

Tech Report

h2c's Digital Hotel Operations Study

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Introduction

As digitization in the hospitality industry is a fundamental part of the value chain, this year's global study has a special focus on digital hotel operations in the area of the guest journey and is based on feedback from 84 unique hotel chains representing more than 2 million rooms worldwide.

While hotel companies and suppliers now offer solid technology solutions that consumers are increasingly relying on, from the perspective of hotel chains, they are still in the middle of the pack in terms of digitalization (on a scale of 0 to 10), leaving plenty of room for improvement in both digitalization and personalization. The following insights and key findings will help you better understand the challenges and opportunities. Please do not hesitate to contact us if you would like further details on any part of the study.

Insights

Operational digitization growth drivers

- Record online direct bookings are driving innovation as guest data becomes more accessible through a growing base of loyal customers who are either enrolled in loyalty or instant gratification membership programs. Data-driven customer insights are strongly supported by hotel chains' mobile websites and proprietary apps, multiplying service and sales opportunities. While CRM systems were used by only 54% of respondents in h2c's Global Hospitality Distribution Study in 2022, the share has grown to 76%, making it an essential tool for customer success.
- The quality of system integrations, with the PMS as the core management system for operations, has improved very significantly since 2017. The biggest improvements are revenue related and include the following systems: IBE, CRS and/or Channel Manager, and RMS. The level of system integration (defined as fully and largely integrated) has risen sharply over the 5-year period, by 65% for IBE and a whopping 91% for CRS/Channel Manager.
- Improving guest satisfaction is the ultimate digitalization goal for nearly all hotel chains. Associated cost reductions are a welcome by-product, but not the primary focus.

Hotel chains' biggest digitization challenges

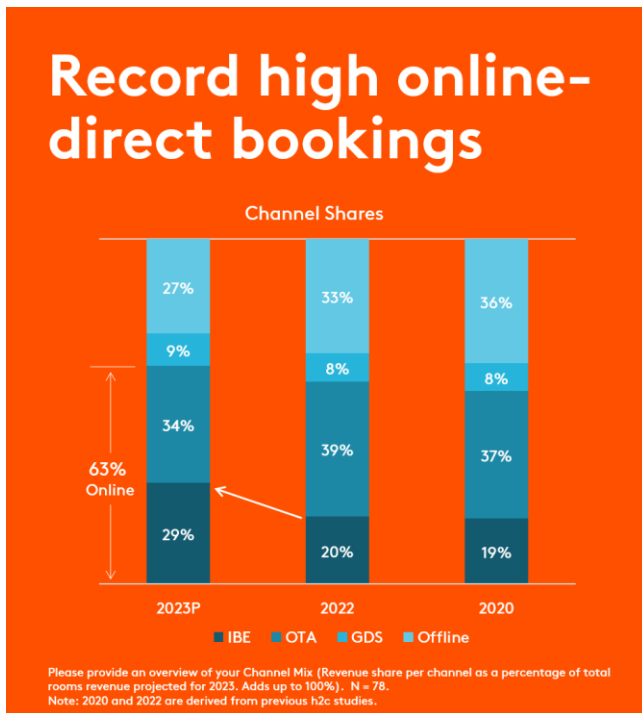
- System integration remains the biggest challenge in digitizing operations. While revenue-generating systems, such as IBE, have reached a high level of integration, more operations-related systems, such as spa, golf and other service management systems, have the lowest level of integration. ORM systems have the second lowest level of integration, which is a missed opportunity as guest feedback could be immediately actionable.
- According to hoteliers' self-assessments, their level of digitalization ranks only six out of ten. In addition to a lack of high-quality system integrations, the lack of a coherent digital strategy, a shortage of staff, and insufficient skills are among the major shortcomings.
- Large chains consider themselves to be the most digitized. However, this self-assessment is reversed when it comes to personalization, with small chains considering themselves to be more advanced. We believe that many small chains are more flexible and experimental in using new/innovative systems than their large counterparts. Overall, the level of personalization shows a clear upward trend compared to 2021.
- As inflation and higher supplier wages have taken their toll on hotel chains' purchasing power, total system cost is a major concern when acquiring new technology. 83% of respondents said system costs were too high, an increase of 14 percentage points in one year compared to h2c's 2022 survey.

Digital operations offer a wide range of opportunities

- Within the guest journey, the greatest potential for improving the guest experience through digital operations is in the arrival and stay phases. 34% of chains offer online check-in with digital keys today, and the same percentage (34%) plan to do so in the future. Automated guest recognition is used by 25% of chains and 36% plan to implement this feature. Real-time, on-demand housekeeping is used by only 14% of chains today, but twice as many plan to use it. Digital ordering, on-demand services and energy control are planned by about 30% of chains.
- Although hotel chains rate fully integrated payment solutions as very important, automated payment processing still lacks full integration. Today, only 34% of hotel chains have a fully integrated payment solution, while 59% have a payment gateway and 7% process payments manually, which will soon be a relic of the past.
- Smart ancillary sales during the stay (through an app, mobile website or digital ordering) are only used by 27% of hotel chains today. Mobile technology with a voice-first approach is expected to drive incremental revenue during the guest's stay over the next 2-3 years. These growth projections are underscored by hoteliers' belief that their ancillary revenues could nearly double from 15% of total revenues today to 29%.
- Increasing online knowledge transfer within departments and beyond is critical to customer success. Although 78% of the chains use virtual meetings, online training and e-learning, only 44% of the companies organize a structured/continuous online knowledge transfer.
- Both environmental (ESG) and energy cost pressures are impacting the hotel chains' bottom line. Therefore, investments in smart buildings, such as occupancy-based energy management systems, are profitable investments. Today, 25% of the chains' properties are smart buildings, and the share is expected to grow rapidly.
- The use of AI-powered systems will innovate a wide range of hospitality solutions, including marketing and distribution, personalized/on-demand services, and energy management, to name a few. For six of the seven AI applications pre-selected in the questionnaire, the share of hotel chains that see opportunities in these areas has increased by a large margin compared to 2021 (one AI opportunity stayed about the same). Clearly, the power of AI and machine learning has arrived in the hospitality industry.
- Hoteliers expect the highest level of innovation in AI, energy management and ESG (top 3), followed by augmented reality/virtual reality and robotic process automation.
 - Because h2c's 2022 survey was conducted prior to the introduction of ChatGPT, the impact on this year's survey is an eye-popping 53 percentage point increase in potential AI applications, reaching 86%. With real-world examples of ChatGPT, AI has become a viable solution for more hoteliers.
 - Although not included in the 2022 study, energy management immediately emerged as the second most important area of innovation, at 74%.
 - ESG (60%), AR/VR (45%) and robotic process automation (41%) all increased their rankings from 2022.
- As system capabilities and their integrations have evolved significantly over the past 5 years, implementing a structured innovation management process that involves all levels of the organization is a must today. Innovation management is not given the priority it deserves, as only 35% of hotel chains have a structured innovation management process in place, leaving room for improvement.

Key Findings

Channel shares shift sharply

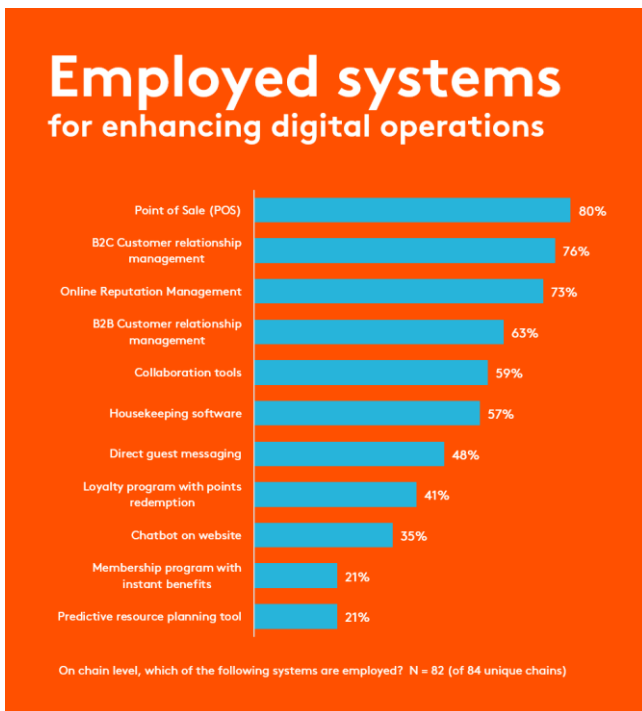


Nearly two-thirds (63%) of total hotel chain revenue is now booked online, an increase of 4 percentage points vs. 2022.

Approximately three in 10 (29%) bookings are generated through the Internet Booking Engine (IBE), an increase of 9 percentage points in 2023 vs. 2022. Compared to all previous h2c studies, direct online bookings are now at an all-time high!

Hotel chains that have focused heavily on improving their technology and CRM strategies have certainly contributed to this amazing result, as well as quality content on brand websites, loyalty offers, and an increasing customer focus using smart and agile systems. New and improved apps (not just for loyalty members) have added further value to direct online revenues.

Digital guest communication provides operational opportunities



The PMS is at the core of every hotel chain's operation (100% employed) and requires various integrations with **other systems** to manage the individual requirements of each property.

Today, 62% of all hotel chains have some kind of customer retention program, meaning 41% offer a loyalty program, and 21% typically offer instant rewards through their membership program.

Point-of-sale is mostly available, but not 100%, as apartment hotels and hotels with online check-in/out can do without.

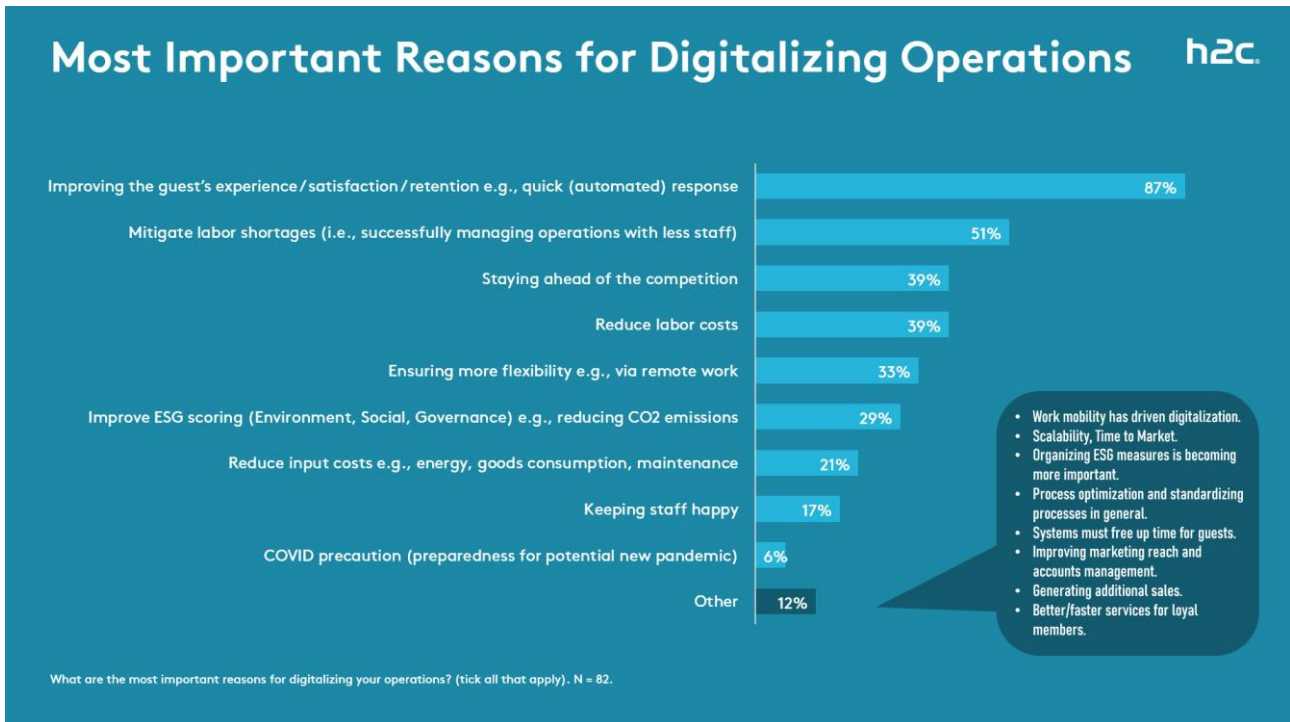
Compared to B2C CRM, which is used by 76% of the chains, B2B CRM is less widely used.

Online Reputation Management (ORM) is well established (73%) and provides unfiltered guest feedback on a hotel's operational performance.

While internal communication is progressing well (e.g., six in 10 chains use collaboration tools and

57% use housekeeping software), guest communication is lagging, with less than half of chains using messaging tools like WhatsApp and only 35% using a chatbot on their website.

Top reasons for digitizing operations

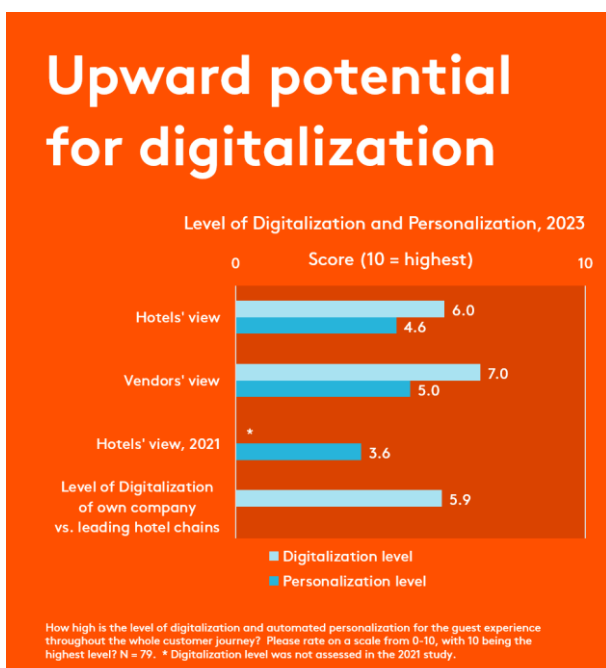


Improving the guest experience is by far the most important reason for digitizing operations, at 87%.

Mitigating labor shortages is viewed differently, being more important to large hotel chains than to mid-size chains. Reducing labor costs was cited by only 39% of respondents but was a much higher priority for large hotel chains (64%).

Ensuring flexibility through remote working and improving ESG scores both ranked low but are expected to increase in importance over time. While reducing input costs and employee satisfaction appear to be less important, 45% of large chains consider them very important.

Level of digitalization and automated personalization



With a score of six out of 10 from the hotels' perspective, the level of digitalization leaves significant room for improvement. Nevertheless, digitalization in the hospitality industry is progressing well, although it lags behind more innovative industries such as airlines.

Large chains consider themselves to be more digitized than small and medium-sized chains. However, this self-assessment is reversed when it comes to personalization, with small chains considering themselves more advanced than large chains. Overall, the level of personalization is trending upward compared to 2021.

When asked how they perceive the level of digitalization in the market, tech suppliers' rating of 7.0 is slightly better than the chains' rating.

The rating of the hotels' own level of digitalization compared to the leading hotel chains (5.9) is in line with the overall rating of the hotels' digital positioning.

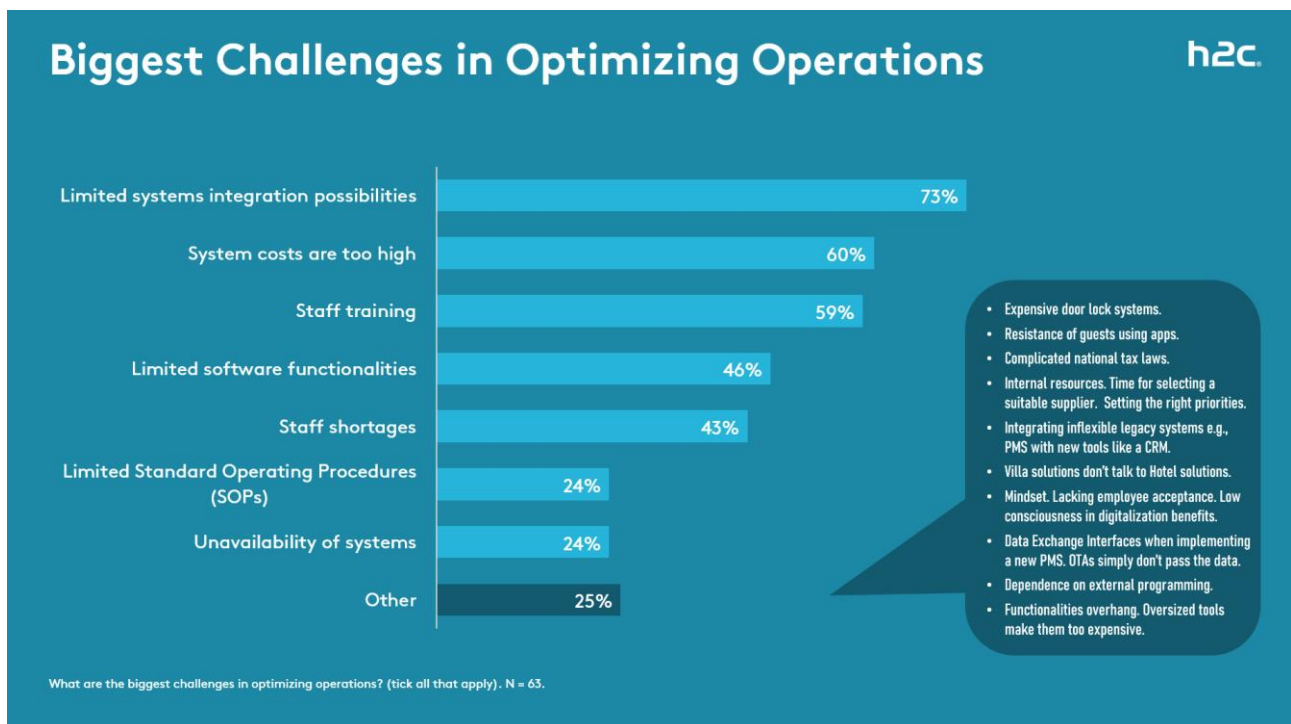
Key challenges chains face in optimizing their operations

What are the biggest challenges in optimizing operations? First of all, it strongly depends on the size of the hotel chain. In general, limited system integration capabilities were cited by more than 73% of all hotel chains, regardless of size.

Excessive system costs and staff training follow at 60% and 59% respectively, with high system costs being less of a challenge for large chains (20%).

46% of hotel chains cite limited software functionality and 43% cite staff shortages.

Limited SOPs and system unavailability (both 24%) are less of a problem for most chains.



Strong improvements in PMS integration quality

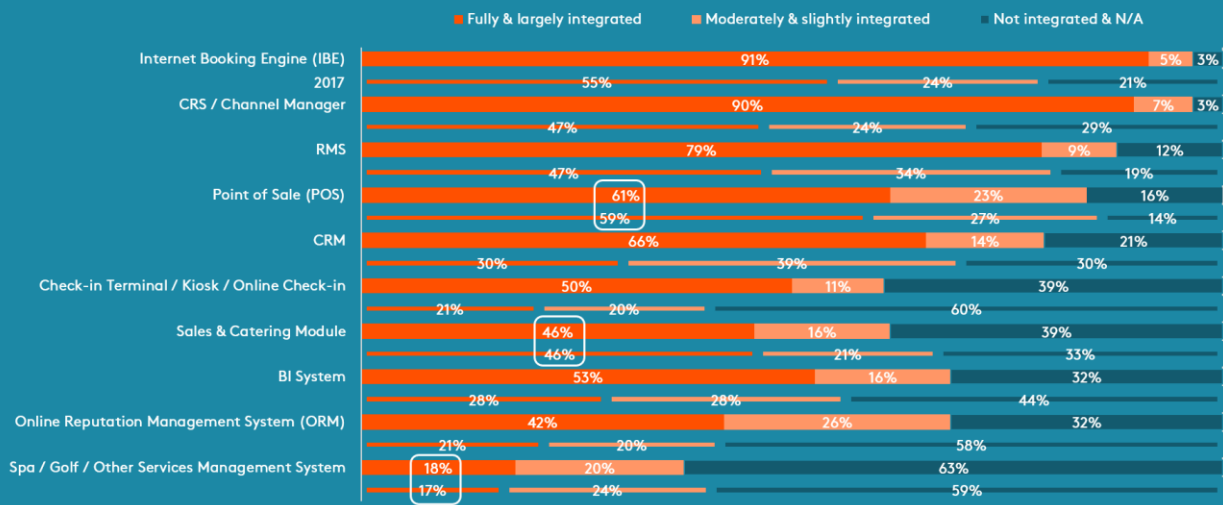
The Internet Booking Engine (IBE) is now fully and largely integrated at 91%, compared to only 55% in 2017. CRS and/or channel managers also show a high level of integration at 90%, compared to just 47% in 2017. The same is true for revenue management systems, 79% of which are now fully and largely integrated—32 percentage points higher than in 2017.

Overall, the level of system integration (defined as fully and largely integrated) has risen sharply over the five-year period, by 65% for IBE and a whopping 91% for CRS/channel manager.

The three highlighted areas maintained approximately the same level of integration as in 2017: (1) POS, (2) Sales and Catering, and (3) SPA/Golf and other service management systems; and they continue to pose a challenge for the future digitalization progress of hotel chains.

Level of PMS integration, 2023 vs 2017

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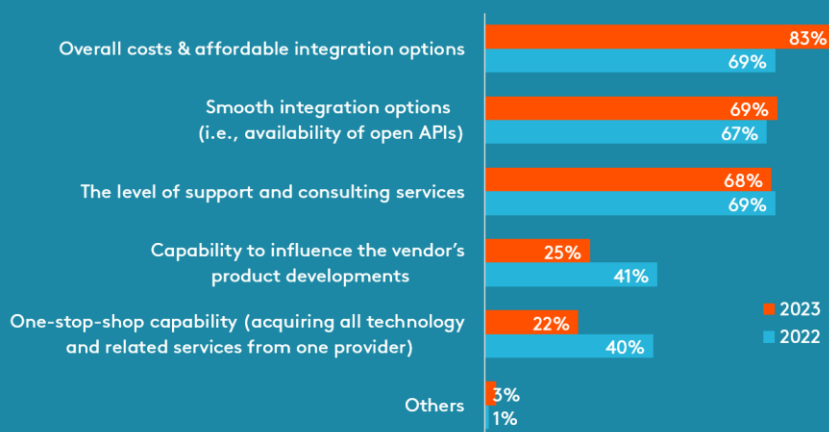
How good is the PMS integrated with the following systems today? N = 58 and 140 in 2023 and 2017, respectively. 2017 data from h2c's Global PMS Study.

CRM, BI, and ORM systems are 66%, 53%, and 42% fully and largely integrated, respectively. Although they have greatly improved their integration quality over the 5-year period, they still need much deeper levels of integration.

Key considerations when purchasing a new technology solution

Decision-drivers for Acquiring a New Tech Solution, 2023 vs 2022

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- Overall system and integration costs are more in focus today
- The desire to have a say in the vendor's product developments is declining
- Requests for One-stop-shop solutions nearly halved since 2022

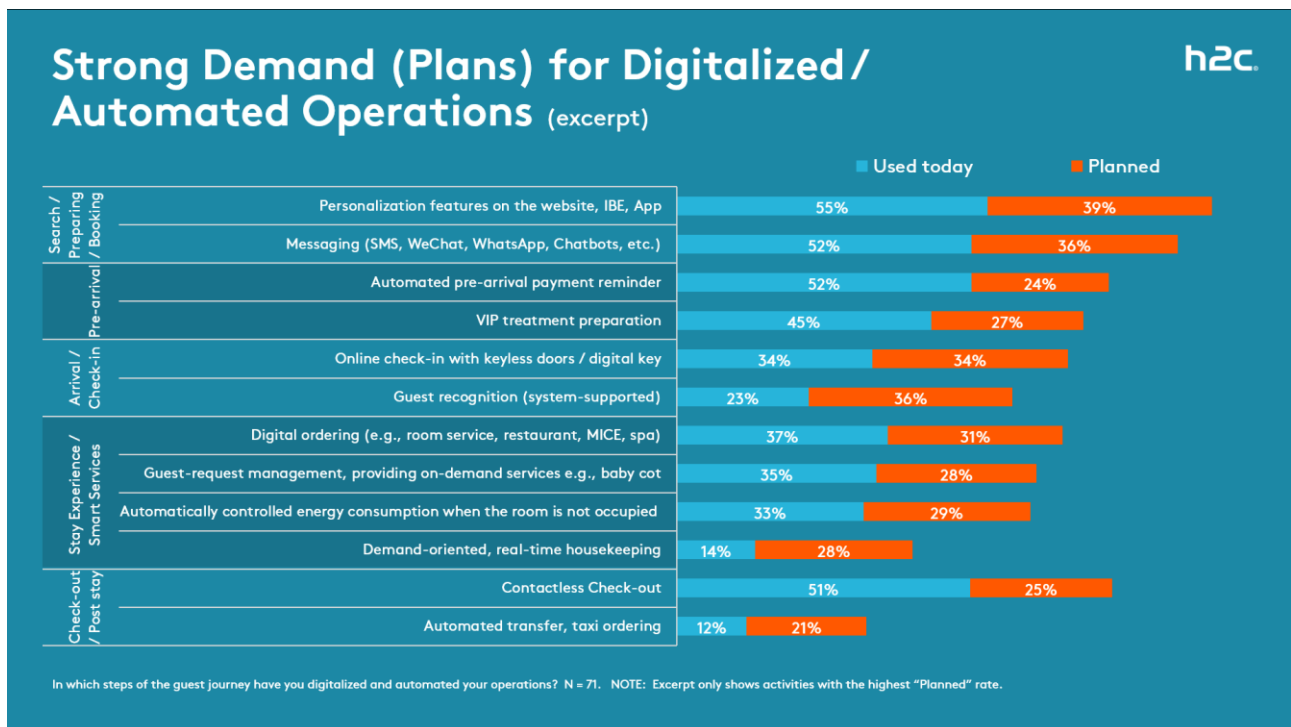
When you are acquiring a new tech solution, which factors drive your decision? (tick all that apply). N = 72. NOTE: The same question was raised in h2c's 2022 Hospitality Distribution Study. Only the identical answer options are shown.

Compared to h2c's 2022 Global Distribution Study, overall cost and affordable integration options became even more important over the 12-month period. In 2023, 83% of all chains required greater affordability of systems and their implementation, up from 69% in 2022. This is a key focus area for hotel chains today when evaluating the upfront cost of new technology solutions.

Smooth integration options, such as the availability of open APIs, remain a strong decision driver, with 69% of respondents requiring this flexibility. The same goes for support and consulting services, which are almost equally important in both years.

However, the desire to influence the vendor's product development is less important than in 2022, dropping 16 percentage points from 2022. The need for one-stop-shop capabilities, where all technology is purchased from a single vendor, has also declined significantly by 18 percentage points in 2023 compared to the previous year.

Digitalization along the guest journey



To what extent are the steps of the guest journey digitized and automated? This extract shows all results with a high level of "planned" activities.

During the search process, 36% of chains plan to use messaging and nearly 40% plan to use personalization features on their brand website, IBE and proprietary app.

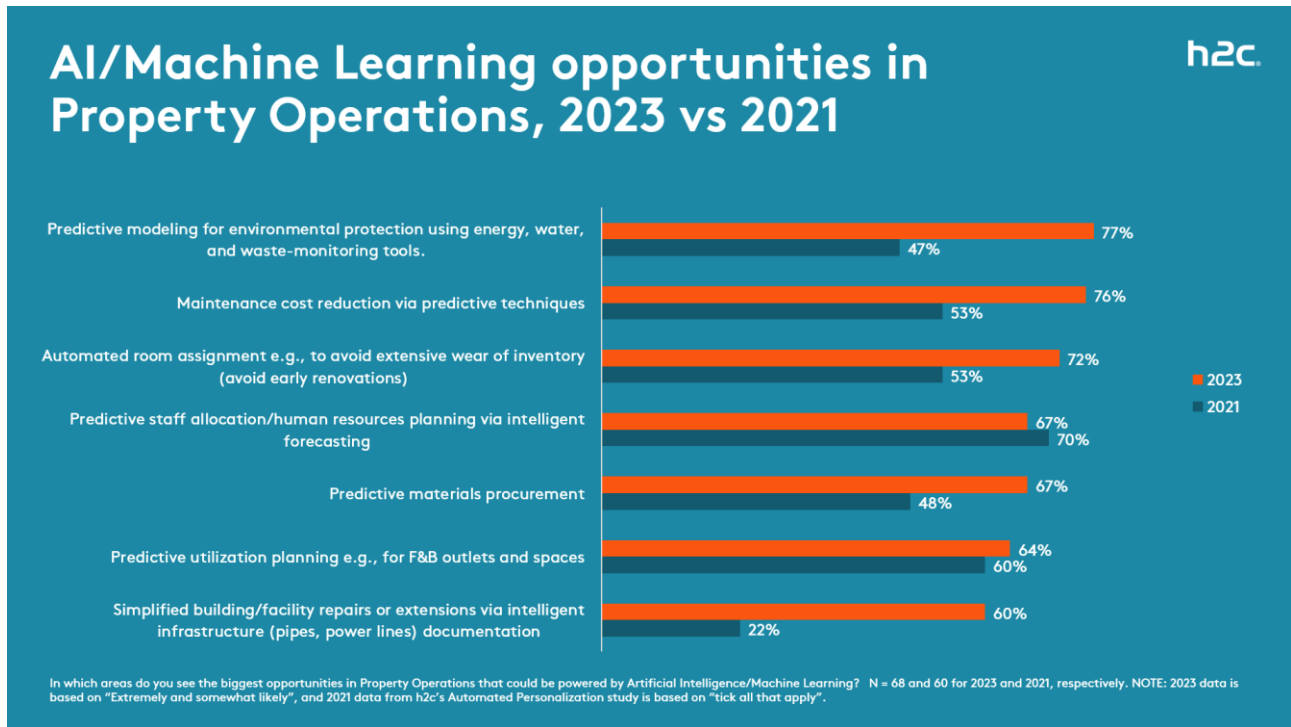
Prior to arrival, about a quarter of chains plan to send automated payment reminders and use automated VIP treatment preparation. Upon arrival, 34% plan to offer online check-in with digital keys and 36% plan to use automated guest recognition.

Real-time, on-demand housekeeping is used by only 14% of chains today, but twice as many plan to use it in the future. Digital ordering, on-demand services and energy control are planned by about 30% of chains.

Contactless checkout is used by half of the chains, with another quarter planning to use it. Automated transfers are planned by about 20%.

In contrast, very few chains are planning room and/or floor number bookings, virtual reality, concierge software, digital or mobile room checks, and service robots (not shown in the chart above).

Artificial intelligence powered opportunities



Where do hotel chains see the most AI/machine learning opportunities in property operations?

For almost all of the opportunities listed, the share of hotel chains that see opportunities in these areas has increased by a large margin compared to 2021. The power of AI and machine learning has clearly arrived in the hospitality industry.

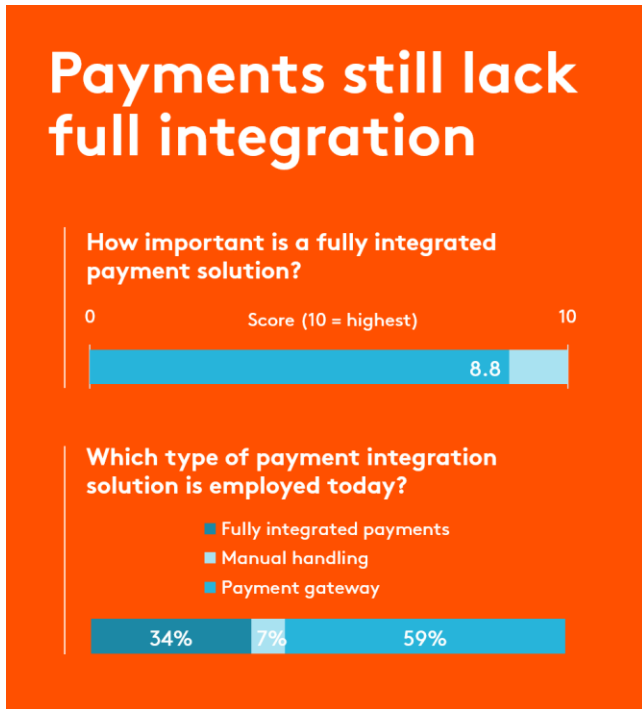
Predictive modeling for environmental protection increased by 30 percentage points, from 47% in 2021 to 77% in 2023. Maintenance cost reduction reached 76%, an increase of 22 percentage points in 2023. Predictive staffing has roughly maintained its position over the same period.

Automated room assignment (72%) can benefit both the hotel (reducing excess wear and tear on inventory) and the guest by booking their preferred room or level.

Predictive materials procurement (67%) is another important area for leveraging AI/machine learning capabilities. It will greatly benefit developments in e-procurement.

Simplified building repair or expansion through intelligent/AI-assisted infrastructure documentation is an opportunity for 60% of hotel chains. Since 2021, this application area has almost tripled.

The state of payments integration



Automated payment processing still lacks full integration, even though hotel chains rate fully integrated payments as very important, with a score of 8.8 out of 10.

Only 34% of hotel chains today have a fully integrated payment solution, while 59% have a payment gateway and 7% process payments manually, which will soon be a relic of the past.

As new payment integration specialists enter the market, distribution system vendors continue to upgrade their payment interfaces. Both will help solve the full integration needs of chains around the globe.

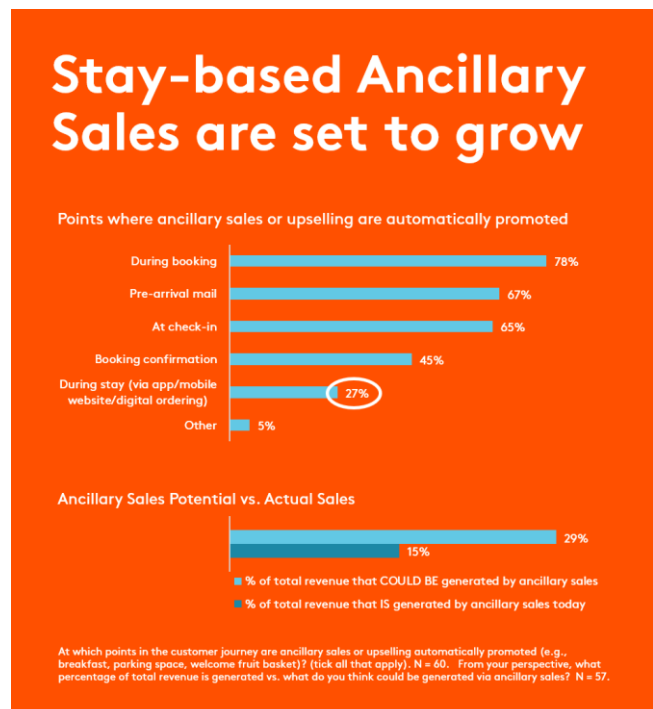
Automated ancillary sales promotions

Most automated ancillary sales are dedicated to the booking, pre-arrival and check-in phases.

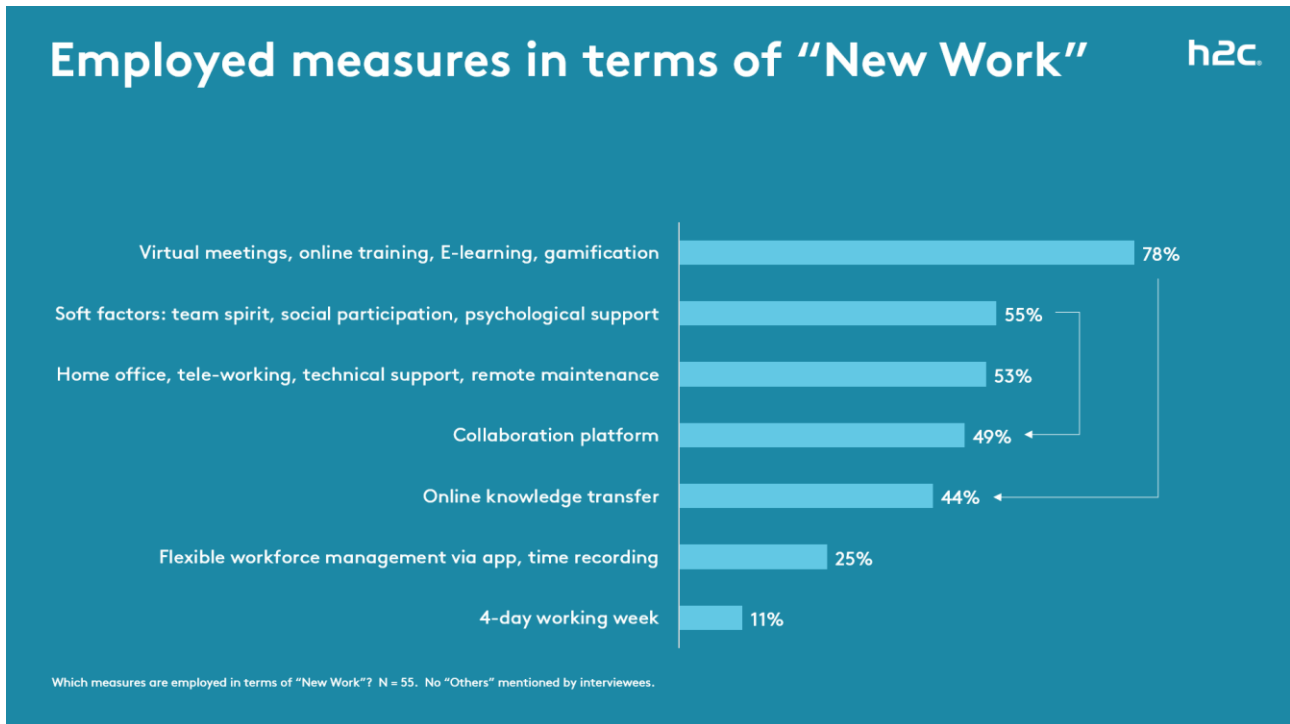
Only 45% of chains use booking confirmations to trigger ancillary sales, which is understandable as CRM specialists consider this an inopportune time (as customers have just decided against ancillary purchases in the booking funnel).

The highest growth potential was identified in the area of stay-based ancillary sales (27%). Mobile technology with a voice-first approach is expected to drive incremental revenue during the guest's stay over the next 2-3 years.

Growth projections are underscored by hoteliers' belief that their ancillary revenue could nearly double from 15% of total revenue today to 29%.



New Work adoption



What measures are being taken in relation to "New Work"?

Although 78% of the chains use virtual meetings, online training, e-learning and gamification, only 44% of the companies organize a structured/continuous online knowledge transfer.

For 55% of hotel chains, soft factors such as team spirit, social participation and psychological support are important and can be enhanced through collaboration platforms (currently used by 49%).

About half of the chains offer home office, telecommuting and remote maintenance services. Only a quarter offer flexible workforce management (via app or time tracking). A small minority of chains (11%) offer a 4-day work week.

Emerging innovation trends

To identify innovation focus areas, hotel chains were asked to drag and drop pre-defined topics in order of priority. Comparing the 2023 results to h2c's 2022 Hospitality Distribution Study highlights how quickly new technologies advance and perceptions evolve.

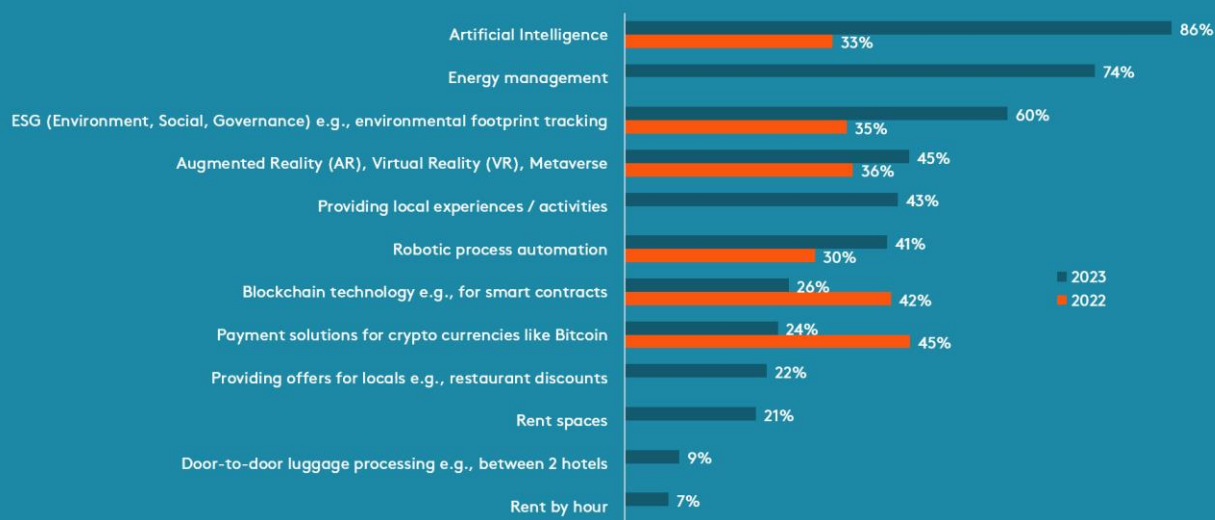
Since h2c's 2022 study was conducted prior to the introduction of ChatGPT, the impact on this year's study is an eye-popping 53 percentage point increase in potential AI applications, reaching 86%. With real-world examples of ChatGPT, AI has become a viable solution for more hoteliers.

Although not included in the 2022 study, energy management immediately emerged as the second most important area of innovation.

ESG, Augmented Reality, and Robotic Process Automation all increased their rankings from 2022, while Blockchain technology and cryptocurrency payment solutions decreased.

Arising Innovation Areas

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In which areas do you see innovation arising in the next 2 years? (tick all that apply) N = 58. "Other" areas were not mentioned by respondents. 2022 derived from h2c's Global Hospitality Distribution Study. N = 61. Only same answer options are compared.

In summary, innovation management is not given the priority it deserves. Only 35% of hotel chains have a structured innovation management process in place, leaving room for improvement.

Conclusion

While digitization in general has made significant progress over the past three years, direct distribution through hotel chains' websites and mobile apps, supported by loyalty and membership programs, has made great strides toward true personalization. If hotel chains can continue to grow their direct online sales (and eat into OTA share), it will greatly benefit their efforts to automate operational guest services.

Digital operations will be driven by both emerging technologies, such as AI, and the proliferation of IT systems, such as e-procurement based on predictive materials planning.

There are still many gaps to be filled, such as more direct messaging with guests after booking, and many of these measures are already on the wish list or planned by chains.

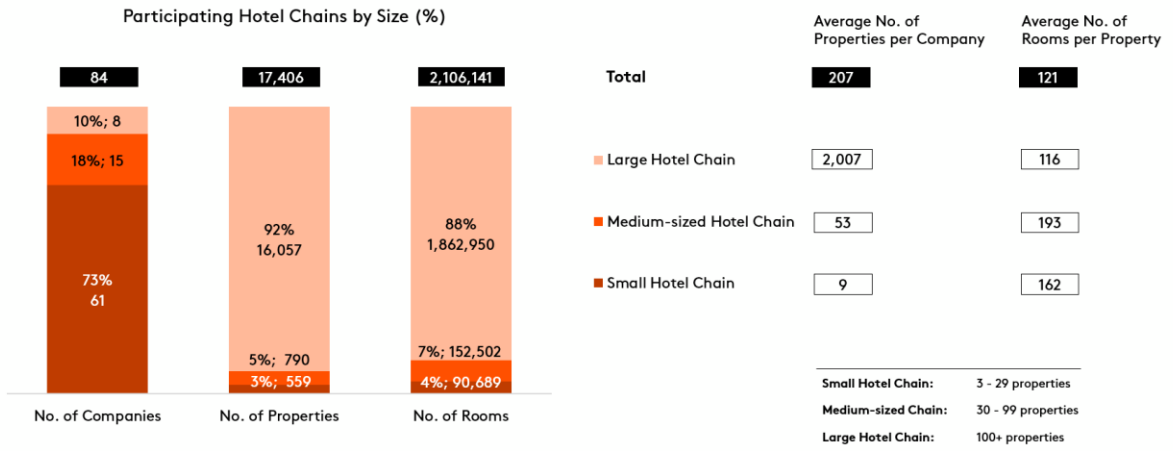
From a relatively low level of ESG activity today, action will increase in the future as more smart buildings come online, pressured by both rising energy prices and tighter legislation.

Methodology

This study combines the findings from an online survey (completed by 79 executives of global and regional hotel chains), 13 executive interviews with hotel chains and, 7 interviews with technology providers including sponsors. In total, the study includes the answers of **84 unique hotel chains** and covers the following regions: Europe, Middle East & Africa, Asia Pacific and The Americas. The study participants are from various functions including Operations, Revenue Management, Sales, Marketing and Distribution.

The surveyed 84 hotel chains, whereof the majority are small hotel chains, represent 17,406 properties and 2,106,141 rooms worldwide. Note: the hotel chain size definition is included in the following chart.

Participating Hotel Chains



What kind of hospitality company do you represent? N = 92 (84 unique chains; 6 chains provided 2 responses, and 1 mega chain 3 responses for a total of 92 responses). Note: Figures may not add up to 100% due to rounding.

Sponsors

The following companies (in alphabetical order) have sponsored h2c's Digital Operations Study:



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FutureLog designs and develops digital procure-to-pay solutions for hospitality, handling all aspects of ordering, inventory management, invoicing and more.

Headquartered in Switzerland, with offices in Böblingen, Paris, Bangkok, Singapore, Sydney and Dubai, we have 20+ years of experience in digitising and automating P2P processes, ensuring cloud-based accessibility and seamless connectivity. For more information, visit www.futurelog.com.

MEWS

Mews is the leading platform for the new era of hospitality. Powering over 3,500 properties across more than 80 countries, Mews Hospitality Cloud is designed to streamline operations for modern hoteliers, transform the guest experience and create more profitable businesses. Mews has been named the World's Best Hotel PMS Solution Provider by World Travel Tech Awards (2023). For more information, visit www.mews.com.



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About h2c

Founded in 2001, h2c provides professional services for the hospitality industry. With a focus on **technology solutions**, covering system specifications and RFP processes, h2c also offers associated project management support, among other services. Hotel management systems and services are analyzed in detail as part of our regular market research projects to identify technology trends, challenges and opportunities.

Contessa by h2c is a unique product development that enables hoteliers to automate the updating of static content for OTAs and other channels.

Our Mission: h2c inspires success in hospitality commerce. Our passion to translate marketplace complexities into actionable strategies shapes our relationships. The goal: clients are confidently in control.

For more information, please visit www.h2c.de.