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Readiness of upscale and luxury-branded hotels for digital transformation

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ABSTRACT

Hotels need to go through digital transformation to meet the changing demands of customers in the experience age and stay ahead of both traditional competitors and industry disruptors in an exponentially-evolving competitive environment. This requires hotels to have the right approach to technology, innovation, supported by the right working culture, be data-focused and customer-centric. A qualitative study was done to investigate the readiness of hotels in Asia for digital transformation. The findings, practical implications and future research ideas are presented.

1. Introduction

The current era of digital connectivity, propelling the Fourth Industrial Revolution (Deloitte Touche Tomahtsu Limited, 2018), is characterized by ubiquitously connected mobile devices, enhanced computing power, abundant digital storage capacity, and easy access to digitized information. All of these contribute to exponential change and disruption to society (Schwab, 2015). This phenomenon has altered the ways by which people access information, communicate with one another, buy and sell products, and interact with businesses. This change in consumer behavior has changed customer expectations and significantly affected many industries, including the hospitality industry. As customers transition from the information age into the experience age in a leveled playing field of mobile connectivity (Wadhera, 2016), they look for more than the ability to search and book hotels directly, and expect personalized, differentiated, and unique experiences from their travel service providers through any channel, medium, and device of their choice. This phenomenon has forced travel organizations to become more customer-centric, responsive, and relevant to their customers at every stage of the customer journey because failure to do so has led to losses in market and channel share.

To meet evolving customer expectations, grow market share and retain profit margins, hoteliers have had to defend their digital competitive positioning against not only other hotels but also other players and disruptors in the tourism and accommodation arena. In the hotel industry, distribution by online travel agents (OTAs) now accounts for 70% of the overall online market in Asia Pacific (Hutchison, 2018). The sharing economy has created new competition and travel accommodation selection has become hugely influenced by social media and

travel review channels (Peterson, 2015). Co-working trends have also influenced business events and meeting behaviors. In their Digital Academy, McKinsey Academy (2018) attributed this phenomenon of accelerated change to changes in customer expectations and the low barriers to innovation. For hoteliers, this transition has resulted in increased distribution costs, reduced customer loyalty, and dilution of the value of hotel brands (ReviewPro Guest Intelligence, 2016).

In response, many hotel companies have attempted to recapture channel share through promotional campaigns offering special privileges to customers to book on hotel websites (AccorHotels, 2016; Marriott, 2015). Although some hotel companies have reported a rebound in customer direct bookings, the channel share of OTAs has remained high. In addition, these kinds of campaigns carry a hidden cost because when hotels offer monetary incentives to increase short-term market share without a long-term strategy to strengthen their brand proposition and customer appeal, they end up lowering their margin at the risk of commoditizing their product, further diluting brand and customer loyalty.

What does this mean for hotels? Industry leaders who were interviewed recently by Forbes (Reiss, 2016) discussed customer expectations in the connected marketplace and agreed the travel industry must leverage digital connectivity and deeper customer understanding to craft experiences that consider customers' perspectives to achieve richer engagement. Under these circumstances, hotels must ensure they are applying the right enabling technology to maximize their data assets and increase their customer knowledge for more relevant interactions to attain higher customer satisfaction, loyalty, and usage. This requires the adept use of appropriate technologies to derive insights from existing data to manage customers not only during but also pre-

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and post-stay. Moreover, because changes and disruption could occur instantly and unexpectedly in a digitally connected society, hoteliers need to address not only current competition and issues but be prepared for future changes and threats in the external environment. In view of the economic realities of slimming margins and competitive disruptions, hotel industry players need to know how to leverage new technologies in more innovative ways to remain competitive and regain customer loyalty. This means that to succeed and thrive in the new competitive environment, hotel companies are undergoing digital transformation which leverages digital technologies and requires the transformation of entire organizations and their activities, processes. structure and revenue models to remain relevant and competitive in the marketplace (Matt et al., 2015). Digital transformation is a dynamic process that addresses the interconnectedness and dependencies between and within businesses and functions, thus requiring the preparedness of entire organizations to implement action plans differently in ways made possible by technology (Westerman, 2017). As such, the role of technology in digital transformation goes beyond automation and optimization to help organizations achieve sustainable competitive differentiation through additional value creation (Melian-Gonzalez and Bulchand-Gidumal, 2016).

Previous studies have identified that successful digital transformation requires not just technology but also alignment of strategy and other factors, such as people, culture, mindset, talent development, and leadership (Goran et al., 2017). Westerman (2017) claimed the key to digital transformation was to focus on the transformation aspect rather than the digital aspect, requiring organizational agility in systems, processes, structure, setup and people with the right mindset and culture. Prior studies have shown that critical dimensions for organizations to achieve digital transformation are collaborative culture and behavior, data-driven practices, team members with innovative mindsets and customer-first focus (Buhse, 2015; Kumar et al., 2017). Facing intense competition for channel and market share, hoteliers need to transform their business operations to adapt to the new environment of multi-device mobile Internet connectivity and provide personalized customer experiences to exceed expectations and regain customer loyalty.

Many hotel companies have pushed their hotels to improve their customer management bench-strength, enhance their digital capabilities, and upgrade their customer systems and platforms to leverage data and analytics and re-map customer journeys. The objective is to deploy more customer-centric marketing to differentiate themselves through product and service innovations to achieve customer personalization. For branded hotel companies, customer-centrism requires a strategy developed by the hotel management company's corporate office and supported and executed by the properties under management (Collins and Perret, 2015). Corporate offices are equipped with functional expertise to deploy systems, develop processes, and manage data and analytics for digital transformation. However, limited information is available on the digital culture and practices at property level, and whether these establishments could achieve digital transformation. Thus, a qualitative study was conducted to explore the current situation in several managed hotels of an international hotel management group in terms of technology, innovation, working culture, data, and customer focus to assess whether they are geared for the digital era.

2. Literature review

2.1. Competing in the digital era

Digitization is not a new development for hotels. For over half a century, hotels have been automating operations (Buhalis and Main, 1998) to achieve higher productivity and cost efficiencies and leveraging airline global distribution systems to extend their reach worldwide since the 1950's. By the 1990s, hotels were selling directly to customers through their own websites. When OTAs came about, hotels

welcomed them as additional channels for liquidation of distressed inventory (Ackermann, 2016) until it was apparent that OTAs were gaining channel share and causing hotel distribution costs to rise (TravelClick, 2013-2016). Studies have shown that OTAs are able to win in the distribution war against hotels because they catered to changing customer demands and utilized information technology (IT) to address the total customer journey (Sharara and Liu, 2016). To regain channel share (Ackermann, 2016), hotel groups responded by introducing third-party distribution policies, best rate guarantees and member-book-direct privileges. However, the success of these programs was limited while the third parties succeeded to build robust global travel distribution eco-systems to compete against hotels for channel share. At the same time, previously non-competing platforms such as TripAdvisor and Google are expanding their business models to join the hotel distribution fray. On top of that, disruptors such as Airbnb, HomeAway and onefinestay that leveraged the sharing economy are competing for occupancy share. Further disruption is expected with blockchain and other technological developments (Quinby, 2018). The outcome is seen to be more intense competition for customers and higher costs of promotion and distribution for hotels.

2.2. Customer is king

Digital mobility added complexity as playing fields were levelled while new ways of customer communication opened, allowing hotels and third parties with the right platforms and resources to market directly and cost-effectively to customers (Thakran and Verma, 2013). Today's travelers and travel bookers are digitally savvy. A report conducted in 2014 by a renowned loyalty program consultant, LEK Consulting Company, identified that many consumers were members of more than one hotel, airline, or agent loyalty programs. They were familiar with travel marketing techniques and tended to read travel reviews before making bookings (Ady, 2015). They were adept in ecommerce and made purchases online. Well trained by the fast-moving consumer goods industry, customers expected seamless online-to-offline search and purchase experiences (CMO Council, 2016). They used multiple methods to make hotel bookings through different devices (Bannan and Cohane, 2016). In addition, they were multiple-channel surfers, crossing from hotel direct, to brand voice channels, to hotel websites and OTAs (Verma et al., 2012). Consumers might use one device for searching and booking, and then use different devices and channels to make amendments or cancellations. They expected not only consistent branded experiences and pricing integrity across all channels and devices deployed but they would also favor channels that were the most convenient and effective for them. Travelers who stayed at hotels could be local residents on staycation or tourists from far locations, different time zones and cultures. Savvy customers would carry out transactions in languages and currencies of their choice, made possible by content management and advanced translation technology (Gill and Hadwick, 2015).

To enable choices means businesses should sell in the way customers want to buy (Kanwar, 2016), be it their choice of device, channel, media, timing, and packaging, among other factors. Customers are demanding for businesses to be responsive to their individual needs, provide options within context, deliver to their expectations, provide personalized messaging, suggest tailored offers, and engage with them in their preferred environment (Bram, 2016; Hill, 2016).

A Horwath report (Tutek et al., 2015) presented the top trends affecting the supply side of the hotel industry. The top three trends were 1) increased pace of technological revolution; 2) digital channels, specifically social and mobile; and 3) loyalty-integrated customer experiences based on insight. The report identified technology as gamechanging, affecting the way by which the industry was operating. The leveled playing field has democratized the customer, who has become spoilt for choice. Table 1 is a summary of the digital travel booking characteristics of customers, their expectations, and implications for

 Table 1

 Customer and Booking Characteristics and Implications for Hotels.

Customer and Booking Characteristics	Customer Expectations	Implications: Hotels need to	References:
They are digitally savvy, members of multiple travel loyalty programs, and are familiar with how customer relationship management programs work.	They expect to receive relevant marketing messages based on their profile data, purchase history, and stage in customer life cycle.	have data and the capability to transform that data into information, knowledge, insight, and action for message customization and service delivery, both online and offline.	Seric and Gil-Saura (2012)
management programs work.		have complete pictures of individual customers' profiles and journeys	Hill (2016)
		implement relationship programs backed by customer data and analytics to support segmentation and insight-led marketing to profitably engage and retain loyal customers	InterContinental Hotels Group (2015) and Marriot (2015)
They are avid users of social media and trust travel reviews.	They trust user-generated content, such as travel reviews and friends' comments, more than paid media of hotels. They expect to find information and validation on social channels.	monitor social media closely and invest in positive earned media and manage their properties' online reputation, be it hotel's own postings, third party comments, or reviews.	Ady (2015)
They receive multiple marketing messages from hospitality suppliers every day and are aware of their worth as travel buyers in a crowded and competitive environment.	They expect personal recognition, unique experiences, and one-to-one relationships with their favorite brands at all touchpoints.	need good customer data and insight to manage their expectations and experience fulfilment from pre-stay to during-stay to post- stay to achieve consistency and customer satisfaction	Bram (2016)
		practice contextual marketing in the digital age and move from customization to personalization in messaging and experience creation	Reiss (2016)
		look at the entire customer journey, and not just a few customer touchpoints, to achieve competitive differentiation and reasons for customers to return	Seric and Gil-Saura (2012
		ensure platforms for customer relationship management, communication, servicing, and operations are integrated, so that the same information is shared and acted upon instantaneously, resulting in overall guest satisfaction.	Martin (2016)
They do their own travel search and bookings as and when it is convenient for them.	They expect fast and easy access to information, special rates and offers anytime and anywhere that is convenient to them	manage new and traditional channels and implement tools, processes, and integrated platforms supported by appropriate automation to provide customers with updated and seamless "always-on" experiences	Wadhera (2016)
		leverage technology to identify the best moment to reach the customer to improve rate of conversion	Hill (2016)
		identify and prioritize different service levels to suit different customer expectations and in line with customer values to maximize return for the company.	Beaudin et al. (2016)
hey use many channels.	They expect consistent experiences across different channels.	implement and manage multi-channel content/inventory management and distribution processes and systems to ensure look, feel, and parity in all channels, traditional and new, offline and online.	Rohm et al. (2012)
		execute integrated marketing campaigns that provide a consistent experience in all channels that the customer uses.	Seric and Gil-Saura (2012)
	They will use the channel that is most convenient and effective for them.	stay on top of customer preferences and channel shifts to manage transactional costs and improve profitability.	ReviewPro Guest Intelligence (2016)
		track customer behavior across different channels and understand cross-channel behavior to understand channel effects and attribution.	Criteo (2016)
		develop and improve customer experience and robustness of owned communication and booking channels such as website, social media, voice, and apps.	InterContinental Hotels Group (2015)
			(continued on next po

Table 1 (continued)

Customer and Booking Characteristics	Customer Expectations	Implications: Hotels need to	References:
They use multiple devices.	They expect to access information easily and seamlessly when using multiple devices.	know the characteristics and usage context of each device and implement marketing platforms and procedures that can optimize layouts, designs, and formats according to the devices being deployedprovide consistent customer experience across different devices to reinforce the brand and meet customer expectationstrack customer behavior across devices accurately for proper attribution of marketing results and to enhance customer insight.	ReviewPro Guest Intelligence (2016)
They like to obtain information and make travel bookings by using their preferred language, familiar currencies, protocols, terms, and conditions	They expect customer service to be localized for them (e.g., language, time zones and accessibility).	manage local adaptations through platforms and processes that can accommodate localization without losing consistency, cultural nuances, brand identity, and brand essenceunderstand cultural differences and adapt	Rohm et al. (2012) Beaudin et al. (2016)
		content, formats, processes, and tools for local markets.	beaudin et al. (2010)
		establish cross-cultural emotional connection with global customers through traditional and digital channels.	Gill and Hadwick (2015)

travel marketers.

2.3. Corporate office and hotel relationships

In assessing whether branded hotels are geared for digital transformation, critical areas are the relationship and role differentiation between the corporate offices of the brands and hotel unit-level teams, as well as the implementers of customer and digital strategies in hotels.

Hotel owners sign up with branded hotel management companies for many reasons (Collins and Perret, 2015). A key reason is that branded hotel corporate offices possess management and functional expertise to provide insight, strategic guidance, and leadership for hotel properties under their management (Kunisch et al., 2014). Corporate offices are expected to manage the brands, and leverage scale and platforms. They devise standards and processes, develop strategies, and provide direction to hotels to achieve competitive edge. Hotels in turn need to understand and subscribe to the corporate office's strategic objectives and systems. Both parties must be aligned in their execution to deliver quality standards and customization according to customers' needs and expectations.

When managing a customer journey, the operational team on property is responsible for taking care of the customer during the stay. However, a customer journey is more complex in the current experience era of mobile connectivity, with the property stay being just one stage in a seven-stage customer journey consisting of Dream, Select, Book, Prepare, Stay, Share, and Come Back (AccorHotels, 2016). Failure to manage every stage properly has exposed hotels to competitive forces that have diluted share and profitability. Thus, while the hotel operational team is focused on managing the stay stage, the property sales and marketing (S&M) team is typically tasked with leveraging systems and technology and coordinating between the corporate office and the rest of the property teams to manage customer communications that cover all the other stages of the customer journey.

2.4. Increasing complexity and the need for digital transformation

The complexities faced by hotels in the digital era include 1) volumes of data from many sources, requiring collection, collation, management and processing before utilization for decision making; 2) many additional channels for customer feedback and communications including some that are not controlled directly by the hotel; 3) evolving customer expectations in the new technological environment; and 4) more technologically-savvy third parties competing for customer share

and charging high transactional fees to hotels. This phenomenon has led to commoditization of hotel brands and products, dilution of customer loyalty, and reduction of operating margins.

To regain customer loyalty and channel share in the face of growing complexity in the marketplace, hoteliers must leverage technology and data, and innovate to rebuild customer relationships. This supports the argument that digital business strategies are necessary (Bharadwaj et al., 2013) to drive digital transformation that balance the four dimensions of financial aspects, structural changes, changes in value creation and use of technologies to address products, processes and organizational aspects (Matt et al., 2015). Please refer to Fig. 4.

Further, Hamel and Tennant (2015) identified that the right people and leadership are required as truly innovative companies have employees who can think like entrepreneurial innovators, are aligned in their understanding, knows how to measure success, with leaders who are accountable and processes that are supportive.

A holistic approach is to look at systems, processes and people. Having the right systems is the "what" of digital transformation, to ensure solutions are in place that match the hotels' needs to manage operations, to distribute and to connect with target customers. Right processes are the "how" and need to be seamlessly embedded into standard day-to-day business processes and operations so that the digital toolset becomes part of the way-of-working of users. Agarwal and Prasad (1997) called this the "routinization" of IT innovations. This may require process re-engineering for some companies, and strategic realignment for others (Camison, 2000). Process reengineering requires commitment from corporate senior leadership. If done well, this can help organizations create competitive advantage (Bhatt and Grover, 2005), and be more receptive to continuous changes and improvements. Lastly, with respect to people, it takes both skillset and mindset (Franklin Covey Co., 2016). Skillset can be acquired through training and development and is also part of "how". On the other hand, hotel leadership's strategic orientation and technological mindset are key contributors that form a hotel's culture. Having innovation intentions supported by the right infrastructure and the relevant market influences and context for implementation are important (Dobni, 2008). On the S& M level, marketers need to be aware that digital channels are critical for engagement with today's customers (Mah, 2016). While the role of marketing in its traditional sense has not changed, today's hospitality marketers require a different mindset towards technology and need to be comfortable with data analytics, customization, personalization and optimization to leverage digital platforms to drive effective customer programs (Ellet, 2016). People with the right mindset is critical to

ensure understanding of the "why" behind digital transformation and to provide the impetus for change, the drive for quality and the strive for differentiation. This is affected not just by ease of use and perceived benefits of the technology (Wang and Qualls, 2007) but also subjective norms and other personal attributes like receptiveness to change and open-mindedness to innovation (Legris et al., 2003). What must be tackled sometimes is not just the mindset of the individual players on property but the overall Corporate mindset with respect to the organizational approach to technology, risk taking and customer centrism, so that the entire organization is on board.

2.5. What it takes for a brand-affiliated hotel to be ready for the digital era

From the literature review, digital transformation of brand-affiliated hotels is a complex subject that requires the complementary efforts of three levels of players: the corporate office, hotel management as well as the individual players. All parties involved need to have a common understanding and approach to handle the situation, ensuring that the right systems and processes are in place and that the skillsets and mindsets are aligned to gain new skills and knowledge. In other words, this requires a shared culture between corporate office and hotels.

Specifically, while hotel corporate offices are expected to possess the knowledge, expertise and leadership to guide hotels to meet digital era challenges, the S&M team at the hotel level is the crucial link in the customer relationship management value chain providing the connection between the digital and physical aspects of the customer journey. Success in this area requires the property-level S&M teams to be accountable, to know their role in delivering to customer expectations, and to possess the leadership to execute customer experience improvements for customer-centric marketing.

To make sense of this complex organizational learning situation, Howell's Conscious-Competence model (1982) was chosen to understand how people within these hotels learn new skills to handle new challenges. It was used to diagnose whether players were aware that they needed more knowledge versus their actual level of knowledge. This is important because when people are aware of their ignorance, they are readier to learn and to internalize new knowledge into competencies. The model initially described five sequential stages of learning which were subsequently condensed into a four-stage version (Tung, 1993) as shown in Fig. 1 and described below.

- Stage 1: Unconscious-Incompetence at first, players are not aware of what is required and do not have the competencies to deal with the situation
- Stage 2: Conscious-Incompetence stage players become aware of

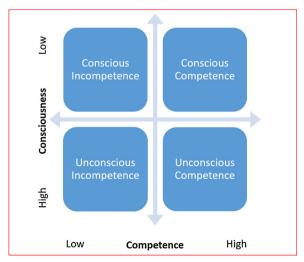


Fig. 1. Conscious-Competence Model. Adapted from Howell (1982).

- what needs to be done but do not know how to deal with the situation
- Stage 3: Conscious-Competence stage at this stage, players are aware of what needs to be done and are making the effort to deal with the situation
- Stage 4: Unconscious-Competence finally, the competencies have become intuitive for the players and the behavior is part of the culture of the company

Examination of the extant literature about digital transformation for various industries showed that there was a lack of scholastic studies on this topic for hotels. The authors not only had to refer to trade publications, commercial sources and research organizations for this paper but also found that while hotel management companies published extensively about their corporate office efforts in their annual reports and executive presentations, there was limited information available on whether front-line players such as hotel-level S&M teams had the right tools, competency, and environment to operate in an increasingly digital landscape. As such, this research attempted to address the lack of insight into the readiness of property-level S&M teams to meet the challenges of the digital era.

3. Methodology

The objective of this study was to draw conclusions on whether the S&M teams in upscale and luxury hotels in Asia were ready to compete for their customer and channel share in the digital era by assessing whether they were geared for successful digital transformation. Key competencies required included:

- a clear understanding of the competitive landscape;
- clarity on their corporate digital strategy and hotel's role;
- possession of the right competencies, tools and resources;
- innovative mindset;
- data-driven systems and processes;
- ability to respond to change; and
- a customer-centric collaborative culture

The research approach was qualitative and descriptive in nature, using in-depth interviews (Sandelowski, 2000). This approach was selected to collect as much data as possible and obtain an accurate representation of the digital skillset, mindset, systems, processes, and organizational situation at the unit-level for branded hotels in China and southeast Asia including Singapore, Indonesia and the Philippines. The objective was to explore technology and digital transformation issues with the sample respondents to see if there were any patterns of behaviors and outcomes that would provide more insight into the situation at the property level.

The sample in this study consisted of 11 hotels from three brands in the upscale to luxury segments. Previous studies found that IT development in high-end hotels tended to be more strategy- and customerled (Keltner et al., 1999). Given that this study aimed to assess the readiness of hoteliers for the experience age, the sample was chosen deliberately from the upper-end of the branded hotel sector that had corporate-led technology and customer communication initiatives. The hotels were managed by the same corporate office applying the same strategy, so differences in the findings would be due to hotel-level factors.

The interviewees consisted of the heads of IT and the Directors of Sales and Marketing (DOSMs) of the properties. These two roles were selected because in the context of hotels leveraging technology to regain channel share from OTAs, the head of IT and the DOSM were the two key players, with the former leading system and platform deployment, and the latter leading the execution of customer communication and engagement strategies. Each respondent was interviewed twice. The first interview was conducted to find out about the state of digital

 Table 2

 Interview Sample – Characteristics of the Respondents.

	China		Outside China	
	S&M	IT	S&M	IT
Locations of four luxury- branded hotels brand				
 Beijing 	√			
 Singapore 			V	√
 Jakarta 			V	
 Manila 			V	
Locations of four upper- upscale-branded hotels				
 Shanghai 	√	$\sqrt{}$		
 Nanjing 	√	$\sqrt{}$		
 Singapore 			V	V
• Manila			Clustered with another hotel	
Locations of three upscale-				
branded hotels				
 Shanghai 	√	$\sqrt{}$		
 Singapore 			V	√
 Singapore 			Clustered with another hotel	Clustered with another hotel
Total: 11 hotels				
15 respondents	4	3	5	3

technology knowledge and usage by the respondents while the second was done to explore explanations, thoughts and rationales about their approach to digital and the competitive environment. Table 2 details the profiles of the respondents.

The reason behind the higher number of S&M vs. IT respondents was that after face-to-face interviews with six representatives from each function, saturation had been reached from the IT perspective but not from the S&M perspective. As such, interviews went on with three more S&M representatives until saturation. A total of 30 interviews were conducted with hotel-level respondents.

Triangulation was provided by four additional in-depth interviews with three regional S&M supervisors of these hotels including a Regional DOSM, a Regional Revenue Director and a Regional Digital Marketing Director plus an Asia-based hospitality IT expert who operated globally.

Interview questions were sent ahead of the actual interviews so that the respondents knew what to expect. Triangulation with the regional supervisors and the IT consultant was performed by in-depth phone and face-to-face interviews after the property-level interviews. All interviews were semi-structured and open-ended to accommodate flexible scenario-based input. Each interview lasted between 60–75 min.

All interviews were recorded, transcribed, collated, coded and analysed by content analysis. As the interviews were conducted in English, Mandarin and Cantonese depending on the spoken language of the respondent, the transcripts were done in the same languages so as not to lose nuances and meaning due to translation.

Totally, three rounds of coding were done using Nvivo. The first round of coding was done directly from the transcripts, without any pre-conceived framework, according to the discussions with the respondents and the ideas and concepts that they brought up. The second round of coding was done according to responses to each interview question to allow the researchers to compare across different respondents. The nodes from the first round and the second round were then compared and condensed to arrive at key categories listed in Table 3 and further re-grouped into organically-generated themes of skillset, mindset, toolset, perceived barriers and needs of the hotels. Coding was then done for a third time according to those key themes. An inductive bottom-up process (Elo and Kyngas, 2008) was used to draw conclusions whether hotels possessed the seven key competencies listed in the beginning of this Section.

4. Result

The interviews with the property-level respondents revealed both the IT and S&M cohorts in the sample had very superficial knowledge on the systems and of each other's challenges in the digital era. Little professional communication and exchange occurred between the two groups.

The IT group poorly understood the role played by the S&M group and the automation needs to overcome the challenges of the digital era. The IT group's focus was on making the installed technology work and not on the desired outcome and deliverables of the applications.

The S&M group was preoccupied primarily with short-term tangible deliverables, such as sales contracts and targets. Although they acknowledged the importance of going digital, they could not articulate the initiatives that must be accomplished and did not know how to maximize the volumes of data at their disposal.

4.1. Key findings

Key findings from hotel-level interviews are shown in Table 3 for easy reference.

The findings from the triangulation process with regional supervisors of the hotels and a regional IT consultant supported the findings from the hotel-level interviews and provided interesting suggestions on measures to be enacted. The triangulation respondents unanimously believed that it was critical to focus on the customer by leveraging data and that the hotels were not ready to compete in the digital era because of skill gaps, lack of dedicated personnel on property, and organizational and structural issues. Although hotels collected volumes of data, they lacked the right culture, while the existence of legacy systems suggested hotels could not convert the data easily into insight for action. A "me-too" culture pervaded, in that hotels were more comfortable to be followers rather than innovators. All triangulation respondents stated that hotel GMs must exercise stronger leadership to realize digital transformation. The regional DOSM stated that as the pace of change was so fast, hotel-level teams could not be expected to compete against OTAs on their own.

Analysis and interpretation of these findings provided answers to the following questions:

- Was there a clear understanding of the digital competitive scene and marketplace? No.
- Was there clarity on the brand's digital and distribution strategy and the role the hotel team should play? No.
- Were the right skillset, knowledge, resources and tools in place to handle the complexity? No.
- Was there a desire and proactive search for innovative solutions?
 No.
- Were data-driven systems and processes implemented to enable insight-based decision-making? No.
- Were the hotels organized for speedy response to change? No.
- Did a collaborative learning culture with a focus on the customer exist? No.

4.2. Synthesis of key findings

To gain insight into the key factors behind the situation, the findings in Table 3 were summarized according to state of technology implementation, innovation, data culture, customer centricity and working culture.

- Hotels' stage of technology implementation based on Sethi and King's (1994) five dimensions of IT implementation: Hotels were at the efficiency/functional level.
- Innovation adoption stage based on Rogers' bell curve (1995): Hotels were a late majority.

 Table 3

 Summary of Key Findings from Hotel Respondents.

Topics	Summary of Findings	Supporting evidence
Level of knowledge about systems and automation tools	- Medium to high level for DOSMs - Low to medium level for IT heads	Only seven out of 15 respondents could provide an accurate picture of the systems that were in place. The IT cohort could not name many of the systems that had been implemented or discuss their fit for operations. The S&M cohort had better knowledge of the systems but were not confident to discuss system pros and cons with the interviewer.
State of technology implementation and perceived objectives for automation	 Focused primarily on boosting efficiency and reducing cost DOSMs would like better measurement of sales return Little focus on the customer journey and customer insight 	All hotels were using a property management system plus a few cloud-based price monitoring, website performance reporting and reputation management systems mandated by the corporate office. Only some hotels had Sales and Catering and Revenue Management systems. All other S&M functions were done manually. There was no customer analytics function and outside of the revenue management function, usage of data was not consistent or systematic. When asked what kind of digital support they needed, DOSMs said they wanted tools to help them "maximize resources, return and support better measurement", "boost market reach and penetration" and "raise appeal and engagement with customers" but were unable to provide specific details of expected functionalities when probed. No one discussed the need for better insight into customer needs and the customer journey.
Hotel actions to compete in the digital era	 Mainly one-way communication with customers Digital marketing efforts spent mainly on website and social media promotions with limited customer/audience engagement All hotels in China used key opinion leaders and bloggers to broaden their reach but little overall effort to increase market penetration 	All hotels did one-way social media postings. None had the staffing or processes for two-way communication with customers. Majority of digital marketing activities were limited to website optimization or paid advertisements. Key opinion leaders were used in China to reach a wider audience but there was little effort placed on personalized content creation.
IT functional focus and support	 IT had an infrastructural and trouble-shooting role Reactive support provided to stakeholders 	When asked about their role, the IT cohort would invariably talk about network infrastructure, security and operational support. One DOSM complained that IT's role was to "maintainbut not to initiate".
Corporate information and communication strategy	 Not known and not clear to property-level team members No one responsible for innovation 	When asked about their corporate strategy, all except three DOSMs said they were not aware of any. One DOSM who claimed to be aware cited their company's distribution strategy as the digital strategy. When asked how the property managed innovation, there was no response.
Technology decision making on property	 By the GM, sometimes in consultation with the Financial Controller and the Director of Operations Decisions made from a financial and procedural perspective rather than a competitive differentiation perspective 	All interviewees pointed out that the GM made technology decisions. Two out of the nine DOSMs mentioned a decision-making team that included only the Financial Controller and the head of Operations. Three DOSMs said that they were sometimes consulted about technology but did not have a decision-making role. Customer issues were seldom used as input for technology issues.
Inter-functional communication and understanding	 Limited communication and interaction between S&M and IT IT had low understanding of S&M issues and concerns. 	One of the IT respondents did not know what an "OTA" was. The terms "best rate guarantee" and "rate parity" were new for four out of six IT respondents. One of the DOSMs said that "right now there isn't that kind of communication" between the two functions that would lead to mutual understanding.
Stakeholder mindset	 Short-term focused Return on investment as decision-making criteria DOSMs preferred to be followers rather than leaders in technology implementation Short-term revenue-delivery mentality, focused on tactics to achieve revenue budget 	All DOSMs felt that technological applications should support revenue delivery and performance measurement but did not mention customer insight. All quoted the need to demonstrate quantifiable return on investment before the GM will consider technology investments. Two DOSMs said that they will recommend new technological applications to the GMs only if some other hotels in their competitive set have already experienced successful adoption. When asked about the DOSMs whom they worked with, one IT respondent from China commented that "if business is OK, S&M is OK" meaning that S&M exclusively focused on how to achieve the hotel's revenue budget and paid little attention to IT matters.
Responsiveness to change	- Risk aversion - Cannot react easily to change	The rigid budgeting cycle was considered a barrier to technology implementations. It was invariably brought up that the hotels' capital expenditure budgets were approved once a year so any proposals for innovation that were not in the budget would have to wait up to a year for the next budgeting session.
Perceived barriers to technological implementations and innovations	 Corporate policy Legacy systems and infrastructure People, structure and skill sets Many competing priorities Government regulations in some cases 	When asked, the respondents invariably mentioned these five items as barriers. Most respondents felt that over-prescriptive corporate policy on hardware and applications made it difficult for hotels to do their own innovation. In China, all the hotels surveyed mentioned the constraints on social media usage due to government policy.
Perceived facilitators for technological implementations and innovations	Corporate OfficeCustomer demandsGM as key driverCompetent users	While corporate policy was considered a barrier, all respondents also acknowledged that when corporate office mandated a certain system, that system would have a high likelihood of being implemented. The other factors were mentioned by most of the respondents.

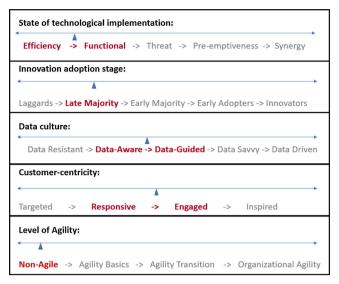


Fig. 2. Summary Situation of Five Key Performance Areas of Assessed Hotels.

- Data maturity level by applying a scale from the Hospitality Sales and Marketing Association International's AsiaConnect 2017 event: Hotels were data-aware and somewhat data-guided but not data-savvy.
- Degree of customer-centricity using Thompson's (2014) model:
 Hotels were between being responsive and being engaged with their customers.
- Level of agility according to Wendler (2014) and McKinsey (De Smet et al., 2017): Hotels were at a non-agile stage that represented their working culture.

Using Howell's (1982) conscious-competence model to describe the DOSMs readiness to compete in the digital era, the researcher would place seven out of the nine DOSMs in the conscious-incompetent quadrant where they knew they needed to do something but were not sure how to do it, with the remaining two in the Conscious-Competent quadrant where they were consciously doing something about it (Figs. 2 and 3).

The findings indicated that the S&M teams in branded upscale/luxury hotels in Asia were not ready for the digital era not just technologically but also in terms of their processes, people, culture, and mindset.

5. Contributions

While there is extant literature discussing opportunities and

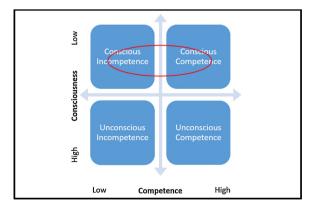


Fig. 3. The Conscious-Competence Model for Digital Readiness of Assessed Hotels. Adapted from Howell (1982).

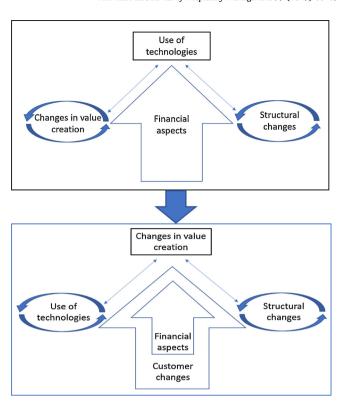


Fig. 4. Digital transformation model. Modified from Matt et al. (2015).

strategies for businesses based on digital technology in general, this paper fills the gap with insight into the present state of digital transformation in hotels and makes recommendations on the way forward.

5.1. Theoretical contribution

With respect to innovation, Matt et al.'s (2015) framework that was mentioned earlier started with the definition of the role of technology and then went on to identify what changes were needed in the organizational structure and value creation model while financial aspects could be both driver as well as constraint. The conclusions from this research found the dimensions identified by Matt et al. to be relevant but would suggest that for the hospitality industry, the key drivers are changes in customer behavior and expectations, resulting in changes in financial aspects which are also sources of constraint, while the desired value creation for the customer is the objective that guides the use of technology and structural changes. See Fig. 4.

5.2. Practical contributions

5.2.1. Digital transformation considerations

Companies that have succeeded in the digital era have many shared characteristics. Kumar et al. (2017) posited that the five pillars for successful digital transformation included having a digital mindset, having a clear definition of the company's digital destiny, investing in digital technology capabilities, managing relevant skills and talents, and evolving the organization. Buhse (2015) discussed the need for organizations to operate like a startup by embracing digital leadership, strategies, customer relationships, products and services, processes, social collaboration, and mindset. McKinsey & Company (McKinsey Implementation, 2018) enumerated the challenges of digital transformation and identified flexible and agile leadership as a critical factor.

In view of the lack of digital readiness of the hotels, the corporate office must take the lead to create and implement plans to produce sustainable change in mindset, skills, systems, and processes. Levering the insight provided by application of the Conscious-Competence model

in Section 4.2, specific actions listed below have been identified to progress the DOSMs through to the stage of Unconscious-Competence by addressing their understanding and motivation, supported by education, processes, structure and tools.

- Better articulation and sharing of strategies and initiatives between corporate offices and hotels;
- Creating an IT and Innovation Steering Committee at each property to promote change;
- Redefining roles, structures, and reporting lines in hotels to break down silos;
- Reviewing the delegation of authority and the decision-making structure, with dedicated resources for digital and analytics on property level;
- Education of senior executives and training of users;
- Development of more user-friendly reports and dashboards;
- Embedding digital system outputs into hotels' daily routines to ensure continued focus and oversight;
- Reviewing and revising property-level reward and recognition structure to support innovation, collaboration, accountability, and agility

The objective is to instil culture, change mindsets, introduce best practices, and sustain desired behaviour through systems, structures and processes.

5.3. Corporate strategic considerations

The change management tactics recommended in Section 5.2.1 to handle digital transformation assumes that future implementations will follow the same approach as in the past, with the corporate office providing the strategy, systems and platform for hotels to use to develop their own digital marketing and customer communication plans. This approach tries to address the cultural, mindset and skillset gap at the hotels by better communication, education and training.

Taking another line of thinking could lead to an alternative approach. Faced with hotels that are not ready and a fast-changing digital and competitive environment, the other approach proposes to move all digital and strategic activities to above-property by creating centralized or clustered digital marketing, customer analytics, and distribution functions, so that hotels can focus solely on operations such as sales and guest servicing on property. There is greater clarity on the desired outcome with this approach, but it may be difficult to execute because hotels of many branded management companies belong to different owners who may not want to participate in centralized functions or share resources with other owners. In addition, removing the competency and learning from hotels will be a dis-incentive for younger hotel staff who may have joined an international hotel to gain exposure to the latest digital technologies. This approach might also reinforce the siloes between hotels vs. the corporate office and reduce collaboration.

In a customer-centric world, a key consideration should be the expectations of the customers of upscale to luxury hotels. Which approach would be more likely to result in customer service and quality that are on-brand yet differentiated and personalized to provide customer delight? The choice between the two approaches would also affect the kind of S&M team that would be suitable for hotel positions in the future. Hotels adopting the first approach would require DOSMs to have a marketing orientation, interpretative intelligence, and be an advocate for digital maturity. Hotels adopting the second approach would likely prefer DOSMs who are more focused on execution, sales, and operations. Another key consideration would be the expectations of the owners of the hotels. Many owners in Asia retained international brands to manage their hotels not only for distribution and network but also for people and talent development in the local markets. The second approach, which removes the need for staff at the hotel level to acquire

technological, analytics, and distribution skills, would fundamentally limit the knowledge transfer and sharing role of the corporate office.

It is worth noting that these approaches are not mutually exclusive within the same company. They may co-exist if the portfolio under management consists of hotels operating in different competitive and labor market situations. To decide on the best approach to address the digital readiness gap, the corporate office, in coordination with the hotels, should assess individual market and hotel situations, identify the value and potential for full independence, vs. full centralization as well as partial clustering and resource sharing of special skills to support the digital marketing and management process. The decision on how much of each function to leave on property vs. centralizing or clustering must be rationalized.

6. Limitations and future research

As an exploratory and qualitative study, this work only covered 11 hotels spanning three brands from one hotel management group in the upscale to luxury sector. Although the findings are expected to be representative of similar branded hotels in the region because the hotel S &M community in this region tended to be very close-knit, rotated jobs frequently and exchanged information readily, these findings should be validated against other brands in the same sector to determine whether different corporate office actions, practices, or culture would result in a different outcome. Similarly, a study could also be conducted on hotels from other sectors to examine how applicable the conclusions are for the industry at large.

The recommendation identified two distinctly different approaches and a number of variations in between that are possible. One of the criteria to consider when choosing amongst these approaches would be the customers' expectations from this segment of hotels. Further research on the expectations of hospitality customers in the digital age to explore differences among different customer groups would provide corporate offices with useful insight for decision-making.

To assist corporate offices to identify training and talent development needs, further research and analysis could be conducted to develop a detailed assessment tool for hotels to use that would cover all factors contributing to digital maturity, including digital marketing health, analytics maturity, agility, customer focus, and collaboration level, to isolate specific behaviors that would expose the gaps in competencies and culture for corporate offices to tackle.

Another area for further research would be to identify and define the key metrics that hospitality S&M teams should use to contribute to success in the digital era. Aside from revenue per available room and gross operating profit, some hotels have used activity levels in content creation, search engine marketing and optimization, digital promotions, and advertising to indicate digital maturity, whereas others have used metrics such as net promoter score, customer satisfaction, engagement, and customer repurchase behavior to indicate success. Still other hotels have developed indices and sophisticated attribution models to calculate the return on investment. An in-depth analysis of what metrics or measurement methods are suitable for hotel businesses would be useful for practitioners' future reference.

Declarations of interest

None.

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