



Adopting Circular Economy in Hospitality: a Grounded Theory Approach

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Abstract

The hospitality sector faces increasing pressure to adopt sustainable practices due to its intensive resource consumption. This study explores the integration of Circular Economy (CE) principles within the hotel industry, focusing on furniture management. Using a grounded theory approach, we conducted semi-structured interviews with 25 organizations, including high-end and budget hotels, as well as furniture suppliers. Our findings reveal significant disparities in sustainability practices across hotel categories, with high-end hotels leading in CE adoption through initiatives like furniture leasing, refurbishment, and buyback programs. Conversely, budget hotels face financial and logistical barriers, limiting their engagement with sustainable practices. The study highlights the critical role of government policies, financial incentives, and supplier partnerships in facilitating the transition to CE models. This research contributes to the limited literature on CE in the hotel industry and provides practical insights for stakeholders aiming to implement sustainable furniture management practices.

Keywords Sustainable practices · Furniture management · Resource efficiency · Environmental Impact · Hotel Industry

Introduction

The hospitality sector has proven to be one of the pillars of the Portuguese economy, contributing significantly to the country's GDP. In 2019, the sector contributed 15.3 per cent to economic output [25] and, despite suffering a brief drop during the pandemic, tourism's contribution to Portugal's GDP growth of 2.3 per cent in 2023, compared to the previous year, was 1.1p.p., assuming an overall weight of 12.7 per cent [26].

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In recent years, there has been an increase in environmental concerns, particularly about the potential depletion of natural resources, which has led various industries, such as the hotel one, known for its intensive consumption of resources [2], to take specific measures in this area. Deloitte [12] predicted that sustainability would become a key issue for the hotel sector in the coming years. Ten years on, the hotel industry has made a lot of publicity about the environment and sustainability but, in practical terms, has not made any structural changes to adapt to a world with finite resources and increased scarcity [13].

The CE aims to close the cycle that leads to waste and promote the reuse of goods, balancing economic development with the protection of the environment and natural resources [31], keeping equipment, materials and resources in continuous use for as long as possible. Hospitality is a sector with unique characteristics, endowed with capabilities that allow it to adopt the principles of CE, namely through the integration of business models that focus on the longevity of equipment, either through good maintenance practices or through its integral or localised restoration, with the support of furniture producers and suppliers, who must focus on reparability, aesthetic and technical durability in design, which are important strategies for slowing down resource cycles [4]. The principle of CE is to transform products that are already at the end of their useful life into resources for others, thus closing the cycles in ecosystems, which reduces waste generation [38].

A key aspect of CE is reuse, where industries move away from the traditional ‘make, use, dispose’ approach (Fig. 1) to one where resource efficiency is considered and valued. Reusing products is more environmentally appealing as it requires fewer resources and less energy compared to manufacturing new products from materials recently extracted and debited from nature [23], as shown in Fig. 2. In the hospitality sector, this practice can manifest itself through various competitive models that are service based, such as leasing or renting furniture, rather than focusing on acquiring and owning equipment *ad aeternum*, reducing the ecological footprint and maintaining high quality in operations and customer service. Financial services, such as those mentioned above, are being identified as one of the most

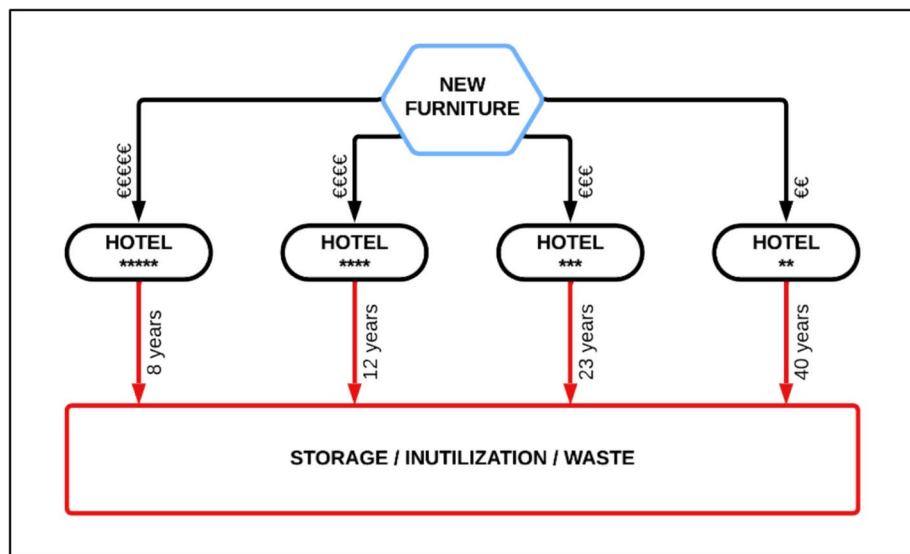


Fig. 1 Model currently used by the majority of hotels and furniture suppliers

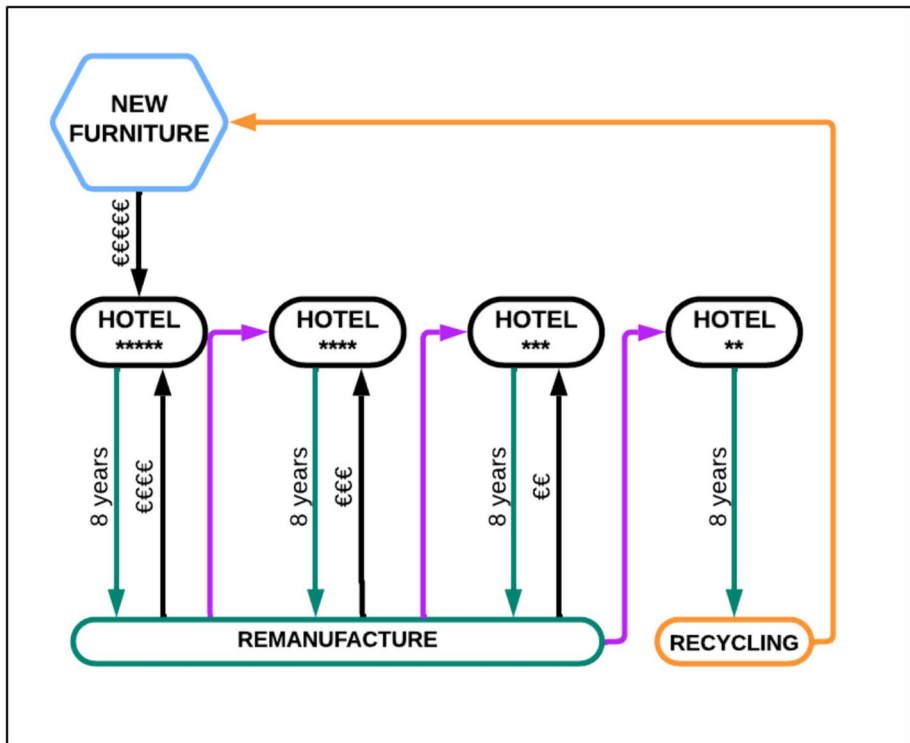


Fig. 2 Hypothetical model suggested in circular economy, closing the loops

promising trends [27] and are useful for freeing hotels from responsibilities associated with ownership, such as maintenance, giving them flexibility and the ability to focus on their core business. However, sustainability is not just about environmental care, but also social and economic issues, that with the proper balance, can increase the profitability of the stakeholders involved in the hospitality industry [39].

Furthermore, Fig. 1 illustrates the predominant linear economic model that has shaped the furniture lifecycle within the hospitality sector for decades. This model, based on a "take-make-dispose" approach, leads to excessive raw material extraction, rapid product obsolescence, and significant waste generation, thereby intensifying environmental pressures [38]. Within this system, hotels frequently replace furniture based on aesthetic trends or brand image considerations rather than durability, often discarding still-functional items without reuse or refurbishment [23]. In contrast, Fig. 2 presents the proposed CE framework, which aims to close material loops by prioritizing longevity, reuse, and remanufacturing. This transition requires a fundamental shift in business models, moving from ownership-based procurement toward leasing, take-back schemes, and supplier buyback programs [4]. Studies suggest that adopting CE strategies in the hospitality industry could significantly reduce waste production and material costs while aligning with global sustainability goals [36].

Despite all the promised developments in the hotel industry, the shift to a green economy with adherence to CE models is presenting quite a few challenges, the cause of which may lie in the lack of knowledge and fear of something that is not naturally established in the

current model of society [30], which means that the idea of CE is evolving and gaining favour very slowly, also due to the complex restructuring required of traditional business models. The term ‘green economy’ refers to economic models that balance environmental sustainability with financial viability, emphasizing waste reduction and resource efficiency [31]. For companies that are familiar with linear business models (Fig. 1), their activity boils down to transforming natural resources into raw materials and then products for sale, through a series of value-adding stages. The shift to a circular model that maximises value at every moment of the equipment’s life requires a total change in thinking and overall strategy [38]. More research and information associated with these issues and new models are needed to integrate circular models into companies’ practical operations.

The hotel industry cannot simply be pressured to invest in reuse, recycling and resource reduction techniques and sustainable economic models; there is needed a joint effort between the various areas of society, namely the governments and companies adjacent to hotels, so sustainability can be seen as the heart of the industry. The states have a great responsibility in adopting and changing paradigms, through the legislation they produce and the incentives they can offer to those who change ways of proceeding and adopt long-term strategies in the name of a common environmental benefit [8].

The aim of this study is to assess the hotel market’s willingness to change its strategy around furniture, allowing it to abandon the typical model that begins with purchase and ends with disposal. This study proposes assessing the willingness of four- and five-star hotels to adopt alternative furniture acquisition strategies—such as leasing, rental, or buy-back agreements with suppliers—instead of purchasing new furniture outright, with the goal of reducing waste and promoting circular economy practices. To be included in the model are three-star and lower category hotels, where the aim is to assess their willingness to receive furniture previously used by other hotels and the conditions they require to enter this type of market. On the other hand, there needs to be an understanding of the motivations of furniture suppliers to change their sales strategy from a linear to a circular economy and what resources are needed to support these operations. Throughout the process, it is important to understand what economic and social benefits can be obtained, considering the major positive contribution to the environment. There is a lack of literature on this subject, involving all partakers in the hotel furniture economy, and it is a subject that has been studied much further when regarding private individuals; however, hotels and their furniture have unique characteristics, apart from the large quantities of similar equipment that are bought to equip giant accommodation units.

Literature Review

Sustainability in Hospitality

Ever since Brundtland [6] defined sustainability as meeting the needs of the present without compromising the ability of future generations to satisfy their own needs, the most varied sectors have sought to adapt in order to mitigate the high levels of consumption and the throwaway culture, responsible for a significant increase in waste production [34]. The hotel sector is no exception, since many of the services provided by hotels depend intensively on natural resources, resulting in a considerable ecological footprint left by the sector. This

negative environmental impact contributes to the degradation of natural ecosystems, which threatens not only the well-being of the hotels themselves, but also the sustainability of the entire tourism chain [5].

With the passing of time, it would be incautious to evoke that sustainability remains a marginal concern for companies, especially in the tourism sector. Rather, it has come to take up a central role in the development and renovation of hotel properties, with a customer market that is increasingly aware and demanding of ecologically responsible practices [35], forcing the industry to rethink their operating models and focus more on the environment. This transformation has contributed to the consolidation of sustainable tourism, which seeks to balance tourism development with environmental conservation [8]. In response to these demands, many hotels have implemented sustainable initiatives and invested in certifications that certify good environmental practices. These certifications not only demonstrate the hotels' commitment to sustainability, but also serve as a competitive differentiator in the market, responding to guests' demands for transparency and environmental responsibility, and are therefore proving to be a trend that still has room to grow in the future [39]. Awareness of the importance of sustainability in the hotel sector has been growing, as stated by Costa [9], who highlights the adoption of new skills related to reducing the ecological footprint as one of the ways to improve the organisational performance of hotels.

The Triple Bottom Line (TBL) concept expands the traditional measurement of corporate performance, which focuses only on profit, to also include the environmental and social impact of corporate activities. The TBL proposes that companies consider not only the economic value they generate, but also the value they add or destroy in environmental and social terms. As well this model promotes a more balanced and sustainable vision, where companies have a responsibility to positively impact the planet and people, in addition to generating financial profits [16].

Linear Transitioning to Circular Economy

The definition of the CE has been the subject of various attempts over the years, with the Ellen MacArthur Foundation's [17] being one of the most widely accepted. According to the foundation, the circular economy is described as "an industrial economy that is restorative by intention and design," emphasising that, from as early as the pre-production phase, products are designed in a way as to facilitate their reuse, renovation, disassembly or recycling.

CE is based on adopting characteristics derived from concepts that share the idea of closed circuits. It is considered a promising approach to reducing global pressures on natural resources by minimising the consumption of raw materials,– transforming end-of-life products into new resources for the economy– energy, and waste production, as narrowing and slowing down energy and material loops [22]. In contrast to the predominant linear economy model, where resources are extracted, used and discarded, a transition to the circular economy implies a radical change that requires a completely different approach in the business world [4].

As described by Stahel [38], this model aims to extend the life cycle of products through repairs and upgrades, or by recycling materials, turning waste into new inputs for production, creating a continuous cycle of efficient use of resources. In addition, recent studies suggest that CE can generate significant economic benefits, such as increased GDP and job creation. Wijkman et al. [41] state that if the global economy adopted a circular model,

greenhouse gas emissions could be reduced by up to 70 per cent, and the number of jobs could increase significantly. In the European context, it is estimated that 170,000 new jobs could be created by 2030, while the GDP of European Union (EU) countries could grow by up to 3 per cent. It is estimated that these practices could provide the EU savings of up to 600 billion euros the end of the decade, representing around 8 per cent of the annual turnover of European companies [14]. The transition from a linear to a circular economy is not only an environmental necessity, but also an economic opportunity. Making progress in this area is crucial, as traditional manufacturing processes are designed to optimise the immediate benefits for the manufacturer and consumer of individual products, rather than for the economy as a whole, and a holistic approach to achieving the right balance between narrowly defined economic gains and environmental needs is more beneficial [21].

Circularity, is seen as an archetype of sustainable business models, but it needs to be complemented by other strategies to generate synergies [22], as collaboration between governments, industries and consumers, in order to create policies, technologies and incentives that promote this new model [4] to integrate sustainability into all stages of the production chain [38].

State Participation

Governments play a crucial role in establishing policies that encourage the adoption of sustainable practices. Charles [8] points out that governments have the tools and power to create legislation that makes a difference, suggesting that regulation is a driving force for behavioural change in companies. A clear and stable policy can help align companies' environmental and economic goals, especially in the hotel sector, where investment decisions are strongly linked to financial return [7].

In addition, directives promoting the proper treatment of obsolete furniture [19] are examples of how the state can directly influence business practices towards a more circular economy. Regulation can also be used to prevent the premature disposal of products by promoting repair and remanufacturing, which is in line with the principles of sustainable economy [33]. Subsidy programmes, especially for small and medium-sized businesses, are key to covering the high initial costs of investing in new technologies and sustainable practices, once they require a large initial investment [2], and government incentives can help mitigate these costs.

According to Ghisellini et al. [23], in China's case, circular economy policy follows a top-down model, where the central government sets clear national objectives and directs implementation efforts through strict regulations and mandates. This centralised approach facilitates the achievement of large-scale objectives, as guidelines and regulations flow directly from national authorities to companies and communities, with little room for regional or local adjustments. In the EU, the circular economy is seen as a tool for environmental and waste management policies, being developed with much more flexibility in terms of local adaptation. While this approach promotes greater community involvement and adaptation to regional realities, it can also make it difficult to meet ambitious targets on a continental scale, as the diversity of interests and implementation capacities can generate disparities between regions.

Government policies play a critical role in shaping CE adoption in the hospitality sector, with varying approaches across regions. For instance, the European Union's Circular Economy Action Plan provides financial incentives and regulatory guidelines to encourage

businesses to adopt sustainable practices, including extended producer responsibility and mandatory eco-design criteria (EC, 2023). In contrast, China's CE policy follows a top-down model, with strict government mandates on waste reduction and recycling targets [23]. The differences in regulatory approaches highlight the importance of adapting policies to regional economic structures and industry needs. Learning from these frameworks, policymakers can design targeted interventions to accelerate CE adoption in hospitality.

State participation also takes place through international collaborations, such as the promotion of multilateral agreements that incentivise the circular economy. The European Union, for example, has been one of the most active regions in developing circular economy policies, encouraging collaboration between member states to promote higher environmental standards [23]. These agreements can set common targets, such as reducing greenhouse gas emissions or recycling materials, promoting a global alignment around sustainability. Finally, through these synergies between public bodies, it is possible to improve marketing strategies and expand the area of activity of companies dedicated to the reconditioning of equipment, and ensure better recognition of CE in the hotel market [32].

Obstacles to Implementing the Circular Economy

One of the main challenges lies in environmental trade-offs: in some cases, the environmental cost of recycling certain materials can be greater than the benefits noticeably gained, once there is often an overemphasis on economic imperatives, especially in the hospitality sector, where sustainability is often framed in terms of competitive advantage rather than an ongoing commitment to environmental and social practices [22, 28]. Business owners often see circular practices as too expensive or unsuitable for the short-term results they seek, while employees highlight a lack of training and increased responsibilities as barriers to implementing sustainable change [39]. This resistance is particularly evident in industries operating in economies of scale, where the transition to more sustainable practices can require high initial investments and complex structural changes [30]. Another of the obstacles identified is resistance to change on the part of companies and management, due to a lack of familiarity and fear of the unknown, which prevents the concept of CE from gaining traction quicker [38].

Despite the progress, the hotel sector still operates predominantly according to the principles of a linear economy, characterised by excessive consumption and the rapid disposal of materials.

Furniture

Furniture consumption in the hotel sector has a significant environmental impact due to the predominant use of wood as a raw material [42]. However, this industry is facing increasing pressure to adopt more sustainable practices that minimise the use of new resources and avoid dependence on the traditional 'take-make-dispose' model, which is no longer viable in the light of contemporary sustainability standards [23].

Currently, the furniture sector is slowly adopting practices related to CE, placing greater emphasis on reusing and extending the useful life of furniture [24]. However, reuse is still poorly prioritised over recycling, incineration and landfill disposal. According to Pei et al. [33], although progress has been made in the sector, practices such as remanufacturing and

recycling continue to be under-prioritised. According to recent estimates, around 10 million tonnes of furniture are destroyed every year in EU member states, and less than 2% of this furniture is actually recycled [20, 37].

Sustainability is a pressing need in the hotel sector, where many hotels face the challenge of balancing customer demands for a modern and functional aesthetic with the need for sustainable practices. The development of furniture for the hotel market must not only meet guests' expectations, but also maintain a continuous openness to improvement in order to ensure competitiveness, since instead once comfort, also among the furniture, is a priority in the industry [18]. In addition, the choice of materials and design should be in line with the principles of circularity, promoting the reuse, repair and renovation of furniture as much as possible [37].

Types of Furniture Alterations

According to King et al [29], repair refers to the correction of specific faults in a product, where only the damaged parts are restored. This process is more limited, as it does not aim to improve or update the product as a whole, and generally results in lower quality compared to other recovery options, as it acts in isolation on a particular part of the piece. Remanufacturing is a more complete and sophisticated process, where used products are restored to meet the original manufacturer's performance specifications. The result is a product that, in the eyes of the customer, offers the same level of performance and guarantee as a new product. In the between, reconditioning involves rebuilding the main components of a product to restore its functionality. Although the reconditioned product works again, its performance is generally inferior to the original, and it does not include the latest technological or aesthetic updates (Fig. 3).

Challenges in Implementing the Circular Economy in the Furniture Sector

Despite the growing interest in CE, the furniture sector still faces several challenges. There are significant barriers such as the low quality of materials, high repair and maintenance

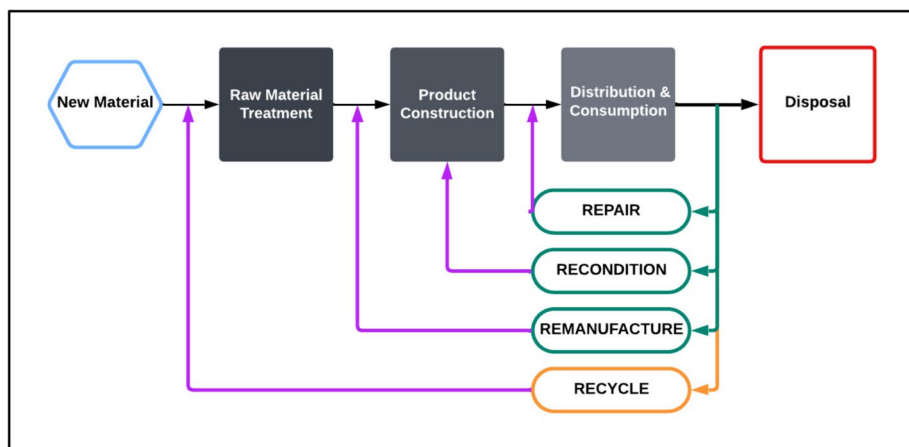


Fig. 3 Sustainable interventions at different stages of the life cycle of furniture. (Source: King et al. [29])

costs, and the lack of adequate infrastructure for collection and reverse logistics [3]. In addition, hotel operators still show some resistance to buying used or remanufactured furniture, especially in markets where ownership and aesthetic appearance are factors of prestige and identity [15].

To overcome these barriers, initiatives such as CIRC-HOTEL, as described by D-GE [10], have tried to integrate CE practices into the hotel industry. The project focuses on strategies such as reusing, repairing and recycling furniture, rather than directly replacing it, in order to reduce environmental impact and extend the life cycle of equipment. Through partnerships with furniture manufacturers and other stakeholders in the sector, the project exploits synergies to create solutions that enable the reuse of resources, minimising environmental impact and promoting sustainability. The project is also aligned with the principles of the Eco-Management and Audit Scheme (EMAS), which provides guidelines for the continuous improvement of the environmental performance of organisations, including hotels. EMAS-certified hotels that take part in the project commit to following circular strategies, reporting annually on their sustainability achievements. This type of approach can be key to encouraging more efficient use of resources in the sector, as well as contributing to reducing waste and greenhouse gas emissions [36].

Adaptations to Business Models

Since the circular economy (CE) aims to maximize resource use throughout its life cycle and minimize environmental impact [31], production and consumption processes must be redesigned to prioritize reuse, renewal, and recycling [36]. In the hotel sector, implementing a business model based on the circular economy can represent a competitive differentiating factor. CE not only promotes resource efficiency, but also provides significant financial benefits. 87% of tourist establishments cited cost savings as the main reason for adopting sustainable practices, according to Charles [8]. Thus, adopting strategies such as extending the useful life of furniture equipment by repairing, updating and renewing it on an ongoing basis reduces operating costs and minimises the need for new acquisitions [4].

Innovative models such as the ‘access and performance model’, in which hotels can enjoy goods without the need to purchase them, offer a new perspective on resource management. These models are based on the idea of providing high-performance services that meet users'needs without owning the product, which in turn contributes to the circular economy by reducing the consumption of new materials [4]. In addition, Piscicelli et al. [34] emphasise that the introduction of collaborative consumption models, such as sharing and renting products, can intensify the use of resources that would otherwise be idle, reducing waste and encouraging reuse. One promising path involves incorporating furniture leasing models, allowing hotels to update their furniture periodically without incurring large costs. This approach not only supports the continuous renewal of assets, but also promotes recycling and reuse, essential elements for the circular economy [37]. The ‘performance economy’, advocated by Stahel [38] complements this model, as it proposes that hotels use services rather than products, such as leasing, providing continuous use of equipment aligned with the needs of the hotel and its guests. Also in line is the concept of ‘sufficiency business models,’ which prioritize reducing material consumption by extending product lifespans through durability, repair services, and reuse strategies. Unlike traditional models that encourage frequent replacements, sufficiency business models promote long-term

use and minimal resource depletion, aligning closely with circular economy principles [4]. Hotels can benefit economically while meeting growing demands for sustainability. In addition, collaborating with suppliers to maintain the maximum value of products throughout their life cycle, through practices such as remanufacturing and repair, reinforces the commitment to the circular economy [36].

The transition to a business model that includes circular practices can benefit long-term management, promoting the efficient use of resources and extending the life cycle of products [11]. According to Jones et al. [28], if customers begin to demand more sustainable practices, it is much easier to induce substantial changes in the hotel sector.

Methodology

This study adopted a qualitative approach, centred on grounded theory, to investigate furniture management and renovation practices in the Portuguese hotel sector. The main objective was to understand the motivations, strategies and challenges faced by hotel operators and furniture suppliers to this sector in the acquisition, renovation and disposal processes.

Primary data collection was achieved through semi-structured interviews, which allowed for a detailed yet flexible exploration of the topics in question. The interviews were directed at purchasing managers and hotel directors, as well as directors of furniture supply companies, to get a comprehensive view of both sides of the value chain. The contact process involved reaching out to as many hotels in Portugal as possible via email and telephone calls, but faced a relatively low response rate compared to the initial target. Ali et al. [1] identified this is a typical issue in tourism research.

25 organisations were interviewed, divided into four main groups: (A) 4- and 5- star hotel groups; (B) 4- and 5- star independent hotels, (C) 1- to 3- star independent hotels; (FS) furniture suppliers with a portfolio of hotel clients. The sample is detailed in Table 1. The interviews were conducted remotely, according to the availability of the participants, and followed a previously prepared script, with some mandatory questions to ‘ignite’ the main theme, covering topics that belong to the three main stages of furniture management: purchase, renovation and disposal practices, but leaving room for in-depth questions on certain topics and freedom for the interviewees to share other information they considered relevant.

The data collected was analysed by observing the content of the transcripts obtained from the interviews. Subsequently, the data was grouped into main categories, making it easier to identify patterns in furniture management practices between the different Groups. In the case of suppliers, the focus was on understanding commercial practices during the supply of furniture, from a perspective that complemented the hotel operators'vision. This

Table 1 Comparison of hotel reality in Portugal vs. sample interviewed [40]

Hotel group	n: number of interviews	n2: number of hotels interviews represent in Portugal	N: hotels of this category in Portugal	N/total hotels in Portugal	n/ total interviews
A	4	108	784	47.14%	52%
B	8				
C	11	11	879	52.86%	48%
Total	23	119	1663	100%	100%

triangulation process made it possible to cross-check the information obtained, ensuring that the results were more robust, constantly comparing with the literature on the topic and searching for new one.

To ensure that the sample was representative, strict criteria were defined for selecting participants according to their features, and even with the limitations resulting from the relative low response rate, the sample obtained was able to reflect a micro-system of the reality of the sector in Portugal.

According to Table 1, in the context of the Portuguese hotel economy, the distribution of the sample shows reasonable representativeness, with the groups A and B accounting for 52 per cent of those interviewed, compared to their 47.14 per cent representation in the total number of hotels in Portugal. Group C, made up of independent 1 to 3 star hotels, accounted for 48 per cent of those interviewed, a rate pretty close to its actual representation in the sector of 52.86 per cent. It was possible to interview two furniture suppliers operating in Portugal and selling to hotels frequently.

About the geographical distribution of the hotels interviewed, it was not possible to interview hotels or hotel groups with a presence in the districts of Setúbal, Santarém and Portalegre. The only region where there were interviewees from all three Groups (A, B, C) was Viseu. Both furniture suppliers sell to hotel clients throughout all Portuguese territory, so it is not relevant to mention the location of their headquarters for this study. The absence of hotel representatives from Setúbal, Santarém, and Portalegre was due to a lack of responses from these regions despite multiple contact attempts. However, this limitation does not significantly impact the study's findings, as the interviewed hotels represent a diverse range of categories, operational models, and geographic locations across Portugal. Furthermore, the main patterns and trends identified in the data were consistent across the sampled regions, suggesting that the absence of specific districts does not compromise the validity of the overall conclusions.

The study strictly followed the ethical guidelines established by Iscte, ensuring the confidentiality of participants' data and guaranteeing their right to withdraw at any time as stated on the Informed Consent Form. No personal or business information is disclosed in the study associated with the entities' real names, guaranteeing their anonymity.

Results and Discussion

This section presents the findings of the study, structured to align with the key themes identified during data analysis. The results are organized into distinct subsections, each addressing a critical aspect of circular economy adoption in the hospitality sector. First, we examine the procurement and decision-making processes of hotels regarding furniture acquisition, highlighting differences between high-end and budget hotels. Next, we explore sustainability practices, distinguishing between perceived and practiced sustainability approaches. Following this, the discussion delves into financial strategies and the challenges faced by hotels in transitioning to circular models. Finally, we address the implications of these findings, connecting them to existing literature and industry trends to provide a comprehensive understanding of circular economy adoption in hospitality.

The relationship between hotel furniture, hotels and furniture suppliers is described in Fig. 4, which begins in the first phase—furniture procurement -, with the need to get fur-

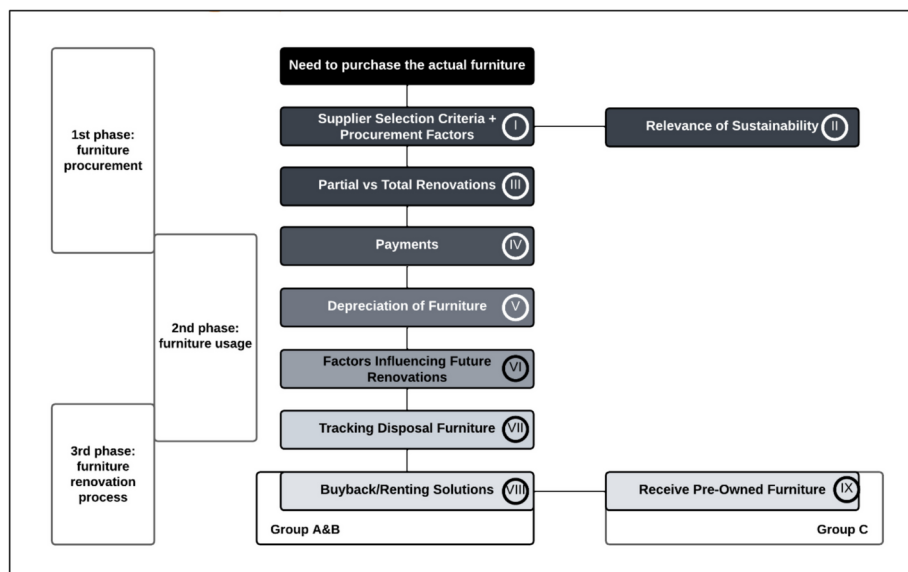


Fig. 4 Journey of the hotel-furniture business

niture, which leads to the study of supplier selection criteria and overall procurement factors (I), with special attention to the sustainability factor (II) when choosing suppliers and materials. The hotels evaluate the different suppliers based on quality, durability and price, which leads to the section specialised in studying payments methods, deadlines and brief development of the hotel's financial strategy (IV), but not before evaluating their capacity to take on a full or partial renovation (III).

The second phase— furniture usage— begins at time with the furniture beginning to be depreciated (IV). This is followed by the need to consider a new renovation over time, which leads hotels to look at the factors that influence that need (V), and to track how the actual furniture will be disposed (VI). In the third phase, which covers the furniture renewal process, Group A and Group B are approached with new solutions to get furniture, such as buyback, renting and leasing (VII) to reduce costs and environmental impact, while Group C hotels are offered the possibility of receiving previously used furniture from other higher category hotels (VIII).

Furniture Procurement and Selection Criteria

The process of selecting suppliers and procuring furniture varies significantly across hotel categories, reflecting differences in financial capacity, operational priorities, and brand positioning. High-end hotels (Groups A and B) exhibit structured, hierarchical decision-making processes, prioritizing quality, durability, and design compatibility, while lower-end hotels (Group C) focus on cost-effectiveness and functional necessity.

Decision-Making Hierarchies In higher-end hotels, supplier selection is typically managed by dedicated teams of architects, designers, and procurement specialists. For example, in

Group A hotels, architects often initiate the process by identifying furniture needs and preparing detailed specifications. This is followed by project managers who evaluate multiple supplier proposals using comparative analysis. Criteria such as durability, quality, and delivery timelines are emphasized, with final decisions often made at the executive level to ensure alignment with the hotel's brand and operational standards.

Similarly, Group B hotels outsource design expertise to architectural firms, ensuring their procurement aligns with bespoke aesthetic and functional requirements. While cost considerations play a role, the focus remains on maintaining the hotel's reputation and guest satisfaction. Unique practices, such as commissioning custom-made furniture or sourcing from renowned designers, are common in this group. For instance, one Group B hotel sourced handcrafted rugs and headboards to reinforce its exclusive image.

In contrast, decision-making in lower-end hotels (Group C) is less formalized and often centralized within the ownership or management team. Procurement decisions are driven by practicality and immediate cost savings, frequently relying on local suppliers or existing business relationships. These hotels prioritize the quality-price ratio over other factors, aiming to minimize investment risks while maintaining acceptable functionality. For instance, several Group C hotels rely on durable but generic furniture to withstand heavy use without significant aesthetic emphasis.

Supplier Selection Criteria Across all hotel categories, durability and price are universal concerns, though their relative importance varies. High-end hotels place significant weight on material longevity and brand reputation, often selecting suppliers known for premium quality. Environmental sustainability is an emerging factor, especially in luxury hotels, where guest expectations drive demand for eco-certified materials and suppliers with proven social responsibility credentials.

Lower-end hotels, however, focus primarily on affordability and availability. Trust and familiarity with local suppliers often guide decisions, with minimal emphasis on sustainability or design innovation. While some lower-end hotels acknowledge the importance of durability to reduce long-term costs, others operate on a reactive basis, replacing furniture only when necessary due to visible wear and tear.

The decision-making process should also consider supplier partnerships role in the successful adoption of CE principles. Several high-end hotels have initiated collaborations with furniture manufacturers that offer leasing and refurbishment services. For example, certain suppliers have introduced 'buyback' programs, allowing hotels to return used furniture for refurbishment and resale. Such partnerships reduce waste while ensuring quality maintenance and cost-efficiency for participating hotels.

Quality-Price Balance The balance between quality and cost is a decisive factor across all groups. In higher-end hotels, there is a willingness to invest in higher upfront costs for furniture that aligns with their brand image and long-term operational goals. Group A hotels, for instance, balance durability with the need for periodic updates to meet evolving guest expectations. In Group B, bespoke designs often command premium prices but are justified by their role in enhancing guest perception and reinforcing exclusivity.

Conversely, lower-end hotels adopt a cost-conscious approach, opting for functional, off-the-shelf solutions that meet basic operational needs. This pragmatic strategy reflects their resource constraints and focus on immediate financial viability. While some Group C hotels invest in durable materials to extend furniture lifecycles, others prefer the lowest initial cost, often at the expense of long-term value.

The supplier selection and procurement practices in the hotel industry demonstrate a clear stratification based on category and resources. High-end hotels emphasize structured decision-making, supplier reputation, and quality-driven procurement, often integrating sustainability and bespoke solutions. Lower-end hotels adopt a more cost-centric approach, valuing functional adequacy and affordability.

Sustainability Practices in Furniture Management

Sustainability has become an increasingly important consideration in furniture management within the hospitality industry. While higher-end hotels have begun integrating sustainable practices into procurement and maintenance, smaller budget hotels face significant challenges in adopting CE approaches. Furthermore, according to interviewee statements on sustainability should be understood as perceptions rather than definitive indicators of CE practice. While high-end hotels articulate sustainability strategies more explicitly, budget hotels may engage in CE unintentionally—such as through extended furniture lifespans—without formally adopting sustainable policies. Low-end hotels might use significantly less resources through maintenance if they use furniture longer as indicated in Fig. 1.

Sustainability Efforts Group A and Group B hotels frequently prioritize eco-friendly materials, supplier certifications, and CE principles in their decision-making processes. For instance, several hotels from these categories demand proof of sustainable sourcing and social responsibility from their suppliers. They also invest in high-quality, durable furniture to reduce waste and enhance lifecycle management.

CE initiatives, such as furniture leasing, refurbishment, and remanufacturing, are increasingly adopted by luxury hotels to align with environmental goals. For example, some respondents reported partnering with suppliers offering take-back programs or reconditioned furniture, minimizing their environmental footprint while maintaining high design standards. These practices reflect a proactive approach to balancing aesthetics, functionality, and sustainability.

Lower-end hotels don't aim for a sustainable image, show a limited perception of sustainability and have a low awareness of CE principles. However Fig. 1 seems to prove that. So there seems to be a contradiction between practice and perception of "green claims". I suggest talking about perceptions and awareness rather than practice or engagement.

Lower-end hotels, on the other hand, demonstrate limited engagement with sustainability. They, eventually unknowingly put sustainability and CE into practice by extending lifecycles through maintenance to a maximum. Among the Group C hotels interviewed affordability and operational functionality are priorities, often at the expense of environmental considerations. Despite occasional efforts to extend furniture lifecycles through repairs or sourcing durable materials, sustainability is not a primary objective. Awareness of

CE principles remains low, and practical barriers such as financial constraints and limited supplier networks hinder broader adoption.

Furniture Alterations and Repairs Repair and refurbishment practices vary significantly across hotel categories. High-end hotels generally integrate regular maintenance into their operations, with in-house teams or external specialists ensuring furniture longevity. For instance, respondents from Group A hotels often repair scratches, refinish surfaces, or reupholster pieces to maintain brand standards and prolong usability. Group B hotels respondents similarly emphasize repair, particularly for custom-designed or high-value pieces. However, the frequency and depth of alterations are influenced by guest expectations and brand image, with replacement often preferred when functionality or aesthetics are compromised. In contrast, lower-end hotels approach repairs reactively, addressing issues only when functionality is impaired. Limited budgets and resource constraints result in inconsistent practices, with some properties forgoing repairs entirely in favor of gradual, phased replacements.

Group C hotels often face significant financial constraints that limit their ability to adopt circular economy practices. However, incremental approaches, such as establishing partnerships with suppliers offering refurbished furniture or joining cooperative procurement initiatives, can enable budget-conscious properties to engage in sustainable practices. For example, shared procurement agreements between multiple budget hotels can increase purchasing power and facilitate access to eco-friendly furniture solutions at reduced costs. Additionally, leasing models may provide an alternative to large upfront investments, offering flexibility while aligning with sustainability goals.

Challenges to Sustainability Several barriers impede the widespread implementation of sustainability practices across the hospitality sector: (i) Cost and resource constraints. High upfront costs of eco-friendly materials and CE initiatives deter smaller hotels from adopting sustainable practices. Many budget hotels lack access to financial incentives or funding to offset these expenses; (ii) Knowledge and awareness. While higher-end hotels benefit from specialized teams and sustainability certifications, lower-end hotels often lack awareness of CE principles and their potential benefits; (iii) Supplier limitations. The availability of sustainable suppliers and services, such as reconditioning or leasing, remains limited, particularly for smaller properties. High-end hotels with established networks can leverage these resources more effectively; (iv) Operational challenges. Transitioning to CE models requires significant changes to traditional procurement and management processes. Resistance to change and logistical complexities further hinder adoption.

While budget hotels often do not frame their practices in sustainability terms, interview findings suggest they engage in an unintentional form of CE by maintaining furniture for extended periods. In contrast to high-end hotels that implement structured but shorter-term CE initiatives (e.g., leasing, refurbishing), budget hotels exhibit long-term sufficiency strategies, aligning with CE principles through necessity rather than explicit environmental commitment.

Governments and industry bodies can play a critical role by offering subsidies, training programs, and policy incentives to encourage CE practices. Suppliers, too, must expand

their reach and provide scalable solutions tailored to smaller hotels. For budget hotels, incremental steps such as sourcing durable materials, partnering with local craftsmen for repairs, and exploring shared procurement networks can lay the foundation for more sustainable operations. Meanwhile, high-end hotels can serve as industry leaders, showcasing the economic and environmental benefits of integrated sustainability practices.

Finally, decision-makers should recognize that sustainability has become a key factor in guest decision-making, particularly among environmentally conscious travellers. Studies indicate that hotels implementing CE practices, such as sustainable furniture procurement and eco-certifications, report higher customer satisfaction scores [35]. While cost savings are a primary driver of CE adoption, the added value of a green brand image can enhance guest loyalty and justify premium pricing. However, effective communication of sustainability efforts is essential to maximize their impact on customer perception.

Knowledge and Awareness Differences in CE Adoption The findings highlight two contrasting approaches to circular economy adoption in the hospitality sector. High-end hotels often engage in structured CE initiatives such as leasing, refurbishment, and supplier take-back programs, aligning with formal sustainability strategies. However, these initiatives tend to focus on shorter-term cycles, with furniture replacement occurring at a higher frequency due to brand positioning and design updates. In contrast, budget hotels—while lacking formal sustainability policies—exhibit an alternative CE approach through extended furniture use, prioritizing longevity and sufficiency as a cost-saving measure.

Renovation and Furniture Depreciation

Renovation and furniture depreciation practices across the hospitality sector reveal diverse approaches shaped by hotel category, financial capacity, and operational priorities. These practices are influenced by aesthetic goals, functional requirements, and economic considerations, which collectively impact sustainability efforts and resource use.

Motivations for Renovations Renovations in hotels are typically driven by either aesthetic or functional considerations, with significant variations across hotel categories. High-end hotels prioritize maintaining a fresh and appealing visual environment to meet guest expectations and reinforce brand standards. For example, Group A hotels often undertake renovations when furniture shows signs of visual obsolescence, even if it remains functionally adequate. Group B hotels, known for their bespoke designs, also replace furniture to sustain their competitive edge, frequently motivated by evolving trends and guest preferences.

In contrast, lower-end hotels (Group C) focus primarily on functional necessity, replacing furniture only when wear and tear compromise usability. Limited budgets and resource constraints mean renovations are often delayed or phased over time, leading to inconsistencies in quality and aesthetics within the same property. For example, some Group C hotels report incremental furniture updates, creating mismatched room furnishings that detract from guest experiences. The sufficiency benefits of retaining functional furniture should be emphasized, as extending life cycles aligns with circular economy principles rather than being viewed as a limitation. While aesthetic considerations may drive replacement decisions in high-end hotels, from an environmental sustainability perspective, maximizing

the lifespan of furniture through continued use, refurbishment, or repurposing is a more resource-efficient approach.

However, many hoteliers have found themselves trying to sell equipment that is no longer useful to their business, but there are several obstacles when it comes to finding buyers, as it can require too many resources, such as time and staff dedicated to the task, dismissing their core business, which ends up being unattractive. Additionally, due to the large quantities of similar equipment that a hotel dispenses, it can be incredibly difficult to find a hotel that is looking for the same quantities and characteristics in the equipment to be acquired. Situations have often been observed in which absurd amounts of furniture that was no longer wanted to have been stored on hotel premises, without any purpose assigned to it, while new equipment is bought to replace it.

The fact that hotels are opting for lower quality products only with a view to the time horizon in which the equipment can serve them in good conditions, and then plan to buy new furniture to keep up with the trends, calls into question the sustainability of the hotel furniture economy. Opting for good quality equipment that offers resistance, and durability is the most sustainable approach; the renovation of hotels' furniture is still an opportunity, applying remanufacturing and repair techniques, allowing hotels to have new furniture to present to their customers, at a cheaper price and with a view to sustainable consumption. Only when the equipment can no longer be modified and serve the economy will it be recycled and incorporate new raw materials for manufacturing new equipment.

Depreciation Practices and Decision-Making Furniture depreciation plays a pivotal role in renovation decisions. According to Portuguese legislation, the maximum depreciation rate for hotel furniture is 12.5%, corresponding to an eight-year minimum depreciation period. However, adherence to these guidelines varies significantly across hotel categories.

Group A hotels generally follow depreciation practices aligned with legal norms, using calculated depreciation schedules to guide renovation timelines. For example, some high-end hotels depreciate furniture over ten years while extending its actual use through regular maintenance and repairs. In contrast, smaller hotels often miscalculate depreciation rates, with some reporting rates as high as 50%, well above the legal limit.

The inconsistency in depreciation practices among budget hotels reflects their reactive approach to furniture management. Instead of leveraging depreciation schedules to plan for systematic upgrades, these hotels frequently rely on ad hoc decision-making, driven by immediate financial considerations rather than long-term strategic goals.

Renovation Choices and Sustainability The way hotels approach renovations significantly affects sustainability outcomes. High-end hotels are more likely to integrate CE principles, such as reupholstering or refurbishing furniture, to extend its lifecycle and reduce waste. For instance, Group A hotels often collaborate with suppliers or local craftsmen to repair damaged items, minimizing environmental impact while maintaining quality standards. Similarly, Group B hotels invest in high-quality materials that allow for repeated repairs and modifications.

Lower-end hotels, however, struggle to adopt sustainable renovation practices due to financial and logistical barriers. Phased renovations, common in Group C hotels, often result

in discarded furniture that could otherwise be repurposed or recycled. Limited access to suppliers offering refurbishment services further exacerbates this issue, leading to increased waste and resource inefficiency.

Impact of Partial vs. Total Renovations High-end hotels generally prefer total renovations to maintain consistency in design and quality across their properties. These comprehensive updates allow them to leverage economies of scale and ensure a cohesive guest experience. Group A hotels, for instance, often phase deliveries but execute renovations as a single project to minimize operational disruptions.

In contrast, budget hotels favor partial renovations due to financial constraints. By updating furniture in small increments, these hotels can spread costs over time, but this approach often compromises aesthetic and functional coherence. For example, phased renovations in some Group C hotels result in rooms with mismatched furnishings, undermining overall guest satisfaction and brand perception.

Financing and Payments

Financial strategies for furniture acquisition vary widely across hotel categories, reflecting differences in financial capacity, risk tolerance, and access to funding mechanisms. Larger hotels frequently leverage external financing options, while smaller hotels rely on cash payments and incremental investments. Supplier practices and payment policies further influence these strategies.

Financial Strategies in High-End Hotels Group A and Group B hotels, with greater financial resources and operational scale, employ diverse financing methods to acquire furniture. These include bank loans, leasing arrangements, and structured payment schedules. For instance, Group A hotels often utilize bank credit to finance large-scale renovations or new projects, benefiting from the collateral value of their extensive fixed assets. Leasing is another preferred option, allowing hotels to spread costs over time while maintaining liquidity. In projects supported by European funding, Group A hotels negotiate phased payments, splitting costs between order placement, delivery, and installation.

Group B hotels show similar preferences, with some properties using factoring to manage cash flow efficiently. These strategies enable high-end hotels to undertake comprehensive renovations without jeopardizing financial stability. The flexibility provided by such financial tools aligns with their commitment to maintaining quality and brand standards.

For smaller hotels, limited financial resources and supplier constraints pose significant barriers to adopting circular economy models. Alternative financial strategies, such as leasing arrangements, government subsidies, and supplier buyback programs, can provide viable pathways to sustainability. For example, small hotels participating in regional sustainability grants have reported improvements in resource efficiency without requiring large upfront investments.

The possibility of higher category hotels, not belonging to hotel groups, entering this kind of business, was also well received, highlighting the potential obstacle caused by the existence of furniture with customized dimensions and specifications in certain units with a

concept more geared towards the customized experience of their clients. Group A hotels saw more benefits in the buyback option, to the detriment of leasing or renting, as was the case in Group B. Group C hotels see an opportunity in getting furniture more cost-effectively (with 50%–80% cheaper), renewing it more frequently and with payment methods adapted to their preferences and needs.

Payment Practices in Budget Hotels In contrast, Group C hotels primarily depend on cash payments for furniture acquisitions. Limited access to external financing options and tighter budgets compel these hotels to prioritize immediate affordability over long-term financial planning. Payments are often made in small, incremental amounts, reflecting their reliance on gradual renovations. For instance, many Group C hotels opt to renovate specific floors or sections as funds become available, avoiding large upfront costs.

This reliance on cash payments can limit these hotels' ability to negotiate favorable terms with suppliers or explore sustainable procurement options, such as leasing or refurbishment services. Moreover, the absence of structured financial planning often results in inconsistent quality and aesthetics across their properties.

Supplier Perspectives Furniture suppliers cater to these varied financial strategies by offering flexible payment terms to accommodate client needs. High-end hotels benefit from extended credit periods or custom financing plans, reflecting their strong purchasing power and reliable payment histories. Suppliers also frequently prioritize these clients for maintenance and after-sales services.

For smaller hotels, suppliers provide shorter payment terms or demand upfront payments due to perceived credit risks. Some suppliers offer phased delivery and payment schedules to align with the cash flow constraints of budget properties. However, this approach often limits the scope of renovations and reduces supplier-client collaboration on long-term sustainability initiatives.

The financing and payment practices in the hospitality sector highlight distinct approaches among hotel categories. Larger hotels leverage their resources to secure flexible financing and payment arrangements, enabling comprehensive renovations and strategic planning. In contrast, budget hotels' reliance on cash payments restricts their operational flexibility and access to innovative procurement methods.

Conclusions

Theoretical and Managerial Implications

Improvements to Conditions of Furniture Access and Disposal

The price of furniture is a factor considered by all the tourism operators interviewed and is a decisive factor for most of them. This component is even more important in small hotels, which are financially more fragile, which leads to their hotels being filled with the same furniture for several decades, a fact that does not go unnoticed by their guests, proven by

the reviews left online for each GC hotel. In addition, 77% of respondents belonging to the lower-end hotel group are unable to carry out global furniture renovations throughout their property, which means that the mismatch between rooms is evident, and the hotel does not have a coherent aesthetic.

Group A hotels are open to giving away used furniture after a certain period, with eight years pointed as being a reasonable amount of time for furniture to remain in their facilities, in average, by the hotel groups' purchasing managers. The possibility of three-star hotels entering this type of business and receiving used furniture from higher category hotels, with a view to improving the performance of their operations and service to their guests, was well received, with rare objections, supposedly of an ideological nature. The receiver hotels asked for guarantees of quality and a better price than the typical market price for new furniture.

A model in which furniture is returned to the supplier after certain years of use—buy-back—by a higher category hotel, so that it can be resold to other hotels is a reality already practiced by one of the suppliers of furniture interviewed; however, it is a business model that is still little explored in the hospitality market, and hotels feel there is a lack of business propositions in this direction, considering the circular economy. Adopting an economic model of this kind means that hotels do not need to make such a large initial investment and allows facilities of any category to remain aesthetically up to date, while at the same time reducing the amount of unnecessary waste.

Bad Practices in the Renovation and Disposal of Furniture in the Hospitality Industry

Hoteliers face significant challenges in reselling outdated equipment due to the time, effort, and staff required, which detracts from their core business operations. Additionally, matching supply and demand is difficult, as hotels often dispose of large quantities of similar furniture, making it hard to find buyers with the same needs. As a result, unwanted furniture is frequently stored on hotel premises without a clear purpose, even as new equipment is purchased. This results in a double economic loss: 1) due to the resources spent on storing the old furniture; 2) due to the loss resulting from not getting any investment back on the old furniture. In addition, there is a negative impact on the environment, which witnesses natural resources being wasted on making new furniture, while tons of already-made equipment sit idle in warehouses.

Circular Economy Business Opportunity

The adoption of circular economy principles in the hospitality sector is gaining traction, with several initiatives demonstrating their feasibility and potential benefits. By integrating practices such as reuse, leasing, and refurbishment, hotels can minimize waste, optimize resource use, and enhance operational efficiency. However, the implementation of CE models varies across hotel categories, influenced by financial capacity, awareness, and access to sustainable suppliers.

CE Initiatives in the Hospitality Sector High-end hotels have pioneered several CE initiatives, leveraging their resources and market positioning to integrate sustainable practices. For example, some Group A hotels collaborate with suppliers to establish furniture buy-

back programs, allowing them to return used furniture for refurbishment or recycling. This reduces waste while maintaining quality standards. One such initiative involves reupholstering and refinishing furniture to align with new design concepts, extending the lifecycle of high-value pieces.

Leasing models are another emerging trend among luxury hotels. By leasing furniture, these properties avoid the financial burden of ownership and maintenance while ensuring periodic updates aligned with evolving guest expectations. Leasing also supports the CE principle of shared resource use, reducing the demand for new materials and production.

In contrast, budget hotels (Group C) face greater challenges in regularly adopting new CE practices, but rather apply CE through long-term practices such as maintaining longevity of furniture. Financial constraints and limited supplier networks hinder their ability to regularly apply new sustainability measures or undergo sustainability certification. However, some small-scale initiatives highlight the potential for CE adoption even in this segment. For instance, certain Group C hotels collaborate with local craftsmen to repair and repurpose furniture, demonstrating a cost-effective approach to sustainability. Others explore partnerships with suppliers offering discounted reconditioned furniture, reducing costs while contributing to waste reduction.

Lessons from CE Implementation The experiences of high-end hotels reveal key lessons for broader CE adoption in the hospitality sector: (i) Establishing partnerships with suppliers committed to CE principles is critical. Hotels benefit from tailored services, such as refurbishment and leasing, which align with their sustainability goals; (ii) While initial costs may be higher, CE initiatives often result in long-term savings; (iii) Budget hotels can adopt scalable CE practices, starting with small initiatives such as local repairs or selective refurbishment; (iv) Educating guests about CE initiatives enhances their acceptance and appreciation of sustainable practices.

Despite these successes, significant barriers remain. High upfront costs, resistance to change, and logistical complexities deter widespread CE adoption. Smaller hotels, in particular, require financial incentives and technical support to overcome these challenges. Future efforts should focus on expanding access to sustainable suppliers and creating industry-wide frameworks for CE implementation. Policymakers and industry associations can play a pivotal role by providing subsidies, training programs, and regulatory guidance. Encouraging cross-sector collaboration, such as partnerships between hospitality and furniture industries, can further drive innovation and scalability.

Financial constraints are a major barrier to CE adoption, particularly for small hotels with limited budgets. Several financial mechanisms can help mitigate these challenges. Government subsidies, such as Portugal's Environmental Fund for Sustainable Tourism, provide direct financial support for green initiatives. Tax incentives for businesses that invest in sustainable infrastructure further encourage CE adoption. Additionally, private-sector collaborations, such as sustainability-linked loans and supplier leasing agreements, can offer flexible financing solutions. Expanding access to these funding opportunities would significantly improve the feasibility of CE models for budget-conscious hotels.

Concentration of Decision vs Operations' Knowledge

Based on the conclusions of the interviews, it can be said that the group where decision-making is most concentrated is the GC, where some decisions are made by just one or two players, which means that the entire purchasing process is very short and there is no hierarchy, nor are decisions entrusted to external consultants. In GA, decisions are made in stages through a complex process, passing through various departments that make the purchase possible. In the GB, it can be said that there is a balance, with some units being family-owned and therefore the decision may be more concentrated, but they still rely on architectural and design firms for some advice. The CG was the group where the most invalid responses were revealed throughout the interview and where operators chose not to answer (average of 12,8 answered questions in GC vs 14 in GA) denoting a certain lack of knowledge about the topics. It can therefore be said that the concentration of decision-making is inevitable thanks to the information available to each operator, and that it would be a positive to invest in acquiring knowledge that could benefit those smaller hotels or to consult specialised agents who could help in the decision-making process.

To effectively measure the impact of CE initiatives in hospitality, key performance indicators (KPIs) must be established. Metrics such as furniture lifespan extension, percentage of reused or refurbished furniture, cost savings from leasing vs. purchasing, and waste reduction rates provide tangible measures of CE success. Additionally, environmental impact indicators—such as CO₂ emissions saved through circular practices—can offer further insight. Implementing standardized reporting mechanisms, similar to the EU's Green Public Procurement framework, would enable hotels to track progress and benchmark against industry peers.

Limitations and Further Investigation

This study has a few limitations that should be acknowledged. In the first place, the research was carried out with a relatively small sample of 25 organizations and, although these were carefully selected to reflect the Portuguese hotel sector's diversity, the relatively low response rate may limit the generalization of the findings.

Furthermore, this research relies on qualitative data sourced by semi-structured interviews. While this method allowed for an in-depth exploration of participants' perspectives, it is susceptible to biases, such as participants' limited memory or even their desire to favour the organizations they represent when providing information to an outsider. Furthermore, this study relies on qualitative data to explore Circular Economy adoption in hospitality, prioritizing depth of understanding over statistical measurement. While this approach provides rich insights, it does not include quantitative assessments of financial performance or environmental impact. Future research should integrate quantitative methodologies, such as cost–benefit analyses or sustainability impact metrics, to provide a more comprehensive evaluation of CE initiatives in the sector.

While this study provides in-depth qualitative insights into CE adoption in hospitality, the sample size of 25 organizations presents some limitations regarding generalizability. Future research should explore larger, more geographically diverse samples, incorporating additional regional and international perspectives to assess the transferability of findings. Furthermore, Future research should focus on longitudinal studies that examine the long-

term impact of CE adoption in the hospitality sector. Tracking the financial viability, environmental benefits, and operational efficiency of circular models over multiple years would provide stronger empirical evidence to support sustainable business transitions. Expanding the study scope to international contexts would also enhance the generalizability of findings, offering a comparative perspective on CE adoption across different regulatory and economic environments.

There is also a need for more quantitative studies that analyse the cost-effectiveness of adopting circular economy practices in the management of hotels and furniture suppliers. Detailed cost–benefit analyses, including environmental and financial indicators, could provide a clearer picture of the long-term benefits of such practices, thus offering concrete evidence for hotel operators and suppliers to switch to more sustainable business models.

Another potential field for further research is the role of government policies and incentives in promoting circular economy practices in the hospitality sector. Intensive research about how policies and law at national and EU level can facilitate or hinder the transition to sustainable furniture management, through subsidies, tax incentives or regulatory frameworks, would be extremely valuable. Finally, a long-term study that follows the same hotels and furniture companies over several years could help assess the impacts of adopting the circular economy in terms of economic viability, environmental impact and customer satisfaction. Extending the study to other economic activities, based on the hospitality industry study, could bring significant insights as well.

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Declarations

Conflict of Interest On behalf of all authors, the corresponding author states that there is no conflict of interest.

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