

The analogue disruption of digitalization – the Local bases of the hospitality industry in a Global economy

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Abstract

There are vital challenges for organization undergoing digital transformation, especially those that rely more and more on the ever-evolving platform economy. The hotel industry faces key problems as they need to have the power to control and augment the value chain supported by an ongoing access to accurate data (such as online customer behavior). We discuss on a conceptual level how such disruptive economic changes appear in the analogue and physical practice, at place in hotel organisations. We explore the practice of analogue disruption as it emerges as struggles and discontinuities that may not bring the expected flow of value to the business. This paper aims to examine how analogue disruptions takes place due to the ongoing digitalization in the hotel sector through the platform economy. We here apply a qualitative analysis with interpretative methodologies, that will open for further knowledge and insights on the analogue disruption of digital transformation.

Keywords: digital transformation, disruptive changes, local economy, hospitality industry.

1. Introduction

The global economy is experiencing a digital transformation made possible by advances in digital innovations (Vial, 2019). This is shifting the dynamics of the competitive environment, markets and economic systems, as well as society, in challenging ways. The development of the digital platform economy is a result of this transformation that rearranges social and economic relations (Kenney & Zysman, 2016). The term “platform” simply points to a set of online digital arrangements where algorithms serve to organize and structure economic and social activity (de Reuver et al., 2018). Corporations such as

Amazon, Facebook, Google, and Uber are all based on digital platforms with online structures, or digital ecosystems, that enable a wide range of digital interactions forming new digital social and economic patterns. However, there are still economic activities that have to be analogue and performed locally at a specific site, since as humans we are physical bodies that have to eat and sleep and move in physical space. As human bodies we need to take place and use the physical space live our life (Hägerstrand, 1985). A hotel takes place at a certain place and offers services to meet our human desires to sleep, eat and see new places. In spite of this notion of being a place-based service the hotel industry is one of the sectors that has taken up the digital transformation most extensively and there are several platforms, e.g. Airbnb, that are redefining how services are marketed and sold, which changes the relationship to customers and reframes the industry, with a resulting need to analyze the analogue disruption of digitalization. Almost most hotels have on-line booking-systems, digital customer relation and there are several on-line review systems for customers and potential guests. The hotel businesses are definitely embedded into a digital transformed organization, but there are also analogue disruptions that has to be further explored, to be more sustainable managed. This paper discusses such disruptive economic changes and how they appear in the physical and place-based hotel industry. The paper illustrates analogue disruptions as when third-party platforms have rearranged the industry, created new values and disrupted business models. We will here argue that the analogue disruption of digitalization in the hotel industry, are challenges the potential of digitalization, since it reframes management and leadership when the firms regain control and value as well as retain relationships to guests, new stakeholders and the local as well as the global economy.

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In order to provide managerial guidance for In order to provide managerial guidance for digital transformation, we must increase our understanding of how firms can gain a sustainable competitive advantage. There are a need for increased understanding of businesses' use of big data, strategies, and digital business models to understand consumer choices and behavior and thus to gain competitive advantage [5] (Manika et al., 2015), but such knowledge cannot be dislocated from the physical places and local processes where the hotel services are provided. Thus, we need to reframe the hotel industry's role in the new platform economy, the disruptions it brings and the value chain.

1.1 Aim, Research Questions

The aim of this paper is to discuss and open for knowledge for research and practice in the disruptive economy through case studies and interpretative analyses that reframe the analogue disruption of digitalization in the hotel industry. The overall research question is: How and why does the disruptive economy reframe value chains and business models in the hotel industry? Consequently, the study has three interrelated objectives: Hereby the main contributions of this paper will be a response recent calls (cf. Mikalef et al., 2018; Stylos & Zwiigelaar, 2019; de Reuver et al., 2018) for more empirical research on the evolvement of new business models and value created by big data within specific business ecosystems such as the hotel industry. Our response is to show how such business models of digital transformation also have analogue disruptions. The study also contributes to existing discussions on digital transformation by taking a multidisciplinary focus. Due to the context of the hotel industry, we also emphasize the time-spatial dis-embeddedness in the core services offered by hotels. By discussion the interplay of the digital transformation and analogue disruption as a intangible approach and through practical illustrations gained through long-term field studies in close interplay with actors in the industry.

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2. Background

The hotel industry is now set in a new economic context where several well-known digital platforms such as Airbnb or TripAdvisor have heavily "disrupted" the hotel industry, its competition, business models and value chains (Sigala, 2019). As a result, the hotel industry has become boundary-less, a highly interconnected and networked industry where the traditional industrial ecosystem and market area has been extended. A consequence of the platform economy is that firms and consumers increasingly create large volumes of data ("big data") to improve their decision-making processes and co-create value (Mariani et al., 2018; Pauleen & Wang, 2017). These data are the basics for a digital transformation of the service management approach. A predominant view of big data is that it drives better insights into business problems, especially if big data analytics is combined with AI techniques, which reduce manual, labor intensive burdens and increase speed. However, people and management still play a vital role in big data analytics, to grasp information about circumstances not yet embedded in the big data algorithms, changing power relations and structures in the extended business ecosystem (de Reuver et al., 2018). It allows hotel organizations to regain control over their relationship with hotel guests as well as important data related to the guest journey and value chain. Data and information may be time-related as well as context-dependent since data will be collected over a long period of time, and with an analogue disruption "caused by" the actual service delivery, i.e., the hotel stay and its place-based services. Leadership and management capabilities are supposed to include and consider conceptual constraints due to the non-

digital service delivery and thus combine big data-driven decisions with contextual knowledge of analogue character. Traditionally, service has to a great extent been practiced in a physical environment, due to the nature of the hotel stay (Stylos et al., 2021). In order to “consume” the actual hotel “product,” the guest needs to visit the hotel and sleep in a physical bed. Hence, the hotel industry is a very context-dependent industry and requires real-time dynamic information to optimize business performance and customer experiences (Sigala, 2021, Stylos et al., 2019) . Hence, the essential “product” and service offered by the hotel cannot be digitalized. The digital transformation of the hotel industry has therefore created a complex business ecosystem which is based on a variety of operations, that includes both analogue and digital activities which we aim to study. Digitalization has extended the business process, so the episode of staying at the hotel is just one stage in a seven-stage customer journey consisting of Dream, Select, Book, Prepare, Stay, Share, and Come Back (AccorHotels, 2016). Hereby the hotels lose control of several of these stages e.g. due to the loss of data and relationships with the guests, and failure to manage every stage properly has exposed hotels to competitive forces that have taken a big share of the hotels’ profitability (Sigala & Gretzel, 2017). However, as digitalization of delivery channels and its impact on firms’ business models represent relatively new phenomena, we know very little about how hotel organizations act/manage digital disruption in order to *retain* relations and knowledge about their guests and how business models of hotel organizations evolve over time as they adapt new technologies and adjust their business models to the new environment.

3. Methodology

Even if this is a mainly conceptual paper making a more theoretical argument, it builds on a long-term and still on-going inter-active research journey (Högberg, 2018; Högberg, 2021, Högberg & Willermark, 2022) in relation to digital transformation of the hotel sector. Thus, we will here describe this research setting and the hotel business and context of the field studies. In addition, we discuss show the more interdisciplinary discussion and conceptualization of this key argument has emerged.

3.1 Research setting and business context

This study focuses on hotel organizations that are challenged by the global platform economy, as their traditional strategy does not line up with digitally enhanced physical components.

Through a long-term field work and trust within the research setting the team has been given access to rich data about *two international hotel chains*. Here an exploratory qualitative case study design was adopted. This was because it provides tools to understand a contemporary phenomenon in a real-life context and how and why the responses and digital transformation process emerged and unfolded as they did. Two large, international hotel chains were chosen because the sites offered an opportunity to investigate digital transformation and digital strategies in situ in an incumbent firm in a traditional sector surrounded by a complex digital ecosystem. Our first case study, describes the digital transformation of 14 hotels within an international hotel chain with hotels all over the world between 2013–2021 and the second case study, similarly describes the digital transformation of seven hotels in a European hotel chain between 2017–2022. In terms of the research interests in the present paper, the responses to disruptive platform economy from the two case studies are described (Högberg, 2018; Högberg & Willermark, 2021).

Hence, the focus is to describe the reframing of the industry over time, not to offer a complete account of either effectiveness or success. Rather, the purpose of the multiple case description is to describe variations in retaining, reframing and regaining business value in relation to the disruptive platform economy.

3.2 Data collection

In this paper we use several filed studies in hotel organizations to ground and illustrate the overall argument of the analogue disruption. We here use the empirical impacts to enabled the integration of the conceptual approach into perspectives of multiple actors and their diverse perceptions, experiences, and actions along with the analysis of the digitalization transformation process. The empirical material consists of what we here present as two case studies. The conceptual argument builds on a common interpretation generated based on results in both case studies.

An interpretive case study approach (Yin, 2012; Walsham, 2006) is applied to observe and collect data. In Case 1, data collection took place over eight years (2013–2022), and in Case 2 over five years. (2017–2022). Multiple sources of data were used including interviews, observations (at the workplace and online), and written documents. In total, 117 interviews were conducted, including 36 follow-up interviews. All respondents are employees who work at different positions within the hotel organizations, such as hotel manager, marketing manager, or sales manager.

Herby, we strived to gain a more general and comprehensive picture of how digitalization changes daily practices in the hotel business. Thus respondents were recruited with the objective to get a spread of respondents and their roles in their organizations. The ongoing process of responding to the digitalization of the hospitality industry constituted the focus of the interviews and were discussed from several perspectives.

The interviews lasted between 45–90 minutes. At first, the interviews were guided by open-ended questions to proceed to more tailored questions for each respondent. The open-ended part of the interviews included questions on the respondents' background, e.g., education, private use of technology, history at the company, and job description. The more tailored part of the interview focused on the hotel's particular change and transformation, such as routines, their interpretations of its value and use, learning, and challenges experienced induced by disruptive digital innovations.

Based on the first rounds of analyses and interpretations we went back to 36 of the key informants and conducted follow-up interviews. These related to previous interviews and addressed organizational changes related to the digital disruptions and following transformations. Here we also referred back to both the general impression from the own organization to comparisons with the other case. These interviews were relevant for the argument of analogue disruption as presented here.

Additionally, workplace observations were conducted, to contextualize the other forms of material and to give a hands-on experience of how processes of services management were reframed by digital transformation. The observations were carried out between 2013–2022 and focused on the work related to the digitalization of the hospitality industry. Online observations of work tasks related to digital platforms were also conducted to identify how the transformation emerged over time.

In total the field works and related analyses that has been conducted during the project has identified and opened for a discussion of the analogue grounding of the hotel services that interrupts the digital transformation in several ways.

3.3 Analysis

The data analysis process in former studies of the material (author references to be added in final version) was characterized by exploratory approaches and was thus not initially guided by any theoretical lens. Instead, the analysis of the data was guided by the objective of studying the organizations' responses

to disruptive platform economy and its effects on business value chains and business models. Digital disruptions were identified together with the organizational responses to them for example new technology usage, the need for new skills, and the emergence of new organizational structures. The analysis was carried out through an iterative process including three major steps.

The *first step* involved getting an overview of the large amount of data and creating a chronological timeline of the organizational digital transformation during 2013–2021. An open coding process was applied (Strauss & Corbin, 1990), which resulted in numerous empirical codes. At this stage, a total of eight responses were identified. The *second step* focused on selecting relevant episodes and quotes representing the digital transformation and the data was structured into categories that focused on the hotel organizations responses. The *third step* involved a detailed write-up of the two case studies, and they were compared to avoid overlaps.

3.4 Conceptualization

The main argument guiding this paper is formed at the intersection of research on the digital transformation and the geographical and spatial grounding of processes. The field works and former analyses have here been contrasted to the time-geographical approach, to identify and challenge the analogue disruption of the digital transformation of hotel industries.

This conceptual framing is based in the almost ontological framing of time geography (Hägerstrand, 1985; Ellegård, 2018). It has been seen as an integrative ontological framework and visual language in which space and time are basic dimensions of analysis of dynamic processes and as such it has a flexibility to be applied to analyze and conceptualize almost any process in time-space (Lenntorp, 1999). Thrift and Pred (1981) argued that time-geography is not just a model of constraints of where and when actors and artefacts can move in time-space. Instead, they argued that it is a flexible and evolving approach to describe, understand, think about, and interpretate reality that can complement a wide variety of theories and research methods.

Here we are guided by this approach when re-using the field studies of the digital transformation of the hotel sector. The way of thinking about time-spatial changes leverages our visualization of the process in time space. Hereby we can identify and discuss the analogue disruption and make the physical time space.

4. State-of-the-art – At the Crossroad of the analogue interruption of digital transformation

When forming a conceptual argumentation, as the physical disruption of the digital transformation, we cannot use a theoretical framework for the analysis. Thus, earlier research in the field is rather used as a reflection ground to which we later will relate and mirror our arguments. This section reviews a present some key readings that in the hospitality field that we consider as related to our conceptual argument.

4.1 Disrupted Economy at the Intersection of Digital and Analogue Transformations

The persistent development of digital technologies, such as artificial intelligence, block chain, internet-of-things and robotics, are projected to have far-reaching effects on business (Ng & Wakenshaw, 2017). Not only has the competition become more global, but the intensity has also increased as big, information-rich firms dominate numerous industries. Such market disruptions have affected many industries, with Spotify extensively changing the music industry, Netflix disrupting the TV and film industry, and Booking.com and Airbnb fundamentally changing the hotel industry (Verhoef et al., 2021).

Earlier research on digital change has received most attention within specific business disciplines. Furthermore, marketing researchers have essentially focused on digital marketing and social media marketing and its effects on e-word of mouth (cf. Kannan & Li, 2017) but also on the development of omni-channels. In the information systems research field, scholars have traditionally focused on technical developments and innovations regarding implementation and use of digital technologies and its effects on business value (e.g., Nambisan et al., 2017). However, there has been little multidisciplinary discussion of digital transformation (Verhoef et al., 2021; Haenlein, 2021). Hence, a multidisciplinary discussion is required, given that digital transformation is multidisciplinary by nature, as it involves changes in strategy, organization, information technology, supply chains, business models and value creation.

4.2 Digitalization of the hotel industry

Within the hotel industry, the disruptions induced by digitalization can be categorized into three areas: (i) new competitors have entered the market as corporations within the platform economy like Airbnb and affect hotel guests' behaviours; (ii) social media platforms and rating platforms such as TripAdvisor have changed how

customers interact with hotels and change power relations between the customers and the hotels (Sigala & Gretzel, 2017); and (iii) third-party platforms like Booking.com selling hotel rooms have had a severe impact on the industry, creating an asymmetrical power relationship with the hotels where the third-party platforms profit from selling hotel rooms. Individual hotels have lost their relationship with their own guests since the platforms handle the booking. In addition, the hotels also lose access to data about their own guests, which could otherwise be used to improve service and give added value to both the hotels and the guests (Buhalis et al., 2019). As a result, digital disruptions, like third-party platforms, also change business models as firms have to adapt their business to a new environment (Lynn et al., 2020). Furthermore, digital disruptions have also come to rearrange service encounters that traditionally to a great extent have taken place in a physical, hotel environment. Recent research on service encounters does not refer to distinct moments where customers interact with a concrete service interface. Instead, encounters are described as integration of people (i.e., employees, other customers), the physical environment, service processes and technology (Buhalis et al., 2019). As such, service encounters also encompass customer interaction with organizational elements other than human actors such as self-service technologies. These encounters range from simple dyadic interactions to complex interactions that bring together multiple entities (human and nonhuman) through various interfaces. The service encounters entail human-to-human, human-to-technology and technology-to-technology interactions that are intertwined and interdependent (Nicolini et al., 2003). As part of this development, the service exchange as well as value co-creation, value chains and ecosystems have disrupted traditional service-dominant logics (Vargo & Lusch, 2017). This also calls for a discussion about the tradition of often discussing the "good" service encounter in singular, instead of in plural, that is, the service logic should be studied as dependent on the specific context in which it is performed and studied (cf. Campbell et al., 2013) and not as a universal, one-size-fits-all concept.

4.3 Business Models and Big Data

Due to these new digital technologies, global competition is changing dramatically. Remarkably, changes in firm valuations intensely reflect this shift (Verhoef et al., 2021). Business models are closely linked to the concept of value as they traditionally define the foundation of how an organization creates, delivers and captures value (Baber et al., 2019). This includes the need for new business models and new business logic in order to create and capture value (Pagani & Pardo, 2017).

Hence, business model innovation affects the whole organization and its products and services and differs from improvements of simple business processes that do not change either the sources of value creation or the existing business model. Recent research suggests that this transformation affects the whole company and its ways of doing business but goes beyond digitalization, as the changing of simple organizational processes and tasks are affected as well (Sigala, 2019). Business models have gained increasing attention among scholars and practitioners in recent years (Foss and Saebi, 2017), but research on business models in the hospitality industry remains scarce and thus also fails to address its elements and typology. Although innovation is of great importance for hospitality firms' business growth (Thomas & Wood, 2014) and competitiveness (Pikkemaat & Peters, 2006), the role of business models related to digital disruptions has, with some exceptions (Bogers & Jensen, 2017), mostly been neglected. One exception is Cheah et al. (2018), who discuss that by developing their business models, hospitality firms can generate a sustainable competitive advantage. In addition, consumer behavior is changing as a response to the digital revolution. Market figures show that consumers are shifting their purchases to online stores, and digital devices have an important role in the customer journey affecting both online and offline sales (Kannan et al., 2019). With the help of new search and social media tools, consumers have become more connected, informed, empowered, and active (Verhoef et al., 2017). Every year consumers and devices generate increasingly enormous amounts of data (Pauleen and Wang, 2017). This development will, and already is, reshaping conditions for existing industries and organizations with major implications for how work and workplaces should be organized. Other challenges include leadership, value creation and strategic decisions. The online organizational as well as guest activities produce corresponding big data transactions, such as webpage visiting data, web search data, online data for bookings, and internal databases on revenue management (Guillet, 2020). Therefore, they can contribute to a better understanding of tourist decision making and to improve organizational performance. Big data usefulness has been acknowledged widely for creating effective customer targeting and service delivery in the hotel industry (e.g Mariani et al., 2019). Information flows are nothing new when it comes to decision-making, organizational performance and strategy. However, the development of the platform economy and the subsequent evolution of big data reintroduced the key role of time in decision-making processes (Buhalis & Sinarta, 2019). It is not the big data that transforms the business, but the organization

around the use of big data and the management that embeds data analytics rather than hospitality practices at the core. Big data has been described as a game changer in business intelligence, particularly in volatile, dynamic and time-sensitive industries, such as the hotel industry, where a high degree of mobility and collaboration from multiple stakeholders is required (Stylos et al., 2021). However, organizations are challenged in identifying and better utilizing available data from various sources, to optimize decisionmaking processes for dynamic applications. A review of research on big data and the hotel industry reveals that to date big data has not been implemented systematically into hotel organizations to be used strategically to create value across the firms (Sigala, 2019). This is either due to a lack of analytical skills by employees to navigate its use and interpretation (Stylos et al., 2021), or a result of managerial failure to develop integrated approaches to deal with customers and their needs (Hartmann et al., 2016). Nonetheless, big data cannot create strategic value automatically, but rather by applying holistic understanding of stakeholders' involvement in shaping tourism-related services alongside Industry 4.0 applications within a big data multidimensional context (Sigala, 2019).

To conclude this opens for three lines of argumentation regarding the analogue disruption. Firstly, the digital economy is supposed to be digital, agile and without borders. However, most economic activities still have to have a physical connotation and thereby be based in a specific location – a place.

Secondly, the specific case of the hotel industry shows how the location of the services is what is sold. The consumer has to reach the location of the hotel. Thirdly, the big data generated by consumers digital activities changes how knowledge on customers behavior is generated and used. The ownership of the knowledge built on such data also changes the power of the stakeholders in the business and the local hotel.

5. Illustrative cases from the analogue interruption of digital transformation

Above the analogue interruption of digital transformation was seen through earlier research that in the field approaching similar challenges. It showed that the interruption is noticed but not really addressed in earlier research. To use the metaphor of the cross-road – both roads are identified but there is no intersection between them.

That is way we will now turn to discuss the analogue interruption of digital transformation through two principal cases. These meta-cases are formed based on extensive field studies. But here the

cases are mirrored in relation to the argument of the analogue disruption of the digital transformation, thus the cases are not analyzed as single cases but instead used to argue for and illustrate our main argument.

Here we will use some of the data generated in the field studies and make up illustrations regarding the booking stage of the hotel services and the checking procedure at the hotel.

5.1 The on-line booking platforms as an analogue disruption of digital transformation

The lessons learned from the field works illustrates how digital platforms such as Booking.com and TripAdvisor have taken over large market shares in the hospitality industry. The respondents we have meet in several different settings commonly describe that there are changed values for the guest, but also highly disrupted relationships between the guests and the service providers.

Before the digital disruption of the hotel industry the hotel organizations managed bookings and communication with their guests and hence owned the relationship. That is, the hotel was involved from the beginning of the booking process throughout the check-out. If the customer had a problem with the booking or questions, they contacted the hotel directly. Any information about the guest such as earlier stays at the hotel or requests were saved in the hotels guest relation-system and used do create a better experience for the guest. One manager says:

We used to be very close to our guests. Can you imagine, that only 10, 15 years ago we used faxes when we communicated with guests, or the phone. That created a very close relationship and gave us [the hotel] lots of information. I mean if I have information about the guest I can give them the best experience, right?

With the introduction of the digital platforms, the data illustrates that the hotels lost control of both the guest relationship as well as valuable information about the guest. One major disruption caused by the platforms is that the guests book their hotel room on the platform, and not on the hotel website. This argument has been frequently raised by managers and front-line staff in all the settings of our on-going studies. Therefore, all information about the guest is owned by the platform and not the guest.

Hence, when the guest arrives at the hotel, the hotel employees have no information whatsoever about the guest. That is, they don't know if the guest has stayed at the hotel before, or if it is a regular guest. The hotels are therefore lacking information that are

usually used to create value to the guest and build long-lasting relationships, the local knowledge and the relations are disrupted. One of the managers explained:

We don't know anything about the guest that book on e.g. Booking.com. We get an email from them [the platform] and that's it. However, when the guest arrives, they always think that we manage the booking and their payment, but we don't. If there is a problem with the booking, the guest believe we are the ones who should solve it, but we can't.

This argument is far from unique and raised in similar versions frequently in during our field studies. It shows how that the guests do not separate the physical hotel where they will stay, and rest their body overnight in a night and have a meal or two, from the platform-provider that is located in a completely different setting in a completely different business model and approach.

The data also illustrates that the disruption caused by the platforms have put a lot of emphasis on big data analysis. This has created a need for new departments and positions that are distanced from the hotels. One sales manager said:

We measure everything and tries to understand how the guests journey from thinking about booking to the actual booking and the stay here with us can look like. But most of all, we are interested in understanding the relationship and how we can keep the guest relationship.

In this new business environment where the digital platforms and the physical hotel, where we can find the beds, are dis-connected the communication has bridge the divide from the digital transformed platforms and the analog location of the hotel. This disruption is the key challenge for the sales managers in public relations, communication and even rhetoric of the business models.

5.2 The checking in procedure as an analogue disruption of digital transformation

When the guest has booked on-line often by using a third-party platform, they have to find an check-in at the hotel at its real and physical location. Our data of the checking-ing process clearly shows that the socially negotiated routines and norms that creates value to the guests has been disrupted by digitalization.

Traditionally hotels have had an analogue check-in-process. That process starts when the guest arrives

at the hotel. Most hotel guests are familiar with the routines involved in a check in-process; our data shows that the analogue check-in process is a routinized procedure. The guests know that to check in and get their key to the room, they need to approach the front desk, introduce themselves by name and meet up with the front-line professional behind the desk.

During this analogue check-in, the back-office computer systems technology is used as a tool to facilitate the hospitality practice and service provided by the front-line professionals. It can provide them with information about the guest or allow them to add information about the guest. However, the digitalization of the industry has caused disruption in these routines for example due to the digital check-in stations used by many hotels. Our field studies reveal that due to that the hotels want to create a long-lasting relationship with their guest, they encourage the guest to use their own digital devices, such as apps and websites, and to check-in online or using digital check-in stations at the hotel.

In the digital check-in procedure, the guest meets a computer, instead of a human employee, in their encounter with the hotel. The observation at the hotels revealed that many hotels have re-redesigned their lobbies, in order to create a new customer behavior. The guests are thereby supposed to interact with a digital device and gain an impression of hospitality by a computer or often a tablet. With the use of these self-service stations, the roles and functions of the front-line professionals have also changed. From having a role behind the front-line desk, using specific welcoming phrases, procedures and routines, the front-line professionals' role can be better described as a host than as a receptionist. Hence, the digitalization has disrupted both routines, competence, and value creation. One guest-relation manager said:

Our industry has always relied on good, personal service. That is what we do, and it is what we are good at. We love to give our guests a really good and personalized service and that is also what creates long relationships. (...) With all the new technologies, we lose contact with our guests, we don't meet them when they book, or when they check in.

This shows there is a clear analogue disruption of the checking-in procedure when it is digitalized. The checking-in procedure, that is almost a ritual, has been seen as critical situation for the hospitality of the hotel and giving the guest their first welcoming impression but now it is lost in the digital translation of data.

Thus, the digitalization of the checking-in process disembeds the service providers, the guests, and the

local impression of the hotel. The value of the services is more related to the digital standardized framing than the local front-desk hospitality.

6. Discussion

6.1 Theoretical contributions

The present study has focused on how and why the disruptive economy reframe value chains and business models in the hotel industry. By mapping the digital transformation in the hotel industry caused by the disruptive platform economy the paper contributes with empirical as well as an increased theoretical contribution on the subject. As suggested by earlier research (cf. Sigala and Gretze, 2017), the results indicates that the platform economy have created a complex business ecosystem that heavily disrupts existing hotel operations and routines as well as guests travel behaviors (Sigala, 2019) and decision making (Buhalis and Sinarta, 2019).

Due to the changes in the guests travel behaviour such as booking and payment on digital platforms the hotels was enforced to change their business models and processes. This to regain both information and relevant data about guests and also retain the relationship with guests and increase the guests value process (Buhalis and Sinarta, 2019). Hereby the results confirm that the hotels lose control of several of these stages e.g. due to the loss of data and relationships with the guests, and failure to manage every stage properly has exposed hotels to competitive forces that have taken a big share of the hotels' profitability (Sigala and Gretze, 2017). The results also illustrate how the management and leadership want to retain by using technologies in order to act upon disruptions of the industry with respect to relationships to guests, new stakeholders and local as well as global economy. One way of doing this has been to balance the human versus digital service encounters (Buhalis et al., 2019) and the industry has been forced to reframe what should be interpreted as "good service" (Campbell et al., 2017).

This involves using big data as support for understanding and reframing value chains for guests (Pagani and Cardo, 2017). It also involves adapting their business model in order to increase value for the guests, but also to regain control over the guests travel and relevant data and information that can be used as a strategic tool to increase the guest experiences. Hence, the managers focus has shifted from a human-centric perspective where the human service encounters (Nicolini et al., 2003) have been emphasized to a technology-centric perspective where

big data and digital behavior have become crucial to survive in the disrupted hotel industry. The present study hence reframes theoretical concepts and approaches from an interdisciplinary, collaborative analysis. Hereby, we also answer the call for research that takes an interdisciplinary approach and reframes our theoretical understanding of the analogue disruption of digital transformation in the hotel industry caused by the disruptive platform economy (de Reuver et al., 2018, Sigala, 2019).

6.2 Practical contributions

This paper contributes to the area of digital transformation in the hotel industry. The research contribution is of interest for managers and (hotel) organizers striving to respond to the changes created by the disruptive digital platforms. The empirical illustration of the efforts to retain and regain control over the value process and business models can serve as a reference for other industries.

6.3 Limitations and future directions

The present study has limitations that should be noted, and that can serve as future research. First, the empirical context is limited to two cases in one industry and hence information system researchers are encouraged to direct research into this area and make their contribution towards other industries. Second, the present study has focused on contributing by illustration the rich data of a digital transformation process, however, future studies should also focus on developing appropriate multi-theoretical models to analyze digital transformation processes. There is need to further elaborate on the implication of the analogue disruption and integrate into models for management and leadership in the digital transformation both in the hospitality industry and in other settings. Hence, we encourage future research to research how the hospitality industry reframes existing organizational processes, value chains and business models. Future research can gain from combining multiple methodological approaches to analyze decision making based on big data.

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