract

Framing of the research: *This paper aims to contribute to hospitality management research by advancing knowledge on exploiting digital technologies (DTs) to enhance internal knowledge management processes (KMPs) in luxury hotels. It provides an in-depth exploration of how and to what extent DTs support KMPs (i.e., acquisition, creation, storage, sharing, and application), assisting the hotel's decision-making and actions.*

Methodology: *The structured-deductive approach was adopted, starting with theory and progressing to an empirical exploration of two luxury hotels in Milan (Italy). A case study was developed, and eleven semi-structured interviews were conducted with top and middle managers. These activities enabled the collection of managers' insights and experiences, including ideas, opinions, and emotions, which were juxtaposed and compared.*

Findings: *Findings deepen understanding of how DTs integrate and enhance KMPs, support critical reflection on the enablers and barriers to DTs' use and exploitation in internal KMPs, and offer fresh insights into the relationships between KMPs-DTs integration and organisational change in luxury hospitality.*

Practical implications: *In luxury hotels, leaders play a key role in guiding a structured digital transformation journey, leveraging reskilling and upskilling in digital competencies and engaging human resources in organisational and managerial change. A culture of innovation is a combined effect of DTs and the involvement of all human resources. This requires fostering a collaborative culture, establishing cross-departmental coordination mechanisms, and implementing targeted training and continuous support to reduce resistance and strengthen staff engagement, thereby embedding DTs into daily operations rather than treating them as stand-alone tools.*

Originality of the paper: *The under-investigated research topic of the internal micro-perspective of top and middle managers interpreting DTs for KMPs has been adopted. The research identifies areas for theory building in hospitality at the intersection between digital transformation, KM, and human resource management.*

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1. Introduction

Although advances in the hospitality industry demonstrated the broader application of Digital Technologies (DTs) (McKinsey, 2024), research underestimated their role in knowledge management processes (KMPs) (Gürlek and Koseoglu, 2023). Studies on DTs for KM in tourism and hospitality have prioritised the consumer perspective, focusing on DTs supporting travellers' knowledge acquisition and sharing (e.g., information search and decision-making), as well as customer interaction and experience (Fauzi, 2023). The literature has treated chiefly KM and DTs as separate topics. Scant research has focused on the potential impact of DTs on internal organisational processes (Gürlek and Koseoglu, 2023). There is a general undervaluation of the application of DTs to enhance the broader spectrum of KMPs (Fauzi, 2023).

Implementing effective and efficient KMPs is a critical challenge for organisations (Liebowitz and Beckman, 2020). This is even more true nowadays, where organisations are exploiting DTs in KMPs to address strategic and organisational changes (Presenza *et al.*, 2017), introducing new ways of thinking and working and leveraging them to serve the ever-changing needs of external and internal customers (Castaneda and Cuellar, 2020). From an internal perspective, DTs have revolutionised how employees learn and transfer knowledge, fostering autonomous, informal, open, networked, and continuous processes. Furthermore, by assuming cognitive tasks once handled by humans (e.g., storing, retrieving, and interconnecting information), technology frees up cognitive resources, enabling their allocation to higher-order KM activities (Sigala and Chalkiti, 2015). Thus, literature considered DTs as facilitators of KMPs, such as knowledge acquisition, creation, storage, sharing, and application (Leoni *et al.*, 2022).

While these dynamics have been widely examined across various organisational contexts, their exploration within the hospitality industry remains relatively limited. Given the focus on luxury accommodation, such an inquiry is even rarer, as new technologies are still mainly investigated as a lever for customer satisfaction and loyalty (Ku *et al.*, 2024).

Luxury hospitality is a rapidly expanding and dynamic segment within the broader hospitality industry (Franco *et al.*, 2022a). It represents the third-largest market share in the global luxury goods industry, valued at USD 140.28 billion in 2023 and expected to grow to USD 369.23 billion by 2030 (MOF, 2024). Moreover, luxury hospitality is well-positioned to adopt innovative practices and strategies (Wu *et al.*, 2023; Franco *et al.*, 2022b). It has budgets and room for trial and error, facilitating experimental adjustments and fine-tuning innovative strategies that could catalyse widespread change throughout the hotel sector (Wu *et al.*, 2023). Furthermore, the luxury hotel industry relies on its workforce's strategic assets of knowledge, experience, judgment, intelligence, and relationships to provide top-tier services (Ferrary, 2015).

Therefore, the innovative use of DTs is imperative for luxury hotels (Cain *et al.*, 2024), although their managers hesitate to integrate technology into services (Athwal *et al.*, 2019). They may harbour concerns that integrating technological elements into their products or services could erode the human touch and warm relationships they typically cultivate with customers (Athwal *et al.*, 2019). This potential reticence underscores that technology acceptance, adoption, and use in the hospitality industry constitute an emerging research stream (Guo *et al.*, 2023).

According to the above, the research aim is to examine how DTs support KMPs and managerial decision-making in luxury hotels, and to explore the extent to which they facilitate these activities. Given the complexity of KM and the multifaceted ways DTs may influence and intertwine organisational practices, the study adopts an internal perspective by focusing on top and middle hotel managers involved in KM across different departments. Moved by the need to capture managerial perspectives on technology-driven knowledge processes, the study is guided by the following research question: *How, and to what extent, do DTs facilitate KMPs, according to luxury hotel managers?*

Empirically, this study explores two hotels in Milan, Italy, that are part of an Italian luxury hotel group: Grand Hotel et de Milan and the STRAFhotel&bar. Based on the findings, this study proposes a preliminary interpretative framework of human-technology interaction in KMPs that identifies three typologies of KMPs arising from the interplay between human resources and digital technologies (DTs): i) hybrid human-technology KMPs, encompassing knowledge acquisition and creation; ii) technology-driven KMPs, primarily related to knowledge storage; and iii) human-driven KMPs, focusing on knowledge sharing and application dimensions of KM in practice. It deepens understanding of human-technology interaction in KMPs and fosters critical reflection on the concrete role of DTs in luxury hospitality, based on managers' direct experiences.

The remainder of the paper is organised as follows. Section 2 reviews the literature on DTs for KMPs in the hotel industry, highlighting the research gaps regarding hospitality and luxury hotels. Section 3 outlines the research design and procedure, detailing the empirical focus on top and middle managers in the two selected luxury hotels. Section 4 presents the findings on how and to what extent DTs facilitate KMPs and managerial decision-making. Section 5 discusses an interpretative framework of the human-technology continuum in KMPs of luxury hotels. Section 6 concludes by highlighting contributions, limitations, and avenues for future research.

2. Theoretical background

2.1 Digital technologies in the hotel industry

Digital transformation has emerged as a critical strategic imperative for hospitality firms, enabling them to enhance customer experiences and strengthen their competitive advantage by leveraging DTs (Helal, 2023; Iranmanesh *et al.*, 2022). DTs represent a “combination of information,

communication, computing, and connectivity technologies that fundamentally transform business capabilities” (Bharadwaj *et al.*, 2013, p. 471).

With the rapid advancement and widespread adoption of DTs, the hospitality industry is transitioning into a new era of smart operations (Stylos *et al.*, 2021). DTs are profoundly transforming how hotel operations and value chains are managed (Mingotto *et al.*, 2021) to achieve better financial performance, quality of service, resource utilisation, greater flexibility, and, more generally, nurture competitiveness (Lenuwat and Boon-itt, 2022). Despite their potential to deliver personalised, data-driven services and improve operational efficiency, most hospitality organisations continue to underutilise DTs, adhering to traditional, often inefficient management practices and legacy mindsets (Buhalis *et al.*, 2023). Besides, these technologies yield benefits only when strategically integrated into business models and aligned with organisational goals (Iranmanesh *et al.*, 2022). Thus, digital transformation in hospitality is not solely technological but also strategic and cultural, requiring alignment among technology, human capital, and organisational agility (Ullah *et al.*, 2025; Hadjielias *et al.*, 2022).

2.2 Knowledge management processes in the hotel industry

Knowledge “is related to the company’s customers, products and services, operational procedures, competitors and job associates” (Yang and Wan, 2004, p. 595), and it usually arises as the tacit knowledge of employees (Zhang and Jiang, 2015). This depends on the sector’s specificity, which is labour-intensive, so employees are at the centre of all processes (Gürlek and Koseoglu, 2023). Employees often accumulate substantial knowledge through on-the-job experience or during implementation, making practical learning a frequent occurrence. As a result, hotel staff’s expertise is typically implicit and deeply ingrained (Rao *et al.*, 2021). Thus, hotels must preserve accumulated experiences to prevent their loss when employees quit or rotate between hotels (Bouncken, 2002).

Additionally, there is a requirement to support unskilled workers and newcomers by leveraging the experiences of existing employees, establishing clear, comprehensible standards, and promoting a culture of continuous learning (Bouncken, 2002). This highlights the importance of knowledge storage for the hotel to retain and access valuable insights, facilitating continuous improvement, staff training, and, ultimately, enhanced guest experiences. Following the acquisition of new knowledge, a hotel must assimilate it effectively to facilitate smooth knowledge transfer. Assimilation refers to a hotel’s capability to thoroughly absorb, analyse, process, interpret, understand, internalise, and categorise new knowledge to ensure the efficacy of knowledge transfer processes (Situmorang and Japutra, 2024). Furthermore, hotels must cultivate innovative service behaviours among their employees by fostering knowledge-sharing (Hallin and Marnburg, 2008). Knowledge sharing is, in fact, crucial for hotels’ competitive advantage, as it enhances the ability to find more effective solutions and to respond rapidly to market trends (Vallat *et al.*,

2017). It involves “the exchange of employee knowledge, experiences, and skills through the whole department or organisation” (Lin, 2007, p. 315), thus occurring when an individual is willing to learn and assist others in developing new capabilities. This process is essential in transforming individual knowledge into organisational knowledge that “consists of prior individual experience, internal existing routines, new operating routines and any kinds of knowledge related to organisational operations” (Yang, 2008, p. 348).

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2.3 Integrating DTs and KMPs: the luxury hotel context

Although hospitality research increasingly documents how DTs enable data capture, analytics, and automation, the literature still treats KMPs and DTs in parallel rather than as an integrated capability. Recent reviews (Iranmanesh *et al.*, 2022) portray the field as rich yet fragmented, calling for frameworks that connect technology with organisational learning routines and strategic renewal in hotels. At the same time, the rapid spread of DTs exposes human-capital and cultural bottlenecks, such as limited digital skills, employee resistance, and ethical concerns. This suggests that hotels must align technology with learning climates and agile organisational structures to realise value (Melián-Alzola *et al.*, 2020). Many studies remain cross-sectional or technocentric, emphasising system implementation and operational efficiency while offering limited causal insight into how DTs reshape knowledge creation, sharing, and utilisation across functional and organisational boundaries (Buhalis and Leung, 2018).

While overlooked mainly in hospitality management research, the integration of DTs and KMPs remains unexplored in the luxury hospitality sector, where digitalisation continues to be confined primarily to boosting and measuring guest experiences (Ku *et al.*, 2024), with limited attention to the “backstage” activities and processes that enable these experiences. Luxury hotels are particularly well-positioned to experiment with and invest in integrating DTs-KMPs, as outlined in the Introduction, because they typically anticipate and lead industry trends. Although the intelligent use of DTs is increasingly essential for luxury hotels (Cain *et al.*, 2024; Shin and Jeong, 2022), this segment may face high cultural and organisational barriers. These barriers stem from persistent scepticism and hesitation towards digitalised processes, which may be perceived as potentially undermining the core value of luxury hospitality, namely human relationships (Athwal *et al.*, 2019). For instance, human-centred interactions remain fundamental to knowledge acquisition and sharing, as they are inherent to the special care for the luxury guest. Gaining more profound insights into the integration of DTs-KMPs within organisations is, therefore, critical to understanding concrete barriers, such as managers' reluctance to accept, adopt, and use new technologies in luxury hotels.

There is considerable scope to argue that DTs may be pivotal in strengthening KMPs by enabling luxury hotels to capture, share, and leverage both tacit and explicit knowledge across organisational levels. Grounded in the resource-based view (Barney, 1991) and dynamic

capabilities theory (Teece, 2007), DTs may act as strategic resources that enhance a firm's ability to sense market changes and emerging customer needs, integrate dispersed knowledge, and reconfigure resources for innovation, such as new services and personalised guest experiences, and competitive advantage. It follows that integrating DTs and KMPs can facilitate the collection and processing of large volumes of data (Leoni *et al.*, 2024; 2022). This combination may enable seamless access to knowledge resources across different locations, promoting a culture of knowledge sharing and collaboration within organisations (Castaneda and Cuellar, 2020) and allowing employees to exchange ideas and collaborate in real time, overcoming geographical and temporal barriers (Levy, 2011). Tools such as big data analytics, artificial intelligence, and cloud-based systems may facilitate real-time knowledge creation and dissemination, transforming information into actionable insights and promoting adaptive learning (Iranmanesh *et al.*, 2022). Moreover, digital platforms may encourage organisational learning by connecting employees, guests, and partners within knowledge ecosystems (Buhalis and Leung, 2018).

Accordingly, this study explores the integration of DTs-KMPs to address existing research gaps, theorising their entanglement and unveiling the emerging organisational, technological, and cultural enablers and barriers that condition their integration and influence innovation and performance outcomes in luxury hotel management. In doing so, it contributes a knowledge-centric perspective that advances current debates on how digital transformation in hospitality is as much a strategic, cultural, and organisational process as it is a technological one.

3. Methodology

3.1 Research design

This study employs a qualitative research design to explore an under-researched topic, specifically the role of DTs in luxury hotels' KMPs. A qualitative approach was chosen to gain a deep understanding of hotel managers' perceptions, opinions, and emotions, as shaped by their professional experiences. A multiple-case analysis was conducted to identify patterns and differences in the use of DTs for KMPs from a comparative perspective (Eisenhardt and Graebner, 2007). Because the question focuses on understanding complex managerial perceptions and contextual mechanisms, a qualitative approach enables the collection of rich, nuanced data on participants' experiences and interpretations. The multiple-case analysis further strengthens this design by allowing comparisons across two hotels, thereby identifying both common patterns and context-specific differences in how DTs support KMPs.

The study focuses on two luxury hotels in Milan, Italy: the Grand Hotel et de Milan (affiliated to The Leading Hotels of the World) and the STRAFhotel&bar (affiliated to Members of Design Hotels™ by Marriott), both part of the Manzoni Hotels & Spas, a group committed to delivering unique luxury experiences. Case selection followed a theoretical sampling strategy to maximise the opportunity for theory building (Eisenhardt,

1989). Theoretical sampling is a non-probabilistic approach that aims to identify cases that can contribute to theory development by illuminating key aspects of the phenomenon under scrutiny.

Four criteria guided the selection. First, both hotels have undergone long-term digital innovation trajectories. This makes the cases particularly relevant for observing KMPs in contexts open to digital innovation. Second, while sharing some similarities, they represent distinct models of luxury hospitality. The two hotels are in the centre of Milan, one of Europe's most dynamic luxury destinations and a highly competitive urban context (PWC, 2023). Here, firms are urged to innovate and continually boost value creation. They are both 5-star properties catering to a global clientele, yet with important distinctions. The STRAFFhotel&bar offers a contemporary, design-oriented, and urban luxury concept. At the same time, the Grand Hotel et de Milan is a heritage hotel that delivers a classic luxury experience rooted in history and traditional codes of elegance. Their differences broaden the exploration of the DTs-KMPs nexus in the luxury context by allowing potential theoretical variation.

Third, within the same corporate group, the cases provide an opportunity to investigate interorganisational dynamics in the digitalisation of knowledge flows and managerial processes within shared ownership structures. This is especially relevant in luxury hospitality, where mergers and acquisitions reshape the industry, driving rapid structural transformation and dimensional growth to boost investments (including digital assets) and enhance competitiveness (Zhang *et al.*, 2020).

Finally, the two hotels afforded researchers substantial access to the firm (De Massis and Kotlar, 2014), facilitating multiple interviews with key informants throughout the study and ensuring informational richness.

3.2 Data collection

We collected data between April 2024 and January 2026, including documentary information, archival records, and interviews. Online newspapers, magazine articles, and YouTube videos were collected and examined, along with websites and documentary materials provided by the hotels, with internal reports offering valuable insight into the strategies driving their operations. These secondary sources helped us trace the hotel contexts in which managers' experiences have unfolded.

We conducted eleven interviews with managers from the two hotels, including top managers (CEO/COO and General Manager) and department managers (human resources, revenue, food and beverage, and operations). The semi-structured interviews with key informants enabled us to explore topics in depth, connect analytical categories with respondents' experiences (Gephart, 2004), and provide insights into top and middle managers' firsthand understanding of DTs' use in KMPs. All managers at the two hotels participated in the interviews (Table 1). Interviewees were informed about the study's aim and the topics covered by the interview questions before the interview date. Before starting the interview, they were reminded of the research aim. Consent to the interview and permission to record the interviews through MS Teams were requested and granted.

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The interview protocol does not elicit or collect sensitive or confidential information about the interviewees.

The Chief Financial Officer (CFO)/Chief Operating Officer (COO), who coordinates overall innovation and change management processes, was interviewed four times. The first interview was conducted to address the critical aspect of the research, the overview of the two hotels' path of progress and innovation; the second one was aimed at collecting his individual first-hand experience of the DTs-KMPs integration, and the third and fourth provided final clarifications on the topics that emerged during earlier interviews.

Tab. 1: Interviews' details

#	Managerial position in the hotel	Hotel	Duration
1	Human Resources Manager	Grand Hotel et de Milan & STRAFhotel&bar	68 Minutes
2	General Manager	Grand Hotel et de Milan	72 minutes
3	Revenue Manager	Grand Hotel et de Milan & STRAFhotel&bar	64 Minutes
4	Operations Manager	Grand Hotel et de Milan	70 Minutes
5	General Manager	STRAFhotel&bar	112 Minutes
6	Chief Financial Officer - CFO Chief Operating Officer - COO	Grand Hotel et de Milan & STRAFhotel&bar	115 minutes (1 st interview) 72 minutes (2 nd interview) 95 minutes (3 rd interview) 35 minutes (4 th interview)
7	Food & Beverage Manager	STRAFhotel&bar	111 Minutes
8	Operations Manager	STRAFhotel&bar	85 Minutes

Source: our elaboration

An interview protocol with open-ended questions was employed to gain in-depth insights into respondents' perceptions, attitudes, and opinions. The semi-structured interviews began with a general introduction to the study's objectives, encouraging participants to introduce the most relevant aspects for them. This was followed by a more structured protocol that directed the interviewees' attention to KMPs and DTs while allowing them to explore topics in the immediate context and potentially reveal unexpected insights.

The interview protocol was organised into four sections. First, interviewees were asked about the hotel's digital technology endowment and adoption, exploring the timing, purpose, perceived results, and implementation challenges. This introductory set of questions facilitated the conversation by focusing on digital tools in a narrow, descriptive way. Second, the focus shifted to knowledge management and the integration of technology into related processes. Interviewees were guided to identify specific processes (e.g., acquisition, sharing, storage) to help them frame and visualise the entire knowledge management process from their practical experience. Third, interviewees reflected on the results,

challenges, and pitfalls in adopting digital technologies for knowledge management, including their views on hotel employees' involvement, impact on competencies, job quality, and satisfaction. Finally, the impact of the DTs-KMPs integration on the organisation and its evolution over time was explored. At the end of each interview, a table listing KMPs and the technologies mentioned was presented to validate and refine the discussion of the collected data. Informants were also given ample freedom to raise related issues, fostering open dialogue. Before launching the complete study, a pilot interview was conducted with one informant to refine the protocol and ensure the questions were clear and comprehensible (Hadjielias *et al.*, 2022).

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Lastly, between December 2025 and January 2026, the Chief Financial Officer (CFO)/Chief Operating Officer (COO) and the HR Director were contacted via email to provide additional information and documents on previously collected and analysed materials. These further interactions allowed us to further refine the conclusions reached through the study, also giving us access to information and data extracted from the following documents, thus increasing the number of secondary data at our disposal: corporate presentations; internal strategic documentation on digitalization and the adoption of the SYSDAT BI system; agreement and related documentation and linked Climate Survey 2024 results; multi-year training plan 2019-2024; implementation agreements with CAPAC for the New Skills Fund; Fondir/ManagerItalia documentation for management training; analysis of internal training needs; qualitative conclusions reported in the training planning documents; strategic materials relating to brand positioning and international affiliations; and budget reports per year.

3.3 Data analysis

The structured-deductive approach was adopted, starting with theory and moving toward empirical validation. As Yin (2018) suggests, this approach ensures that case study research is systematic and theory-driven, allowing for rigorous validation or refinement of theoretical constructs.

The interview transcripts were first coded according to the different KMPs (i.e., "Knowledge Acquisition", "Knowledge Creation", "Knowledge Storing", "Knowledge Sharing", and "Knowledge Application"). Another coding round identified DTs at stake within each KMP (examples of codes are "Property Management System", "Business Intelligence" system, and "Forecasting" tools). The coding process remained open to potentially emerging themes not discussed in the literature, which could cast further light on the intersections between KMPs and DTs. Researchers wrote notes on emerging topics during the analysis and, finally, converged on distinct text patterns concerning the "enablers" and "barriers" of DTs-KMPs integration. The researchers enacted a third coding round to detect the text to be further coded. The coding process involved all the researchers who shared the first- and second-round coding results. When disagreeing, the researchers deepened the analysis to converge on a shared vision of the

sentences' meaning and categorisation. Annex 1 reports sample quotes organised following the adopted KM theoretical frameworks.

The multiple data collection methods outlined in Section 3.2 enabled triangulation, thereby reinforcing these research results. Triangulation enabled the researchers to integrate primary data (interviews) with secondary data (including documents and archival sources), enriching the interpretation of the findings and enhancing the study's internal validity (Eisenhardt, 1989; Myers, 2019). This qualitative methodological approach provided insights into managers' experiences within their real-life organisational context, offering a "stronger substantiation of constructs and hypotheses" (Eisenhardt, 1989, p. 537).

4. Findings

4.1 *Digital innovation, organisational and managerial change and human resources training*

Findings reveal that the hotel management has envisioned digital innovation not only as the introduction of new ICT tools but as a lever for organisational and managerial change involving human resources. As explained by the CFO, "During the period 2019-2025, the company embarked on a structured digital transformation journey, with a clear focus on staff reskilling and upskilling to respond to an increasingly competitive and data-driven high-end luxury hotel market. [...] The adoption of Business Intelligence (BI) systems aims to support strategic decision-making through data analysis. [...] This process has been strengthened by the formal establishment of a business network 'Milan Hoteliers', aimed at sharing know-how, processes and innovation between the two companies." (Interviewee #6).

Reskilling and upskilling of human resources (120 hours in total, aimed at 16 participants, including managers and department heads) support a data-driven managerial approach, improving decision-making quality, operational efficiency, and overall marginality. The investment has been € 30.000 (2019), € 45.000 (2022), € 55.000 (2023), € 40.000 (2024). It allowed for: developing advanced data-driven analytical skills; strengthening internal technical autonomy; supporting organisational change by developing managerial soft skills; and increasing employability and aligning staff skills with new production models. It has involved mainly Front Office and Revenue Management, with a focus on pricing, disintermediation, and revenue optimisation; Food & Beverage for controlling costs, marginality, and operating flows; Budget & Forecast, using historical data and forecast KPIs; Warehouse, for flow automation and inventory control.

In the following sections, managers' first-hand experiences are framed, highlighting the entanglement of DTs and KMPs and the emerging enablers and barriers influencing their relationships within the context of the two hotels. In Annex 1, all the quotes useful for the analyses are listed.

4.2 Knowledge acquisition

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Interviewees highlight the importance of acquiring knowledge from both external and internal environments. Concerning the external environment, Interviewee #3 emphasises that “the knowledge of everything surrounding the hotel is crucial”. In this vein, the investigated hotels acquired knowledge in two main ways: i) by hiring new people and ii) through technological tools. In the first case, the recruitment process is crucial in knowledge acquisition. In fact, in recent years, hotels - especially after COVID-19 - have experienced turnover that affected almost 100% of employees. This has led to hiring personnel qualified in the hotel sector and subjects from entirely different contexts, such as the automotive sector (e.g., Interview #1). In particular, the hotels focus their recruitment process on professionals with significant previous experience to encourage acquiring new knowledge that could stimulate adopting a culture that embraces digital transformation (#2). In this regard, it is worth mentioning the statement of Interviewee #5: “I have a long experience in international chains that I immediately started to apply to the STRAFhotel&bar from the first day I arrived [...] bringing into the organisation previous professional experiences gives a wealth of insights otherwise hardly acquired”.

In the second case, technology is crucial to improving knowledge acquisition processes for analysing booking data, occupancy trends, customer types, market, customer feedback, and competitor benchmarks (Interview #4). For example, hotels rely on a digital tool that aggregates and analyses all customer reviews, enabling almost perfect alignment between customer expectations and the hotel's offering (#7 and #8). At the same time, these knowledge acquisition processes through technology are only partially established, and hotels are constantly working to improve them (#8).

Regarding the internal environment, the reciprocal relationship between humans and technology for effective, efficient knowledge acquisition is more evident. We can distinguish between the knowledge acquired i) during routine activities within the hotel, ii) through ad hoc training activities, and iii) through memberships and collaborations. In the first case, for example, if a housekeeper realises that a bottle of water is missing from the room minibar, she inserts this information into the tablet at her disposal (#8). Through digital tools, individual knowledge acquisition (i.e., the housekeeper knows that a bottle of water is missing) becomes collective. Interviewee #7 points out that “all the actions taken by employees enrich the hotel's database”, emphasising how operational activities contribute to the more extensive knowledge pool. In the second case, it is worth noting that employees acquire knowledge through ad hoc training courses and development programs offered at both the operational and strategic levels (#1 and #5). Employees' training and engagement are crucial because they equip them with knowledge and confidence, especially concerning the exploitation of technologies (#2, #3, #5, and #6). Lastly, regarding memberships and collaborations, the investigated hotels are members of Design Hotels™ by Marriott, a global collection of independent boutique hotels known for their distinctive design, creativity, and focus

on providing unique and memorable guest experiences. Being part of this network also gives several opportunities, facilitating access to fresh knowledge” (#5). Moreover, they collaborate with technology vendors and consultants, enabling them to acquire and develop skills and competencies by leveraging their expertise, tools, and established processes.

4.3 Knowledge creation

The interviewees stressed that knowledge creation is a collaborative and iterative process that combines managers’ and employees’ knowledge with knowledge acquired through DTs. Interviewee #7 describes this integration process between humans and technology as a “four-handed job”, crucial for refining strategies and addressing real-time challenges. Creating new knowledge is a continuous process of generating and sharing new ideas through social and digital interactions. Therefore, knowledge creation implies the opportunity for contamination across different types of knowledge, tacit-human and explicit-digital knowledge.

Knowledge creation primarily occurs through meetings, during which employees (mainly department managers, together with the group owners) comment on the analytical insights generated by DTs (#5), enriching them with their knowledge and experience to identify strategic and operational actions to improve the organisation (#8). In this respect, Interviewee #2 states, “During these meetings, we get through all bookings, and we work together to generate a forecast for our bedrooms and understand if we are sticking to our goals or not”. In other words, according to Interviewee #7, when a manager has an idea (i.e., creates new knowledge), in most cases, it is the result of the integration between the individual’s intuition (based on their previous tacit knowledge), supported by data and information produced by DTs (explicit knowledge). Thus, the organisational capability to create knowledge results from the continuous interplay between the novel outputs generated by technology and the unique knowledge possessed by humans.

4.4 Knowledge storing

Storing knowledge effectively enables the proper capture and retention of organisational knowledge, helping the organisation develop better strategies for the future (#8). This is fundamental for sectors - such as the hotel industry - characterised by high turnover, as it enables new employees to access consolidated knowledge - i.e., the organisation’s historical memory - to avoid repeating errors and/or duplicating efforts. Interviewee #7 emphasises the significance of maintaining a historical record of actions, successes, and failures to facilitate onboarding and support future managers: “It is essential to ensure that everything I have tried, what worked, and what didn’t, can be recorded and stored for whoever comes after”. In this case, technology, with its potentially infinite storage capacity, is the fulcrum to leverage, ensuring that valuable information is not lost and is accessible to those who need it. Furthermore, knowledge-storing systems are made through ad hoc DTs, which saves time when retrieving the required information at a given moment (#7).

Moreover, the knowledge-storing system is essential as an archive of information for those who work (or have worked) in the company itself (#1), allowing the hotel to improve its processes and performances not only towards the outside (i.e., customers) but also towards the inside (i.e., employees).

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4.5 Knowledge sharing

Unlike knowledge storage, the knowledge-sharing process is mainly based on the human factor, as underlined by Interviewee #8: "Notwithstanding the support of technology, human relations prevail". Knowledge sharing primarily occurs during the frequent general and thematic meetings between managers. A daily verbal exchange occurs for managers who share the same offices or work on the same matter from different perspectives (#8). However, among middle and top managers, knowledge sharing is mediated by the Property Management System (PMS) and the Business Intelligence (BI) system, enabling data and report sharing for forecasting and strategic decision-making (#2, #3, #7, and #8). At a lower level, DTs do not support knowledge sharing among the team managers and the other employees (#5). Face-to-face meetings are fundamental in this case to share information, decisions, and objectives, as emphasised by Interviewee #7, who stated "to clarify and make people remember key concepts and not to disperse information we have morning meetings, physically at the hotel most of the time" and Interviewee #8, who clarified that "We prefer this modality because [...] if someone does not understand some aspect [...] we can address the problem and fix it more easily and quickly".

At the same time, it is worth mentioning that digital solutions are adopted for capillary and instantaneous knowledge sharing (#8). In this regard, Interviewee #6 stresses that "the business intelligence platform [...] has been implemented in all hotel departments, allowing information flow transfer and sharing". At the same time, it is worth mentioning that - increasingly - knowledge in the forms of pictures, documents, and multimedia materials is shared to transfer knowledge continuously and in the induction phase: "If in the past the employees had to search paper manuals, today they can open the PDF files shared over time on WhatsApp" (#7).

Furthermore, the hotel industry is characterised by a high turnover, which has affected hotels, especially since COVID-19 (#1). Hence, the need to transfer knowledge rapidly and effectively to new employees has grown significantly. In this vein, technology plays a vital role: training has become much more digital, with technical courses taken online and integrated with offline ones for practical aspects and soft skills (#1). Moreover, the collaborations established with foreign companies allow employees to exchange with professionals working in different contexts, enriching their backgrounds (#1). The same applies to the induction phase, which relies more on DTs (e.g., the PMS) for transferring knowledge (#4). This is even more true in certain divisions like the F&B one, where "when a new employee arrives, I share [with him/her] few interpretative clues - like this

is our identity, this is the key problem, this is our strength - [and], with these macro-categories, he/she has the filters to check our digital sources, databases, and interpret them most effectively” (#7). Besides, DTs enable the transfer of learned experiences by previous managers and employees (when properly stored), capitalising on trial-and-error processes: “DTs [...] facilitate the work of those arriving after you [...] If I were entering the company for the first time today, the first tool managers showed me would probably be the business intelligence system” (#7).

Lastly, it is essential to highlight inter-organisational knowledge-sharing processes, i.e., knowledge sharing between the two hotels. This inter-organisational process takes place in two main ways: i) an integrated digital platform and ii) workforce exchange in case of need (#2, #4, #5, and #8). As Interviewee #5 highlights, “We aim for an integration [...] to unify various processes and suppliers, so that working at Staff or GH is the same, even though the target markets are different”. From an operations perspective, integrated digital platforms are deemed central, so DTs are currently being adopted to meet the needs and characteristics of the whole group. For instance, “the front office agent at GH has different competencies from the front office agent at STRAFhotel&bar. However, if they use the same tool, they become potentially interchangeable” (#5). Moreover, the fact that the two hotels have worked overtime to unify their methodologies and operating procedures ensures they can take advantage of each other’s resources, especially in the event of need (#2).

4.6 Knowledge application

All available knowledge across the two hotels is used to make decisions and perform tasks at both the strategic and operational levels. Even in this knowledge application process, human and technological factors coexist and intersect.

DTs have reshaped the organisational procedures and decision-making processes of top and middle managers of all hotel departments, supporting strategic and operational activities. Concerning the strategic level, DTs support hotel managers in planning, decision-making, and monitoring activities while enhancing problem-solving speed, as pointed out by many interviewees: “Revenue Management software is fundamental for my job; it allows revenue optimisation and dynamic rate management by predictive analysis, distribution channels optimisation, and monitoring” (#3). As emerged, DTs “generate perspective data for forecasting, allowing to evaluate the level of costs and revenues and make decisions; it allows to redefine strategy, marketing approach, and hotel rates” (#2); “Budget and forecast are made by the BI” (#6).

At the same time, technologies support standardised hotel procedures and improve the systematic use of individual and organisational knowledge, enhancing efficiency, effectiveness, proactivity, and the provision of innovative services, thereby optimising time and improving customer satisfaction. In this vein, Interviewee #6 points out that “[through DTs], information is accessible and usable by all departments with high details”; while Interviewee #8 emphasises that “[technologies] allow the definition

of guest preferences' trends and allows access to this information as soon as we need to use it [...], enhancing customer satisfaction". Practically speaking, DTs - like Hoxell - provide precise data on room status, housekeeping activities, minibar consumption, and the like, which are vital for housekeepers' daily operations and long-term planning (#8). By doing so, "these tools allow a 360° reflection on specific activities to understand if there is a need to change something, to reduce costs, etc".

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4.7 Enablers and barriers

According to interviews, many factors facilitate or hinder luxury hotels' adoption of technologies in KMPs. These factors can be categorised as i) technological, ii) environmental, and iii) organisational factors.

Concerning the technological factor, a robust IT infrastructure is essential, keeping the foundation for seamless integration and operation of advanced DTs. Investment in high-speed Internet, secure cloud services, and reliable hardware ensures that the digital ecosystem functions efficiently (#3, #5, #7, and #8). At the same time, adopting user-friendly technological tools facilitates hotel staff's acceptance and usability (#3).

Intrinsic characteristics of DTs may inhibit their adoption, such as: i) implementation complexity, especially when dealing with legacy systems that are difficult to integrate with new DTs, leading to interoperability problems and potential disruptions (#3 and #5); ii) costs, including high initial costs and ongoing expenses for technology maintenance and upgrades (#5); iii) data security and privacy concerns (e.g., implementing new systems carries on the risk of data breaches and the challenge of ensuring compliance with data protection regulations, #5); and, iv) time constraints, both in terms of the time required for technologies implementation and ongoing management (#5). Moreover, it is essential to consider the technological integration issues between the two hotels. The hotels are part of the same group. Thus, there is a need to align systems and processes to ensure seamless operations and consistency across the properties (#3, #4, and #5).

Among the enabling factors in the external environment, competitive pressure and government support play a role. Interviewee #5 said the first aspect: "Observing competitors plays a crucial role in implementing new solutions as it provides valuable benchmarks and insights into industry trends and best practices. Analysing how competitors leverage DTs and KM systems pushes us to go in the same direction and try to improve". Regarding the second aspect, Interviewee #5 stressed how the possibility of taking advantage of public funds allocated by the government is of vital importance to ensure that the organisation can effectively adapt to the digital transition by adequately training its employees without having to bear the cost or at least at a reduced price (#6).

Regarding the barriers, it is possible to incorporate the client's needs and the characteristics of the luxury hotel sector. According to the interviewees, the hotel employees' knowledge and ability to apply it creatively are crucial to satisfying guests' expectations for their luxury experience. The irreplaceable qualities of employees define exceptional experiences,

creating memorable stays and fostering guest loyalty. As emphasised by all the interviewees, while a mobile app might allow for self-check-in and provide important information, the warm welcome from staff members or their ability to address concerns even before they are formally verbalised makes the arrival experience unique and makes guests feel special.

Regarding organisational factors, managers' commitment and leadership drive the strategic vision, create a supportive environment, foster a culture that values and utilises KM, and facilitate and accelerate technology adoption (#5 and #6). These enablers can counterbalance the organisational barriers, mainly represented by unskilled human resources and cultural resistance to change. Addressing these barriers requires thoughtful change management strategies, targeted training programs, and fostering a culture of inclusivity and continuous learning, as employees may be averse to change (i.e., reluctant to adopt technologies) due to fear of the unknown, job security concerns, or comfort with existing systems (#1, #2, #3, #4, #5, and #7). Moreover, new digital solutions may be misaligned with the overall strategy or hindered by siloed departments, leading to fragmented efforts and limited positive impacts (#6). Finally, the lack of clear performance indicators that measure the (positive) implications of adopting technologies in KMPs makes it hard to justify costs and necessary efforts, slowing down or even stopping DT adoption and implementation (#5).

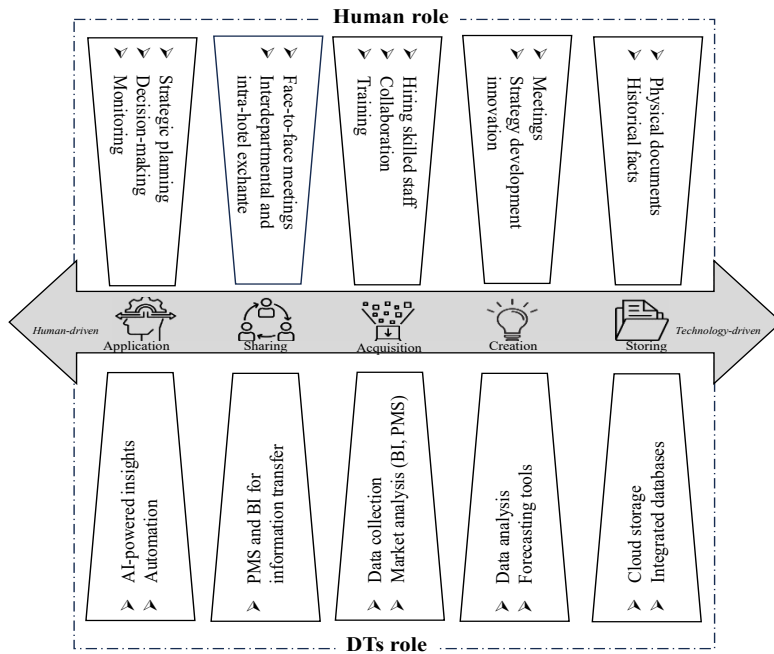
5. Discussion

This study provides insights into hotel managers' perspectives on DTs in KMPs, highlighting the transversal role of DTs in supporting organisational processes, strategic decision-making, and operations (e.g., interpreting data, coordinating, communicating, addressing strategic changes, managing operations, etc.). It underlines the key role of a strategic orientation, combined with a structured digital transformation journey, in driving organisational and managerial change in luxury hospitality.

The case study methodology provided an opportunity to develop an interpretative framework of human-technology interaction in KMPs of luxury hotels, based on the interplay between human resources and DTs (Fig. 1).

As an emerging theoretical contribution of the research, it identifies three typologies of KMPs, as an emerging theoretical contribution of the research, based on the interplay between human resources and DTs: i) hybrid human-technology KMPs, where DTs complement the human role, encompassing knowledge acquisition and creation; ii) technology-driven KMPs, where the DTs' role prevails, primarily related to knowledge storage; and iii) human-driven KMPs, where DTs are marginal, focusing on knowledge sharing and application.

Fig. 1: Human-technology interaction in KMPs of Luxury Hotels



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Source: our elaboration

According to the findings, we can assume that knowledge acquisition and creation in luxury hotels are contingent on the effective integration of human expertise and DTs. Knowledge acquisition emerges as a process that complements human resource functions - such as recruitment, training, and inter-organisational collaboration - with the capabilities of DTs, like data collection from integrated databases and business intelligence platforms. Similarly, knowledge creation depends on individual tacit and explicit knowledge derived from DTs.

Moreover, the study underscores that knowledge application, although primarily human-driven, can be significantly enhanced by integrated DTs to optimise operational efficiency, facilitate problem-solving, and support strategic decision-making, such as in event planning within Food & Beverage operations. Knowledge storage, instead, is the only KMP in which DTs play a predominant role, leveraging integrated databases, business intelligence platforms, and other digital tools to retain and organise information systematically. On the contrary, knowledge sharing relies mainly on human-to-human interaction through face-to-face meetings, formal and informal communication, and inter-organisational exchanges. While DTs support technical training and operational knowledge transfer (e.g., revenue management and housekeeping), their role in knowledge sharing remains auxiliary. Inter-organisational knowledge sharing is particularly strategic, contributing to the standardisation of hotels' procedures and fostering a systemic approach to leveraging individual and organisational knowledge. This enhances workforce interchangeability and

organisational adaptability in response to evolving internal and external environments (Lenuwat and Boon-itt, 2022).

This investigation offers critical insights into the acceptance, adoption, and utilisation of DTs within luxury hotels (Guo *et al.*, 2023). The tourism and hospitality industry has increasingly invested in digitalisation. As this study confirms, managers are aware of DTs' contributions to improving operational efficiency and enhancing the quality, speed, and flexibility of hotel processes, thereby reducing costs and increasing effectiveness, as highlighted by Mingotto *et al.* (2021).

However, digital investments primarily focus on customer relationship management, while limited attention is paid to the adoption and exploitation of DTs for internal KMPs in luxury hotels. Besides, the findings suggest that DTs in KMPs remain overlooked in the digitalisation discourse at the investigated hotels, with a firm reliance on well-established technologies, such as BI and PMS. Despite hotel managers acknowledging the potential of cutting-edge DTs, their adoption remains limited. For instance, the Grand Hotel et de Milan is still in the early stages of implementation. Non-Fungible Tokens (NFTs) have been suspended due to their complexity, and AI tools are under early-stage evaluation. Cutting-edge DTs remain marginal for internal KMPs, and time and investment (including human resources) are needed to enable them to play an effective role (Paniccia *et al.*, 2024).

In such a context, there is the need to consider also the existence of several barriers that hinder the widespread acceptance and integration of disruptive DTs, including technological challenges (e.g., high costs, integration difficulties, and data security concerns), organisational constraints (e.g., resistance to change, insufficient digital competencies among staff, and the lack of precise KPIs to assess digital transformation impact), and competitive pressures (e.g., slow adoption rates among industry peers and persistent customer preference for personalised, human-centric luxury service experiences). For example, by actively addressing employees' reluctance and cultivating a culture of digital literacy and adaptability, luxury hotels can enhance KMPs while optimising the benefits of digital transformation (Bouncken, 2002). This also requires managers to ensure that digital initiatives are aligned with organisational structures, decision-making routines, and existing work practices, so that DTs become embedded into daily operations rather than isolated tools. Moreover, providing targeted training and fostering cross-departmental collaboration further strengthens employees' engagement and facilitates the effective integration of DTs into KMPs.

Consistent with prior research (Goran *et al.*, 2017), this study confirms that leadership is a critical enabler of digital transformation, driving strategic and organisational shifts. Hotel managers exhibit a nuanced understanding of DTs' opportunities and limitations, recognising the need to foster human resource engagement and motivation in digital transformations. The findings highlight the significance of leadership in bridging the gap between technological advancements and human capital, thereby facilitating the integration of digitalisation into organisational culture. In this vein, our results perfectly align with the digital transformational leadership concept

(Ullah *et al.*, 2025), understood as managers'/leaders' capability to articulate a compelling digital vision, mobilise employees around digital initiatives, and orchestrate the integration of DTs into operations, routines, and structures. This type of leadership is particularly critical in luxury hotels, where human-centric service logics must be reconciled with data-driven ones to translate technological investments into meaningful improvements in KMPs and to drive strategic and organisational changes.

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6. Conclusions

This exploratory research sheds new light on the role of DTs in all the different KMPs in luxury hotels. It explores an underexplored area of hospitality studies (Gürlek and Koseoglu, 2023) by integrating two under-investigated streams of research in luxury hospitality, namely knowledge management and digital transformation. It adopts the internal micro-perspective of top and middle managers that previous studies have neglected, which prioritised the consumer perspective on digitalisation (e.g., DTs enhancing customer experiences) (Fauzi, 2023).

It identifies relevant areas for theory building in luxury hospitality at the intersection between digital transformation and KM, which future research should further develop and empirically investigate. Besides, it offers several managerial implications.

6.1 Theoretical contributions

The novelty of this research lies in proposing a preliminary interpretative framework that unveils the nuances of human-technology interaction across the different KMPs (acquisition, creation, storage, sharing, and application) of luxury hotels. It represents a first theoretical contribution to the academic debate on the role of DTs in KMPs, underscoring the urgent need to combine human touch with DTs.

Although the research confirms that luxury hospitality remains human-centred, it offers three different configurations of human-technology interaction in KMPs (human combined with technology, technology-driven, and human-driven). It allows overcoming the generalised view of human touch as the only way to organise and manage luxury hotels (Athwal *et al.*, 2019; Guo *et al.*, 2023).

The transformative power of digital technologies, well established and rooted in the organisation, effectively supports human resources and HRM, management decisions, and operations, with the potential to improve performance and drive service innovation.

The study opens new avenues for research into how and in which processes human expertise, skills, intuitions, and relational intelligence can capitalise on digital transformation to support specific operations, strategic decision-making, and organisational change. Besides, it expands knowledge of the role of DTs, adding to the prevailing scholarly focus on knowledge sharing as a driver of success, growth, and innovation (McLeod *et al.*, 2024).

As an additional contribution, the study suggests that transformational leadership (Ullah *et al.*, 2025), organisational culture, and values play a significant role in technology innovation and in driving the acceptance, use, and adoption of DTs in hotel operations, decision-making, and organisational changes. They reduce barriers to the acceptance, adoption, and integration of digital technologies into luxury hospitality services and procedures (Athwal *et al.*, 2019; Guo *et al.*, 2023).

This study suggests that scholars can adopt a specific lens to investigate the DTs' role in each luxury hotel, considering peculiarities of service (e.g., role of human touch complemented with DTs), barriers (e.g., slow pace of DTs adoption and use), and enablers (e.g., leadership, organisational culture, and values).

6.2 Managerial Implication

This research identifies implications and challenges for luxury hotel management and innovation. As the main managerial implication for the luxury hotel industry, this study suggests examining the adoption of DTs from an internal perspective, with particular attention to the leadership (CFO and middle managers) role in addressing organisational and managerial change. Leaders in the luxury hospitality industry must guide, day by day, a structured digital transformation journey, leveraging reskilling and upskilling processes in digital competencies, and engaging human resources in organisational and managerial change.

Managing human-technology interaction and giving hotel human resources a central role are the main challenges for managers. It informs hospitality managers about the importance of considering human resources management and organisational aspects (e.g., leadership and culture) when investing in DTs to facilitate acceptance, adoption, and use. Besides, training and sharing processes can support digital transformation, helping hotels overcome cultural resistance and promote the acceptance, adoption, and use of DTs across operations (e.g., through specific KPIs and dashboards).

A culture of innovation in luxury hospitality requires a combined effect between DTs and the involvement of all human resources (top and middle managers, and employees). Investing in the reskilling and upskilling of human resources at different hierarchical levels not only improves operations and routines but also supports organisational and managerial change by developing managerial soft skills.

Inclusive participation in digital transformation and KMPs requires continuous learning, employee engagement, sustaining their motivation and commitment, and an open work environment where innovations are welcomed and collaboratively integrated. In other words, hospitality managers must recognise the importance of aligning digital investments with human resource management and key organisational aspects, such as leadership style, culture, and cross-departmental coordination. Managers should foster a culture of collaboration and innovation, design targeted training programs, and actively involve employees in digital initiatives. These practices can reduce resistance, enhance staff engagement, and

ensure that DTs are not only adopted but also effectively embedded into routines, thus maximising their contribution to KMPs and overall service quality.

Furthermore, KM supported by DTs can help capture best practices and tacit knowledge, allowing new or less experienced staff to deliver the level of service expected in luxury hotels. It will enable managers to identify new service trends and design innovative experiences that differentiate the hotel in the luxury market.

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6.3 Limitations and future research

As a qualitative research study, this investigation presents several limitations that future research will likely address.

One limitation of this study is the relatively short data collection period, which may not sufficiently capture the dynamics of organisational change and the evolution of DTs-KMPs integration; consequently, the findings should be interpreted as a time-bounded snapshot that may affect the scope and applicability of the results. Future research could address these limitations by expanding the sample and incorporating perspectives from different organisational levels, and by adopting a longitudinal or follow-up design to provide a more comprehensive and deeper understanding of the processes examined.

Future research could also compare independent and affiliated hotels working in different countries. Additional quantitative research is required to examine relationships between DTs, KMPs, organisational structure (e.g., one-to-one work dynamics, cross-departmental and inter-organisational dynamics), and organisational culture (e.g., work environment, leadership style, innovation and adaptability values). Last but not least, the impact of DTs on employees' well-being can represent an additional area of research.

Given the interpretive and case-based design, the proposed framework and KMP configurations should be regarded as exploratory insights rather than definitive classifications; therefore, future research should test, refine, and validate the KMP typologies that emerged from this study through comparative multi-case studies and larger-scale quantitative investigations across different territorial and organisational contexts, and by incorporating longitudinal designs to examine their stability and evolution over time.

The study intentionally limits the analysis to organisational-level mechanisms; broader contextual influences are a promising avenue for future research. A further limitation of this study is that leadership was not examined as a primary analytical dimension. Although leadership dynamics may shape how digital initiatives are legitimised, resourced, and embedded into daily routines, we intentionally did not develop a detailed leadership-focused analysis to keep the paper's scope tightly centred on DTs-KMPs integration and avoid extending it into broader change-management debates. Future research could explicitly investigate how different leadership approaches (e.g., digital leadership, transformational/participative styles, and governance mechanisms) enable or hinder the integration of DTs into KMPs in luxury hotels, ideally through multi-level designs that include executives, middle managers, and frontline staff, and

through longitudinal or follow-up studies that capture how leadership actions influence adoption, resistance, and routinization over time.

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Annex 1. Sample quotes from interviews

Theme	Quotes
Knowledge acquisition	“Recognizing the importance of attracting top talent in the hospitality industry, we have adopted a fully online recruitment system that streamlines every stage of the hiring process” [Interviewee #1]
	“We embraced online training procedures. This shift not only enhances accessibility but also ensures that our employees are equipped with the knowledge and skills necessary to thrive in the dynamic hospitality industry” [Interviewee #1].
	“Our property management system - Light House - is designed specifically for the hospitality industry, aimed at streamlining and optimizing hotel operations. It provides a comprehensive solution that integrates various aspects of hotel management. In particular, it offers robust reporting tools that provide insights into occupancy rates, revenue performance, and guest demographics” [Interviewee #2].
	“As a revenue management activity (essentially in identifying the best pricing strategies), knowledge of everything that surrounds the hotel is important, therefore, from knowledge of the competitors that are around us and that more or less resemble us to knowledge of the market we are in. Fundamental is knowledge of what is happening in the city and therefore the pressure on the city at certain times” [Interviewee #3].
	“I utilize ReviewPro, a software designed for the hospitality industry, specifically focusing on guest feedback management and reputation management. It helps us to monitor, analyse, and improve our online reputation and guest satisfaction” [Interviewee #4].
	“Our property management system allows to analyse huge amount of data such as Booking Data, Occupancy Trend Analysis, Customer Feedback, etc.” [Interviewee #4].
	“We use QR codes for anonymous employee surveys, such as a company climate survey. It plays a significant role in enhancing the feedback process and acquiring valuable knowledge” [Interviewee #5].
	“Webinars are a powerful tool for acquiring new knowledge. By providing access to expert insights, fostering interactivity, and facilitating ongoing learning, webinars enhance educational opportunities for our hotel” [Interviewee #5].
	“Recently, we conducted extensive training for around fifty employees, leveraging a funding opportunity, such as Italy’s New Skills Fund. This initiative not only provided financial support but also significantly contributed to knowledge acquisition within the organization. By investing in employee development, we have empowered our team with new skills and up-to-date industry knowledge. This training enhances individual capabilities while fostering a collective knowledge base that strengthens overall operational efficiency. As employees acquire new expertise, the hotel benefits from their ability to apply fresh insights, ultimately improving service quality and innovation across departments [Interviewee #6].
	“I manage the restaurant hall. My goal is to transform raw data into actionable insights that improve service and customer satisfaction. By collecting data on customer preferences, dining habits, order frequency, and feedback, the restaurant can acquire valuable knowledge about guest behaviours and trends. This ongoing process of data-driven knowledge acquisition helps in refining menus, optimizing seating arrangements, tailoring promotions, and enhancing overall guest experience. Continuous data collection allows the restaurant to stay attuned to changing customer preferences, enabling staff to make informed decisions, personalize interactions, and improve operational efficiency” [Interviewee #7].
“We use Hoxell, a Hospitality Operations Platform that manages housekeeping data collection. It facilitates knowledge acquisition by providing real-time insights into the status of rooms, enabling staff to make informed decisions and enhance operational efficiency based on the latest information” [Interviewee #8].	

Knowledge creation	<p>“We believe it is crucial to hire staff with significant international experience, as well as individuals from sectors different to tourism” [Interviewee #1].</p>
	<p>“My goal is to generate forecast reports approximately every 15 days that take into account historical data and current trends in order to optimize revenues and improve the operational efficiency of the hotel” [Interviewee #3].</p>
	<p>“Human knowledge of context plays a vital role in transforming information into meaningful data knowledge. I believe that contextual understanding enables individuals to interpret data accurately, identifying patterns, trends, and relationships that may otherwise be overlooked. By integrating human understanding with data, organizations can create a rich knowledge base that supports smarter decision-making and more personalized experiences. This context-aware interpretation turns simple data points-like booking history, service requests, or dining choices-into actionable knowledge that enhances customer service and operational efficiency [Interviewee #7].</p>
	<p>“Even if I understand the importance to use technologies to share knowledge, I have to say that our morning meetings remain a useful tool for knowledge [sharing and] creation. They help us to fostering collaboration by discussing updates, insights, and best practices that enhance overall productivity and alignment within the organization [Interviewee #7].</p>
Knowledge storing	<p>“a robust property management system not only streamlines operations but also connects various functions within the hotel, ensuring that all departments work in harmony” [Interviewee #1].</p>
	<p>“The PMS enables active and continuous management of human tasks, allowing for quick and efficient organization of daily activities such as holiday requests, smart working permits, and shift planning. By integrating knowledge storage within the system, all relevant information-such as employee schedules, preferences, and past records-can be accessed and updated in real-time. This ensures seamless communication between departments, reducing manual errors and improving decision-making. The ability to store and retrieve knowledge allows managers to anticipate staffing needs, optimize workflows, and ensure smooth operations throughout the day” [Interviewee #5].</p>
	<p>“We collect a wide range of information about our customers-such as preferences, past behaviours, and special requests-it contributes to effective knowledge storage by creating a valuable database of insights. This stored knowledge allows the hotel to personalize services, anticipate guest needs, and tailor offerings to individual preferences. Over time, this information helps staff refine guest experiences, fostering loyalty and satisfaction and improve operational efficiency” [Interviewee #5].</p>
	<p>“Management systems like iPratico, Sysdat, and time stamping systems play a crucial role in knowledge storage. With these systems, I can efficiently capture, organize, and retrieve information. These systems help me to create a comprehensive knowledge repository that can be quickly accessed” Interviewee #7].</p>
	<p>“Technology is vital for preserving the historicity of knowledge, ensuring knowledge legacy, and reinforcing corporate identity through effective knowledge storage. By creating robust systems for documenting processes, decisions, and lessons learned, technology mitigates the risk of losing valuable insights during employee turnover, allowing organizations to maintain a historical record that benefits current and future team members” [Interviewee #7].</p>
	<p>“Even if I understand the importance to use technologies to share knowledge, I have to say that our morning meetings remain a useful tool for knowledge sharing [and creation]. They help us to fostering collaboration by discussing updates, insights, and best practices that enhance overall productivity and alignment within the organization [Interviewee #7].</p>
	<p>“We are implementing a management system for the maintenance department. We feel the need to equip ourselves with a dedicated software that for example can track the entire maintenance purchasing activities” [Interviewee #8].</p>
	<p>“We have a software that allows us to manage all the reviews we receive. In addition, we send an evaluation questionnaire to our guests via email. The activity is automatic through our PMS” [Interviewee #8].</p>

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Knowledge sharing	<p>“A well-integrated PMS facilitates real-time communication between different departments. For instance, if a guest requests extra towels, the front desk can quickly notify housekeeping through the system, ensuring prompt fulfillment of the request” [Interviewee #1].</p>
	<p>“We organize regular strategy meetings focused on knowledge sharing. These meetings are not just about planning for the future; they also provide a platform for team members to exchange insights, expertise, and innovative ideas that drive both individual and organizational growth. In this activity, technologies are important to easily share information, but human-to-human interaction remains fundamental” [Interviewee #2].</p>
	<p>“We have an internal communication platform that helps staff communicate and manage tasks more efficiently without the need for phone calls or manual interventions. It improves workflow, speeds up issue resolution, and ensures better tracking of tasks across departments” [Interviewee #4].</p>
	<p>Enhance room cleaning efficiency with real-time updates sent instantly to staff mobile devices as guests check out and vacate rooms. This streamlines communication, allowing for greater flexibility in room management and significantly shorter response times for room service. Additionally, by facilitating knowledge sharing, staff can quickly identify and address necessary maintenance interventions, ensuring rooms are always clean, well-maintained, and in perfect condition. With instant access to shared information, teams can collaborate more effectively, anticipate guest needs, and ensure high service standards across all areas” [Interviewee #5].</p>
	<p>“One of the key tools in this approach is our PMS with several dashboards that provide real-time insights into various aspects of the hotel’s performance, from occupancy rates to guest satisfaction metrics” [Interviewee #2].</p>
Knowledge application	<p>“The interaction between different hotel departments through technological support not only enhances communication but also drives knowledge application by using collected data to improve performance. For instance, in housekeeping, tracking data entered by employees—such as time spent on tasks, room cleaning status, and inventory usage—provides valuable insights. This knowledge allows our management to analyse performance trends, identify inefficiencies, and implement targeted interventions to improve efficiency. By applying this data-driven knowledge, we can optimize task allocation, reduce response times, and ensure consistent quality, ultimately enhancing overall operational performance across departments” [Interviewee #2].</p>
	<p>“I believe that by combining strong leadership, team building, and strategic delegation, organizations can harness the full potential of their collective knowledge, driving innovation, improving decision-making, and enhancing overall performance. Effective leaders build cohesive teams by fostering trust, collaboration, and open communication. In doing so, they create an environment where knowledge is shared and collectively applied to achieve common goals. This not only lightens the leader’s workload but also ensures that knowledge is applied across different levels of the team” [Interviewee #6].</p>
	<p>“I think that a user-friendly system is essential for effective knowledge application, as it allows employees to easily access, understand, and use the information they need to perform their tasks efficiently. When systems are intuitive and simple to navigate, team members can quickly retrieve relevant data, apply their knowledge, and make informed decisions without struggling with complex interfaces” [Interviewee #7].</p>
	<p>“Recently, we have recruited a new employee with the role of Guest Experience Manager. His goal is to enhance overall customer satisfaction and loyalty through effective knowledge application. He is responsible for understanding guest preferences, gathering feedback, and analysing data to identify trends and areas for improvement. By leveraging this knowledge, hotel can tailor services and experiences to meet individual guest needs, ensuring that every interaction is personalized and memorable. Additionally, he collaborates with various departments—such as housekeeping, food and beverage, and front desk—to implement best practices based on accumulated insights. This proactive approach not only enhances service delivery but also creates a culture of continuous improvement, where knowledge is actively applied to elevate the guest experience and drive operational success” [Interviewee #8].</p>
	<p>“We have folders and subfolders on our management system. For example, if I need to publish a photo on a portal, I access the PR communication folder, take the photo and use it for my purpose. You can well understand how the process is very quick without me having to call and deal with others” [Interviewee #8].</p>