

REVIEW

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Determinants of revenue management practices and their impacts on the financial performance of hotels in Kenya: a proposed theoretical framework

Michael Murimi* , Billy Wadongo and Tom Olielo

Abstract

This conceptual paper aims at identifying a theoretical framework for the determinants of revenue management (RM) practices and their impacts on the financial performance of hotels. To create this framework, a two-phased process is employed where the first stage involves an explicit examination of the literature related to practices of revenue management and their determinants and to hotel financial performance. The second stage involves an enhancement of the framework. The theoretical structure is developed based on past theoretical explanations, and empirical analysis is conducted in the fields of revenue management. The researchers propose a theoretical framework illustrating how revenue management practices and their determinants affect the financial performance of Kenyan hotels. The use of contingency theory and its justifications and inadequacies among studies on revenue management in hotels is highlighted. The methods highlighted by the reviewed theoretical framework may be utilized to organize revenue management (RM) practices and their determinants for Kenyan hotels. Measurements for the financial performance of hotels are also described. Last, the researchers call for empirical research that authenticates the proposed model using a cross-sectional survey. The present work can inspire scholars and specialists to determine how RM practices and their determinants impact the financial performance of hotels. By assimilating knowledge from numerous disciplines, this paper emphasizes aggregated awareness surrounding the conceptualization of RM, RM practices adopted in hotels, and the financial performance of hotels.

Keywords: Contingency theory, Determinants, Determinants of the revenue management framework, Hotels in Kenya, Revenue management practices, Financial performance of Kenyan hotels, Revenue management

Introduction

The hotel sector is a fashionable sector and a significant player in development in Kenya. Kenya's hotel sector is composed of classified and non-classified establishments according to the Tourism Regulatory Authority of Kenya. A total of 225 establishments are classified with a one-to-five star rating and host a total of 16,156 rooms and 26,786 beds [1]. Comparative data from the

Kenya National Bureau of Statistics (KNBS) and CIEC data reveal that the occupancy rates of hotels in different regions are below average and vary greatly. Kenya's Hotel Bed occupancy rate was at 30.800% in 2019, reflecting a decrease from the previous level of 32.500% in 2018, and averaged at 36.250% from 2002 to 2019 [2]. Occupancy problems changes during peak seasons. Most hotels contract themselves out, due to inadequate space and rooms resulting from previous low season bookings associated with high discounts, such that when the high season arrives, they are incapable of realizing the maximum revenues possible [3, 4].

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Adverse effects of contingency factors such as seasonality and internal determinants within the sector will continue to influence Kenya's hotel industry, denying hotels not only stable occupancy rates but also chances to achieve the maximum possible hotel room rates and total revenues. Irrespective of the massive assurances and enhancements of systems of revenue management used by hospitality facilities, there has been inadequate research on the impacts of RM practices within this sector in Kenya. This paper focuses on determining factors of RM practices, practices of RM applied in hotels, and the financial performance of Kenyan hotels. Further, the paper specifies the relationships between these determinants and the financial performance of hotels. The paper in turn provides pertinent information for diagnosing and discovering appropriate explanations for declining occupancy levels among Kenyan hotels.

Contingency theory offers a guide for the development of propositions for study. There has been an absence of replications of contingency investigations of diverse sceneries such as those of the hotel sector in developing countries [5]. Further, a limited focus on current facets of RM practices restricts the capacity to generalize and revive contingency theory through other major academic domains [6]. The use of recommended perspectives from contingency research in determining and opposing the connections between aspects of contingency and RM practices supporting this proposed theoretical framework has followed [6]. Throughout the years, researchers have confirmed an association between factors shaping contingency and performance in different organizations [6–9]. Last, this paper responds to earlier demands for more studies of the hotel sector related to practices of revenue management [10–12].

Main text

This section presents the main body of the paper under the following subheadings: practices of revenue management in hotels; financial performance of hotels; relationships between revenue management practices and the financial performance of hotels; and contributions of contingency theory to the present study and research implications and contributions (Fig. 1).

Practices of revenue management in hotels

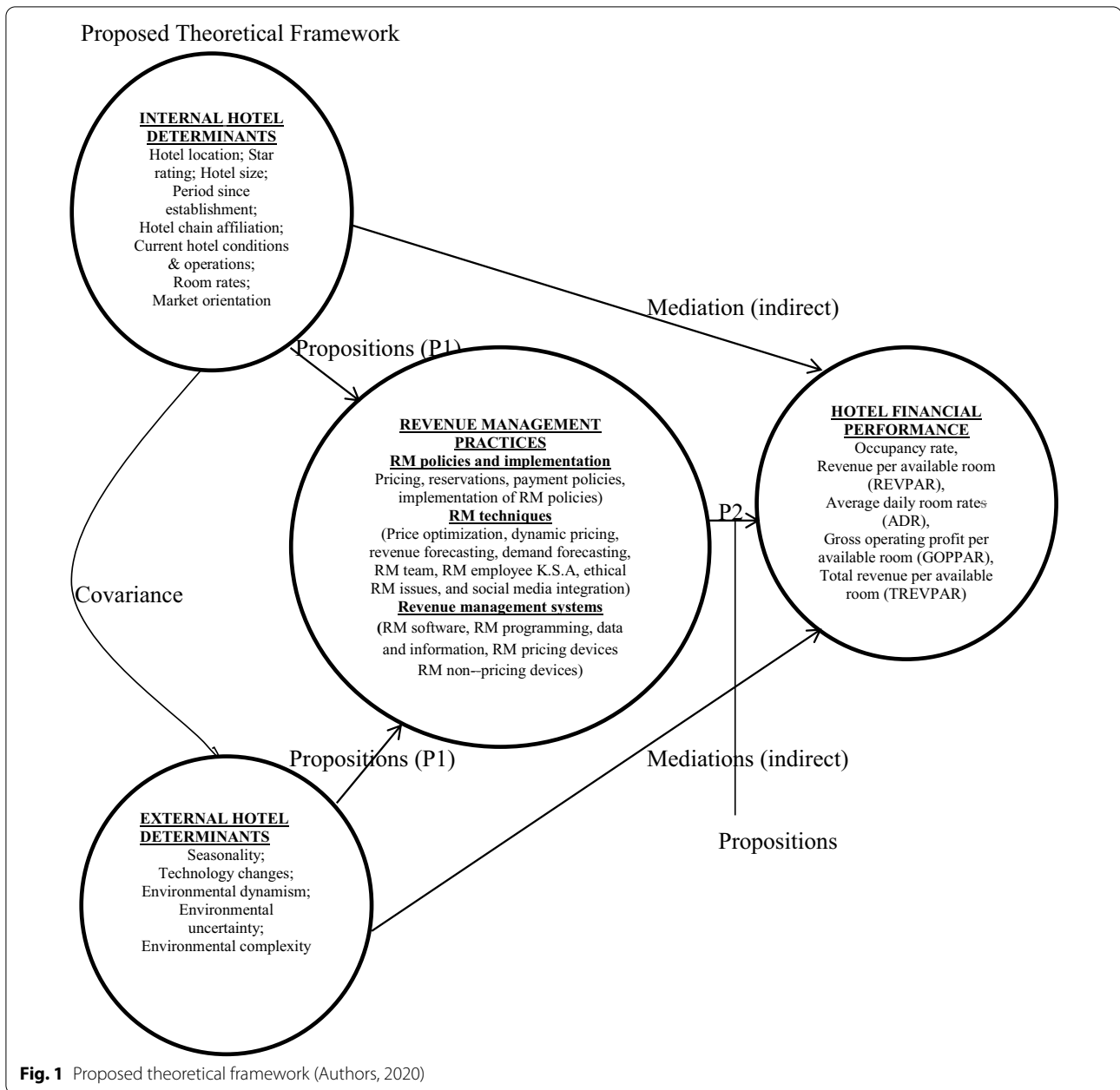
Expansion and developments of revenue management may be fortified through performance management outfits, including marketing and appraising, booking automation, and the improvement of Worldwide Distribution Systems [13]. Experts of revenue management rely on tools such as reliable data, valuing, and user-friendliness and demand anticipation to ensure the expansion of organizational capacity [14]. Practices of revenue

management are substantial when the following supplementary circumstances prevail; fixed capacity, transitory inventory, market fragmentation of demand, reservation structure where products and services are sold before their consumption; and changes in demands and low costs of marginal deals and high pricing policies [15]. Revenue management deeds are intricate and span several areas [16].

Revenue management research has drawn attention in recent decades from scholars and professionals focused on areas such as RM uses, processes, and structures. There has been a rise in RM models such as the hedonic price model for measuring the impacts of various factors on hotel prices [17], the successive consumer decision procedures model [18], dynamic and deterministic programming models, used to manage matters of RM in hotels [19], RM implementation and strategy models [10], the choice model [20], the room intensification integrated model for hotel proceeds [21], forecasting models [22], and the multinomial logit model for RM [23].

Few studies have explored the expansion and approval of revenue management practices within hospitality facilities. One such study is grounded on theories of transaction cost economics and the resource-based view [10], while others are based on grounded theory [24, 25] and the theory of systems [11]. Contingency theory-based research in the domain of revenue management practices has been scarce. Consequently, it is essential to address this research gap. To date, the cumulative implications of practicing revenue management mostly in hospitality facilities have not been adequately covered in scholarly work. As far as strategies are concerned, practices of RM in hotels are entering into strategic roles from tactical roles, including those of advertising, sales, accounting, and channel distribution [26]. For instance, as changes take place, revenue management must use appropriate tools such as mobile applications and social media [26–28]. The use of social media in combination with RM functions results in novel practices that produce useful content for customers, generating additional revenues [29]. Revenue streams from workspaces, catering, food and beverage services, and retail, among other services, when effectively coordinated with revenues from room bookings, increase total hotel revenues and empower facilities to realize their goals of amplifying profits in extremely stern markets [30].

Research on revenue management is in its infancy [10]. More empirical studies in hospitality management should be done with a focus on key areas such as policy execution in RM [11]. Future empirical studies on RM should scrutinize whether findings are based on conditions of the hotel sectors or if hotels are failing to implement practical RM systems for various motives



[12]. Research on the growing significance of ancillary hotel revenue has been limited. Previous studies provide little empirical proof of sensible applications of RM and of such systems in the hospitality sector. There is a continuous demand for empirical investigations on revenue management in the hospitality sector. Further, there is limited research on RM practices applied in the hotel sector from [10–12]. Therefore, a wide gap exists between the hypothetical development of RM and authentic applications of RM in hotels as highlighted by

academicians and professionals, laying a foundation for the development of our theoretical framework.

Determinants of revenue management

The following internal features of a hotel have been revealed to have an impact on aspects of revenue management. Star ratings show a significant association with RevPAR and have a considerable impact on revenue management [31]. Sainaghi [32] suggested that when a hotel facility is located in a central location, this increases the

approximated worth of its RevPAR. Hotel size shows an indirect relation between the number of guest rooms and RevPAR, and the number of employees adds value to occupancy and has an impact on RevPAR [32]. Hotel size and scale have been found to affect decision making regarding revenue management functions [33]. Founding and market orientation have an indirect relationship to RevPAR [32]. It is thus hypothesized that internal hotel factors such as room rates are related to the RM practices and financial performance of hotels.

Seasonality has some effects on hotel performance as a result of the misshaped schemes that result in alternative ways of using products in the tourism and hospitality industry [34]. Computerized RM necessitates the gathering of information and its interpretation for managerial use [35]. The hotel sector can be effected by delayed periods of vulnerability and unpredictability, economic volatility, variability in political circumstances, fear-based oppression, and pandemics [36]. Environmental dynamism resulting from changes in the market, clients, competition, and customer behavior significantly influences organizational performance [37]. Environmental complexities such as customer centralization, the differentiation of product and services, labor accessibility, and techniques brought about by technology have a positive influence on the performance of an organization [38]. It is thus hypothesized that there are relationships between seasonality, environmental dynamism, uncertainty, technological changes to RM practices and financial performance.

Financial performance of hotels

Hotel performance is believed to be the most influential facets hotel operation, affecting a hotel's competitiveness among competitors and long-term effects on the financial sustainability of hotel [39]. The performance of a hotel is measured based on the total activities of various sub-sectors of the hotel industry [40]. In the recent past, researchers have carried out various studies on hotel performance and its metrics [12, 33, 41–44]. A mixed-method strategy that involves implementation strategies is linked to the highest levels of RevPAR [33]. Wadongo et al. [43] emphasized the need to codify and describe metrics for the performance of hotel indicators. The financial performance of hotels is usually quantified from the total revenue per available room [45]. Other metrics include the gross operating profit per available sq ft, revenue per available room [42], and the average rate per room [44]. These metrics are used as financial performance indicators for hotels and may be construed in returns [46]. Returns on investment may be used to measure performance [47, 48].

Even though financial performance may be the focal impetus for embracing RM practices in hotels, empirical studies examining how RM practices are related to the financial performance of hotel have been limited. While studies on the financial performance of hotels have applied at most two indicators of performance, the proposed theoretical framework applies more metrics, including the gross operating profit per room, occupancy rates, the average rate per room, revenue per available room, and the total revenue per available room.

Relationships between RM practices and the financial performance of hotels

Several scholars have studied and found an association between hotel performance and RM practices, including payment policies regarding reservations [11], policies related to RM [49], pricing policies [50], revenue forecasting techniques [51], price optimization [52], social media strategies [29], accurate demand forecasting [53], non-mixed pricing [54], forecasting [55], RM system user benefit measurement [12], procedural room revenue maximization [56], and enhanced frameworks for the management of demand and optimization of prices [57].

More empirical hospitality management studies on key areas such as policy execution in RM have been called for Hernandez [11]. Future empirical studies on RM should scrutinize whether they are based on situational features of a hotel or if hotels are failing to implement practical RM systems for various purposes [12]. There is a need to understand cutting-edge revenue management strategies adopted in numerous settings and to further contribute to this emerging discipline by determining whether RM concepts can be generalized [10, 11]. It is thus hypothesized that RM practices and policies and their implementation, techniques, and systems affect hotel financial performance.

Contributions of contingency theory to the present study

Contingency theory was developed from influential literature of the mid-1960s. The premise of contingency theory is that there is no exceptional arrangement performance management structure used by all or any organization at all times, though different organizations rely on influential and significant contingent situations [7, 9, 58]. Organization performance management is influenced by contingency factors such as innovation, technology, strategies, organizational initiatives, and external factors [6]. Hotel performance has also been found to be influenced by contingency elements such as a hotel's dimensions, size, quality, and proximity to destinations such as towns and airports [8]. This hypothetical paper relies on the views of contingency research presented by Wadongo [6]. Wadongo proposes how to determine and oppose

the connections between aspects of contingency and RM practices that provide an explanation for the projected theoretical framework. Over the years, researchers have confirmed an association between factors of contingency and performance in different organizations [6–9]. While past contingency research has conducted studies of one or two variables based on choice fit and linkage impacts, this is uncertain due to common elements among contingency factors. Further, most of these studies present hypothetical and methodological inadequacies resulting from examining few variables measurement errors and contradictory model results [7]. In addition, the predicted association between contingency factors studied and the performance of organizations has not been adequately explained [59]. As an example, the following factors have not been considered as probable amplifications of substantial associations, government support, risk-averse managers, high profit businesses, and a tendency to use what others liquidate. The associations are believed to be direct, while effects are said to equal, while some connections could also be curvilinear when several proportions of efficiency contingencies are considered [59].

An absence of replications of such investigations of diverse settings such as the hotel sector in developing countries and of a focus on present facets of RM practices restrict the ability to generalize and revive contingency theory through other major academic domains [5]. An analysis of related literature shows that it is essential to discover how contingency factors impact RM practices that have not been researched within the hotel sector. Regardless of the limitations of the theory of contingency raised, it is still a credible theory for pursuing a considerate association flanked by determinants of RM practices and hotel performance in the profoundly vibrant hotel industry.

It is thus hypothesized that a connection exists between contingency factors, practices of revenue management, and the financial performance of hotels. Three significant propositions based on existing ideas have been developed. The first suggests that contingency factors (internal and external determinants) affect revenue management practices. The second suggests that RM practices affect the financial performance of hotels. The third suggests that practices of revenue management mediate the relationship between hotel contingency factors and the financial performance of hotels.

Research implications and contributions

Generally, a theory aims at guiding practices and research of a particular field; practice authorizes hypothesis testing, which produces investigations; these investigations enhance the building of hypotheses and selecting rules for practice; hence, hypothesis development and research

interlink to create data for other fields [58]. RM researchers and hotel practitioners have been making constant calls for empirical investigations of RM practices; such studies are contributing to the growth of academic literature [10–12]. Nevertheless, studies focusing on RM practices and their influence on the financial performance of Kenyan hotels are scarce, and information on a theoretical framework for the same is limited. A theoretical framework is a structure that holds or strengthens a hypothesis that should be investigated and that illuminates why related research should be carried out [60].

Additionally, it is crucial to develop a theoretical framework that gives direction to subsequent investigations of RM practices used in hotels and to advance sound RM theorization on hotel management. To fill this gap, this paper proposes a theoretical framework. Further, based on contingency theory, which contemplates internal and external determinants, the paper contributes to the development of a standard and adaptable RM theory, RM practices, and the financial performance of hotels. The developed theoretical framework may fundamentally reinforce future investigations by supporting critical assessments of the theoretical suppositions, correlating the research with prevailing information, and enunciating the hypothetical foundations for study. The proposed framework can provide answers to “why and how” questions and identify the limitations associated with proposed generalizations. Further, the presented theoretical framework postulates that contingency determinants have a significant impact on the RM practices and financial performance of Kenyan hotels, illustrating appropriate hypotheses and propositions, and what should be measured.

Conclusion

Based on the arguments of contingency theory, the proposed hypothetical framework illuminates the impacts of contingency determinants on the revenue management and financial performance of Kenyan hotels. Past theoretical justifications and empirical studies of hotel management give direction in identifying the current theoretical framework. Highlights and validations for using the theory of contingency and its rare applications to studies on revenue management have been provided. RM practice and financial performance metrics have been adopted from past researches, modified, and accustomed as proposed. Three main propositions are made. The present work advances a theoretical framework that creates opportunities for future study. The paper does not present a completely new framework for RM practices of Kenyan hotels; rather, it proposes a theoretical framework that can guide practice and the development of hypotheses, and research on the RM practices of Kenyan

hotels. Based on the literature from other academic disciplines, the paper strengthens the collective evidence for the conceptualization and description of revenue management and financial performance. This work presents an empirical study applying the proposed model through the use of a large cross-sectional survey. The proposed theoretical framework can help conceptualize and advance future studies on revenue management in hotels.

Abbreviations

ADR: average daily rate; AR: available room; GOPPAR: gross operating profit per available room; KNBS: Kenya National Bureau of Statistics; KSAs: knowledge, skills, and abilities; REVPAR: revenue per available room; REVPOR: revenue per occupied room; RMS: revenue management system; ROI: return on investment; TRA: tourism regulatory authority; TREVPAR: total revenue per available room.

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Author's contributions

M.M. prepared the study from which theoretical framework paper has been extracted, while B.W. and T.O. have consistently been critiquing the work to help in polishing the study and the paper before submission for publication. All the authors have read and approved the final manuscript.

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Availability of data and materials

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Competing interests

The authors declare that they have no competing interests.

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