

Critical success factors for virtual hotel operator partnership with small- and medium-sized hotels: perspectives of owners and operators

CSFs of VHO in SMS hotels

Fajar Kusnadi Kusumah Putra

Department of Hospitality, NHI Bandung Tourism Polytechnic, Bandung, Indonesia, and

Rob Law

Department of Integrated Resort and Tourism Management, Faculty of Business Administration, Asia-Pacific Academy of Economics and Management, University of Macau, Taipa, Macao

Received 15 June 2022
Revised 13 September 2022
19 November 2022
28 November 2022
19 March 2023
6 April 2023
Accepted 9 April 2023

Abstract

Purpose – This paper identifies the critical success factors (CSFs) of virtual hotel operator (VHO) in using hotel management system partnerships with small- and medium-sized hotels (SMSHs).

Design/methodology/approach – This study uses a qualitative approach, with 25 semi-structured interviews with hotel owners and VHO management. Thematic analysis is used to determine themes to evaluate hotel owners and operators' perceptions.

Findings – CSFs for VHO partnership with SMSHs include marketing and promotion strategies, client relationships, training and human resources development, hotel operation management, innovation strategies, capital expenditures and property management systems (PMSs). VHOs also have a symbolic impact on the mutualistic relationship with SMSHs by increasing service and enhancing product competitiveness and profitability.

Research limitations/implications – Findings are beneficial for VHO in determining the most significant CSFs, thereby establishing additional metrics in business performance and increasing resilience in the accommodation sector. Further studies can measure the digital technology factors from VHO, including PMSs and mobile applications.

Originality/value – This study first identifies CSFs for VHO companies from the perspectives of hotel owners and management. This contribution adds to the literature on CSFs in the context of digital technology implementation in SMSHs. Moreover, implications are beneficial for VHO management in determining the most significant CSFs for companies to measure the business performance of the companies and increase resilience in the accommodation sector.

Keywords Critical success factors, Hotel management partnership, Small-and medium-sizes hotels, Smart technology innovation, Virtual hotel operator

Paper type Research paper

1. Introduction

Technological growth in the travel and tourism sector has affected how the hotel business effectively connects customers and markets its products and services. Hotel smart technology is a term used to describe the use of technology in hotels to improve efficiency, reduce costs and enhance customer experience (Buhalis *et al.*, 2019). In a markedly competitive business



era, small- and medium-sized hotels (SMSHs) should prioritize innovation in managing hotels by adopting digital technology strategies (Diegues *et al.*, 2022). SMSHs should allocate a budget for information systems to update their technology with their daily operations and maintain the data management process (Buhalis and Leung, 2018; Yadegaridehkordi *et al.*, 2018). Hotels not adapting to new market conditions and forming alliances will face operational shortcomings. Single properties also have limited opportunities to benefit from considerably extensive referral programs and international marketing campaigns, unlike those for chain and affiliated hotels (Ivanova and Rahimi, 2016; Mohammad, 2016). This technological growth (and performance gap) eventually led to the emergence of a new technology-based hospitality management business called virtual hotel operator (VHO).

VHO are a type of smart hotel management companies that utilizes software that can be used to manage and operate hotels. VHO use technology to create service/product, marketing, process and organizational innovations (Wiastuti and Susilowardhani, 2017; Han *et al.*, 2021; Elshaer and Marzouk, 2022). These companies provide customers with an efficient and cost-effective way to book rooms and manage their stay. They also offer online booking, customer service support, housekeeping services and mobile-based application for guests and their hotel partners. OYO and Reddoorz are examples of VHO providing their customers with an efficient, cost-effective way to book and manage their rooms. VHO accelerate the region's online travel ecosystem and provide solutions for hotel owners and customers looking for quality and price-standardized accommodation (Anandan *et al.*, 2016).

VHO create more value for hotel owners and help them develop and transform their businesses through technology adoption, staff training, standard operation, interior design, marketing strategies, promotional materials and customer service (Wiastuti and Susilowardhani, 2017; Nugroho and Hati, 2020; Prakarsa *et al.*, 2020; Arreza, 2022). This form of a co-evolutionary business system is characterized by relationships among technologies, institutions and actors, including end-users or customers and communities throughout the entire network (Aarikka-Stenroos and Ritala, 2017).

However, the partnership between VHOs and SMSHs experiences specific challenges: most SMSHs involved lack any experience in using technology for hotel management systems, have low budget for innovation and lack strategic vision, management expertise and ability to utilize technology for their presence on online distribution channels (Smithson *et al.*, 2011; Mohammad, 2016; Yin *et al.*, 2019; Fjellström *et al.*, 2020).

However, the most prominent issue is identifying and measuring critical success factors (CSFs) for VHO and SMSH partnership. As VHOs expand in the SMSHs market, VHO management should also be surveyed on how they operate, measures their performance and maintain their partnership with hotels. However, empirical research on VHOs has remained scarce. Previous studies on VHOs have discussed the nature of their businesses (Sharma *et al.*, 2017; Wiastuti and Susilowardhani, 2017), customer perceptions of VHOs (Kurnia and Sulistiani, 2019; Nugroho and Hati, 2020) and technology application (Prakarsa *et al.*, 2020). Only a few discussions have revealed the success factors that benefit the entire network and transform the SMSHs business (Arreza, 2022). Previous studies have also failed to consider the critical role of VHO stakeholders (i.e. management and hotel partners). Ultimately, these gaps are what the current study seeks to fill in.

The current study identifies critical factors contributing to the success of VHOs in partnership with SMSHs. Morrison and Thomas (1999) explained that SMSHs have a small business scope: they are self-managed by owners and financed by individuals or small groups. Most properties are owned and managed by those without previous hotel management backgrounds. Therefore, they struggle to maintain quality service standards and face many challenges, such as competition level, operational costs, technical and management skills, appropriate e-business solutions and ownership of information communication technology (ICT) equipment (Pine *et al.*, 2000; Buhalis and Kaldis, 2008).

This study will contribute to the literature on technology use in hospitality management, particularly in the context of its adoption by SMSHs. These results ultimately enrich the available scholarly perspectives on hotel management agreements, partnerships between owners and operators, brand affiliations and hotel operators. Hotel owners must understand their perspectives toward partnership with VHOs, collaboration between VHOs and SMSHs ushers future competition and consolidation. Subsequent sections will discuss the theoretical background of VHOs, CSFs and methodology, results and discussion. The final section provides the conclusion, theoretical and managerial implications and recommendations for future research.

2. Literature review

2.1 VHOs

Since its first appearance in 2013, VHOs have constantly evolved as a new player in the hotel industry as an asset-light type of business. VHOs focus on developing business-to-business (B2B) partnerships with SMSHs, with companies continuing to expand and attract new investors (Wiaastuti and Susilowardhani, 2017; *The Economic Times*, 2018; Russel, 2019). Hotel owners partnering with VHOs adopt a management and franchise model. The two categories of this model are leases and franchises. Leases involve property owners buying brand franchises, managed directly by VHOs with royalty fees. Franchises involve owners cooperating with the rental scheme or revenue-sharing for rooms booked via VHO platforms. VHO management system includes various hotel management developments, such as technology adoption, staff training, standard operation, interior design, room decoration, standardized furniture, marketing strategies, promotional materials and customer service through their customer and hotel owners' mobile applications.

Most VHOs provide hotel standards and guidelines that help management teams transform a property while calculating estimated costs and monitoring renovation processes (Oravel Stays, 2018). Sharma *et al.* (2017) explained that eight stages are involved in the VHO hotel property listing process. First, the transformation process begins with business development managers identifying potential properties. Second, detailed audit and negotiation with hotel owners are involved. VHOs will share specific characteristics, such as quality assurance inspection. Third, hotel partners must meet the quality specifications set by the VHO management before a partnership agreement. Fourth, orientation and integration with VHO standardized facilities (e.g. hot showers, clean linen and towel, air conditioners, Wi-Fi and in-room amenities) are conducted. Fifth, VHO business development managers prepare the transformation process, followed by VHOs providing capital expenditure to improve facilities and hotel buildings. Lastly, the final process involves hotel properties going live on VHO websites, mobile applications and other distribution channels. After the transformation, operational teams maintain the standard and train hotel employees to use the property management system (PMS) and managing daily hotel operations. Although VHOs offer various advantages in technology along with the standardization of hotel management, they remain in the development stage. Therefore, their CSFs should be identified.

2.2 CSFs for hotels

CSFs have become an essential concept concerning hotel goals and objectives in the hotel and accommodation sector. Brotherton and Shaw (1996) described CSFs as activities and processes supporting organizational goals. In turn, they should be actionable, controllable and measurable. CSFs are also sector-specific – the implication is that focused research in a sector on CSFs should provide specific recommendations for businesses and entrepreneurs (Engelbrecht *et al.*, 2014).

CSFs have become essential in hotel goals and objectives in the hotel and accommodation sector. With increasingly fierce competition and inevitable use of technology, companies need

innovative strategies to achieve their goals (Avcikurt *et al.*, 2011). Brotherton and Shaw (1996) explained that CSFs in hospitality services could be categorized on the bases of technical or human aspects. Technical and human aspects are considered integral to corporate culture, cooperation, management style, company performance, productivity and business metrics in achieving company goals (Politis *et al.*, 2009; Arasli, 2012; Padilla-Meléndez and Garrido-Moreno, 2014; Spencer and Van Zyl, 2015; Yadegaridehkordi *et al.*, 2018).

Diversification standards of the hotel business have also changed rapidly. However, the literature's insufficiency highlights the paucity of knowledge on CSFs related to VHOs and partnership with SMSHs. CSFs in hotel operations from the customer perspectives have also been explored (Padilla-Meléndez and Garrido-Moreno, 2014; Wang and Hung, 2015; Fuentes-Medina *et al.*, 2018; Lee *et al.*, 2019), with some studies explicitly outlining the context of SMSHs (Avcikurt *et al.*, 2011; Zhang *et al.*, 2013; Wang and Hung, 2015). However, only a few studies have discussed the concept of CSFs for VHOs. Most studies use a quantitative method approach (Avcikurt *et al.*, 2011; Wang and Hung, 2015; Ahmad and Arif, 2016), which enables obtaining more participants. However, it cannot explore the respondents' views in a markedly in-depth manner.

2.3 CSFs influencing joint ventures in the hospitality business

Partner selection is a primary factor in achieving success in establishing joint ventures (JVs). International JVs (IJVs) are among the most common forms of market entry companies use for their internationalization processes. When creating IJVs, trust, commitment and congruent goals are highlighted as important factors in relationships. They are essential for their success (E Silva and Oliveira, 2017). Similarity in partners' corporate values and missions has become a significant impetus in developing competitive service strategies. This congruence is supported by building mutual trust, synergetic effects of using resources, strong financial background and equity sharing and information exchange and knowledge sharing with local partners. Efficiency in strategic and marketing planning, experience in market research activities and exceeding customers' expectations and needs are critical to these alliances' success (Li *et al.*, 2006; Magnini, 2008; Lee *et al.*, 2013).

Cooperation between hotel businesses and affiliation with chain hotel brands create associations in customers through several strategies, such as assessing customer reviews, contacting the target market, offering benefits to members and offering a corporate contract/rate for groups or companies (Resende *et al.*, 2018). Negotiating and operating managed hotels are complex processes, in which owners and operators must agree on various issues. All parties involved must understand the agreement and the other partners' perception of it (Van Ginneken *et al.*, 2019). Contractor and Kundu (1998) identified five critical factors when choosing an international hotel alliance: economies of scale, firms' ability to exercise management control and maintain quality, need for size in global operation, reservation system and investments in training.

Industry challenges include competitive pricing, better marketing and promotion methods, improved quality of facilities, enhanced service delivery, customer service by maintaining good customer relationships, improving the quality and variety of products offered (i.e. cleanliness, technology, facilities) and loyalty schemes used to retain customers (Ahmad and Arif, 2016). Inter-relationship among hotel management companies and hotel owners should be based on cooperative relationships to overcome these limitations. Hence, business strategies adopted by SMSH owners include but not limited to strengthening the market position of small hotel businesses through various strategies, such as branding, product comparison, service technology and themes that contribute to the overall image-building of a small hotel business. Factors associated with image-building include hotel design, management philosophy, commitment to quality and consistency in service delivery

and use of smart technology innovation for increased competitiveness and business performance (Fredrick, 2019; Lee and Lee, 2020; Nunkoo *et al.*, 2020; Dieguez *et al.*, 2022).

The current study's literature review reveals three CSFs for hotels. The first is human and technical aspects, level of service quality, financial performance and marketing (Brotherton and Shaw, 1996; Avcikurt *et al.*, 2011; Yadegaridehkordi *et al.*, 2018). The second is customer relationship management (CRM), information and technology, knowledge management capability, customer orientation and organizational readiness (Arasli, 2012; Padilla-Meléndez and Garrido-Moreno, 2014). The third is the physical environment, including the hotels' interior and exterior, leading to customer satisfaction (Yadegaridehkordi *et al.*, 2018).

Progress and opportunities abound when exploring CSFs in hotels. Yadegaridehkordi *et al.*, (2018) proposed four aspects that influence the performance and growth of small hotels. The first is the organizational aspect, including top management support and financial performance. The second is human resources, which include employee preparation, education, service standardization, quality and customer satisfaction. The third is environmental atmosphere, including hygiene and cleanliness, interior and exterior architecture and location. Fourth is information and technology, encompassing firms' external and internal technologies and benchmarking with process and equipment standardization.

3. Methodology

3.1 Research design

Exploratory research is needed to understand hotel owners' perspectives and VHOs' management on their partnerships to identify CSFs for VHOs. The qualitative approach is a "well-established approach to researching phenomena in the social sciences, and its emphasis is on empathetic understanding, especially regarding the 'how' and 'why' of tourism-related phenomena and experiences" (Dwyer *et al.*, 2012, p. 312). Purposive sampling was used to select relevant participants able to answer specific research purposes (Patton, 2014). Given that the study focused on developing VHOs in Indonesia, the sampling focused on key participants from Indonesian VHO management and hotel owners. Participants were recruited via different procedures prior to the fieldwork. First, VHO management was invited based on the company's affiliation accounts on the social network platform LinkedIn; the platform "connects professionals in various fields and, therefore, provides greater ability to target data collection to an appropriate social network" (Dusek *et al.*, 2015, p. 282).

According to Euromonitor International (2018), over 28,230 places of accommodation have been registered across Indonesia. However, most of these places (88.25%) are not considered SMSHs and there is still a significant need to standardize SMSH hotel supply in Indonesia. SMSH properties can be classified as one-, two- and three-star hotels, along with non-star accommodations, such as guest houses and homestays. Chosen properties had no more than 100 rooms, had 10–49 employees engaged in operations and controlled and funded by an individual or a small group (Middleton, 1998; Morrison and Thomas, 1999; Ahmad and Arif, 2016).

Semi-structured interviews with open-ended questions were employed to meet the research objectives. Altinay *et al.* (2015) explained that these interviews enable participants to explain their point of view, seek new perspectives, find general trends and understand the relationships of variables in research. Personal invitations based on the SMSH category identified herein were used to recruit hotel owners' participants. SMSHs are classified as non-star and independently operated hotels, unaffiliated with local or international hotel chains. A total of 156 research invitations were sent to potential VHO management level. Their profiles were categorized into three groups: chief executive officer (CEO)/founder/co-founder (6 profiles), executive management positions (74 profiles) and middle range management positions (76 profiles). These people had been hired and worked for VHOs. They had been with VHO companies from six months to seven years. Participants came from various first-

tier cities in Indonesia (where most VHO properties are located). A total of 16 (3.84%) VHO management representative were willing to be interviewed. [Kwortnik \(2003\)](#) explained that the minimum number of research samples suitable for qualitative research projects is 12. Therefore, this study has reached the criteria mentioned.

The interviews focused on the participants' experiences, VHO goals and characteristics and critical factors for VHO success from management and hotel owners. They were conducted from June to August 2020. Owing to the coronavirus disease 2019 (COVID-19) pandemic, most were held using online meeting platforms (e.g. Zoom meetings, Google meet). All the participants' identities in this study remain anonymous. A total of 16 participants represented four VHO companies that operated in Indonesia: Airy Rooms, OYO rooms, Reddoorz and Zen Rooms. These VHO companies represent one of Asia's most rapidly expanding types of hospitality management, in which an enormous number of SMSHs operate. Its core idea is to transform SMSHs and ensure customers' safety and comfort by unifying them under their brand name. Meanwhile, nine represented hotel owners ([Table 1](#)). Respondents' job descriptions in VHOs are connected to hotel operations, business development, transformation, marketing and human resources.

VHO participants' experiences ranged from 4 to 18 years of working experience in various fields (e.g. hotels, resorts, cruise ships or restaurants). Specialties varied from hospitality backgrounds, such as hotel operations, e-commerce, customer services, revenue

VHO management			
IDs	Positions		Years of experience
M1	Assistant general manager		12 years
M2	E-commerce executives		4 years
M3	Hotel operation manager		7 years
M4	Regional head		14 years
M5	Human resources business partner		11 years
M6	Senior hotel operations manager		18 years
M7	Country manager for hotel operations		15 years
M8	Hotel consultant		13 years
M9	Business development manager		10 years
M10	Operations manager		4 years
M11	Head of business development		9 years
M12	Head of business development		11 years
M13	Head of operation excellence		6 years
M14	Senior business development manager		8 years
M15	Assistant general manager		13 years
M16	Regional corporate sales manager		10 Years
Hotel owners			
IDs	Occupations	Types of accommodation	Years of partnership with VHO
O1	Banker	Guest house	One year
O2	Information technology (IT)	Homestay	Five years
O3	Hotel manager	One-star hotel	Four years
O4	Social entrepreneur	Two-star hotel	Four years
		Three-star hotel	One year
O5	Human resource manager	Three-star hotel	One year
O6	Contractor	Two-star hotel	Three years
O7	Wedding organizer	Guest House	Two years
O8	Retail	Two-star hotel	Two years
O9	Catering business	One-star hotel	Three years

Table 1.
Profile of participants

Source(s): Authors' own work

management, sales and marketing, event management, pre-opening and procurement. By contrast, six other managers came from non-hospitality backgrounds, such as banking, insurance, consumer goods, retail/sales and human resources.

Nine hotel owners were interviewed. Hotel owners' educational backgrounds were unrelated to hospitality, including management, economics, IT and psychology. Most hotel owners were inexperienced in the hospitality industry: their experiences and specialties were remarkably diverse. For example, some were wedding organizers, caterers, social entrepreneurs, salespersons and contractors. Only one participant had experience in managing his/her family's hotel business. Accommodation types ranged from the homestay, guest houses and one-to three-star hotels. The partnership agreement between hotel owners and VHOs lasted one to five years. The diversity of the participants in this study ultimately helped the comprehensiveness and diversity of information from the participants' perspectives.

3.2 Data analysis

From the results of the interview researchers invited the respondents to verify the findings to improve credibility. The interviewer asked for the participant's prior and informed consent to be recorded for data collection. Recorded data were translated and copied (transcription). Each participant was given a copy of the interview transcript to review data accuracy. Interviewees agreed and signed the interview protocol and consent form. Thereafter, all participants signed and returned the member-checking consent form to the researcher.

Recorded interviews were immediately transcribed, lasting an average of 49 min per participant. ATLAS.ti (version 8), a qualitative data analysis software, was used to analyze the coding. Thematic analysis searched for commonalities and themes describing the data (Clarke and Braun, 2017). A theme can be interpreted as an affirmation that creates meaning or a statement of meaning. Meanings were also obtained from interviews and were formulated by the researcher.

The current study considered three aspects for reliability (Creswell and Creswell (2017)). The first aspect is triangulation data from multiple sources of participants in the interviews. This study conducted interviews with two groups of participants: hotel owners and VHO management. Secondary data reports, online travel trends, hotel statistics and articles on VHOs were used to complete the current research analysis. Hence, this study's validity and reliability were based on data sources.

The second aspect is member checking. Throughout the analysis process, participants would check their responses through ongoing dialog on interpretations based on the informant's checking to ensure the actual meanings of their responses. Member checking ensures accurate interpretations (Savin-Baden and Major, 2010), involving the participant or information provider being reconfronted with the interview data. Thereafter, the interviewer would check with the participants to confirm their responses by sending verbatim transcripts. Member-checking consent forms were sent to the participants via email and WhatsApp for faster response.

The third aspect is validity. Each participant was given a copy of the interview transcript to review data accuracy. Thereafter, the researchers invited the respondents to verify these findings to improve credibility. The participants were asked to read and correct the summary of the researcher's interview results, with participants signing the member checking consent form if they saw the data as valid.

4. Results and discussion

4.1 Partnership factors

Client relationship is the most critical factor in the success of VHOs (see Table 2). VHOs, as light assets companies, maintain their property partners to sustain and expand businesses.

JHTI	Salient themes	Sub themes	Key insights
	Partnership factors	Client relationship Contract agreement Constant improvement Adaptation to local culture Business development	The negotiation process and policies on the business expansion of VHOs in the SMSH sector. The partnership between both parties maintains the sustainability of the VHO business model and their commitment to the contract agreement
	Marketing factors	Marketing and promotion strategies Market segment Pricing strategy Branding Distribution channel	Marketing is part of functional CSFs, in which several categories are assessed: effectiveness of advertising, market intelligence, customer database and competitor intelligence
	Technical factors	Hotel operation management Accessing and monitoring customer satisfaction Standardization Transformation Professionalism	Managing hotel operations and the standard is associated with applying technology to reach the VHO goals and hotel owners' revenue targets
	Financial factors	Capital expenditure Investor and capital sources Profitability Monthly guarantee Revenue	Financial factors are important in measuring revenue and profitability
	Strategic management factors	Innovation strategy Hotel network size and coverage Audit quality	Strategic management is related to innovation strategy and perceived as the most critical factor for small hotel businesses
	Human factors	Training Team commitment Staff recruitment and selection Employee rewards and benefits	VHO management and hotel owner participants agree that the human factor is crucial in improving the standard and service of VHO, primarily due to training
	Technology factors	Property management system Central reservation system accuracy and efficiency	VHOs rely on technology-based solutions and features. They use efficient, accurate, consistent property management and centralized booking and reservation systems
	Source(s): Authors' own work		

Table 2.
CSFs for VHO
partnerships
with SMSHs

Hence, VHO partnerships with hotel owners are based on three aspects. The first aspect is the visibility of contract agreements. The second aspect is that VHOs provide a support center for day-to-day operation problems and related issues for hotel owners, customers and vendors. The third aspect is VHOs managing owners' expectations for long-lasting benefits of the partnerships (i.e. manifesting as increased revenues, occupancy rate and average room rates). One of the VHO heads of business developments agreed with this view:

We are not selling goods but building partnerships; therefore, we keep interpersonal relationships with hotel owners. We meet distinctive characteristics. We speak of culture, meaning everyone has a different outlook on how the business works. (M11)

As technology-based hotel operators, VHOs rely on partnerships with hotel owners. Therefore, VHOs offer three contract agreements. The first agreement is full revenue-sharing (i.e. VHOs share revenues at an agreed percentage). Contract agreements between VHOs and hotel owners include guidelines on managing hotel operations, reaching the standards outlined by VHOs and hotel owners' revenue targets. The second agreement is the use of a minimum monthly guarantee. The third agreement is a self-operating business model akin to lease-type management. Agreements with VHOs are designed to reduce the risk factors and hotel owners' value of investments. For example, one interviewee highlighted the mutually beneficial agreements and commitments:

We invest funds or transformational capital expenditure to the property partner if they do not have enough capital to meet our facilities' standards. Hence, we help them through investment without return within the contract period. (M11)

One of the advantages of partnering with VHO is that they provide a fixed monthly deposit according to the initial agreement, which helps us. Suppose we are looking at the capacity of our hotel right now below 50%, with the security deposit. In that case, we can cover operational costs. (O1)

Interviewees also mentioned that the expansion process should be consistent to increase revenue and profits for companies and their partners. Ultimately, the objective of partnerships with hotel owners is to maintain sustainability and commitment together:

We want our property partners to achieve their targeted revenue and business sustainability. This means financial, products, and services consistency and a long-lasting partnership. (M6)

Evidently, one emerging factor is the adaptation to local culture. VHO management and hotel owners were concerned with the varying conditions of SMSH operations. Most participants asserted that the educational background of employees and owners and technological adaptation in hotels are still low. Therefore, VHO should adapt to the condition, as mentioned by one of the hotel owners:

Because VHOs typically have standard operating procedures that are globally acceptable, this start-up company should adapt to the condition of our people and our culture. (O1)

The business development division's main objectives are acquiring hotel properties and maintaining relationships with hotel owners.

Business development is the one that initially acquired the property. For example, suppose the hotel property owners want to join. In that case, business development will explain the terms and conditions, and they will acquire the property through an agreement that has been agreed to by the hotel property owner. (M5)

As a hotel management company, VHOs should adapt and adjust their approach to maintaining communication and agreement with hotel property owners. Therefore, they should keep a mutually beneficial agreement, focus on commitment and continuously improve as part of excellent business in the hospitality field. These results coincide with previous studies on understanding customer orientation relationships ([Padilla-Meléndez and Garrido-Moreno, 2014](#)).

4.2 Marketing factors

While segmenting the market, VHO management conducts a comprehensive market survey assessment process. From the interview results, VHO management and hotel owners frequently mentioned such factors as marketing strategies, market segmentation, pricing strategy, branding, promotion and distribution channel. Findings reveal that the weak position of small hotels in the market could be circumvented through VHO marketing and promotion strategies.

The VHO creates the marketing and promotion strategy for us. Previously, we had limited marketing channels; we only sold our rooms on several property listing platforms. After the partnership agreement, the VHO improved our online and offline presence. (O7)

We informed the owners of essential data about market intelligence, market surveys, and pricing strategies. We can decide the price level following market needs. (M7)

Consistent with the extant research, the importance of strategic marketing planning in JV hotels relates to joint advertising, pricing, promotion and market research activities (Li *et al.*, 2006). Another found that VHO management and hotel owners also conveyed the importance of branding for sales and pricing strategy. Property owners will automatically join their branding when they agree to partner with VHOs. From the perspective of management, brand image is currently an essential aspect of VHOs' success; interviewees further explain this:

Better branding can be achieved by selling more exposure. For example, outdoor neon boxes with the VHO logo and property name are helpful for branding. (M12)

The findings coincide with the argument of Hua *et al.* (2009) on how brand equity increases customer intention to purchase hotel products. Hotels reach a considerably broad audience through responsive platforms, increase distribution and build branding and operational efficiency. An effective way is maximizing online media marketing channels, in which mobile applications become a key strategy to bring customers close to the hotel chain. The VHO mobile application enables customers to book rooms with three taps on their smartphones easily. Strategic partnerships with online travel agents (OTAs) also enable hotel owners to reach a broad consumer market (Yin *et al.*, 2019).

The difference is in terms of operation. For example, in conventional hotels, the booking process until the check-in process requires an exhausting process. However, at VHO, the booking process is much simpler—using a mobile application makes everything much easier and more comfortable. (M8)

Previous studies have discussed that the importance of online and digital distribution channels for budget hotels is the ability to market their properties via multi-channel strategies (Law *et al.*, 2015; Lei *et al.*, 2019). Leveraging dynamic marketing capabilities through online distribution plays a critical role in developing SSMs' competitive advantage (Beritelli and Schegg, 2016; Elsharnouby and Elbanna, 2021).

4.3 Technical factors

VHO management and hotel owners discuss technical aspects, such as hotel operation management, access and monitoring customer satisfaction, standardization, property transformation and staff professionalism. Before joining VHOs, hotel partners must undergo a transformation process that ensures that hotel services, the system, management and staff will meet the VHO standard:

We must transform owner property: it is very crucial to transforming. Everyone engages in the process and convinces owners to share the same perspective. (M7)

From interviews with hotel property owners, hotel operation management factors and assessing and monitoring customer satisfaction are crucial regarding technical CSFs. Participants are concerned with the continuity of the day-to-day hotel operations, which they describe as a follow:

The VHO helps owners manage hotels regarding administration, services, and product standardization. We will implement an operational standard for all accommodations that do not have a star category. For this, we need people with diverse backgrounds who are specialists in areas

such as the front office, housekeeping, food, and beverages, including the banquet. We also need people who are strong in accounting. (M7)

Operational managers in each active region will manage and monitor hotel properties. From personal experience, the owner feels comfortable with the operational manager. They can ask about hotel operations. We also often discuss and share knowledge about hotel management, it will help in the future relationship with owners, and there is an exchange of ideas. (M15)

As a digital hospitality company and hotel aggregator, we offer economical and more affordable accommodation and are concerned about the quality of our services. Therefore, we should offer a balance between the two aspects (affordable and quality services). (M12)

The physical product and service quality of SMSH operation are crucial (Hua *et al.*, 2009; Zhang *et al.*, 2013). Customer orientation is also crucial for the hotel business (Padilla-Meléndez and Garrido-Moreno, 2014) to enhance service quality, deliver superior customer service and total quality management (Wang *et al.*, 2012; Ahmad and Arif, 2016).

The hotel industry is a service sector that highly depends on human aspects. Following Brotherton and Shaw (1996) in the three-dimensional hotel operations model, technical aspects determine the efficiency and economy scale for the successful delivery of hospitality goods and operations. Standardization and quality of the services system should be adopted to predict and control output activities (Ivanova and Rahimi, 2016): the higher the hotel network's intangible assets (including their standards, facilities and services), the better they can command presence in the customer psyche (Andreu *et al.*, 2017). Thereafter, VHOs conduct an evaluation process on how hotels obtain a satisfactory level of guest assessment:

We measure the customer satisfaction index (CSI) and develop a net promoter score (NPS) to measure guest satisfaction. (M7)

CSI is developed from customers' ratings of their likelihood to recommend VHO products and services to others on a scale of 0 (lowest) to 10 (highest). Hotel owners also explained that these factors are significant for their businesses. VHO management ensures that guests are satisfied and evaluate actions to maintain the quality standard. Moreover, customer satisfaction leads to a positive financial performance, in which financial figures are essential for further adjustment and corrective action (Zhang *et al.*, 2013; Augustyn *et al.*, 2021).

4.4 Financial factors

Owners expressed the current difficulty in obtaining bank loans for their needs. With the cooperation of VHOs, hotel owners now have finances in the form of capital expenditure along with a monthly income guarantee. Capital expenditure becomes an attractive factor for hotel owners. VHOs invest in their partners by supplying capital investment assistance and a monthly income guarantee. For property owners, capital expenditure has become a significant factor in the development process:

What is significant is the contract agreement because it provides business capital and other investment facilities. (M5)

Financial support is crucial for hotel JV collaborations (Li *et al.*, 2006; Ge *et al.*, 2018). The financial performance factor in hotels can be measured by the rate of return on investment, income, costs incurred for operations and company profitability (Avcikurt *et al.*, 2011; Padilla-Meléndez and Garrido-Moreno, 2014).

4.5 Strategic management factors

Strategic management is related to innovation strategy and is perceived as the most critical factor for hospitality businesses (Stylos *et al.*, 2021; Dieguez *et al.*, 2022).

Strategic management involves executive management determining strategy and objectives to achieve goals (Geller, 1985). Strategy and objectives will give better and more precise guidance to solve problems and measure operational success following organizational goals. Thus, this situation demonstrates the importance of establishing shared values and launching goals and systems to increase customer satisfaction (Arasli, 2012). One interviewee mentioned the increasing number of users in the VHO application as an opportunity to receive more value from customers and increase the chance of getting more investment. The VHO management also highlights this:

From the next one to two years, we are constantly innovating. We must continue to demand innovative ideas every day, ones that are out of the box and all kinds; it has become part of our corporate culture. (M16)

Innovative technology should be based on market research to respond to market needs and demands, as mentioned by the management of a VHO:

We do marketing based on research to the standards that we set. The products we offer should meet the category of value for money. (M6)

The next factor is related to the size and coverage of the hotel network. Geographical coverage is vital for hotels; such coverage helps in the success of hotel operations and development (Brotherton, 2004a; Hua *et al.*, 2009). A larger hotel scale size and coverage of hotel networks are also critical. For VHOs, the number of existing properties and personnel in one country helps in the effective selling and monitoring process:

Of course, we have one competitive advantage in the network. We have the most expansive network. The advantage lies in our capacity to sell properties in every city, even in other countries abroad, regarding networking, standardization, and the number of personnel. We have all the support needed in every region or hub for our operations. (M11)

Another factor is related to how VHOs enhance the quality of services. It is a crucial strategy employed by hotel owners or managers in SMSHs to face business challenges (Ahmad and Arif, 2016). Implementing quality audits through VHO management by placing its personnel to monitor the operations of property hotel partners has increased customer confidence in using accommodation provided by VHOs. A quality audit guarantees that the products and services they provide meet a minimum standard despite having differentiated properties managed by VHOs. The strategy to ensure quality assurance in hotel operational management can be carried out through standard operating procedures, regulations and, most importantly, the human factor and the organization (Fredrick, 2019; Elsharnouby and Elbanna, 2021).

4.6 Human factors

Training is part of CSFs for VHOs, as mentioned by most participants. It aims to provide standard operational management and increase customer satisfaction with VHOs' products and services. The lack of skilled employees in customer service becomes a challenging issue for SMSHs. Thus, standard hotel operation management for all VHO properties can be improved by conducting training and coaching. Two interviewees mentioned:

First is an improvement; we then also built educational training for hospitality. (M3)

The VHO thinks about the employee's development, and the hotel owners as well. (M11)

Owners agree that VHOs could develop hotel operation human resources. VHOs change product knowledge and the ability to upgrade the technology used by the hotel staff to help operations. Owners feel improvement in knowledge transfer during the in-house training

process. Most owners agree that VHOs continually innovate and develop technologies related to PMSs, hardware and mobile application. Therefore, training is for employees and owners. One owner stated:

Our company is successful because we think about our employees' development. However, the training is not only for employees but also for the owners. We meet with the owners and mentor them on managing the hotel. (M7)

The finding supports [Ahmad and Arif \(2016\)](#), which posited that training increases business success in the SMSH sector. Training for employees improves customer service ([Hua et al., 2009](#)). From the characteristics of company owners, top-level management is needed to overcome the challenges in such a dynamic business climate. The need for an innovative and sound strategy should be supported by quality leadership team commitment. Increasing team commitment is vital to achieving organizational goals. Organizations' process management is essential to teamwork and strategic plans ([Yadegaridehkordi et al., 2018](#)). VHOs also consider employee welfare aspects owing to work–life balance. Accordingly, employee rewards emerged as one of CSFs for VHOs. As previously mentioned by one VHO management participant:

Company performance and targets are balanced with our reasonable compensation and rewards. (M14)

4.7 Technology factors

VHOs are hospitality management companies that utilize technological developments to maximize and empower local accommodation offerings. Only two CSFs in technology factors were found herein: PMS and accuracy and efficiency of the central reservation system.

We are a start-up company that relies on technology. Our system keeps improving by getting insights from our hotel operation team, although we already have a software engineering team. The improvement comes in more user-friendly PMS for the employee and owners. This technology was beneficial since hotels did not need large folio books and dealt with a large margin of errors and time-consuming paperwork. With this PMS, business processes for the hotel property have run more efficiently. (M7)

The use of data science and analytics to enhance the guest experience has become crucial to operations. Systems are transparently accessed in real-time to improve efficiency in time and funding. Moreover, using technology creates a more comfortable booking experience for guests, in which consumers go online and make travel-related purchases using online platforms.

What makes VHO different is promotions on the website and online travel agents, which will impact small hotel property partners. When they join us, we will help their property become more profitable by improving their online platform appearance. (M15)

Websites and mobile applications will reach a broader audience, increase distribution and improve branding and operational efficiency. Mobile applications enable customers to book rooms with just three taps of their smartphones. The concept is simple because it provides three steps for booking: visit the website/mobile application, choose a location and find the hotel that fits the tourists' requirements. This outcome supports theories that note the importance of a central reservation system in SMSHs and the budget hotel sector ([Brotherton, 2004a](#); [Hua et al., 2009](#); [Avcikurt et al., 2011](#)).

SMSHs partners will also get hotel management system applications that are beneficial to the owner in the process of checking and performance of their properties every day through a device they have. (M11)

4.8 CSFs for VHOs

Seven themes were conveyed by the management and hotel owners, with five themes being consistent with the extant studies: strategic management, human, technical, marketing and technology factors. Meanwhile, the interviews discovered two new themes: financial and partnership factors.

In the current study, the partnership factors received the highest weight among other CSFs. VHOs, as light asset companies, must maintain their property partners to sustain and expand the business. The relationship between VHOs and clients, such as commitment, delivering information, communication and troubleshooting, is part of VHOs' goals to maintain partnerships with hotel owners. These findings extend the literature on customer orientation relationships (Padilla-Meléndez and Garrido-Moreno, 2014). However, the partnership between VHOs and non-classified hotels continues to face challenges. Unclassified hotels have no experience using technology and managing standardized hotel management systems. The transformation process to become a markedly reliable accommodation prioritizing quality and providing a pleasant stay experience supports the findings of Arasli (2012).

Hotel businesses need marketing strategies to maximize revenue and increase occupancy rates. Marketing factors are the second most mentioned herein. Management and owners have the same perspective, mentioning five factors: marketing and promotion strategies, market segmentation, pricing strategy, branding and distribution channel. The importance of strategic marketing planning in JV hotels is connected to joint advertising activities, pricing strategy, promotion activities and market research activities, as previously mentioned by Li *et al.* (2006). Marketing and sales are part of functional CSFs, in which several categories are assessed: effectiveness of advertising, market intelligence, customer database and competitor intelligence (Brotherton *et al.*, 2003; Brotherton, 2004b). The emergence of VHOs on various social media platforms is also beneficial—the use of the internet as a marketing medium, as explained in the literature, impacts the promotion of the business. The use of websites as promotional media and customers being part of the promotional activities by VHOs are supported by Ahmad and Arif (2016) and Arasli (2012).

The third aspect is technical, such as hotel operation management, standardization, transformation and personnel professionalism. Participants are concerned with the continuity of day-to-day hotel operations. Brotherton and Shaw (1996) outlined a centralized reservation system that is efficient, accurate and consistent in the quality of the products and facilities offered; this result is relevant to the current study's findings on using PMS and standardizing hotel operations by VHOs, including the importance of accessing and monitoring customer satisfaction. Customer satisfaction leads to a positive financial performance, in which financial figures reflect the needed further adjustment and corrective action (Zhang *et al.*, 2013). Thus, customer-related measures and customer orientation in CRM implementation are key factors for hotel success (Padilla-Meléndez and Garrido-Moreno, 2014).

The fourth aspect is the financial aspect. Financial support is crucial for hotels' JV collaborations (Li *et al.*, 2006). VHOs invest in their partner/s by supplying capital investment assistance, including capital expenditure and sources. One stated:

It is difficult to get bank loans for hotel business needs. With the cooperation of VHOs, hotel owners now have finance in the form of capital expenditure and a monthly income guarantee. (O3)

The increase in revenue and profitability should be measured, which is one of VHOs' goals. From the literature on hotel CSFs, the financial performance factor is the revenue, rate of return on investment, income, costs incurred for operational activities and the company's profitability (Avcikurt *et al.*, 2011; Padilla-Meléndez and Garrido-Moreno, 2014).

The fifth aspect is strategic management. This study revealed that innovation strategy is perceived as the most important factor for small hotel businesses. In the digital era, conventional SMSHs should transform their businesses to adapt to the technology and continuously innovate. Another critical factor is the size and coverage of the hotel network: a larger hotel scale size and coverage of the hotel network are also critical. Geographical coverage is important for hotels because it helps in the success of hotel operations and development (Brotherton, 2004a; Hua *et al.*, 2009). The next most important factor is the implementation of quality audit by VHO management by placing its personnel to monitor the operations of property hotel partners. The practice increases customer confidence in using accommodations provided by VHOs, guaranteeing that the products and services they provide meet a minimum standard despite having differentiated properties managed by VHOs. Several initiatives include training, team commitment, staff recruitment and employee incentives.

In the sixth aspect, VHO management and hotel owner participants agreed that the human factor is also crucial in improving the standards and services of VHOs. Therefore, the human aspect is crucial for all operational aspects of the hotel business (Brotherton and Shaw, 1996). Organizational productivity related to staff recruitment by finding the right people in an organizational structure's proper position, coupled with team commitment, is pivotal for business success. Otherwise, lacking skilled employees to handle customers becomes a challenging firm issue (Ahmad and Arif, 2016).

The last aspect of technology was found herein, namely, PMS, which presents information transparently and is used to improve efficiency in both time and funding. The second is the accuracy and efficiency of the central reservation system. Findings support previous studies on using a PMS (Sharma *et al.*, 2017; Wiastuti and Susilowardhani, 2017).

5. Conclusions

This study revealed seven themes of CSFs for VHOs and SMSHs, as conveyed by the management and hotel owner participants during the interviews: five themes were based on the literature review (i.e. strategic management, human, technical, marketing and technology factors), while two new themes were discovered from the interviews (i.e. financial and partnership factors). From the VHO management perspective, the most critical factor for VHOs is the technical aspect, including standardization, transformation, quality assurance and professionalism. From the owners' perspective, financial aspects were the most critical factors for VHOs, particularly on the monthly guarantee. The owners also explained that the technology aspect has helped them manage their hotel property through the PMS and central reservation systems. Clients' relationship was also found to be crucial from the perspectives of both VHO management and hotel owners.

Hotel owners and VHO management has enabled the confirmation and refinement of the new CSFs framework for VHOs, serving as a foundation for the concepts and characteristics of VHOs. This study's results show that the partnership factor accounts for the majority of CSFs for VHOs. Partner selection is also a primary factor for success in establishing a JV. When creating an International Joint Ventures (IJV), trust, commitment and congruent goals are highlighted as important factors in the relationship with a partner. They are essential for the relationship's success (E Silva and Oliveira, 2017). Maintaining good client relationships is likewise invaluable in increasing brand value and achieving goals of increased property portfolios: which are needed to become a market leader (Castañeda García *et al.*, 2018; Wang *et al.*, 2019).

In cooperation and networking, Li *et al.* (2006) examined the primary motivation for selecting JV partners from local and expatriate managers' perspectives. Factors relevant for JV hotels include strategic planning, willingness to share information and knowledge with local partners, support for strong financial performance and experience in marketing,

planning and conducting market research. Moreover, innovations and financial factors were pivotal, especially from the perspective of hotel owners. Note that another highlight was the creation of marketing and promotional strategies through multiple media channels, such as by using online, offline and micro marketing media. Strategies should be inexpensive and effective platforms for marketing and advertising, thereby increasing hotels' competitiveness level in the marketplace (Paprocki, 2017; Stylos *et al.*, 2021).

5.1 Theoretical implications

The theoretical implications of this study are threefold. First, this study expands the literature on the use of technology in hospitality management, particularly on the application of technology for SMSHs in collaboration with emerging highly technologically dependent hotel management companies, such as VHOs. Second, the current research contributes to the body of literature on hospitality management by providing an overview of the role of hotel operators in cooperating with SMSH owners. The perspectives discuss hotel management agreements (HMAs), partnerships between owners and hotel operators and affiliations with the hotel industry through a 4.0 smart technology implementation. Third, this study finally provides perspectives from hotel owners on the contract agreements, the financial benefits obtained from the cooperation process and hotel management operations utilizing innovative technology. Smart innovation for hotels uses cutting-edge technologies to improve efficiency, reduce costs and enhance customer experience, including VHOs, automated check-in/check-out systems, digital keyless entry systems, artificial intelligence (AI) and chatbots. By leveraging these technologies, hotels can provide a better overall experience for their guests and increase operational efficiency.

5.2 Practical implications

For hotel owners, a virtual hotel business can be used as a solution for service quality and marketing and promotion strategy in the current digital era. Moreover, hotel operators can determine CSFs from the owners' interests (i.e. providing expertise in the marketing process and promotion strategy and implementing standards and training for hotel operations by prioritizing aspects of digital technology). Hotel management should allocate budget for information systems and update their technology on their daily operations while maintaining the data management process. Findings will help VHO management determine the most significant CSFs to achieve their goals, measure performance and expand their business networks. In addition, this study will help inform the government to create policies on how SMSHs can be transformed into standardized accommodations. Accordingly, it will support local tourism, particularly in developing countries, such as Indonesia, India, the Philippines and Vietnam. Most accommodations are in the SMSH categories.

5.3 Limitations and future research

For the number of participants, this study's sample size (nine properties) is still small compared with the total number of VHOs available globally. Another limitation is that the sample interview participants were only from VHO properties in Indonesia. With the limitation on domestic travel during the COVID-19 pandemic, the researcher cannot directly observe the conditions of hotels included in this study. Thus, future studies can be conducted and compared from such countries as China, India, Singapore, Thailand, the Philippines, the USA and Vietnam, where VHOs primarily operate. Future studies may also include participants who are hotel owners but have not joined or have ended their contract agreements with VHOs. Future scholarly attention could compare their perspective on VHOs and hotel management agreements.

References

- Aarikka-Stenroos, L. and Ritala, P. (2017), "Network management in the era of ecosystems: systematic review and management framework", *Industrial Marketing Management*, Vol. 67, pp. 23-36, doi: [10.1016/j.indmarman.2017.08.010](https://doi.org/10.1016/j.indmarman.2017.08.010).
- Ahmad, S.Z. and Arif, A.M.M. (2016), "Entrepreneurial characteristics, motives, and business challenges: exploratory study of small-and medium-sized hotel businesses", *International Journal of Hospitality and Tourism Administration*, Vol. 17 No. 3, pp. 286-315, doi: [10.1080/15256480.2016.1183550](https://doi.org/10.1080/15256480.2016.1183550).
- Altinay, L., Paraskevas, A. and Jang, S.S. (2015), *Planning Research in Hospitality and Tourism*, Routledge, London, doi: [10.4324/9781315723662](https://doi.org/10.4324/9781315723662).
- Anandan, R., Sipahimalani, R., Bharadwaj, A., Jhangiani, J., Kim, D. and Ramesh, S. (2016), "e-economy SEA: unlocking the \$200B digital opportunity", available at: <https://www.thinkwithgoogle.com/intl/en-apac/trends-and-insights/e-economy-sea-unlocking-200b-digital-opportunity/> (accessed 30 October 2020).
- Andreu, R., Claver, E. and Quer, D. (2017), "Foreign market entry mode choice of hotel companies: determining factors", *International Journal of Hospitality Management*, Vol. 62, pp. 111-119, doi: [10.1016/j.ijhm.2016.12.008](https://doi.org/10.1016/j.ijhm.2016.12.008).
- Arasli, H. (2012), "Towards business excellence in the hospitality industry: a case for 3-, 4-, and 5-star hotels in Iran", *Total Quality Management and Business Excellence*, Vol. 23 Nos 5-6, pp. 573-590, doi: [10.1080/14783363.2012.669539](https://doi.org/10.1080/14783363.2012.669539).
- Arreza, M.K.B. (2022), "Virtual hotel operator (VHO) affiliated small accommodation business: a comparison of perceived performance", *Journal of Community Development Research (Humanities and Social Sciences)*, Vol. 15 No. 1, pp. 1-13, doi: [10.14456/jcdr-hs.2022.1](https://doi.org/10.14456/jcdr-hs.2022.1).
- Augustyn, M.M., Elshaer, I.A. and Akamavi, R.K. (2021), "Competing models of quality management and financial performance improvement", *The Service Industries Journal*, Vol. 41 Nos 11-12, pp. 803-831, doi: [10.1080/02642069.2019.1601706](https://doi.org/10.1080/02642069.2019.1601706).
- Avcikurt, C., Altay, H. and Oguzhan Ilban, M. (2011), "Critical success factors for small hotel businesses in Turkey: an exploratory study", *Cornell Hospitality Quarterly*, Vol. 52 No. 2, pp. 153-164, doi: [10.1177/1938965509341288](https://doi.org/10.1177/1938965509341288).
- Beritelli, P. and Schegg, R. (2016), "Maximizing online bookings through a multi-channel-strategy", *International Journal of Contemporary Hospitality Management*, Vol. 28 No. 1, pp. 68-88, doi: [10.1108/IJCHM-07-2014-0326](https://doi.org/10.1108/IJCHM-07-2014-0326).
- Brotherton, B. (2004a), "Critical success factors in UK budget hotel operations", *International Journal of Operations and Production Management*, Vol. 24 No. 9, pp. 944-969, doi: [10.1108/01443570410552135](https://doi.org/10.1108/01443570410552135).
- Brotherton, B. (2004b), "Critical success factors in UK corporate hotels", *The Service Industries Journal*, Vol. 24 No. 3, pp. 19-42, doi: [10.1080/0264206042000247740](https://doi.org/10.1080/0264206042000247740).
- Brotherton, B. and Shaw, J. (1996), "Towards an identification and classification of critical success factors in UK hotels plc", *International Journal of Hospitality Management*, Vol. 15 No. 2, pp. 113-135, doi: [10.1016/0278-4319\(96\)00014-X](https://doi.org/10.1016/0278-4319(96)00014-X).
- Brotherton, B., Heinhuis, E., Miller, K. and Medema, M. (2003), "Critical success factors in UK and Dutch hotels", *Journal of Services Research*, Vol. 2 No. 2, pp. 47-78.
- Buhalis, D. and Kaldis, K. (2008), "eEnabled Internet distribution for small and medium sized hotels: the case of athens", *Tourism Recreation Research*, Vol. 33 No. 1, pp. 67-81, doi: [10.1080/02508281.2008.11081291](https://doi.org/10.1080/02508281.2008.11081291).
- Buhalis, D. and Leung, R. (2018), "Smart hospitality—interconnectivity and interoperability towards an ecosystem", *International Journal of Hospitality Management*, Vol. 71, pp. 41-50, doi: [10.1016/j.ijhm.2017.11.011](https://doi.org/10.1016/j.ijhm.2017.11.011).
- Buhalis, D., Harwood, T., Bogicevic, V., Viglia, G., Beldona, S. and Hofacker, C. (2019), "Technological disruptions in services: lessons from tourism and hospitality", *Journal of Service Management*, Vol. 30 No. 4, pp. 484-506, doi: [10.1108/JOSM-12-2018-0398](https://doi.org/10.1108/JOSM-12-2018-0398).

-
- Castañeda García, J.A., Del Valle Galindo, A. and Martínez Suárez, R. (2018), "The effect of online and offline experiential marketing on brand equity in the hotel sector", *Spanish Journal of Marketing - ESIC*, Vol. 22 No. 1, pp. 22-41, doi: [10.1108/SJME-03-2018-003](https://doi.org/10.1108/SJME-03-2018-003).
- Clarke, V. and Braun, V. (2017), "Thematic analysis", *The Journal of Positive Psychology*, Vol. 12 No. 3, pp. 297-298, doi: [10.1080/17439760.2016.1262613](https://doi.org/10.1080/17439760.2016.1262613).
- Contractor, F.J. and Kundu, S.K. (1998), "Modal choice in a world of alliances: analyzing organizational forms in the international hotel sector", *Journal of International Business Studies*, Vol. 29 No. 2, pp. 325-356, doi: [10.1057/palgrave.jibs.8490039](https://doi.org/10.1057/palgrave.jibs.8490039).
- Creswell, J.W. and Creswell, J.D. (2017), *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, SAGE, Los Angeles.
- Dieguez, T., Ly, N.T., Ferreira, L.P. and da Silva, F.J.G. (2022), "Digital customer network strategy influences on hotel business", in Machado, J., Soares, F., Trojanowska, J. and Ivanov, V. (Eds), *Innovations in Industrial Engineering. icieng 2021. Lecture Notes in Mechanical Engineering*, Springer, Cham, doi: [10.1007/978-3-030-78170-5_36](https://doi.org/10.1007/978-3-030-78170-5_36).
- Dusek, G., Yurova, Y. and Ruppel, C.P. (2015), "Using social media and targeted snowball sampling to survey a hard-to-reach population: a case study", *International Journal of Doctoral Studies*, Vol. 10 No. 1, pp. 279-299, doi: [10.28945/2296](https://doi.org/10.28945/2296).
- Dwyer, L., Gill, A. and Seetaram, N. (2012), *Handbook of Research Methods in Tourism: Quantitative and Qualitative Approaches*, Edward Elgar Publishing, Cheltenham.
- E Silva, S.C. and Oliveira, S.M. (2017), "Partner selection in international joint ventures: a framework for the analysis of factors relevant to the selection of partners", *The Marketing Review*, Vol. 17 No. 2, pp. 199-215, doi: [10.1362/146934717X14909733966182](https://doi.org/10.1362/146934717X14909733966182).
- Elshaer, A.M. and Marzouk, A.M. (2022), "Memorable tourist experiences: the role of smart tourism technologies and hotel innovations", *Tourism Recreation Research*, pp. 1-13, doi: [10.1080/02508281.2022.2027203](https://doi.org/10.1080/02508281.2022.2027203).
- Elsharnouby, T.H. and Elbanna, S. (2021), "Change or perish: examining the role of human capital and dynamic marketing capabilities in the hospitality sector", *Tourism Management*, Vol. 82, 104184, doi: [10.1016/j.tourman.2020.104184](https://doi.org/10.1016/j.tourman.2020.104184).
- Engelbrecht, W.H., Kruger, M. and Saayman, M. (2014), "An analysis of critical success factors in managing the tourist experience at Kruger National Park", *Tourism Review International*, Vol. 17 No. 4, pp. 237-251, doi: [10.3727/154427214X13910101597120](https://doi.org/10.3727/154427214X13910101597120).
- Euromonitor International (2018), *Lodging in Indonesia Country Report*, available at: <http://www.portal.euromonitor.com.ezproxy.lb.polyu.edu.hk/portal/analysis/> (accessed 24 August 2019).
- Fjellström, D., Osarenkhoe, A., Pettersson, T. and Tadesse, D. (2020), "The role of digitalization in SMEs' strategy development: the case of Sweden", in Thrassou, A., Vrontis, D., Weber, Y., Shams, S.M.R. and Tsoukatos, E. (Eds), *The Changing Role of SMEs in Global Business. Palgrave Studies in Cross-Disciplinary Business Research, in Association with EuroMed Academy of Business*, Palgrave Macmillan, Cham. doi: [10.1007/978-3-030-45831-7_4](https://doi.org/10.1007/978-3-030-45831-7_4).
- Fredrick, O.J. (2019), "Hotel standardization and classification system in Kenya: a quality assurance approach", *African Journal of Hospitality, Tourism and Leisure*, Vol. 8 No. 3, pp. 1-22.
- Fuentes-Medina, M.L., Hernández-Estárico, E. and Morini-Marrero, S. (2018), "Study of the critical success factors of emblematic hotels through the analysis of content of online opinions: the case of the Spanish Tourist Paradors", *European Journal of Management and Business Economics*, Vol. 27 No. 1, pp. 42-65, doi: [10.1108/EJMBE-11-2017-0052](https://doi.org/10.1108/EJMBE-11-2017-0052).
- Ge, H., Chen, S. and Chen, Y. (2018), "International alliance of green hotels to reach sustainable competitive advantages", *Sustainability*, Vol. 10 No. 2, p. 573, doi: [10.3390/su10020573](https://doi.org/10.3390/su10020573).
- Geller, A.N. (1985), "Tracking the critical success factors for hotel companies", *Cornell Hotel and Restaurant Administration Quarterly*, Vol. 25 No. 4, pp. 76-81.
- Han, D., Hou, H., Wu, H. and Lai, J.H.K. (2021), "Modelling tourists' acceptance of hotel experience-enhancement smart technologies", *Sustainability*, Vol. 13 No. 8, p. 4462, doi: [10.3390/su13084462](https://doi.org/10.3390/su13084462).

-
- Hua, W., Chan, A. and Mao, Z. (2009), "Critical success factors and customer expectation in budget hotel segment—a case study of China", *Journal of Quality Assurance in Hospitality and Tourism*, Vol. 10 No. 1, pp. 59-74, doi: [10.1080/15280080802713702](https://doi.org/10.1080/15280080802713702).
- Ivanova, M. and Rahimi, R. (2016), "Nature and definition of hotel chain", in Ivanova, M., Ivanov, S. and Vincent, P.M. (Eds), *The Routledge Handbook of Hotel Chain Management*, Routledge, London. doi: [10.4324/9781315752532](https://doi.org/10.4324/9781315752532).
- Kurnia, G. and Sulistiani, P.B. (2019), "Influencing consumer's behavior: perspective of information quality and consumers reviews on Airyrooms", *People: International Journal of Social Sciences*, Vol. 5 No. 1, pp. 254-266, doi: [10.20319/pijss.2019.51.254266](https://doi.org/10.20319/pijss.2019.51.254266).
- Kwortnik, R.J. (2003), "Clarifying 'fuzzy' hospitality-management problems with depth interviews and qualitative analysis", *Cornell Hotel and Restaurant Administration Quarterly*, Vol. 44 No. 2, pp. 117-129, doi: [10.1177/0010880403442011](https://doi.org/10.1177/0010880403442011).
- Law, R., Leung, R., Lo, A., Leung, D. and Fong, L.H.N. (2015), "Distribution channel in hospitality and tourism: revisiting disintermediation from the perspectives of hotels and travel agencies", *International Journal of Contemporary Hospitality Management*, Vol. 27 No. 3, pp. 431-452, doi: [10.1108/IJCHM-11-2013-0498](https://doi.org/10.1108/IJCHM-11-2013-0498).
- Lee, S.M. and Lee, D. (2020), "Untact": a new customer service strategy in the digital age", *Service Business*, Vol. 14 No. 1, pp. 1-22, doi: [10.1007/s11628-019-00408-2](https://doi.org/10.1007/s11628-019-00408-2).
- Lee, K., Madanoglu, M. and Ko, J.-Y. (2013), "Developing a competitive international service strategy: a case of international joint venture in the global service industry", *Journal of Services Marketing*, Vol. 27 No. 3, pp. 245-255, doi: [10.1108/08876041311330735](https://doi.org/10.1108/08876041311330735).
- Lee, S., Lee, K.-S., Chua, B.-L. and Han, H. (2019), "Hotel restaurants' challenges and critical success factors in Klang Valley, Malaysia: the inseparable roles of support centers and revenue streams", *Journal of Quality Assurance in Hospitality and Tourism*, Vol. 20 No. 1, pp. 16-43, doi: [10.1080/1528008X.2018.1483284](https://doi.org/10.1080/1528008X.2018.1483284).
- Lei, S.S.I., Nicolau, J.L. and Wang, D. (2019), "The impact of distribution channels on budget hotel performance", *International Journal of Hospitality Management*, Vol. 81, pp. 141-149, doi: [10.1016/j.ijhm.2019.03.005](https://doi.org/10.1016/j.ijhm.2019.03.005).
- Li, S.C., Wong, M.C. and Luk, S.T. (2006), "The importance and performance of key success factors of international joint venture hotels in China", *Chinese Economy*, Vol. 39 No. 6, pp. 83-94, doi: [10.2753/CES1097-1475390606](https://doi.org/10.2753/CES1097-1475390606).
- Magnini, V.P. (2008), "Practicing effective knowledge sharing in international hotel joint ventures", *International Journal of Hospitality Management*, Vol. 27 No. 2, pp. 249-258, doi: [10.1016/j.ijhm.2007.07.015](https://doi.org/10.1016/j.ijhm.2007.07.015).
- Middleton, V. (1998), "Agenda 2010: SMEs in European tourism: the context and a proposed framework for European action", *The Tourist Review*, Vol. 53 No. 4, pp. 29-37, doi: [10.1108/eb058288](https://doi.org/10.1108/eb058288).
- Mohammad, A.A. (2016), "How can small and medium-sized hotels compete with international hotel chains? Egypt as a case study", *Tourism Review International*, Vol. 20 No. 1, pp. 57-70, doi: [10.3727/154427216X14581596799068](https://doi.org/10.3727/154427216X14581596799068).
- Morrison, A. and Thomas, R. (1999), "The future of small firms in the hospitality industry", *International Journal of Contemporary Hospitality Management*, Vol. 11 No. 4, pp. 148-154, doi: [10.1108/09596119910263531](https://doi.org/10.1108/09596119910263531).
- Nugroho, A.P. and Hati, S.R.H. (2020), "Determinants of repurchase intention and switching intention: analysis of online travel agent, peer-to-peer accommodation, and virtual hotel operator platforms", *Trziste= Market*, Vol. 32 No. 1, pp. 79-96, doi: [10.22598/mt/2020.32.1.79](https://doi.org/10.22598/mt/2020.32.1.79).
- Nunkoo, R., Teeroovengadum, V., Ringle, C.M. and Sunnassee, V. (2020), "Service quality and customer satisfaction: the moderating effects of hotel star rating", *International Journal of Hospitality Management*, Vol. 91, 102414, doi: [10.1016/j.ijhm.2019.102414](https://doi.org/10.1016/j.ijhm.2019.102414).
- Oravel Stays (2018), "OYO partner page", available at: <https://partner.oyorooms.com/id/tnc> (accessed 26 May 2021).

-
- Padilla-Meléndez, A. and Garrido-Moreno, A. (2014), "Customer relationship management in hotels: examining critical success factors", *Current Issues in Tourism*, Vol. 17 No. 5, pp. 387-396, doi: [10.1080/13683500.2013.805734](https://doi.org/10.1080/13683500.2013.805734).
- Paprocki, W. (2017), "Digital economy as an environment for virtual platform operators", *Journal of Management and Financial Sciences*, Vol. 30, pp. 11-26, doi: [10.33119/JMFS.2017.30.1](https://doi.org/10.33119/JMFS.2017.30.1).
- Patton, M.Q. (2014), *Qualitative Research & Evaluation Methods: Integrating Theory and Practice*, SAGE, Los Angeles.
- Pine, R., Qiu Zhang, H. and Qi, P. (2000), "The challenges and opportunities of franchising in China's hotel industry", *International Journal of Contemporary Hospitality Management*, Vol. 12 No. 5, pp. 300-307, doi: [10.1108/09596110010339670](https://doi.org/10.1108/09596110010339670).
- Politis, Y., Litos, C., Grigoroudis, E. and Moustakis, V.S. (2009), "A business excellence model for the hotel sector: implementation to high-class Greek hotels", *Benchmarking: An International Journal*, Vol. 16 No. 4, pp. 462-483, doi: [10.1108/14635770910972414](https://doi.org/10.1108/14635770910972414).
- Prakarsa, G., Nasution, V.M., Ramadhiana, I.N. and Ginanjar, A.R. (2020), "Integration of mobile perceived compatibility, mobile perceived financial resources, and mobile perceived system quality with TAM in virtual hotel operator applications in Indonesia", *International Journal of Global Operations Research*, Vol. 1 No. 2, pp. 62-70, doi: [10.47194/ijgor.v1i2.36](https://doi.org/10.47194/ijgor.v1i2.36).
- Resende, L.M.M.d., Volski, I., Betim, L.M., Carvalho, G.D.G.d., Barros, R.d. and Senger, F.P. (2018), "Critical success factors in cooptation: evidence on a business network", *Industrial Marketing Management*, Vol. 68, pp. 177-187, doi: [10.1016/j.indmarman.2017.10.013](https://doi.org/10.1016/j.indmarman.2017.10.013).
- Russel, J. (2019), "Airbnb confirms stake in India's OYO, sources say it invested \$150M-\$200M", available at: <https://techcrunch.com/2019/04/01/airbnb-oyo-investment/> (accessed 4 December 2019).
- Savin-Baden, M. and Major, C.H. (2010), *New Approaches to Qualitative Research: Wisdom and Uncertainty*, Routledge, Oxon.
- Sharma, T.G., Jain, R., Kapoor, S., Gaur, V. and Roy, A. (2017), *OYO Rooms: Providing Affordable Hotel Stays*, Emerald Emerging Markets Case Studies, Vol. 7 No. 3, pp. 1-26, doi: [10.1108/EEMCS-01-2017-0015](https://doi.org/10.1108/EEMCS-01-2017-0015).
- Smithson, S., Devece, C.A. and Lapiedra, R. (2011), "Online visibility as a source of competitive advantage for small- and medium-sized tourism accommodation enterprises", *The Service Industries Journal*, Vol. 31 No. 10, pp. 1573-1587, doi: [10.1080/02642069.2010.485640](https://doi.org/10.1080/02642069.2010.485640).
- Spencer, J. and Van Zyl, G.A. (2015), "Hotel openings: critical success factors and challenges", *African Journal of Hospitality, Tourism and Leisure*, Vol. 4 No. 2, pp. 1-20.
- Stylos, N., Fotiadis, A.K., Shin, D. and Huan, T.-C.T.C. (2021), "Beyond smart systems adoption: enabling diffusion and assimilation of smartness in hospitality", *International Journal of Hospitality Management*, Vol. 98, 103042, doi: [10.1016/j.ijhm.2021.103042](https://doi.org/10.1016/j.ijhm.2021.103042).
- The Economic Times (2018), "OYO: SoftBank, others book a \$5-billion room for OYO at unicorn club", available at: <https://economictimes.indiatimes.com/small-biz/startups/newsbuzz/oyo-raises-a-1-billion-from-softbank-to-fuel-expansion-plans/articleshow/65946456.cms?from=mdr> (accessed 9 September 2019).
- Van Ginneken, R., Koens, K. and Fricke, J. (2019), "Ownership perceptions in European hotel management agreements", *International Journal of Hospitality & Tourism Administration*, Vol. 20 No. 4, pp. 449-467, doi: [10.1080/15256480.2017.1397586](https://doi.org/10.1080/15256480.2017.1397586).
- Wang, S. and Hung, K. (2015), "Customer perceptions of critical success factors for guest houses", *International Journal of Hospitality Management*, Vol. 48, pp. 92-101, doi: [10.1016/j.ijhm.2015.05.002](https://doi.org/10.1016/j.ijhm.2015.05.002).
- Wang, C.-H., Chen, K.-Y. and Chen, S.-C. (2012), "Total quality management, market orientation and hotel performance: the moderating effects of external environmental factors", *International Journal of Hospitality Management*, Vol. 31 No. 1, pp. 119-129, doi: [10.1016/j.ijhm.2011.03.013](https://doi.org/10.1016/j.ijhm.2011.03.013).

- Wang, Y.-C., Qu, H. and Yang, J. (2019), "The formation of sub-brand love and corporate brand love in hotel brand portfolios", *International Journal of Hospitality Management*, Vol. 77, pp. 375-384, doi: [10.1016/j.ijhm.2018.08.001](https://doi.org/10.1016/j.ijhm.2018.08.001).
- Wiastruti, R.D. and Susilowardhani, E.M. (2017), "Virtual hotel operator: is it disruption for hotel industry?", *Jurnal Hospitality Dan Pariwisata*, Vol. 2 No. 2, pp. 201-215, doi: [10.30813/v2i2.905](https://doi.org/10.30813/v2i2.905).
- Yadegaridehkordi, E., Nilashi, M., Nasir, M.H.N.B.M. and Ibrahim, O. (2018), "Predicting determinants of hotel success and development using Structural Equation Modelling (SEM)-ANFIS method", *Tourism Management*, Vol. 66, pp. 364-386, doi: [10.1016/j.tourman.2017.11.012](https://doi.org/10.1016/j.tourman.2017.11.012).
- Yin, C.H., Goh, E. and Law, R. (2019), "Developing inter-organizational relationships with online travel agencies (OTAs) and the hotel industry", *Journal of Travel and Tourism Marketing*, Vol. 36 No. 4, pp. 428-442, doi: [10.1080/10548408.2019.1568951](https://doi.org/10.1080/10548408.2019.1568951).
- Zhang, H.Q., Ren, L., Shen, H. and Xiao, Q. (2013), "What contributes to the success of Home Inns in China?", *International Journal of Hospitality Management*, Vol. 33, pp. 425-434, doi: [10.1016/j.ijhm.2012.11.002](https://doi.org/10.1016/j.ijhm.2012.11.002).

About the authors

Fajar Kusnadi Kusumah Putra, is Assistant professor in Department of Hospitality Management, NHI Bandung Tourism Polytechnic, Indonesia. He has a Doctoral degree in Hotel and Tourism Management at the School of Hotel and Tourism Management, The Hong Kong Polytechnic University. His research interests include eTourism and hospitality management. Fajar Kusnadi Kusumah Putra is the corresponding author and can be contacted at: fap@stp-bandung.ac.id

Rob Law, PhD, is UMDF Chair Professor of Smart Tourism, in Asia-Pacific Academy of Economics and Management, Department of Integrated Resort and Tourism Management, Faculty of Business Administration, University of Macau. His primary research interests are technology application and information management.