



Transient price setting in the era of automated systems: the ‘hands-on’ hotel general manager lives on!

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Received: 23 June 2023 / Accepted: 29 September 2023 / Published online: 7 November 2023
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Abstract

Hotel pricing discussions seem to be increasingly dominated by automated revenue management and pricing systems without considering human interaction. Using grounded theory, this paper foregrounds the voice of twenty managers and exposes the complexities and realities of their involvement in price decision-making. A hybrid price decision-making process was discovered where the hotel general manager remains in control despite automation, due to their *modus operandi* to control the performance of their hotel by using their local market and customer knowledge in the pricing process. This indicates that for revenue management at hotel unit level there is an often-unseen gap between theory and practice.

Keywords Hotel general managers · Revenue management · Data · Prices · Decision-making · Revenue systems

Introduction

Discussion around hotel revenue management continues to be dominated by new technological advancements, in particular the ongoing evolution of automated revenue management systems. These systems can now automatically and dynamically adjust room prices in response to subtle changes in demand patterns and consumer behaviour using complex algorithms potentially leading to transient price decisions being made without manager intervention (Alrawadieh et al. 2021). Transient prices, those charged to individuals rather than groups or those with specially negotiated rates, tend to drive revenue growth, when on high demand nights setting the correct transient price for the last few remaining rooms is crucial to maximising RevPAR (revenue per available room) and consequently profit. It is widely accepted that hotel general managers are responsible for delivering profit for their hotel unit (Bharwani and Talib 2017; Hodari et al. 2017) and are likely to seek influence over decisions that have a direct impact on financial performance (Manoharan and Singal 2019). However, their involvement in transient

price decision-making and how they interact with the data generated by automated revenue systems are far less clear in practice (Murimi et al. 2021). This is despite contests to the notion that artificial intelligence deals more effectively with uncertainty and change than humans (Yeoman 2021) and transient pricing involves constant variation. This paper describes the subtleties of these human interactions with automated systems and uncovers a process where traditional human decision-making based on informal data is prioritised over “big data” with the hotel general manager acting as the key conduit in a hybrid decision-making process. The result is that the hotel general manager’s role in transient pricing remains highly significant despite the technological disruptions witnessed in the field of revenue management over the last two decades. These findings offer original insights into the realities of the hotel pricing process which will be of equal value for both academics and industry.

Literature review

The development of hotel revenue management

The starting point for contemporary hotel revenue management was the airline industries’ development of yield management processes. However, Ivanov (2014) argues that although the need to accurately forecast demand and offer targeted discounts to price-sensitive market segments

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to fill excess supply was the same for both sectors, hotel revenue management was made more complex due to the length of stay factor (Cross et al. 2011). In essence, the basic economic principles of supply and demand were at work but needed managing in a more structured way given the complexities of hotel bookings, often using emerging computerised technologies (Lieberman 1993). From this, Kimes (1989) and Kimes and Wirtz (2003) defined revenue management as the application of information systems and pricing strategies to allocate the right capacity to the right customer at the right price at the right time, a definition that is still relevant and used today (Klein et al. 2020). These technological developments have resulted in revenue management becoming increasingly “complex and dynamic” (Altin et al. 2017, p. 2), with mobile technologies, social media, the development of automated revenue systems and the internet, increasing the transparency of hotel room rates through the rise of online travel agents and price comparison sites and frequent, dynamic changes in advertised prices (Alrawadieh et al. 2021).

Current literature also suggests that revenue management has become more strategic (Altin et al. 2017; Nair 2019) and is increasingly led by a focus on the longer-term value of consumers to the business rather than a purely transactional approach. This is now viewed by some as central to the success of a hotel business, as it favours longer-term strategies over tactics (Kimes 2017). However, there remains some debate in this area with some believing that revenue management remains a balance of strategy and tactics. Originally, Jones and Lockwood (1998) divided revenue management into three strands that separated strategy and tactics depending on what level those decisions applied to. They argued that strategic revenue management decisions were the domain of the head office that would look at the long-term pricing strategies, whereas tactical decisions were linked to the intermediate running of the individual hotel operating units. Finally, at an operations level, the hotel front desk and the sales office were operating the systems. Later literature also supports the fact that tactical, dynamic price changes may occur as part of a wider strategic plan (Baker et al. 2020; Talón-Ballesteros et al. 2022).

Data and their interpretation

The most widely used and comprehensive way of describing big data remains the Vs framework, developed by Laney (2001). Originally, the framework comprised three Vs with a focus on defining the qualities of big data in its raw state. Volume, velocity, and variety defined big data as large amounts of data, arriving at high speed, on a constant basis, made up of both structured and unstructured data (Marr 2015). The hospitality industry press has often heralded big data as a panacea for understanding customers,

personalising service, and gaining a competitive edge (Lv et al. 2022). However, the challenge with these types of claims is that they are very general and do not explore in detail the implications of operationalising big data in the real world (Cobanoglu et al. 2022) which would require a greater focus on the interpretation of big data. The Vs framework itself has evolved with a shift to incorporating a greater range of big data characteristics and a shifting focus towards how raw data can be analysed and interpreted. A further three Vs of veracity, variability and value were added as highlighted by Gandomi and Haider (2015). Finally, a seventh V was added, visualisation, referring to the increased need to summarise and graphically present key information from highly detailed data (Sivarajah et al. 2017). Lamest and Brady (2019, p. 110) describe visual analytics generated through interactive dashboards that allow managers to achieve “an action-orientated use of information”, summarise key trends and drill down into the detailed quantitative and qualitative data only if interested. This suggests that managers are more likely to interpret these summaries than big data in its raw form.

Despite these extensions of the Vs framework which attempt to include a focus on interpretation, there is still a lack of clarity on how human managers interact with big data to interpret it. Shiffrin (2016, p. 7308) argues that “a hallmark of big data is the fact that it vastly exceeds human comprehension”, which suggests that managers would be unable to interpret data without technology, whereas Ekbia et al. (2015, p. 1534) suggest that whilst there may be a cognition-oriented approach to big data that suggests it is too large for human understanding without technology, big data does need humans to manage it and help extract value from it, something they refer to as “heteromation”. There is even some suggestion in the literature that other types of data may exist, particularly small data. Lindstrom (2016) describes this type of data as small enough for human comprehension. He argues that big data is about machines, but small data is about people. Marr (2015, p. 28) argues that small data should be used in combination with big data for a positive outcome, stating that it is important to “identify what data you really need and very often that will mean a combination of traditional “small” data or existing data and new data formats, new faster data and Big Data”. Boyd and Crawford (2012, p. 670) also talk about small data, stating that “during this computational turn, it is increasingly important to recognise the value of small data”. They define big data as “information about what surrounds the hotel business” and small data as “information that is in the hotel system or the sales channel manager” (p. 18). However, if or how small data is incorporated into the large amount of big data produced by automated revenue management systems remains unclear.



The role of the hotel general manager

Historically, the role of the general manager has been identified as one that holds an over-arching responsibility for managing the effectiveness of employees in delivering customer service, profit and ultimately ensuring the survival of the hotel unit (Kim 1994; Jayawardena 2000). Although reviewing the literature on hotel decision-making has shown there to be a general decline in interest in researching the role of the hotel general manager since a peak in the 1980s and 1990s, the small amount of contemporary literature available continues to support the centrality of the general manager in decision-making (Bharwani and Talib 2017) driven by the hotel general manager's personal responsibility for business survival (Giousmpasoglou et al. (2021), the need to demonstrate positive financial performance to hotel owners (Hodari et al. 2020) and because the professional futures of hotel managers are closely bound to the viability and profitability of the firms they manage (Menegaki 2022). However, despite the recognition of both the central role the general manager is supposed to play in delivering profit and of the importance of revenue management in delivering the profitability of a hotel unit, there is scant specific discussion in the contemporary literature of the role the general manager plays in revenue management decision-making (Ivanov et al. 2021).

Previously, Relihan III (1989) suggested that the economic element most likely to be able to be controlled by a general manager was the price, and Riley and Jauncey's (1990) research, found that general managers were most likely to make autonomous decisions on price, whereas high levels of consultation happened in other areas such as marketing and sales promotion. The only study that could be found that directly studied the impact of yield management on the role of the general manager was conducted by Donaghy and McMahan-Beattie (1998), who suggested general managers should be relying on specialists to carry out these duties. The very few elements of contemporary literature that do reflect on the general manager's role in revenue management suggest that general managers still play a role in price setting for example Ivankovič and Jerman (2010) found that general managers were more likely to take sole responsibility for pricing and profitability-based decisions and Cross et al. (2011) when reflecting on the historical development of revenue management also commented that individual general managers were responsible for rate and inventory decisions.

Hotel transient pricing

Relihan III (1989) and later Steed and Gu (2005) have confirmed it was the introduction of yield management that caused hotels to bring their thinking about pricing in line

with actual market forces. In this period, price decision-making became increasingly focused on forecasting market demand, consumer price sensitivity, and responding to more detailed competitive price benchmarking (Vinod 2004; Collins and Parsa 2006). This is further reflected in the hotel pricing literature published in the 1990s and early-to-mid-2000s. Donaghy et al. (1995, p. 146) stress that in the early-to-mid-1990s, pricing was driven by the increased accuracy of forecasting and segmentation which allowed rises in the "scope and frequency of pricing decisions which more effectively aligned room prices with market forces", but of course both forecasting and segmentation rely on data. What the literature begins to suggest is that there was a slow emergence of dynamic pricing structures as yield management developed a greater appreciation of market forces. Elmaghraby and Keskinocak (2003) cite hotels as early adopters of dynamic pricing but add that to achieve this there was a need for detailed information on customers and the ability to change prices at minimal costs, which they believe was facilitated by new technologies and the availability of decision-support tools for analysing demand data. The other major influence on hotel pricing has been from STR Global as it gave rise to hotels having access to an unprecedented amount of competitor information, unique to the hotel industry (Higley 2007).

In recent times, the use of real-time data in the price decision process has been the focus (Wang et al. 2015; Josephi et al. 2016). Therefore, it appears pricing has become more immediate and predictive, reacting more quickly to even subtle demand changes in the market. Utilising data from a greater variety of sources and integrating customer knowledge into pricing techniques through automation (Mariani et al. 2018; Talón-Ballesteros et al. 2022) has also begun to enable personalized pricing (Chen et al. 2022). These techniques have served to speed up the pace of price decision-making leading to a debate regarding the balance of tactics and strategies in hotel room pricing. Whilst the increased focus on profitability and the customer suggests a more strategic approach, the ability to frequently change prices, often automatically, does suggest that pricing could have the potential to become more tactical and reactive. Therefore, tactics may arise from the unpredictability of market forces, where despite increased forecasting abilities demand still fluctuates and makes it more challenging (Hung et al. 2010). However, the utilisation of short-term tactics may also have something to do with the role of the general manager and the time pressures they face. Lee (2016, p. 70) argues that hotel managers have little to do with strategic pricing and that managers may view room price changes as a "quick fix" that they become accustomed to relying upon over time. This almost suggests that at a unit level, there may be an element of habit in making price changes and that under time pressures, longer-term strategies give way to



quick, tactical fixes. Of course, there is also a question over whether the ready availability of data also tempts managers to make more short-term, trial-and-error-based decisions as they can more easily track the outcomes.

In summary, what is clear from the literature is that hotel transient room pricing has increased in complexity and speed (Xue et al. 2020). These increasing complexities have been driven by corresponding increases in the amount and variety of data available to decision-makers, often because they, and the competitive nature of the market, have demanded it but because technological improvements have allowed for it (Mullen 2016). Mattimoe (2007, p. 137) confirms “the room rate pricing decision, as a time-bound interdependent set of sequential decisions made by the hotelier, faced with an uncertain environment” and Cetin et al. (2016) agree that the complexity of variables involved in pricing now makes it harder for decision-makers to reach an optimum price.

Methodology

Logic of inquiry, research setting and sampling

The involvement of hotel general managers in transient price setting had not been fully explored in the literature. As a result, an iterative method was needed to uncover and refine the findings. The focus of Straussian grounded theory on how and why processes occur ensured the intricacies and realities of the relationship were uncovered and that through four cycles of data collection and analysis

(see Fig. 1) an understanding of the hotel general manager’s role in transient price decision-making could be reached. Grounded theory is known to expose the complexities and realities of human behaviours, feelings, emotions, interactions, and processes (Strauss 1987; Strauss and Corbin 1998). Matteucci and Gnoth (2017) confirm that Straussian grounded theory suits a micro-focus on smaller substantive research contexts where achieving an understanding of the true reality of the situation is key.

The first cycle was informed by a purposive approach to gain all-important variation in the sample (Strauss and Corbin 1998). The sampling frame covered a range of different hotel standards and ownership structures. They were also pre-screened to ensure that transient room sales made up a significant part of their room’s revenue. The selection of participants for the second, third and fourth cycles was directed by theoretical sampling, an iterative approach where sampling becomes directed by the categories emerging from the data (Strauss and Corbin 1998) to reach theoretical saturation. Across the four cycles, the sample included 20 participants which agreed with the “broad overall norm” of 15–60 participants identified by Saunders and Townsend (2016, p. 845) in their work justifying sample size within organisational qualitative research. They also stress that the overall participant number is contingent on the approach to analysis and that the sample size in this research can be justified as it led to theoretical saturation, the key outcome of grounded theory (Strauss and Corbin 1998).

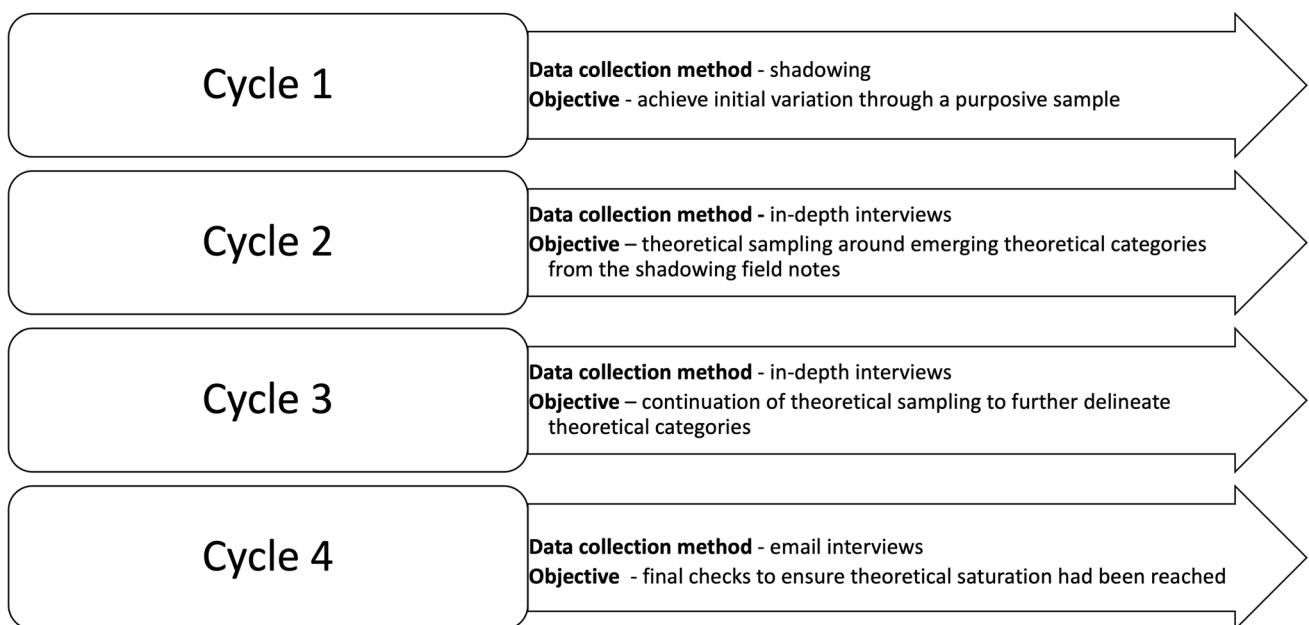


Fig. 1 The data collection and analysis cycles



Data collection and analysis

Data were collected using shadowing, in-depth interviews, and email interviews. Shadowing was used in Cycle 1 due to its widely recognised capacity to help researchers gain a deeper understanding of people's behaviours within the context of the organisation in which they work (McDonald and Simpson 2014; Czarniawska 2014). Specifically, Gill et al. (2014, p. 70) define shadowing as the "following of an individual to learn about their everyday experiences and practices". Through this approach, the researcher accessed a detailed, first-hand, and multidimensional picture of the hotel general managers role, approach, philosophy, and tasks connected to transient price decision-making (McDonald 2005). The shadowing sessions covered seven consecutive weeks with each session lasting two days. This totalled 90 plus hours of observation. The researcher remained a non-participant observer throughout following the hotel general manager during their day-to-day activities whilst taking detailed field notes.

Prior knowledge of the industry helped form some of the initial lines of investigation in cycle 1 in the form of sensitising concepts (Strauss 1987). However, in cycles two and three, the data collection utilised in-depth interviews to follow up on emerging categories from cycle one continuing the iterative approach. Shadowing is often used in combination with in-depth interviews for this purpose (McDonald 2005). In total 12 semi-structured, face-to-face interviews were carried out lasting approximately one hour each on average. All interviews were recorded and transcribed for analysis. Cycle 4 was used to confirm that theoretical saturation had been reached and to check the validity of the findings. These data were collected asynchronously via email with a further 8 participants through the exchange of a series of open questions and qualitative answers until the data became saturated. The email interviews still provided rich qualitative data as Meho (2006) suggests allowed participants time to reflect and answer more fully.

As grounded theory is an iterative process, data collection and analysis happened simultaneously across the four cycles. Data analysis was guided by the Straussian coding paradigm. The open, axial, and selective coding processes to helped to identify the processes and structural conditions at play covering how and why hotel general managers engaged with the data in the hotel price decision-making process in the way that they did. Open coding involved line-by-line coding to generate a list of concepts that were linked together to form a series of theoretical categories. Categories were allowed to emerge from the data based on the voice of the participants but were then checked for validity against data previously collected. Axial coding linked those categories together and finally, selective coding integrated and refined the findings confirming theoretical saturation had been reached. The key

themes that emerged from this coding process are reported on in the findings section and through reflection on how they integrate with industry trends form the substantive framework in the discussion.

A series of criteria were selected to evaluate the rigour of the research process before commencing the data collection and analysis cycles. These criteria were taken from the work of Strauss and Corbin (1998) who laid out a series of measures for judging the merits of grounded theory research including building variety into the initial sample and ensuring discrepancies against the emerging hypotheses were accounted for. In essence, Strauss and Corbin (1998) made clear that generalisability was not the aim of grounded theory and instead argued the focus should be on the explanatory power of the research. Strauss and Corbin (1998, p. 265) stressed that a valid and truly grounded theory must "speak[s] to the issues and concerns of those we study". To guarantee this, the findings were checked against the original data during the selective coding process to ensure it accurately explained what was happening in the data to ensure the voices of the general managers were accurately represented.

Results

The following themes reflect the voice of the participants. These themes, summarised in Table 1, emerged at the end of cycle four when theoretical saturation had been reached.

Theme 1: personal ownership of hotel performance

The hotel general manager was found to take personal ownership of performance targets for their hotel unit. This led to the managers wanting to be at the centre of the decision

Table 1 Themes derived from the data analysis

No	Theme/underpinning theoretical categories
1	<i>Personal ownership of hotel performance</i> The buck stops with me The desire to win The need to defend your position Balancing risk
2	<i>The importance of local knowledge</i> Observing the local market Utilising operational and customer knowledge Reflection on past outcomes
3	<i>The need to simplify the decision-making process</i> Operational distractions Tactics for managing data overload
4	<i>Realities of decision-making</i> A hybrid approach to pricing data The blending of macro, big data, and local, small data



on transient pricing. One of the participants summed this up as “the buck stops with me”. It also seemed that hotel general managers taking a competitive approach to pricing strategy with participants commenting that they wanted to “beat the market” and “win in the market”. It was as if this was a personal battle between themselves and the market which if they made the correct pricing decision they could win. However, within this personal battle, the hotel general managers seemed keen to defend their position and decision-making. Not only was it the hotel unit’s success on the line if they got pricing decisions wrong but also their individual success. Hotel general managers also used data as evidence to present to their line managers or owners to support a case for why they had taken the decisions they had. This led to managers being conflicted over whether to focus on defence or attack and constantly balancing risk to avoid blame or criticism. Participants reflected on this balance of risk normally connected with attempting to increase transient prices whilst being cautious of any negative impacts on demand. One commented that “it’s the challenge of the pricing stuff, just being a bit braver sometimes – it’s hard...it doesn’t necessarily come off all the time but at least we’ve tried it” and another, “it’s not until we try and start pushing rates...that you start to see resistance or results”.

Theme 2: the importance of local knowledge

The hotel general managers were involved in the practice of continuous and almost automatic observation and scanning of the local environment. Local knowledge of customers and the market were the two key pieces of information that hotel general managers contributed to the transient pricing decision. One participant commented that “GMs are key for providing local intel”. This knowledge was developed over time and through being operationally involved in all areas of the property and interacting with customers. One participant commented that they were “the most experienced person in the property” and another said when talking about what they wanted to know before making a pricing decision that “I know what I want to look for and what I want to know really through experience”. This fuelled an instinctive approach to price decision-making that stemmed from observations of the local market and customer behaviour. Their focus was on gathering guest intel through networking with the guest and getting to know them or by obtaining data second-hand from the operational team. For instance, one general manager used their knowledge of the local market to protect the longer-term image of their hotel by keeping rates artificially high during weekends to dissuade a certain crowd of customers using the hotel on Friday and Saturday nights who they said would otherwise have turned the hotel into a “drugs den”. This type of intel was not formally stored but held in mental stores to be recalled by managers when it was

felt they might be relevant to a pricing decision. Managers reflected on past outcomes and customer reactions to decisions and fed this into the price decision-making process. Data from automated revenue management systems were primarily used as a check and balance to their gut instincts and local observations. One participant confirmed the use of data to review past decisions commenting that “we look at it daily to see what we have missed out on...maybe we’ve under-priced...or we’ve not got our fair share on the rate side of things”.

Theme 3: the need to simplify the decision-making process

Hotel general managers were found to be deeply embedded in the operations of their hotel unit and this meant that although they wanted extensive input in the pricing decision and final sign-off, their time to do this was limited. This led to two clear outcomes. The first one is that the involvement of managers led to a simplification of the metrics used in the pricing process with a focus only on balancing average daily rate (ADR) and occupancy performance. One manager expressed the simplicity of the price decision-making process in the following explanation of their approach, “for Tuesdays for the next eight weeks I’m going to put five pounds on our rate and I’m just going to see what happens...if it stops the tap [turns off demand]. The second one was that they only used a limited amount of the potential data available to them when setting the transient price using a range of tactics to filter and reduce the volume of data available resulting in managers. Such was the success of these tactics that managers did not even recognise information overload as an issue in price decision-making. Common tactics used were to ignore the data, analyse only a couple of “favourite” reports, or rely on a quick scan of top-line trends and rankings described by many participants as “sense-checking”. The detailed numerical data behind the trends were often ignored. One manager commented, “With me having two hundred jobs at the same time here...I have to look after the team, the guest, the quality, the housekeeping, the maintenance everything, so, all this information, I can’t play with it all the time because I wouldn’t do any other thing” and another stated, “it’s very easy to hit a delete button if it’s not relevant to you or set up your emails to send it to an alternative folder”.

Theme 4: realities of decision-making

The reality of the approach to transient pricing was centred on a hybrid approach to decision-making. Two different types of data were observed to be at play. The first can be linked to the term ‘big data’ and arrives automatically through various systems harvesting data from other digital



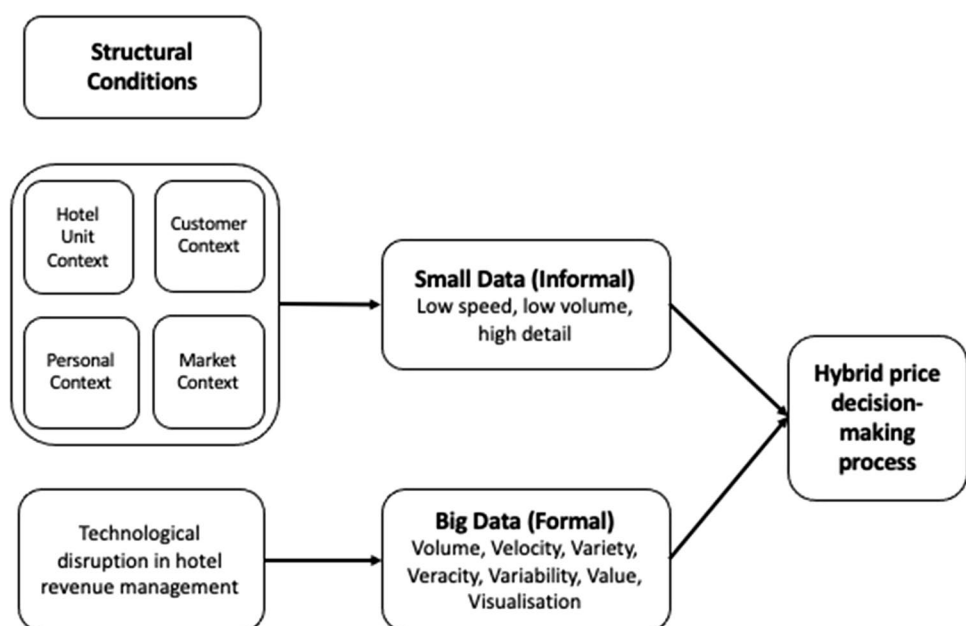
sources and is stored digitally in revenue systems. These data are high volume but felt by hotel general managers to have a low depth of explanatory power and managers often relied on revenue teams to feed in the highlights of these data. One participant commented, “I don’t get visibility of the automated revenue system, but I don’t need to as they [revenue manager] gets that”. The type of data the managers really valued could be termed ‘small data’ and was the result of the experience and local knowledge gathered over time by the hotel general managers. It is low in volume, but managers felt it has a high depth of explanatory power. One manager summed up the breadth and depth of this type of data saying it included ‘*local market/city knowledge; information gathered by speaking to in-house guests; knowledge about the history of the hotel; changing impacts of events; different trends*’. Small data is organically cultivated by human managers rather than digital systems and is often discovered by chance. As the hotel general managers used the small data, they had gathered to interpret the top-line big data a hybrid approach to the use of pricing data emerged. Big data and small data were blended by managers and transformed into more comprehensive and useful intelligence rather than just relying on the big data churned out by the automated revenue management system. The small data was perceived by managers to add richness and detail which refine the generic messages provided by the big data ensuring that the specifics of customer behaviour and the quirks of the local market were always factored into the transient price decision, for example, one manager was observed overriding the price suggested by the automated revenue management system in favour of rate that was £45 more. They justified this when questioned based on their knowledge that customers would

pay more for their brand as they liked the loyalty points. They knew this from talking to guests in the bar. The manager commented that “information gathered by speaking to in-house guests” provided valuable insights such as this.

Discussion

This research confirms the view that the hotel general manager presumes responsibility for business performance, profitability, and survival (Bharwani and Talib 2017; Gioumpasoglou et al. 2021; Hodari et al. 2020) but goes one step further to explain how and why in an era of increasing revenue management automation and access to big data, the role remains central to price decision-making, decades on from when the literature last placed focus on the general manager’s involvement in pricing (Riley and Jauncey; 1990; Ivankovič and Jerman 2010). Essentially what this research has proved is that hotel general managers take a hybrid approach to transient price decision-making. The hotel general manager sees himself not just as an administrator but as a manager of the pricing process. As illustrated by the substantive framework in Fig. 2 below, the hotel general manager’s control of transient price decision-making is driven by four structural conditions or contexts. It is these contexts which underpin the hotel general manager’s authority in the decision-making process and the general manager’s perception that their contribution to the transient price decision lies in their ability to gather, store, and interpret when needed, local market data that focuses on demand factors led by customer insights, defined here as small data. Small data was found to be gathered by general managers with the focus of

Fig. 2 The hybrid decision-making process



that data being on specific local insights, typically, insights into their customer's perceptions of the price and value equation. In contrast, big data was viewed as derived from digital and information technology-led sources. This challenges the big data supremacy suggested by Gandomi and Haider (2015) and others. In this hybrid decision-making process, the small data is blended with the big data that creates a hybrid form of data for tactical decision-making that reflects the operational subtleties of their hotel unit.

The small data allows hotel general managers to maintain their control even when automation is becoming increasingly important in revenue management. This is intensified by their feeling of personal responsibility for the performance of their hotel unit which results in them still feeling the need to be in control of the final price decision. It seems almost as if the general manager, who is seen to be a driving force with the responsibility of delivering profit for their hotel property, perceives small data to fulfil the role of increasing the rationality of the decision as it provides unique insights into their customers who pay the prices. The direct and personal nature of the way these data are collected also increases the level of trust that general managers hold in this type of data, whereas the sources of big data, especially when complicated by automated systems and complex algorithms, may be less clear and more indirect. The hotel general manager identifies the intricacies and unique factors influencing the price decision not yet able to be picked up by the automated systems, despite assertions in the literature that the integration of customer knowledge into systems is technically possible (Mariani et al. 2018; Talón-Ballesteró et al. 2022). In practice, we found a lack of confidence to rely solely on big data and automated systems. The general manager exhibits a lack of belief in the reliability of the big data, as they perceived that these data may not pick up on the unique characteristics of the hotel property and its customers about which they have built up a factual base of knowledge. The general manager translates the big data within the filter of their knowledge of the local property needs. Small data does not replace big data but complements it. The involvement of general managers in operational functions allows them different insights into the commercial aspects of the decisions they must make. The contemporary role of the hotel general manager therefore should not be described as either commercial or operational but as a blend.

Further to this, the hotel general managers' leadership of this hybrid process also highlights some valuable insights into transient pricing and the practice of revenue management at the hotel unit level. The first is that revenue management remains in practice a simpler process than theory suggests. The trend towards complexity highlighted in the literature (Altin et al. 2017; Alrawadieh et al. 2021) is not played out in practice. Hotel general managers use the small data to filter the big data, thereby reducing data complexity

but beyond that, there was a clear need to defend their performance and that of their hotel which distilled revenue management into a balance of risk and focus on balancing the basic KPIs (Key Performance Indicators) of rate and occupancy, which resulted in either bravery around rate growth or defence of occupancy levels. Tactics not strategies are the focus. General managers were defensive of their position which led them to focus on "red flags" in the data that might highlight risk factors in market demand. Price decisions are reduced to protecting hotel property against negative market dynamics to protect occupancy levels or to take advantage of short-term increases in demand to increase the rate.

The general manager's desire to protect their hotel's local position within a local context and their focus on demand factors also suggests a tendency towards short-termism in the transient hotel price decision-making process as they focused on factors they could quickly respond to, defending their market position using price changes to balance rate and occupancy to achieve budget and performance targets, although the fact that hotel general managers gathered data about customer reactions to price and value over a long period suggested that they were also taking in the background prepared to adopt a longer-term view. We saw a situation where a longer-term focus on the needs of customers was sometimes balanced with pressure from the local market forces. This supports previous literature that tactical, dynamic price changes occur as part of longer-term strategic plans (Baker et al. 2020; Talón-Ballesteró et al. 2022).

Finally, this leads us to a discussion of the impact of the hotel general manager on temporality in transient pricing. As already highlighted, the small data, so central to the involvement of the hotel general manager in transient pricing appeared to be gathered over an extended period through observation and direct human communications with customers. Through mentally storing this small data, the general manager gradually builds a picture of their hotel business over time that can be fed into the pricing decision when necessary. Therefore, the speed at which small data is collected is slower than that of big data which the literature suggests is generated automatically on a regular basis and at a quick pace through interactions between various digital systems (Alrawadieh et al. 2021). Previous literature has stressed the use of real-time data in revenue management (Joseph et al. 2016) but the centrality of the hotel general manager to the pricing process and their focus on historic, longitudinal data suggests that the transient price decision-making process may be led less by current data than theory suggests. Ironically this did not necessarily slow the price decision-making process down due to the pressures of the market. However, what the findings do suggest is that the increasing speed of pricing is not necessarily influenced by the ability of revenue management systems to instigate dynamic pricing automatically but rather through the need for the hotel



general manager to be able to respond to changes in the local market and result in personal success or being able to defend a poor decision. This supports the idea that unpredictable market forces might lead to more price changes and short-term tactics (Hung et al. 2010).

Conclusion

This paper provides an insight into the hotel general manager's involvement in transient price decision-making and the subtleties of their interactions with the big data generated by automated revenue management systems and has addressed the call for further research into how big data is operationalised (Cobanoglu et al. 2022). Through observing and listening to the voices of the managers themselves, we have closed a gap in the understanding of the realities of the transient pricing process at the hotel unit level. The key finding was that the traditional human decision-making based on informal, small data was prioritised by the hotel general managers and used to interpret the big data generated by the automated revenue management systems creating a hybrid price decision-making process. The result was that the hotel general manager remained in control despite the technological disruptions witnessed in the field of revenue management. There seemed an evident gap between the theory of revenue management and its practice, with the influence of the hotel general manager leading to a continued simplification of revenue management focused on balancing the KPIs of rate and occupancy and a continued prioritisation of local customer and market knowledge gathered longitudinally rather than a focus on real-time big data originating from the automated systems. We are not in a place where automated systems, driven by big data algorithms replace manager control even if technically they could (Alrawadieh et al. 2021). This suggests the need for both academic and industry professionals to reflect further on the integration of automated revenue management into hotel units considering these new insights into the modus operandi of the hotel general manager—the need to remain in control of the performance of their hotel and thus the transient pricing decision.

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Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

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