Application of Revenue Management Practices in Star-Rated Hotels In Kenya

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Abstract

The study aimed to find the extent of applying revenue management (RM) practices in star-rated hotels in Kenya. Specifically, the study sought to determine RM policies and implementation, application of RM techniques, and the use of RM systems. The study used a quantitative approach and adopted a cross-sectional survey research design. The study targeted 225 revenue managers from all-star-rated hotels in Kenya. The findings revealed that RM is a practice in star-rated hotels, even though not in all hotels. Hotels reported having RM policy and implementation taking place. There was an adoption of RM techniques. A dynamic RM team and the presence of social media integration with RM were identified. The findings revealed that by large, star-rated hotels interact with RM systems and sub-systems on the use of RM systems. Some hotels use either one or a combination of two systems. Furthermost, hotels were found to have automated their revenue collection. It was also revealed that they have adopted integrated RM soft-wares. The hotels were found to have meaningful RM data and information, RM pricing devices, and non-pricing devices. In comparison, information reveals a slightly above average presence of RM application in hotels in Kenya. The empirical evidence presented in this paper reveals that some hotels have not entrenched RM applications in terms of policies and implementation, RM tools and techniques, and their RM systems are lacking. The paper proposes that for full realization and maximization benefits associated with RM practices like predicting the growth of hotels, reducing operational costs, improving yields, and generating revenue, the industry should fully embrace RM applications.

Keywords: Hotels, practices, revenue management, Star-rated, Kenya

Introduction

The global hotel sector, which is under the more considerable tourism and travel sector, contributed 10.4% trillion to the global domestic product the year 2019, according to the World Travel & Tourism Council (WTTC) annual research on economic and social imports of the hotel sector, which has been in existence for the last 25 years **(**Menegaki, 2020; World Travel and Tourism Council, 2020). The hotel sector remains a significant driver of the Kenyan economy, evidenced by the continued contribution to GDP by food services and accommodation. Between 2018 and 2019, hotel bed-nights occupancy expanded by 6.3 percent; further, the sector performance was boosted by conference tourism that expanded by 14.0 percent in 2019 (Kenya National Bureau of Statistics, 2020). Adverse effects of hotel external determinants like environmental dynamism, uncertainty factors, seasonality, technological changes, and internal determinants within the hotel sector will continue to influence the hotel industry in Kenya, denying hotels stable occupancies and

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chances for achieving maximum possible hotel room rates and high revenues (Murimi, Wadongo & Olielo, 2021). To manage low occupancy rates and maximize revenue increase, hotels adopt revenue management strategies (Ortega, 2016). By applying the revenue management strategies, hotels can; understand the guests' demands or booking patterns, apply the correct room rates, expand hotel business, and win against competitors (Patel, 2020). Revenue management (RM) is a management tool that aims to increase sales revenues by manipulating the prices at which frozen products like hotel rooms are made available for sale concerning the current and forecasted demand (Hospitality-Professionals-Association, 2013). RM integration in hotel operations has been found to have a positive effect on hotel performance and competitiveness; and provides hotels and resorts with greater profitability (Fergusona & Smith, 2014). RM will carry out a common approach and aim at growing a hotel's overall potential to obtain maximum profits (González-Serrano & Talón-Ballestero, 2020). Hotels that use a revenue management system (RMS) outperform non-RMS-users in the context of decreasing demand; RMS has been more effective in improving occupancy (Ortega, 2016). Irrespective of the massive assurances and enhancements on the push for RM practices in the hotel sector, there is inadequate empirical evidence on the extent of applying RM practices within the hotel sector in Kenya. Therefore, this study sought to fill the gaps and attempted to enrich existing understanding by providing empirical data and suggesting the status of RM practices in star-rated hotels in Kenya.

Literature review
Revenue management in hotels
In current hotel management, a consensus is reached between academia and the industry that competitive RM is a prerequisite for success (Noh, Lee & Lee, 2016). Effective RM policies and implementation is attributed to the generation of additional revenues. When appropriately implemented, RM results in 33% higher revenues than traditional restaurants' traditional methods (Karmarkar & Dutta, 2011). Advancements in sophisticated pricing and RM techniques have added billions of dollars to many firms' bottom lines while using existing products or services and existing sets of consumer sets (Cross, Higbie & Cross, 2010). When RMS are deployed correctly, they have proven to directly generate 5-10% uplift in sales and improve occupancy rates during low points of the business cycle (Morag, 2013). Using restaurant revenue management data from a restaurant in Atlanta, Georgia (Bertsimas & Popescu, 2003) found that restaurants increased revenues from 3.5% to 7.3% by adopting sophisticated revenue management models compared to the traditional first-come-first-served models. Therefore, revenue management (RM) is summarised into three phases: RM policies and implementation, RM techniques, and RM systems. RM policies and implementation include how the hotel goes about adopting and implementing RM policies. RM techniques involve the identification and definition of crucial revenue management domains and indicators. These indicators include historical information, demand forecasting, forecasting future booking patterns, customer segmentation, pricing practices, capacity management, RM controls, time control, capacity control, pricing management, menu management strategies, RM target, and RM data collection methods. RMS comprise practices related to background factors such as information flow systems, RMS strength, RMS dynamism, and revenue information use. The complexity and specificity of the RMS will depend on the individual hotels. The summarized expansive nature of revenue management generates fundamental questions this study seeks to answer; how do hotels in Kenya implement revenue management policies? Which are the essential revenue management techniques in Kenyan hotels? How do hotels in Kenya manage RMS?

Generally, RM is characterized as the artistry and study of determining demand while at the same time changing the price and accessibility of items to coordinate with that specific demand (Queenan, Ferguson & Stratman, 2011). Initial hotel RMS for hotel organizations mimicked the airline industry is analyzing the historical data and forecasting future booking patterns (Cross et al., 2010). Forecast future booking patterns various segments like restaurants, spas, clubs, and entertainment parks also started to implement and execute RM techniques (Anderson & Xie, 2010; Torc'h, 2015). By the year 2000, a vast majority of hotel organizations had begun heavily utilizing RM systems. Some of the pioneering organizations of RM in the hotel industry were Marriot, Hilton, Sheraton, Starwood, and InterContinental (Kimes, 2003). The hotel sector perceived the advantages of embracing the RM approach, as polished by the airline industry. Be that as it may, the procedure's development was at first kept down by the absence of suitable innovation accessible to oversee information and the lack of essential data about visitors (Hospitality-Professionals-Association, 2013). The rapid development and integration of technology-based tools, such as social media and mobile-device-based channels, have also influenced how RM is practiced in the hotel industry (Noone, McGuire & Rohlfs, 2011). Advances in technology are helping to create a more favorable environment for RM (Morag, 2013).

The hotel industry and its contribution to Kenya
The hotel industry in Kenya has about 225 classified hotels rated one to five stars, with about 16,156 rooms hosting about 26,786-bed capacities (Tourism-Regulatory-Authority, 2020). The revenue from the rooms declined by 7.1% between 2012 and 2014; and cumulatively by 16% since 2011 (PricewaterhouseCoopers, 2015). The industry has a lower occupancy rate, averaged at 34.4% compared to similar sectors in the Sub-Saharan region average of 59.4% and American and European markets, whose record is above 65.5% from 2011 to 2015 (Cytonn-Real-Estate, 2017). Occupancy rate have decreasing consistently from 40.3% in 2011, 36.4% in 2012, 36.1% in 2013, 31.6% in 2014 to 29.1% in 2015 (Kenya National Bureau of Statistics, 2020); (Cytonn-Real-Estate, 2017).There was a slight expansion in 2017 and 2018 with 30% and 32.5 %, at that point a drop to 30.8 % in 2019 (KNBS, 2020). The number of sellable hotel rooms increases despite hotel occupancy remaining relatively low and posting marginal growth over the years. The occupancies are highly hit during low peak seasons by up to 80% (Miricho, 2013). Unfriendly impacts of hotel external determinants like environmental dynamism, innovative changes, seasonality changes, and inside determinants inside the hotels will keep on affecting the hospitality business in Kenya, denying them stable occupancies and chances for accomplishing the greatest reasonable room rates and total incomes (Murimi et al., 2021). Regardless of the huge confirmations and upgrades in revenue management practices in hotels, there are insufficient research outputs on applying RM practices in the hotel industry in Kenya. Accordingly, this study looked to fill the gap by exploring the degree of applying RM practices in star-rated hotels in Kenya.

Revenue management policies and implementation in hotels
Implementation of RM policies requires the use of numerous measures to achieve RM goals. Key RM phases include; setting RM goals, collecting relevant data, analyzing data, forecasting demand, decision making, decision implementation, and monitoring decisions (Anderson & Kimes, 2011). Three critical policies for dealing with demand in hotels are; having an advance waitlist, ensuring reservations, and ensuring guests sit as they get in the hotel (Wirtz & Kimes, 2007). When stimulating customer demand and enhancing hotel performance, a crucial policy is pricing (Enz, Canina & Noone, 2012). If RM policies are

implemented and operationalized correctly, they can reduce losses due to improper implementation (Lieberman, 1993). Indeed, there is no doubt that performance and effective RM policies impose formalized operational structures and strategies for employees to actualize them as required (Anderson & Xie, 2010). Hotels with in-house RM structures can link with other hotels and business partners to create concrete frameworks for purchasing, administering, distributing, or merging those methods (Hernandez, 2015).

Hernandez (2015) collected and analyzed data on implementing policies associated with the reservation that affected the number of bookings and non-attendees from six fine-dining restaurants. The study revealed that reservation policies aid managers in operating hotels with necessary procedures and mechanisms to measure and enhance hotel performance. Further, it increases patronage customers, controls demand, inventory, and flexible costs, thus improving hotel and employee retention's lasting viability, which leads to customers' satisfaction. Sluggish RM policy implementation may be associated with the hotel sector's fragmented nature; for example, sole proprietors may not have enough capital or qualified workers to actualize RM frameworks because of small profit margins. However, centralization of RM operations in large and or chain affiliated inhibit the steady development of knowledge and capability required to boost RM yields. Implementing innovative RM and reservation policies may help hoteliers increase income (Kimes, Enz, Siguaw, Verma & Walsh, 2010). More studies on RM policies should be done in the hospitality discipline (Hernandez, 2015). Therefore, it is essential to determine if RM policies and their implementation are taking place and if they are associated with Kenyan hotels' financial performance.

Revenue management techniques in hotels

Essential RM techniques reviewed include Price-optimization; price optimization element controls guest room rates depending on occupancy, the versatility of prices, and modest prices, a strategy already being used by more than 2,000 InterContinental Group of hotels (Koushik, Higbie & Eister,2012). Prize optimization increases income and uses a method that is substantial advancement, which assumes demand by a degree of fragments as an independent entity over prevailing revenue management structures hotels (Koushik et al., 2012). Dynamic pricing; is one of the essential ideas of valuing nowadays (Ivanov & Zhechev, 2012). Hotels that adopt dynamic pricing allow them to magnify their yields and RevPAR by adding a price that reflects changes in demands and occupancy levels (Tranter, Parker & Stuart-Hill, 2008). Customers regularly follow various costs regarding the room's number and status, a period they are likely to stay when considering bookings, depending on the instant reservation (Ivanov & Zhechev, 2012). Dynamic pricing yields extra benefits and if applied thoughtfully, along with acceptable terms and conditions involved in the booking (Tranter et al., 2008). Customers are supposed to be provided with price assurances once in a while (Demirciftci, Cobanoglu, Beldona & Cummings, 2010). Carvell and Quan (2008) established through a choice pricing framework that, for clients to gain from these forms of lowest price assurances, the guarantee should protect them from time of booking to arrival time, which should not surpass 24 hours after making the booking. Liu (2012) established an optimizer tool for hotel booking to replace the pricing methodology hotel booking usually utilized at Cornell. The optimizer tool by (Liu, 2012) concentrated on the tool's requirement when deciding a room rate because fixing rooms' rates are based on the will to get the room. Noone and Mattila (2009) analyzed and underlined two different price methods, assorted and non-assorted, and their influence on customers' ability to pay using online platforms. The non-assorted method produced higher excitement for booking than the mixed approach.

Revenue forecasting necessitates the process of decision-making in trailing the performance of the business. It analyzes the impact of forecasting revenue by tracking business and decision-making performance with an indicator in an exceedingly composite industry and giving probabilities to other service sectors to understand and make their devices (Whitfield & Duffy, 2013). Demand forecasting: A study whose aim was to predict the collective reservation curve and the number of bookings anticipated within the reservation horizon (Haensel & Koole, 2011) revealed a combined contemplation of the connection and dynamic changes in reservations inside the reservation booking frameworks. They further applied specific value breakdown to the previous bookings and realized variations in line with the forecast within the reservation horizon. Social media integration with RM; when determining by what means the social media process adapts to RM (Varini & Sirsi, 2012) proposed novel practices that will make more revenue. As hotels increasingly adopt internet-based procedures and investigators discern how hotels can adopt such applications, hotels can make choices to all or any, the more they are likely to practice RM (Noone et al., 2011). Numerous web-based demonstrations like virtual networking, survey and reviews, and social networking are elementary locus attentions that hotels can adapt to while concluding the ways of design products, services, and their pricing (Varini & Sirsi, 2012).

Knowledge, skills and abilities, a two-step qualitative method by (Cetin, Demirciftci, & Bilgihan, 2016), revealed that RM staff experience is full of sophisticated difficulties, and they should be knowledgeable, have relevant skills and capabilities to allow them to overcome these challenges. Cetin et al. (2016) corrected study data from 14 revenue managers through interviews and FGD of 8 participants who identified challenges and capabilities to improve revenue management effectiveness. RM Ethical issues; despite the significant influence of RM techniques on hotels' outcomes, there is plenty of condemnation on RM grievances and lack of rational gains necessary for price separation and overbooking procedures (Ivanov & Zhechev, 2012). Integration of Revenue sources; in a study by (Noone, Enz & Glassmire, 2017), profits are vital in RM rather than just income considering variable expenditures and distribution. Irrespective of other hotel sources of revenue and streams which generate profits like spas, F&B, and capacity space, an extension of revenue management to these centers results in complexities, unlike its application in the room's sector. Extending RM practices to other sections will be more precise and essential for for-profit management.

Total revenue management (TRM) has found roots in the hotel sector, and it is the emerging trend increasingly becoming the next stage in the growth expansion of revenue management. It is the aspect of harmonizing revenue streams from different hotel sections with revenues from the rooms that empower hotels to accomplish their revenue maximization goals in an intense viable market (Zheng & Forgacs, 2017). Reviewed RM literature shows a picture where RM practices in the Hotel sector will be a critical instrument in the future as RM plays a strategic role (Erdem & Jiang, 2016). Further, the most common techniques include; Revenue forecasting (Whitfield & Duffy, 2013), social-media procedures (Varini & Sirsi, 2012), demand forecast (Haensel & Koole, 2011), price procedures (Noone & Mattila, 2009), and performance of hotels. However, it is crucial to investigate whether RM mechanisms like revenue collection automation, RM staff's knowledge, attitudes and skills, and ethics are practiced in star-rated hotels in Kenya.

Revenue management systems in hotels

RMS comprises employment of assorted RM tools and instruments which hotels can use to control the revenues they acquire from customers. RMS in hotels are characterized by four attention facts that aid in revenue management; daily activities monitoring, procedures

followed principle indicators, and customer segmentation (Wang, Yoonjoung-Heo, Schwartz, Legohérel & Specklin, 2015). Hotels using RM systems are better than those that do not exist in a situation of decreasing interests; this was revealed in a study that used a databank of three and above star-rated chain hotels using MANOVA and ANOVA analysis (Ortega, 2016). In a competition of pricing and capacity, the findings projected that RM systems are fruitful in growing occupancy compared to achieving advanced rates and do not positively influence employees' productivity. Moreover, RM systems can enhance revenue though they may be affected by volatile market and economic circumstances. Nonetheless, hotels have not embraced them because it lacks critical effects on RevPAR (Ortega, 2016).

In terms of programming RM, two methods were identified, deterministic linear and dynamic programming methods. A RM network is attained by handling each night spent in a hotel room as a particular asset (Gallego & Van-Ryzin, 1997). The dynamic programming method creates great control strategies (Zhang & Weatherford, 2017). Deterministic linear creates more projecting predictable revenues of up to 2.9% by managing visitor stays than conventional RM methods (Weatherford, 1998). Data and information: Revenue predictions require inputs in an exceeding hotel RM System especially information regarding the customers (Morag, 2013). Historical data in archives are taken under consideration when forecasting booking, optimizing occupancy, and income benefits in hotels (Wang et al., 2015). RM system is an automated software that collects information related to; price rate, occupancy rate, revenue from every room in a hotel for the past years or season (Torc'h, 2015). There are four primary sources for attaining feasible RM information (Oliveri-Martínez-Pardo, 2017). These sources comprise; hotels calling competitors asking about their rates; they use GDSs to work out competitors' prices to various products and services and create changes in their prices. They may also use external data providers who regularly search reasonable competitors' sites to get the hotel's information.

Furthermore, the definitive source is online structures that supply their clients with useful approximating facts (Oliveri-Martínez-Pardo, 2017). RM software; RMS is a universally accepted software for RM; it is programmed with strategic information useful to hotel managers (Torc'h, 2015). Nevertheless, the software has a high cost to the hotels and requires experts to actualize its working in the hotel facilities. Carlson Rezidor Group of hotels has been able to achieve higher revenues through demand management and price optimization. In varying economic circumstances, the group used JDA Software to increase income, estimated a 2–4 percent increase in income, and face competitors n in the hotel business (Pekgün, Menich, Acharya, Finch, Deschamps, Mallery, Sistine, Christianson & Fuller, 2013). Another established model was able to forecast using hotel revenue records and increase or decrease income. The model could distinguish present and long-term objectives for RM requirements and fix shares (Padhi & Aggarwal, 2011). Another incorporated system for maximization of room revenue was found to create successful suggestions to expand income; the system's framework involved advancement and forecasting demand methods that handle clustered reservations with parameters related to; reservations, no shows, seasonality, patterns, and length of guest stay (El Gayar, Saleh, Atiya, El-Shishiny, Zakhary & Habib, 2011).

Pricing devices are commonly incorporated in RM, such include; price discrimination, price guarantee, dynamic pricing, behavioral pricing, rate fences, plus other tools that have an impression on the prices of the hotel though this depends on price rules, the structure of the hotel, level of the hotel and its presentation (Ivanov & Zhechev, 2012). The most commonly utilized and widely investigated RM pricing tools in hotels; (Ivanov & Zhechev, 2012) are price guarantee price discrimination and dynamic pricing (Choi & Kimes, 2002). Where dynamic pricing is practiced, service providers in hotels may propose varied rates. If the

prices irrationally surpass the standard or capacity of services or products they are attached to, they are considered high. Hence, each price should reflect the standard of service or product advertised (Anuwichanont, 2011). Hence, for price precision, hotels do studies by consistently checking competitors' index ratings and Average Daily Rate (ADR) as a way of confirming that the prices are precise and can be sustained (Adedipe, 2018). Some hotels in Kenya make pricing policies based on market statistics as provided by the Kenya Tourism Board. Hotels use price discrimination by charging their clients' different prices for like rooms. Price discrimination could be attributed to distinctions in prices targeting various market segments in the hospitality industry. For example, customers on business expeditions are less sensitive to hotel prices because they can meet the expenses of paying higher prices than leisure customers (Ivanov & Zhechev, 2012). Price fences in hotels are situations where apparent goods and services are made available on the market. They include; guest characteristics (for instance, representatives from the government, club members), a period of stay, payment conditions, adjustment, cancellations, and main duration (Kimes, 2010). Price fences are used to avert clients from exploiting low-priced services and products (Zhang & Bell, 2010). Hence, the price fence conditions should be made evident to customers when making a reservation. Non-pricing tools are associated with channel management and internal hotel mechanisms like; overbookings, capacity management, controlled length of stay, and assure room availability. Capacity management and overbookings are very traditional non-pricing methodologies in revenue management (Koide & Ishii, 2005; Karaesmen & Van-Ryzin, 2004; Talluri & VanRyzin, 2006), Out of all of them, overbooking is a highly studied tool compared to the controlled length of stay, which has received limited attention in studies (Ivanov & Zhechev, 2012). To sum up, embracing RM systems and models features a considerable effect on hotels' performance (Ortega, 2016). However, it is paramount to establish if the findings are context-specific or there are various reasons why hotels are not actualizing the RM models and systems. There is a need to find responses to the following questions; what are the main structural essentials for revenue management systems? Is there a linkage between RMS and the performance of Kenyan hotels?

Methods

This study adopted a survey research design, particularly a cross-sectional survey design; the researcher collects data at one point in time (Creswell, 2013). The design allowed for collecting quantitative data to determine the population's status concerning the study variables. This study targeted the star-rated classified hotels and facilities across Kenya. The classified star-rated ranges from one-star to five-star hotels, and facilities are spread throughout Kenya in various regions. These clusters of hotels are established and lead in a broader range of market segmentations. The star-rated hotels were targeted because of their enormous nature of standards operation procedures. Furthermore, RM practices have numerous application potentials in classified hotels compared to non-classified hotels. The scale of procedures in star-rated facilities enables them to assume such approaches, which are thought to be relatively affluent in non-classified hotels (Odawa, 2017).

The star-rated hotels and facilities used are listed in the national classification register by Tourism Regulatory Authority in the Kenya gazette (TRA, 2020). The Kenyan 225 star-rated hotels were the units of study in this research. The gazetted star-rated facilities cluster includes 25 five-star-rated hotels, 71 four-star hotels; 66 three-star hotels; 62 two-star hotels, and three one-star hotels. Only a few one-star-rated hotels, yet many un-classified hotels prided themselves on being in this cluster. The respondents were revenue managers or accounting managers. Hotel managers or human resource personnel were instrumental in directing the researcher to the staff to hold the relevant information on RM practices. The

respondent was one (1) in every star-rated hotel, thus translating to 225 respondents for the study. The respondents were people who play a leading role in the hotel's RM practices and therefore are experts in their area of specialization. It was envisaged that they would give information on the study topic. A questionnaire was used to do data collection from respondents. The literature for the questionnaire was adapted from the RM literature review. Some sections of the questionnaire had been borrowed and modified by the researchers from previous research to better measure the variables; for instance, some questions on RM practices items were adopted (Miricho, 2013) and modified by the researcher.

Results and discussion
Demographic data
The overall response was 148 out of 225 questionnaires giving a response rate of 65.78%. Data cleaning revealed that 11 questionnaires were more than 50% incomplete. The total number of usable responses was 137, giving a usable response rate of 60.89%. The results show that the Nairobi region had the highest respondents recording a response of 44.5%, western region 15.3%, coast region 11.7%, and central region 10.2%. All the other regions had less than 10% responses, with the eastern region recording at least 4%. In terms of the number of star-rated facilities, Nairobi has the highest while the east has the least. Most of the responses, 31.4%, were three-star-rated facilities, followed by four-star-rated at 28.5% and two-star-rated at 27%, about 12.4% five-star-rated and 0.7% for one star-rated facility respectively. In terms of location, 78.1 percent of these hotels were found in urban areas, while 11.7% were in the semi-urban region and 10.2% are in rural areas. Further, findings reveal that 77.4% of these star-rated facilities are independent while only 22.6% are chain affiliated. In terms of establishment, only 9.5% of hotels that responded were less than five years old, while 15.3% were over 21. The rest of the other star-rated hotels range between 6 and 20 years old in terms of operations. Findings indicated that most of the hotels, 75.2% indicated to have done refurbishment less than five years ago. While 15.3% did refurbishment 1-10years and 0nly 9.5% did it 11-15years ago. None of the hotels registered have done refurbishment for periods longer than that since establishment. In terms of available rooms, most hotels have between 1 to 100 rooms, with 36.5% with less than 50 rooms and 37.2% with between 50-100rooms. The hotels with over 300 rooms are very few, just 1.5%. Other categories, 101-150 rooms are about 8.8%, 151-200 rooms are about 8.0%, 201-250 about 5.1% while 251-300 rooms about 2.9%. The room prices in star rated show that in most hotels about 37.2% agree and 19.0% strongly agree that they are fixed till next review. In contrast, about a total of 10.9% disagree.

The practice of revenue management practices in star-rated hotels in Kenya
Table 1 below presents findings indicating some degree of the RM application in star-rated facilities (M=2.96, SD=.989). Only about 40.9% have fully actualized RM practices. Further, the respondent had some degree of expertise on RM matters (M=2.61, SD=.894).

Table.1 Formal application of RM

Formal Application of RM in hotels	N					Mean	Std. Deviation
	Statistic	Never heard of RM	Have heard about RM but do not understand the meaning	Slightly	Fully	Mean Statistic	Std. Statistic
Is revenue management (RM) formally practiced in your hotel?	137	5.8%	32.8%	20.4%	40.9%	2.96	.988
Extent of respondent		Basic	Intermediate	Expert	Advanced	Mean	Std.

expertise on RM		Level	Level		Level	Statistic	Statistic
Rate your extent of expertise on Revenue management	137	9.5%	38.0%	35.8%	16.8%	2.61	.894

Table 2 below presents findings that revealed that RM is practiced in star-rated hotels to predict the growth of the hotel (M=3.47, SD=.916), improves yield (M=3.50, SD=.841), reduces costs (M=3.50, SD=.994), and generates revenue (M=3.67, SD=1.072). The findings support assertions that RM practices are used to do future forecasts (Cross, Higbie, & Cross, 2011) for generating higher revenues (Karmarkar & Dutta, 2011). Further, the findings on RM policies and implementation revealed that hotels apply RM policies (M=2.45, SD=.985). There are individuals in charge of RM policy implementation (M=3.47, SD=.993). The hotels induct new employees on Rm policies (M=3.45, SD=.999).rm policies are regularly used when making hotel decisions (M=3.53, SD=.932). Revenue managers are tasked to oversee the implementation of RM policies (M=3.44, SD=.992). Management of various hotels supports the implementation of RM (M=3.59, SD=1.047). RM policies have assisted hotels in managing the finances of this hotel (M=3.64, SD=1.062). The findings support the affirmations that implementing innovative RM and reservation policies may help hoteliers increase income (Hernandez, 2015; Kimes et al., 2010).

Table 2. reasons for practicing RM; RM policies and implementation							Mean	Std. Deviation
	N							
Reasons for practicing	Statistic	Strongly Disagree	Disagree	Average	Agree	Strongly Agree	Statistic	Statistic
Predict growth of the hotel	137	2.2%	13.1%	29.92%	45.3%	9.5%	3.47	.916
Improves yield	137	2.9%	12.4%	18.2%	65.0%	1.5%	3.50	.841
Reduces costs	137	2.2%	9.5%	40.1%	29.2%	18.2%	3.50	.994
Generates revenue	137	9.5%	12.4%	28.5%	29.9%	27.0%	3.67	1.072
RM policies & implementation								
Application of revenue management policies	137	07%	18.2%	32.1%	33.6%	15.3%	3.45	.985
Somebody in charge of revenue management implementation	137	2.9%	12.4%	34.3%	35.6%	15.3%	3.47	.993
Induction of new employees on RM policies	137	1.5%	16.8%	33.6%	32.1%	16.1%	3.45	.999
RM policies is used making decisions	137	3.6%	7.3%	33.6%	43.1%	12.4%	3.53	.932
Revenue managers oversee implementation of RM policies	137	1.5%	19.0%	27.0%	39.4%	13.1%	3.44	.992
The management support implementation of RM policies to the core.	137	2.2%	12.4%	32.8%	29.2%	23.4%	3.59	1.047
RM policies help manage the finances of this hotel	137	2.2%	13.9%	25.5%	34.3%	24.1%	3.64	1.062
Valid N (listwise)	137							

Table 3 below, with findings on the revenue management team, shows that the team was knowledgeable and skilled (M=3.85, SD=1.007), the team has the right attitude for the job (M=3.79, SD=.950). RM is capable of handling RM challenges (M=3.69, SD=.904); the RM team is a team of Integrity (M=3.88, SD=.835). There are rare cases of RM unethical issues (M=3.96, SD=.966). To achieve the purpose of RM (Cetin et al., 2016) revealed that RM staff experience is full of sophisticated difficulties, and they should be knowledgeable, have relevant skills and capabilities to allow them to overcome these challenges.

Table 3 RM team

RM team	N Statistic	Strongly Disagree	Disagree	Average	Agree	Strongly Agree	Mean Statistic	Std. Deviation Statistic
RM team is knowledgeable and skilled	137	0.7%	8%	30.7%	27.0%	37.0%	3.85	1.007
RM employees have the right attitude for their Job.	137	0%	9.5%	29.2%	34.3%	27.0%	3.79	.950
RM team is capable of handling RM challenges	137	0%	8.8%	34.5%	35.3%	21.2%	3.69	.904
RM team is a team of integrity	137	0%	4.4%	28.5%	42.3%	24.8%	3.88	.835
We rarely handle RM unethical issues	137	0%	7.3%	25.5%	31.4%	35.7%	3.96	.966
Valid N (listwise)	133							

Table 4 below on integration of social media in RM findings reveal that hotels have integrated social media in RM activities (M=4.26, SD=.993), the social media has been embraced to handle clients' issues related to bookings and reservations (M=4.31, SD=.897). Integration of social media has improved the performance of hotels (M=4.18, SD=.964). Varini and Sirsi (2012) proposed novel practices that if hotels can increasingly adopt internet-based procedures like virtual networking, survey and reviews, and social networking, they are likely to practice RM (Noone et al., 2017). Further, findings reveal that RM techniques commonly used in star-rated hotels include price optimization tools (M=4.39, SD=.965). Dynamic pricing tool (M=4.46, SD=.891), revenue forecasting (M=4.35, SD=.801), and demand forecasting (M=4.69, SD=1.027). The use of these tools affirms their importance in hotels as it is a valuable strategy being used nowadays (Palmer & Mc-Mahon-Beattie, 2008), and they are used by more than 2,000 InterContinental Group of hotels (Koushik et al., 2012).

Table 4. Integration of social media in RM

Social media integration with RM	N Statistic	Very Rarely	Rarely	Occasionally	Frequently	Very Frequently	Mean Statistic	Std. Deviation Statistic
Social media integration on RM activities	137	2.9%	18.2%	41.6%	24.8%	12.4%	4.26	.993
The hotel has embraced social media to handle clients' issues related to RM, bookings, & pricings	137	2.2%	13.9%	43.1%	32.1%	8.8%	4.31	.897
Integration of social media contributes to performance of your hotel	137	4.4%	16.8%	43.8%	26.3%	8.8%	4.18	.964
RM techniques								
Price optimization tool	137	0%	8.0%	20.4%	32.1%	39.4%	4.39	.965
Dynamic pricing tool	137	0%	8.0%	35.0%	31.4%	25.5%	4.46	.891
Revenue forecasting	137	0%	12.4%	37.2%	24.8%	25.5%	4.35	.801
Demand forecasting	137	0%	8.8%	26.3%%	24.1%	40.9%	4.69	1.027
Valid N (listwise)	137							

Table 5 below shows findings of **r**evenue management systems. The results revealed that 74.5% of star-rated hotel facilities have had or interact with RM systems and sub-systems. Some hotels use either one or a combination of two systems. While some use in-house systems, 35% of others centralized systems 27.4%. About 33.6% have contracted for RM service from corporate centers in other hotels, while about 45.3% have outsourced from a third party. Hotels using a combination of several strategies are about 62.8%. Furthermore, most the hotels, 73% were found to have automated their revenue collection. It was also revealed that 76.5% have adopted integrated RM soft-wares. Furthermore, their revenue centers are integrated into RM soft-wares adopted. A variety of RMS uses include Amadeus RMS, Delphi, Trust, Elkatra, Ideas, Erbrasoft, Frequency-Opera, and Hotel runner, Ideas. RMS is a universally accepted software for RM; it is programmed with strategic information useful to hotel managers (Torc'h, 2015). The software has a high cost to the hotels and

requires experts to actualize its working in the hotel facilities probably; it is one reason why hotels in Kenya have adopted different RMS systems.

Table 5. RM systems

	N	Yes	Percentage	No	Percentage
Hotel operate a RM system	137	102	74.5%	35	24.5%
RM system is Hotel own in-house	137	48	35%	89	65%
Hotel's RM is Multiple hotels a centralized system	135	37	27.4%	98	72.6%
Hotel has Contracted RM service from Corporate	137	46	33.6%	91	66.4%
The hotel has Outsourced this Function to a third party	137	62	45.3%	75	54.7%
Hotel uses Combination (mixed) of these strategies	137	86	62.8%	51	37.2%
Hotel uses Automation revenue collection n	137	100	73%	37	27.0%
Hotel use integrated RM soft-wares.	137	105	76.6%	32	23.4%
Integration of all revenue centres to RM software	137	105	76.6%	32	23.4%
Valid N (listwise)	133				

Table 6 below shows that hotels provide clients with RM information regarding room prices and booking conditions (M=4.42, SD=1.241). The hotel provides discount rates in exchange for stricter cancellation (M=4.30, SD=1.190). The hotel insignificant price discounts in exchange for cancellation (M=4.39, SD=.987). The hotel provides different prices for products perceived by customers as different, e.g., weekend and weekday prices (M=4.42, SD=1.276). Changes in booking terms without \ informing the customer (M=4.47, SD=1.329). Revenue predictions need inputs in an exceeding RM System, mainly information about the customers (Morag, 2013). Archival data are essential when optimizing occupancy, forecasting booking, and income benefits in hotels (Wang et al., 2015).

Table 6. Revenue management data and information

	N						Mean	Std. Deviation
RM Data and Information	Statistic	Very Rarely	Rarely	Occasionally	Frequently	Very Frequently	Statistic	Statistic
Provision of RM information regarding prices and booking.	137	8.8%	13.1%	24.1%	33.6%	20.4%	4.42	1.241
Discounts in booking rates in exchange for stricter cancellation.	137	9.5%	13.9%	25.5%	38.0%	13.1%	4.30	1.190
Hotel insignificant price discounts in exchange for cancellation	137	3.0%	4.6%	30.7%	43.1%	8.8%	4.39	.987
There are different prices for products perceived by customers as different	137	10.3%	13.9%	17.5%	38.7%	19.5%	4.42	1.276
Changes in booking terms without informing the customer	137	9.5%	14.6%	21.2%	27.0%	27.7%	4.47	1.329
Valid N (listwise)	137							

Table 7 below on RM Pricing devices, findings reveal that hotels use the following pricing techniques; price discrimination (M=4.23, SD=1.105) and hotel erect rate fences (M=4.31, SD=1.026). Dynamic and behavioral pricing (M=4.20, SD=.976) and lowest price guarantee (M=4.39, SD=1.045). RM pricing tools highlighted here are some of the widely used and have an impression on the prices of the hotel though this depends on price rules, the structure of the hotel, level of the hotel, and its presentation (Ivanov & Zhechev, 2012). The findings further reveal that non-pricing techniques are used, like capacity management (M=4.69, SD=1.160). Management of overbookings (M=4.58, SD=1.076). Length of stay control

(M=4.39, SD=.988). Room availability guarantee (M=4.50, SD=1.023). The result confirms the practice of using RM non-pricing tools as a highly studied tool (Karaesmen & Van-Ryzin, 2004; Koide & Ishii, 2005; Talluri & VanRyzin, 2006).

Table 7 on RM Pricing & non-pricing techniques

RM Pricing devices	N Statistic	Very Rarely	Rarely	Occasionally	Frequently	Very Frequently	Mean Statistic	Std. Deviation Statistic
Price discrimination,	137	8.0%	15.3%	35.0%	29.2%	12.4%	4.23	1.105
The erection of rate fences,	137	5.8%	13.1%	36.5%	33.6%	10.9%	4.31	1.026
Dynamic and behavioral pricing,	137	6.6%	12.4%	43.1%	30.7%	7.3%	4.20	.976
Lowest price guarantee	137	5.1%	15.3%	27.0%	40.9%	11.7%	4.39	1.045
Non-pricing deveices								
Capacity management,	137	3.6%	12.4%	27.7%	23.4%	32.8%	4.69	1.160
Overbookings,	137	4.4%	10.9%	28.5%	35.0%	21.2%	4.58	1.076
Length of stay control	137	2.9%	13.1%	40.1%	29.2%	14.6%	4.39	.988
Room availability guarantee	137	4.4%	8.0%	39.4%	29.9%	18.2%	4.50	1.023
Valid N (listwise)	137							

Practical implications

RM researchers and hotel practitioners have been making constant calls for empirical investigations of RM practices; such studies contribute to the growth of academic literature (Hernandez, 2015; Ortega, 2016). Nevertheless, studies focusing on applying Revenue management practices in Kenyan hotels are scarce, and information on a theoretical framework is limited (Murimi et al., 2021). This study reveals that 40.9% of Kenyan hotels have fully actualized RM practices with the purpose to predict the growth of the hotel, improves, reduces costs, and generates revenue which supports assertions that revenue management practices are used to do future forecasts (Cross et al., 2011), for generating higher revenues (Karmarkar & Dutta, 2011). Further, the hotels are applying and implementing revenue management policies supporting the affirmations that implementing innovative RM and reservation policies may help hoteliers increase income (Hernandez, 2015; Kimes et al., 2010). This study adds to the growing body of literature on revenue management practices in the Hospitality sector, particularly enhancing our understanding of the value of RM application in hotels. RM tools commonly used include price optimization tools, dynamic pricing tools, revenue forecasting, and demand forecasting tools. The use of these tools affirms their importance in hotels as a valuable strategy being used nowadays (Palmer & Mc-Mahon-Beattie, 2008), and they are used by more than 2,000 InterContinental Group of hotels (Koushik et al., 2012). While the findings reveal that RM staffs are knowledgeable and skilled, there is a need to fully equip them with the latest skills to achieve revenue management in hotels (Cetin et al., 2016); staff experience is full of sophisticated difficulties. They should be knowledgeable, have relevant skills and capabilities to allow them to overcome these challenges. Varini and Sirsi (2012) proposed novel practices that if hotels can increasingly adopt internet-based procedures like virtual networking, survey and reviews, and social networking, they are likely to practice RM (Noone et al., 2017).

Conclusion

Based on the results presented, the paper provides empirical evidence on the extent of applying revenue management practices in star-rated hotels in Kenya. Previous and current researches on RM gave primary foundations for this paper. In contrast, secondary information was collected through the use of a structured questionnaire. RM practices metrics were adopted from past research, modified, and accustomed to this study as measured. The empirical evidence presented here reveals that star-rated hotels in Kenya are taking the bold

step of fully adopting and implementing RM policies, adopting RM techniques and RM systems to fully realize the potential benefits like an easier way to predict the growth of the hotel, increase yields, reduce operations costs and generating revenues. There is a need for full actualization of RM practices in all-star-rated hotels to realize the full potential of the hospitality sector. Based on literature from other academic disciplines, the paper strengthens the collective evidence to conceptualize and describe revenue management practices. This work presents empirical evidence that has been developed through an extensive cross-sectional survey. The empirical evidence may be used for future advanced studies on revenue management practices in hotels.

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