PRICE METRIC FOR THE IMPROVEMENT OF ACCOMMODATION SERVICE OFFERS IN SUCRE- SAN VICENTE TOURIST DESTINATION

Gema Viviana Carvajal Zambrano, Frank Ángel Lemoine Quintero, Dianelys Nogueira Rivera, Yanelis Ramos Alfonso

ABSTRACT

Purpose: Present a strategic study of accommodation prices based on a price metric at the level of lodging activity to improve offers of the lodging service in tourist destination Sucre-San Vicente.

Theoretical framework: The recent state of the art literature has shown the growing need for hotel companies to obtain a sustainable competitive advantage. Due to this need, this study on lodging costs is of vital importance to determine cost standards at the level of lodging activity in Ecuador.

Design/Methodology/Approach: The study was carried out based on the database of the Decentralized Autonomous Governments (cadastre) of the cantons Sucre and San Vicente and under the supervision of the Uleam Tourism Observatory to examine the accommodation activity and its cost for lodging.

Findings: Among the main successes there is a close alignment between the prices offered and the prices requested by the hotels, indicating an appropriate adaptation to the demand offered and the prices requested by the hotels, indicating an appropriate adaptation to the demand.

Research, Practical & Social implications: The findings support informed decision-making in hotel pricing management, benefiting both hotels by maintaining competitiveness and travellers by planning their accommodation budgets with greater confidence.

Originality/Value: This study adds value by highlighting price alignment and a conservative rate-setting strategy in the hotel industry of Sucre-San Vicente, offering useful insights for price management and customer satisfaction.

Doi: https://doi.org/10.26668/businessreview/2023.v8i10.3937

MÉTRICA DE PREÇO PARA A MELHORIA DA OFERTA DE SERVIÇOS DE ALOJAMENTO NO DESTINO TURÍSTICO SUCRE-SAN VICENTE

RESUMO

Objetivo: Apresentar um estudo estratégico de preços de hospedagem baseado em uma métrica de preços ao nível da atividade hoteleira para a melhoria da oferta do serviço de hospedagem no destino turístico Sucre-San Vicente.

REFERENCES

A Master in Business Administration with a mention in Marketing. Universidad Laica Eloy Alfaro de Manabí, Extensión Bahía. Ecuador. E-mail: vivicarvajalzambrano@gmail.com Orcid: https://orcid.org/0000-0001-8451-9683

B Doctor in Economic Sciences. Universidad Laica Eloy Alfaro de Manabí, Extensión Bahía. Ecuador. E-mail: flemoine1964@gmail.com Orcid: https://orcid.org/0000-0001-8885-8498

C Doctor in Technical Sciences. Universidad de Matanzas. Matanzas, Cuba. E-mail: nelydaylinyuly@yahoo.com Orcid: https://orcid.org/0000-0002-0198-852X

D Doctor in Technical Sciences. Universidad de Matanzas. Matanzas, Cuba. E-mail: yramos@pucem.edu.ec Orcid: https://orcid.org/0000-0001-8383-1245
Referencial teórico: O estado recente da arte bibliográfica tem demonstrado a necessidade crescente das empresas hoteleiras obterem uma vantagem competitiva sustentável. Devido a esta necessidade, este estudo sobre custos de hospedagem é de vital importância para determinar os padrões de custos ao nível da atividade hoteleira no Equador.

Desenho/Metodologia/Abordagem: O estudo foi realizado com base na base de dados dos Governos Autônomos Descentralizados (cadastro) dos cantões Sucre e San Vicente e sob a supervisão do Observatório de Turismo de Uleam para examinar a atividade de alojamento e seu custo por conceito de alojamento.

Resultados: Entre os principais sucessos está um estreito alinhamento entre os preços oferecidos e os preços solicitados pelos hotéis, indicando uma adaptação adequada à procura oferecida e aos preços solicitados pelos hotéis, indicando uma adaptação adequada à procura.

Pesquisa, Implicações práticas e Sociais: Os resultados apoiam a tomada de decisões informadas na gestão de preços de hotéis, beneficiando tanto os hotéis ao manterem a competitividade como os viajantes ao planearem os seus orçamentos de alojamento com maior confiança.

Originalidade/Valor: Este estudo agrega valor ao destacar o alinhamento de preços e uma estratégia conservadora de fixação de tarifas na indústria hoteleira de Sucre-San Vicente, oferecendo insights úteis para a gestão de preços e a satisfação do cliente.

Palavras-chave: Métricas de Preço, Atividade Hoteleira, Oferta, Demanda, Equador.

MÉTRICA DE PRECIO PARA LA MEJORA DE OFERTAS DEL SERVICIO DE ALOJAMIENTO EN DESTINO TURÍSTICO SUCRE- SAN VICENTE

RESUMEN

Objetivo: Presentar un estudio estratégico de precios de alojamiento a partir de una métrica de precio a nivel de actividad de hospedaje para la mejora de ofertas del servicio de hospedaje en destino turístico Sucre- San Vicente. Marco teórico: El estado del arte bibliográfico reciente, ha instruido de la creciente necesidad de las empresas hoteleñas de obtener una ventaja competitiva sostenible. Por tal necesidad, este estudio sobre los costos por concepto de hospedaje es de vital importancia para determinar estándares de costos a nivel de actividad de alojamiento en el Ecuador. Diseño/Metodología/Enfoque: El estudio se realizó basado en la base de datos de los Gobiernos Autónomos Descentralizados (cadastro) de los cantones Sucre y San Vicente y bajo la supervisión del Observatorio Turístico Uleam para examinar la actividad de alojamiento y su costo por concepto de hospedaje. Resultados: Entre los principales aciertos existe una entrecha alineación entre los precios ofertados y los precios solicitados por los hoteles, indicando una adecuada adaptación a la demanda ofertada y los precios solicitados por los hoteles, indicando una apropiada adaptación a la demanda. Implicaciones de investigación, Prácticas y Sociales: Los hallazgos respaldan la toma de decisiones informadas en la gestión de precios hoteleros, beneficiando tanto a los hoteles al mantener la competitividad como a los viajeros al planificar sus presupuestos de alojamiento con mayor confianza. Originalidad/Valor: Este estudio aporta valor al destacar la alineación de precios y una estrategia conservadora en la fijación de tarifas en la industria hoteleña de Sucre-San Vicente, ofreciendo insights útiles para la gestión de precios y la satisfacción del cliente.

Palabras clave: Métrica de Precios, Actividad de Hotelera, Oferta, Demanda, Equador.

INTRODUCTION

The tourism figures for Ecuador in 2018 were positive and this year was denoted as a tourist reactivation after the earthquake event of April 16, 2016. According to data from the General Coordination of Statistics and Research of the Ministry of Tourism, the entry of foreigners into the country It grew by 11% compared to 2017, without considering the total Venezuelan market of arrivals, 956,067. In total, 2.4 million people entered Ecuador, that is,
51% more than in 2017. The highest number of arrivals was recorded by land with 1.3 million, followed by air with 1,078,017 million. (Mintur, 2021)

One of the important factors for the growth of tourism in 2018 was the increase in the arrival of visitors by air, which represents 16%, more than in 2017, thanks to the start of operations of new airlines such as Spirit, GOL and Laser Airlines and the expansion of frequencies and new routes of Aeroméxico, Aireuropa, Tame and Aerolane. Spain turned out to be the first country with the highest percentage growth. In 2018 alone, more than 103,008 arrivals were registered (75% more than in 2017), followed by the United States with 351,709 arrivals (44% more than in 2017), Canada (21%), Belgium (17%), Germany, Italy (15%), Netherlands (13%), among others. (GEOVIT, 2019)

In 2018 the tourism balance grew compared to 2017 and reflected a positive balance of income compared to expenses of 1,332.3 million dollars, according to data obtained from the Balance of Payments of the Central Bank of Ecuador (BCE). In addition, tourism contributed 2,392 million dollars to the Ecuadorian economy, which maintains it as the third source of non-oil income, after bananas and shrimp. (ECB, 2019)

In the nine national holidays of 2018, the economic dynamism was 425.8 million dollars, with the Carnival holiday being the one with the greatest movement, with 64.7 million dollars.

Data provided by the Geovit tool (GEOVIT, 2018), implemented by the Ministry since September 2018 to measure domestic tourism, indicate that 13.2 million trips were made during the 2018 holidays and that the main destination cities were Quito, Guayaquil and Cuenca. It is important to note that a trip is considered when the tourist spends the night in the place they visit. (Tourist, 2018)

Ecuador's gross domestic product in 2018 has grown by 1.4% compared to 2017. This is a rate 10 tenths lower than that of that year, when it was 2.4%. In 2018 the GDP figure was 91,785M. €, making Ecuador the 61st economy in the ranking of the 196 countries for which we publish the GDP. The absolute value of GDP in Ecuador fell 537M. € compared to 2017. Ecuador's GDP Per capita in 2018 was €5,392, €111 lower than in 2017, when it was €5,503. To see the evolution of GDP per capita, it is interesting to look back a few years and compare these data with those of 2008 when the GDP per capita in Ecuador was 2,901. (Expansion, 2020)

The activity based on cost in the setting of prices for lodging services in Ecuador is controversial since demographic, geographical and psychographic factors make the service and
infrastructure of the hotel sector constructively diverse, which means that there is a variation by concept of very diversified hotel service price.

It must be recognized that accommodation service companies currently demand cost systems that report greater detail in the information generated, with the purpose of guiding the application of effective and diversified strategies that lead to capturing and appropriating greater market spaces, especially when competitiveness is high (Morillo-Moreno & Cardozo, 2017)

Besides (Tobar & Hidalgo, 2017) argue that in the hotel sector it is necessary to establish the impact of cost determination on pricing in the lodging service, considering it a high priority for adequate decision making and indicating the major problem detected, such as the inadequate calculation of costs. costs, caused by an inappropriate determination of costs, resulting in a deficiency in the pricing of the hosting service.

There are authors who have addressed the issue of hotel cost setting, among them the following stand out: (Peña, 2010) where it highlights that the accommodation service constitutes the reason for being, or the essence of the hotel business, it also refers that this service is the most important generator of income for hotels, it is in a range between 60% and 70% of total income. (Yermanos & Correa, 2011) addresses in a general way how costs behave at the management level, however (Rodriguez, 2012) He reflects in his book the distribution of costs at the level of hotel activity where he frames a single plan of accounts for hotels, restaurants and the like. (Calle et al., 2018) when it emphasizes at the area level specifications of incidents due to costs.

Other authors have focused more on studying the activity as an alternative for improving the service. (Villacis et al., 2021) they focus on the image of hotel infrastructure instead, on the other hand (Girl and others, 2021) present their experiences in tourism operations in the area under study and (Lemoine-Quintero et al., 2020) delves into the social contradictions that the tourist who frequents the destination of Ecuador is exposed to.

In another area (Morillo, 2009) explains how to analyze the activity-based cost system for tourist accommodation establishments, on the other hand, the same author (Morillo M., 2010) The study is resumed to verify changes in the cost system processes, focusing on prevention and evaluation costs, failure costs, and quality totals. (Consulting, 2013) Within its strategic approach it takes into account some costs in the accommodation activity but in a general way and in another area (Monsalve & Hernández, 2015) and (Pérez-Castañeira et al., 2021) they emphasize tourism management models as a phenomenon that affects the activity
of accommodation services. The aforementioned authors do not address in detail how to determine lodging costs as a lodging synergy strategy.

Nowadays, with the constant changes of hotel companies and with the unwavering influences of the acting factors that constantly interact with the hotel sector and under the influences of the environment, there are many difficulties in the accommodation activity in Ecuador, multiple studies focus on quality. Of the hotel service but do not define how to determine an average cost in the activity.

For this reason, the purpose of this investigative study is to provide not only alternative solutions to problems presented when determining the costs and prices of lodging services in hotels, but also to show a method that allows the hotel industry to determine better strategies in the lodging costs with the purpose, in addition to developing the efficiency of your economic activities, taking into consideration it will provide you with a price reengineering tool specific to lodging services. Likewise, the pricing metric will be of great support for managers, administrators or owners to make effective decisions and obtain better results in the marketing management of the accommodation service.

The Sucre Extension belonging to the Eloy Alfaro secular University of Manabí from the research project “Uleam Tourist Observatory” seeks among its objectives the development of tourism activity from the perspective of sustainability in the Sucre-San Vicente-Jama-Pedernales destinations; and although they have generated research by researchers such as (Lemoine et al., 2019) that they expose regarding the sustainability of hotel services in their sociocultural environment, another study by the author himself refers to the positioning of hotel companies in search engines. (Lemoine et al., Search engine positioning of hotel companies in the Sucre Canton. Ecuador (2017), 2019) and the evaluation and global analysis of efficiency in the hotel sector of the Sucre-San Vicente destination (Lemoine et al., 2021) without addressing the offer of lodging prices in the hotel or accommodation activity of the sector under study.

Based on the above, the objective was set to develop a price metric at the level of lodging activity to improve accommodation service offers in tourist destinations such as Sucre-San Vicente, based on the hotel survey cadastre, carrying out an ABC to select The A as the lodgings with the greatest presence of tourists to the destination.
MATERIALS AND APPLIED METHODS

The proposed methodology to address the problem of pricing in the hotel sector of Sucre-San Vicente focuses on a series of key steps, establishing that this research prevails in the quantitative order rather than the qualitative order. Firstly, a comprehensive analysis of the current situation of the local hotel market will be carried out, identifying the obstacles that companies face in determining accommodation costs and rates. Data will then be collected from both the market and participating hotels to support the decision-making process. Next, a pricing metric will be developed, using statistical analysis and regression models to consider relevant variables.

The methodology includes pilot testing and staff training to ensure effective implementation. Finally, a continuous monitoring and evaluation system will be established to measure the impact of the metric on the economic efficiency and price management of hotels. This methodology will provide a comprehensive approach to solve challenges in the hotel sector and improve competitiveness in Sucre-San Vicente.

The descriptive analytical method in the context of this study on the improvement of accommodation service offers in Sucre-San Vicente is defined as a research approach that focuses on the detailed collection and systematic analysis of data related to prices and costs in the hotel sector of the region. This method is based on the use of statistical techniques and analysis tools to deeply examine the patterns, trends and relationships that exist between the collected data. Its main objective is to provide a clear and complete vision of the dynamics of prices and costs in the hotel market.

The population focused on the accommodation center of the Sucre-San Vicente destination because these are the two strategic cantons from the geographical point of the northern coast, where 52 hotels belong to the Sucre canton and 71 to the San Vicente canton for a total of 123 lodgings and The sample was 60, which represents 49% of the total, using simple random sampling for convenience.

RESULTS AND DISCUSSION

The analysis of prices is recommended from the application of the method known as Price Engineering. This method determines a high band, a medium band and a low band, into which the different plans are grouped.
Price engineering is a technique that allows the adjustment of prices with respect to demand requirements. It is based on the analysis of the behavior of demand in relation to the prices of the products offered.

This method also seeks to eliminate large price differences within the list of products, for this a high band, a medium band and a low band are determined, in which the different products are grouped.

According to the method, 50% of the products must be concentrated in the middle band; The rest of the products must be as close as possible to the limits of the medium band and in no case may they be higher than the limit of the high band or lower than the limit of the low band.

The aspects related to the collection of information are the same as those of product engineering regarding: number of units sold, number of presentations and sales price.

For the analysis of the information, the calculation of the following parameters is necessary:

**Average Price Offered (PMO)**

It is recognized as the average value of the rates or prices that hotels or accommodation establishments offer to customers during a specific period. This indicator is obtained by adding all the rates available for reservations in a certain period and dividing this sum by the total number of rates considered. PMO is an essential metric in pricing management and competitiveness in the hospitality industry, as it provides a key reference for understanding the average cost guests can expect to pay for a stay at a tourist destination or a particular location. PMO analysis is valuable to hotels when adjusting their pricing strategies and to travellers when planning their accommodation budget.

It is the average price of the list of products, weighted by the number of times the same products are presented:

\[
PMO = \frac{\sum_{i=1}^{n} X_i \times P_i}{\sum_{i=1}^{n} P_i}
\]

Where:

- PMO: Precio medio ofertado.
- \(X_i\): Precio de venta unitario.
- \(P_i\): Cantidad total de presentaciones.
- \(i\): Productos
**Average Order Price (PMP)**

It is the average price that the customer accepts when faced with the list of products. It refers to the average price that a hotel or company requests from customers for its accommodation services during a specific period. Unlike the Average Price Offered (PMO), which is based on the rates available for reservations, the PMP focuses on the actual price requested by the company before any negotiation or discount. To calculate the PMP, all requested rates would be added and divided by the total number of rates considered. This metric would provide insights into a hotel's pricing strategy and how it compares to PMO and other pricing-related metrics in the industry.

\[ PMP = \frac{\sum_{i=1}^{n} I_i}{\sum_{i=1}^{n} Q_i} \]

Where:

- **PMP**: Precio medio pedido.
- **I<sub>i</sub>**: Total de ingresos.
- **Q<sub>i</sub>**: Total de unidades vendidas.
- **i**: Productos

**Coefficient**: Provides a correspondence between the price lists and the prices accepted by demand. According to the method, its value must range between 0.95 and one, the closer it is to one, the more equal the supply will be to the demand in terms of prices; However, the optimal value of this should be close to 0.95, which allows maintaining a supply slightly higher in prices than the demands of demand, this ensures that possible fluctuations in demand are covered.

\[ \text{Coefficient} = \frac{PMP}{PMO} \]

Studies regarding price management in an online hotel Revenue Management system show its growing influx of tourists to the destination according to (Prats & Guia, 2012), although (Toapanta & Pinargote, 2022) ensures the influence of social networks on sales execution, on the other hand (Martínez et al., 2020) bases its study on the quality and demand of hotel service, but (Calvo et al., 2022) If it addresses a pricing strategy in the hotel industry, showing results empirically without taking into account a demand in the sector.
• New Average Offered Price (NPMO): It must be defined based on the result of the aforementioned coefficient. When it is less than 0.95 it indicates that it is being sold at prices higher than those accepted by demand and, on the contrary, when it is greater than one it shows that prices are not influencing the purchase decision.

\[ \text{NPMO} = \frac{\text{Precio Medio Pedido}}{0.95} \]

This New Average Offered Price constitutes a global indicator of the procedure in which prices within the offer must be increased or decreased, as the case may be. This procedure determines:

\[ \text{Porcentaje de variabilidad de los precios} = 100 - \frac{PMO}{NPMO} \]

The method is based on determining:

• **Average Popularity Index (MPI):** Expresses the probability that each product on offer has of being consumed; For example, in an offer of four products, each one has a 25% probability of consumption. In most offers, approximately two-thirds of the entire contribution comes from a smaller number of products; Therefore, an arithmetic average can be significantly distorted when highs are combined with lows. That is why a central tendency must be used, which is more sensitive to an absolute variation of the low terms than to an absolute variation of the same as the high terms. This measurement is the Geometric Mean.

• **Average Contribution Margin:** It is the weighted average of the differences between sales and total costs.

For the analysis of prices, the method known as Price Engineering was applied. The application of this for the Hostal Ruta del Sol is shown below, according to expert criteria, it constitutes one of the most frequented historically.

Average Price Offered (PMO): It is defined as the average value of the rates or prices that hotels or accommodation establishments offer to customers for the reservation of their accommodation services in a given period. This metric is calculated by adding all available rates and dividing the total by the number of rates considered. The PMO is an important measure to understand the average cost that customers can expect when booking a room in a
tourist destination or in a specific hotel sector. This information is valuable both to hotels when establishing pricing strategies and to consumers when planning their travel budget.

Table 1: Information for calculating the Average Offered Price.

<table>
<thead>
<tr>
<th>Accommodation</th>
<th>Unit price</th>
<th>Presentations</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple</td>
<td>25</td>
<td>15</td>
<td>375</td>
</tr>
<tr>
<td>Double</td>
<td>45</td>
<td>30</td>
<td>1350</td>
</tr>
<tr>
<td>Triples</td>
<td>60</td>
<td>15</td>
<td>900</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>60</td>
<td>2625</td>
</tr>
</tbody>
</table>

a. Independent variable: Price metric

Source: Prepared by Authors (2023)

\[ PMO = \frac{2625}{60} = 43.75 \]

\[ PMO = \sum_{i=1}^{n} X_i * P_i / \sum_{i=1}^{n} P_i \]

Average Order Price (PMP):

\[ PMP = \frac{\sum_{i=1}^{n} I_i}{\sum_{i=1}^{n} Q_i} \]

\[ PMP = \frac{2362 \cdot 5}{56} = 42.19 \]

Coefficient = \[ \frac{PMP}{PMO} \]

Coefficient = \[ \frac{42.19}{43.75} = 0.96 \]

New Average Price Offered (NPMO):

\[ NPMO = \frac{\text{Precio Medio Pedido}}{0.95} \]

\[ NPMO = \frac{42.19}{0.95} = 44.41 \]

Porcentaje de variabilidad de los precios = 100 - \[ \frac{PMO}{NPMO} \]

Porcentaje de variabilidad de los precios = 100 - \[ \frac{43.75}{44.41} \] = 98.96
The result obtained with the application of this procedure defines the Average Offered Price of 43.75 USD, the Average Order Price of 42.19 USD, in addition, it was shown that the supply is close to the demand in relation to the price since the coefficient obtained is 0.96.

The procedure proposes 44.41 USD as the New Average Offered Price, that is, an increase of 1.50% of the proposed price. The percentage of price variability is 98.96%.

This procedure can be applied to all products, as well as between the prices of the same type of product and obtain price ranges for products at the destination level.

Based on the calculations carried out, it is evident that the Average Offered Price (AMP) is located at 43.75 USD and the Average Asking Price (PMP) is at 42.19 USD, which suggests that there is a close alignment between the offer and demand in terms of prices, since the coefficient obtained is 0.96. Furthermore, the proposed New Average Offered Price (NPMO) of $44.41 implies a modest increase of 1.50%, indicating a conservative price adjustment strategy.

The percentage of price variability, which reaches 98.96%, underlines the stability in pricing. Overall, these results suggest that the hotel company is making pricing decisions that maintain a balance between supply and demand, which can be beneficial for competitiveness and customer satisfaction.

(Darios, 2021) explains guidelines on how to grow revenue as a constant goal in the minds of all hoteliers and hosts but does not detail how to calculate it and (UNIR, 2022) explains how the price of products is a decision on which the profitability of a company largely depends; Each company must analyze which pricing strategy is the most appropriate. From the context of this study, suggestions are given to determine prices with favorable results for the activity of lodging services.

CONCLUSIONS

That the alignment of Prices with Demand was reflected in the study that reveals that the prices offered by hotels, represented by the Average Price Offered (AMP), are in tune with customer demand, since the calculated coefficient is 0.96. This indicates that hotels are effectively adjusting their rates to meet guest expectations, which can contribute to higher occupancy and profitability.

Regarding the conservative adjustment strategy, it is concluded that the proposal of a New Average Offered Price (NPMO) of 44.41 USD, with an increase of 1.50%, reflects a cautious pricing strategy. This suggests that hotels are not looking for drastic changes in their
rates, which may be a wise tactic to maintain stability in the market and avoid potential negative reactions from customers.

Finally, that the high stability in pricing was observed that the percentage of price variability, which reaches 98.96%, indicates notable stability in pricing. This can be a positive indicator for hotel management, as consistency in rates can build trust among customers and contribute to more effective planning by travellers.

This study suggests that hotels in Sucre-San Vicente are managing their prices effectively, maintaining alignment with demand and adopting a prudent adjustment strategy that promotes stability in the market. These practices can be beneficial for both hotels and travellers looking for accommodation in the region.

REFERENCES


Expansion. (2020). The GDP in Ecuador decreases compared to the previous year. https://datosmacro.expansion.com/pib/ecuador


Pérez-Castañea, Gómez-Figueroa, Laguardia, S., Santa-Cruz, Cruz-Blanco, & Santos-Pérez. (2021). Study of models that address the management of tourist destinations. Industrial Engineering, 42(3).


BIND. (2022). What are the main pricing strategies? https://www.unir.net/marketing-comunicacion/revista/estrategias-precios/
