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EARLY PURCHASE IN TOURIST ACTIVITIES: EVIDENCE FROM A UNESCO WORLD HERITAGE SITE

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Abstract: Tourism in Seville (Spain) is presented as the economic engine of the city and the management of its cultural heritage as the central claim that justifies its visit. The planning of the trip influences the traveller needs to visit the Alcazar of Seville and the reservation of tickets. Using Machine Learning techniques on purchases made from the tourist product of the guided tour and taking the difference between the dates of the purchase and the time of the visit you get associations of the behaviour of the traveller that can be valued for the marketing actions of local operators versus the Online Travel Agencies (OTAs) that have a favourable position in the global tourist attractions market.

Keywords: Experiences booking; machine-learning; advanced-booking; reservation; Unesco World Heritage.

1 Introduction

It is necessary consider that the intention to buy (Willing to Pay-WTP) in the tourism sector, is a factor of heterogeneous nature that is added to a number of factors in tourism industry in general since the objective of any tourism marketing professional is to generate reservations in advance (Lewitt, 1981). Time is a situational factor which influences the consumer's behavior (Banabakova, 2015). Time is a crucial factor in the determinant of the decision to search for information and in the action of the hotel reserve (Chen & Schwartz, 2008), where studies lead to conclusions on price sensitivity and nonlinear temporal discrimination; drawing different studies, Non-linear U-curve behaviours as the time between the reservation and the stay is narrowed. The tourist/traveler appreciates more the risk of unavailability than of getting a better price, and this even varies greater as the date of the trip approaches, taking the variable of time a high weight in decision making (Lynch & Zauberman, 2007).

There is already a lot of literature that addresses the issue of anticipation in the reservation of both transport and, especially, hotel reservation (e.g. Antonio et al., 2019; Falk & Vieru, 2019; Liu et al., 2014; Nicolau & Masiero, 2017; Piga & Bachis, 2006; Rahman et al., 2018; Schwartz, 2006; Schwartz & Hiemstra, 1997; Toh et al., 2011; Tsai & Chen, 2019), which serve as the basis of different actions of Revenue Management of

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both sectors, not so in the sector of experience or tourist attraction much dominated by the global action of the Online Travel Agencies (OTAs), leaving little room for manoeuvre to local operators their actions on the in-advanced-bookings and generation of sales through their own distribution channels. In general, transportation and accommodation are the most considerable expenses in the tourist's purchase decision. This may be an evident reason for the greater scarcity of studies focused on anticipating bookings for activities and experiences in the tourist destination. Thus, the main objective of this study is to frame on anticipation in bookings of activities and tourist experiences, we will take as a basis the studies carried out in the field of hotel reservations and see what similarities and differences we can find about Schwartz's model for hotel reservations (Schwartz, 2006) with the predictor about and the risk of full capacity (sold out risk), on the intention of purchase related to the value that traveler gives to the activity such a guided tour or simply get the ticket entrance for visiting the monument.

Visits to the attractions of the tourist destination are essential to achieve greater tourist satisfaction. Many trips are made to go to a tourist attraction, so it is usually necessary to make a reservation of this space to guarantee the visit. This study has been based on a typical tourist space in the city of Seville (Spain), such as the Set of the "Reales Alcázares" or the Alcázar of Seville, which is based in a compendium of different palatial buildings that housed the residence of Spanish Kings throughout different periods of the history of Spain. For its beauty and for containing vestiges of different eras: Muslim, Mudejar, Gothic, Renaissance and Modern times, it is a must in the stay in the city of Seville. During 2019, the "Reales Alcázares" surpassed the number of two million visits (*Ayuntamiento de Sevilla* –City council of Seville-, 2020) being one of the reference icons in the growth of the tourist activity of the city experienced during 2019. The Alcázar palace complex, next to the Cathedral of Seville and The General Archive of Indies, they are declared a World Heritage Site since 1987 is the title conferred by UNESCO. This study takes the Alcázar as an icon of the city of Seville, which is experiencing a growth of its tourist activity in recent years thanks in part for the organic evolution of this market and, on the other hand, for initiatives at the institutional tourism promotion of the city. As Esmi and Shiran (2020) suggest, the majority of marketing management programs related to historical buildings are focused on advertisement to optimize the image of the destination among tourists. Therefore, the study on the Alcázar is justified as the main tourist activity of the city, surpassing the previous most visited attraction, the Cathedral. The city of Seville is experiencing greater growth in the tourism sector within Spain surpassing other destinations such as Barcelona or Madrid and showing even with a high growth potential. In this sense, with annual growth of 3% in 2019, thereby the number of travelers staying in hotels and apartments has reached 3,121,932 with a growth of 3.8% compared to 2018.

2 Literature review and hypothesis development

This work focuses on the study of the anticipation of the purchase of the tourist experience within a set of decisions that the traveller or tourist undertakes at the time of the basis of Machine Learning tools as suggesting from *and internet search index.*

The decision mostly suggests the following timing scheme, varying from person to person: MOBILITY-STAY-ACTIVITY.

The traveller will give weight to this decision and the time in which he reserves each of these decision groups based on a multitude of factors that will be given by:

> (a) Own of the subject's behaviour and his aversion to risk and price sensitivity (Zhao & Zheng, 2000)
> (b) Own of the elements the offer of each service and as perceived by the subject (Wu & Harding, 2006)

Approaching the date of the reservation, the sensitivity to the price is lower so the intention to buy (WTP) is increasingly fear of unavailability until last minute booking. This sensitivity to price, in the case of hotel reservation, is observed in two different behaviours to the components of the traditional study:

> - High price sensitivity, so the reservation is anticipated in time (Capiez & Kaja, 2000; Orkin, 1990)
> - Low price sensitivity due to closeness to the date of stay, with No availability risk or Sell-Out Risk (Schwartz, 1998, 2000)

Price sensitivity is in conjunction with the Theory of Scarcity (Wu & Hardy, 2006) whereby "there is not too much of a thing for a certain number of people which leads us to need to act in terms of anticipation and price". This scarcity and misinformation has been reduced by the emergence of the media offered online for tourist reservations in general, and the search for information by tourists and traveller (Bai et al., 2004), reducing the difference in power of information between them and hotel operators, and the perception that tariffs have been reduced, implementing information-seeking behaviour in the decision (Fodness & Murray, 1997) as well as in the consumer behaviour of other Industries. Similarly, in the process of searching for information is affected by the moment it is performed and the channel selected (Pearce & Schott, 2005). Timer variable is introduced in the accepted model of Advance Reserve Decision (Schwartz, 2000, 2006) which configures the following variables in a model that relates price and utility: (a) probability of cancellation; and (b) probability of discount; breaking the accepted conventional scheme of that "at higher anticipation, best price (Glab, 2004; Perkins, 2005).

Lynch and Zauberman (2007) considered that when a variable varies from the model, it varies the behaviour of all variables affecting as it approaches the date of booking. The study coincides with empirical evidence on the lowest prices on hotel bookings when the anticipation of the booking is around one or two weeks (Falk &

Vieru, 2019): this study sets dynamic pricing models in the hotel offer due to the heterogeneous behaviour of customers with varying degrees of purchase intent (WTP) and different levels of risk aversion. In the same study, considered that is appropriate that there are two variables that lead to this heterogeneity of traveller/tourist behaviour:

- The value it gives to the product-service
- The time between the booking decision and the date of service

Hereby, OTAs (Online Travel Agencies) offer a number of advantages for consumers who give it a domain position due to obtain better prices (Webb, 2016), and include the possibility that allows the different policies of free cancellations (Tso & Low, 2005) where it concludes that the pricing policy will depend on the booking policy of the different channels. The customer perceives that if it is an intermediary channel, the price is higher, and also has lower quality in the offer so travellers prefer to use search methods that include the websites of the hotels themselves, when making reservations (Garrow et al., 2006), since the emergence of the internet and its best use by travellers/tourists causes:

- Price transparency (O'Connor & Piccoli, 2003)
- Lower price perception (O'Connor & Buhalis, 2005; Sahay, 2007)

In the study of Toh et al. (2011), some hypotheses are set on which we will support the case of tourist activities; among others it is supported that:

- Most travellers search and book online on the contrary phone, travel agency or on-site
- A group of these travellers, carry out this search for Internet, but make the reservation by calling the hotel directly (28%)

This leads us to maintain the opinion that the decision of the tourist client is very elaborate within its criteria and that it approaches what it considers its optimal decision rewarding the cost of searching in its relationship, so once the decision is made, most travellers tend to be happy with it and stop in search (Kim et al., 2007).

Likewise, different studies differentiate purchasing attitudes if we talk about booking a plane ticket or other transport to booking a hotel room (Pearce & Schott 2005; Perkins, 2005), describing the first like a general rule, a conventional, flatter and more growing curve as the date of the booking and date of travel approach (Falk & Vieru, 2017), as opposed to what we are substantiating that happens with hotel bookings that exhibit U-form curve behaviour (Pigas & Bachis, 2006). Only hotel guests are willing to pay a higher price having a clear time difference between the reservation and the date of stay, when they need differential attentions to the simple lodging (Choi & Mattila, 2004).

We work with previous typologies of behaviour of the visitor/tourist with reference to their anticipation of the purchase of the tour with what we can synthesize in the establishment of the different working hypothesis:

H1. The National Visitor/Tourist value less the Visit of the Tourist Attraction that the Non-National Tourist.

H2. The Visitor/Tourist that reserves the Tourist Attraction with anticipation presents a valuable Interest to the visit: she/he contracts the guided tour.

H3. The Visitor/Tourist that gives value to the visit looks for her/him booking in a sales channel that reflected confidence (OTAS).

3 Materials and methods

3.1 Methodology of research

Today, there are not many studies that present analyses based on Machine Learning techniques in the tourism industry, which this is one of the most growing industries globally (Song & Li, 2008); the ones that exist are certainly recent and enthusing the potential of these tools to manage extensive databases and to decipher relationships and associations between different variables. Academic studies are scarce, despite its practical value, since it is expensive for the tourism industry to apply these techniques in its daily work (Taecharungroj & Tansitpong, 2015). We can highlight the study of Sun (Sun et al., 2019), where these techniques advance after a prominent research history in the use of Unstructured Database and using composite indexes between internet search engines in the Chinese market, such as Google and Baidu, and developing a predictor of better level of efficiency and robustness than traditional regression analyses. To do this, it uses the technique of analysis of principal components, based on the achievement of nodes and their relationship.

As interesting, the study of Taecharungroi and Mathayomchan (2019), using TripAdvisor reviews in city of Phuket as a variable where to form a predictor that sets the preferences of tourists when it comes to opting for hire an experience. In this study, an analysis of k-means clustering is performed, which is one of the techniques used in the work developed in this article. The justification for using these reviews of a recommendation platform has its scientific basis, since when a platform is considered reliable, the user perceives that the reviews are not biased (Jacobsen, 2012; Huang, 2014) and gives it real value (Park & Nicolau, 2015). The past behaviour of experienced travellers has also a significant impact on the booking decision to book especially if that is performance by mobile app (Vishwakarma et al., 2019), where the subjective factor is high considered. The Big Data comprises the conjugation of a multitude of disaggregated databases that are available for research, so that the more disaggregated the data, the research needs to be more detailed (Antonio et al., 2019), justifying the use if you are in the scientific studies in Tourism and the levels of data aggregation for the databases of the studies (Talluri & Van Ryzin, 2005).

Machine Learning (ML) techniques provide us with two types of studies (Abbott, 2014; Hastie et al., 2001): (a) Supervised analysis: when the variable type is continuous

and classifiable; and (b) Non-Supervised Analysis: When the target is a Categorical variable. Our study uses Non-Supervised Analysis and compares the results justifiable by the heterogeneity of the subjects that make use of the tourist experiences "Tourist is the central issue" and its different behaviours, and to provide tools that favour the anticipation of the reserve.

Conducting the study the BIG ML tool has been used, which is a tool of what is currently called "Machine Learning", where the model is "learning" based on the identification of behavioural models based on the incorporation of the data.

3.2 Sample

The analysis of the sample of 9,800 purchases (22,781 visitors) who purchase the service of the Guided Tour of the Alcazar -within the period from June 1, 2018 to May 31, 2019. The data comes from two local companies that have collaborated in the study providing the actual purchases of these services with the established commitments of confidentiality and anonymity of the customers. This data is provided on structured SQL management bases that make it easier to read the database in the BIG ML program, identifying the variables indicated below. It shows several associations from which those that do not contain the significant confidence levels more than 80% are discarded and which are explanatory or relevant to the subject matter of the study. A grouping criterion of associations is used based on the background variables highlighted to recast or reject behaviours that would lead to hypothesis lifting.

3.3 Variables of Study

Difference Booking / Tour (Days): The time at destination is perceived as scarce for the visitor, so if the visitor does not want to miss the opportunity of the visit. You will reserve based on the risk you assume. Since the contracting of the service provides for a policy of total return before 48 hours of the provision of the service, it bases the hypothesis that there is a prior interest in the contracting prior to this space of time in securing the provision of the service of the visit, so the interest in the realization of the same is assumed.

Combo: The Combo product combines the provision of the visit of the Royal Alcazars with the visit of the Cathedral, so that we assume that there is a greater interest on the part of the visitors in enjoying a service on a cultural good, in this case two. Of the 9800-person shoppers' sample, 20.80% chose to expand the cultural visit experience.

Language: Guided tours are conducted in these three languages in separate groups. The study will lead to a desire to reach conclusions in this regard.

Ticket no/yes: The price of the tour can be included the price of the ticket or not. This is important because if the customer simply pays for the tour and not the ticket, it can be assumed that it shows an interest in the value of the visit that assumes that it is guided. The ticket will be paid at the time of the visit.

Adults per booking: People up to 16 years old in the same booking.

Childs: Children under the age of 16 go to the reservation. They are accompanied in adults. Prices for tours and tickets differ according to different ages. Children under the age of 16 must be accompanied by an adult, so we assume that the composition in the group of minors make up a family group.

Pax per booking: Number of people who make up the same booking.

Sales Channels: APP, Web, and Management.

APP: Contains all means of sale off-line on site at destination. The customer buys without advance and very conditioned to a direct sales action where there has been no prior planning by this and the need to contract the service in the face of the fear of the loss of the occasion of the visit to the monument. In the destination, there is no prior planning, it is assumed that the interest in the visit has been lower, or that this interest has not given rise to enough purchase intention.

WEB: This is its own online sales channel of the company that provides the service. As it is not a global medium, but local, the effect of branding and webcasting is much less than a generic and global sales channel, such as OTA (On-line Travel Agency), with greater resource and presence at the origin of the traveller. The WEB channel works mostly in destination and with little separation of time between contracting and providing the service, and the customer is "forced" to purchase the full service of ticket plus tour due to the shortage of time and tickets available. Therefore, if you hire by this means and more than 48 hours in advance, we can understand that there is a prior interest in the enjoyment of the guided tour.

Management: Contains all external channels online, concentrating the activity of OTAs (Online Travel Agencies). The brand and recommendation effect is high by this means, and the customer perceives confidence when acquiring the tour service through this means. Therefore, if the purchase is in advance it is to assume that there is an interest and look for the assurance that you will consume this service at the destination.

4 Results

H1. The National Visitor/Tourist VALUE LESS the Visit of the Tourist Attraction that Non-National Tourist.

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Table 1. Group of Associations I

Antecedent (A)	Consequent (B)	Coverage %	Support %	Confidence %	Leverage %	Lift
LANGUAGE- Spanish	Ticket no/yes = 1	15.06	12.03	79.88	3.24	1.37
-2 < BOOKING DIFFERENCE/ TOUR (Days) ≤-6	Ticket no/yes = 1	12.78	10.68	83.63	3.23	1.43
LANGUAGE- Spanish CHANNEL = APP	-2 < DIFFERENCE RESERVATION/ TOUR (Days) ≤ 0	9.53	9.13	95.82	2.30	1.34
LANGUAGE- Spanish ticket no/yes = 1	-2 < DIFFERENCE RESERVATION/ TOUR (Days) ≤ 0	12.03	10.68	88.80	2.06	1.24
LANGUAGE- Spanish	-2 < DIFFERENCE RESERVATION/ TOUR (Days) ≤ 0	15.06	12.78	84.82	1.98	1.18

Resident customer offers less interest and leaves the purchase at last minute. The customer in Spanish (national) language clearly leaves the purchase of the ticket for last minute and by online sales channel on site and values the purchase of the ticket.

Table 2. Group of Associations II

Antecedent (A)	Consequent (B)	Coverage %	Support %	Confidence %	Leverage %	Lift
Ticket no/yes = 0	LANGUAGE- English	41.65	33.38	80.13	5.03	1.18

The non-national customer gives value to the guided tour. On the contrary of National Tourist, the Tourist that contract the Tour in English language, do not buy the ticket entrance of Monument in advance so under supposition this make value the guided experience more than just only to purchase for visiting (not added value Tour). Hence the 68.06% of total sales are in English (non-domestic), the 41.65% of them just buy the Guided Tour Price.

Table 3. Group of Associations III

Antecedent (A)	Consequent (B)	Coverage %	Support %	Confidence %	Leverage %	Lift
Ticket no/yes= LANGUAGE= Spanish	-2 < DIFFERENCE RESERVATION/ TOUR (Days) ≤ 0	12.03	10.68	88.80	2.06	1.24
CHANNEL= APP LANGUAGE= Spanish	-2 < DIFFERENCE RESERVATION/ TOUR (Days) ≤ 0	9.53	9.13	95.82	2.30	1.34

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The customer who buys "onsite" in Spanish assumes the joint purchase of ticket tour for the lack of opportunity to choose the ticket alternative only. It gives no value to the guided tour so the interest in it is less than if it were a purchase in advance. The purchase of tours is made with tickets included "on site" at destination as average less than two days between the reservation and the tour. When the sales channel is offline and own (APP): support and coverage very close, both in general and in Spanish. The Spanish-speaking customer buys the tour with ticket on the online and destination sales channels. The sales channel APP always sells the tour with ticket, so to be able to enter the Alcazar in a reservation need is forced to buy the package with tour. If the customer leaves the decision for the last minute and at the same destination to buy the ticket, he assumes the price of the tour, so he does not rate the content of the ticket. Spanish-speaking visitors, both Spanish people and non-Spanish, buy on an offline and onsite channels and with a lack of foresight. The proximity factor of the destination in customers residing in Spain is a factor to consider within this assessment.

Therefore, given these three groups of associations presented together, we can assume that HIPOTESIS I is accepted.

H2. The Visitor/Tourist that reserves the Tourist Attraction WITH ANTICIPATION PRESENTS A VALUE Interest to the visit: CONTRACT THE GUIDED TOUR.

Table 4. Group of Associations IV

Antecedent (A)	Consequent (B)	Coverage %	Support %	Confidence %	Leverage %	Lift
Ticket no/yes=1	-2 < DIFFERENCE RESERVATION/ TOUR (Days) ≤ 0	58.35	46.77	80.15	4.93	1.12
-2 < BOOKING DIFFERENCE/ TOUR (Days) ≤-6	Ticket no/yes = 1	71.69	46.77	65.23	4.93	1.12

Much of the public book “on site” and does not differentiate the value of the guided tour It reserves 71.69% in a space of less than two days what is supposed to be "in situ" or "itinere", of this, 46.77% is with ticket. Purchase with both Tour and Ticket reservations are usually at destination (80.15%)

Table 5. Group of Associations V

Antecedent (A)	Consequent (B)	Coverage %	Support %	Confidence %	Leverage %	Lift
Ticket no/yes = 1 DIFFERENCE RESERVATION/ TOUR (Days) ≤-6	CHANNEL-Management	4.92	4.88	97.15	2.27	1.87

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Less anticipated sales value interest in the tour vs ticket purchase. Hence the most anticipated sales are made by the management channel (online sales by external channels) without the purchase of tickets, if the gap between date of reservation and date of the tour is becoming smaller (less than 6 days), customer buys tickets and tour together.

Therefore, given these two groups of associations presented together, we can assume that HIPOTESIS II is accepted.

H3. The Visitor/Tourist that GIVES VALUE to the visit LOOKS FOR HER/HIM BOOKING IN A SALES CHANNEL THAT REFLECTS CONFIDENCE (OTAS)

Table 6. Group of Associations VI

Antecedent (A)	Consequent (B)	Covera-ge %	Support %	Confi-dence %	Levera-ge %	Lift
DIFFERENCE RESERVATION/TOUR (Days) ≤-6	CHANNEL-Management	14.06	12.79	90.93	5.49	1.75

The customer who makes the purchase in advance less than one week chooses a means of trust for the purchase, OTAS. The external online sales channel accounts for 51.90% of the sample's sales and with bookings of less than 6 days 12.79%, 90.93% of bookings with less than 6 days (from origin close to the making of the trip) are made by external online sales channels.

Table 7. Group of Associations VII

Antecedent (A)	Consequent (B)	Coverage %	Support %	Confidence %	Leverage %	Lift
Ticket no/yes = 0	CHANNEL-Management	41.65	31.85	76.46	10.23	1.47
CHANNEL-Management	Ticket no/yes= 0	51.90	31.85	61.37	10.23	1.47

The customer who buys online through a trusted sales channel (OTA) gives value to the tour rather than the ticket since he does not contract the latter in the price In the purchase by external channel offers the tour and not the tickets, which are paid at the time of the tour. The purchase of tour without tickets represents 41.65% of the total sample: there is a significant weight for the value of the tour in the total of the sample, even knowing that the ticket is guaranteed to be obtained. Management buying accounts for 51.90% of the sample: the public is looking for trusted means of buying the cultural tourist product.

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Table 8. Group of Associations VIII

Antecedent (A)	Consequent (B)	Coverage %	Support %	Confidence %	Leverage %	Lift
CHANNEL-Management	LANGUAGE= English	51.90	38.34	73.87	3.01	1.09
-2< DIFFERENCE RESERVATION/ TOUR (Days) ≤0	LANGUAGE- English	29.37	22.61	77.00	2.62	1.13

The non-resident/non-national client gives confident to the OTAs Channel on the last-minute reservation. English bookings are made mainly by the external online sales channel and with 77% on-site: the English customer relies on the online sales media (trust) for their last-minute purchase.

Therefore, given these two groups of associations presented together, we can assume that HIPOTESIS III is partial accepted.

5 Conclusions

In the Chen and Schwartz model (2008) mentioned above, it referred to two probabilistic variables that could influence the advance purchase decision on the hotel room reservation. The work carried out aims to find conclusions in parallel with this model considering the reservations in the tourist experiences, observing certain particularities:

The probability of discounting does not exist, as there is virtually. We are talking about fixed prices in the experience. The possibility of cancellation is more accessible to the individual since all channels offer this with full refund to 24 hours in advance, practically the day before the Celebration of the tour. There is no cancellation penalty. The risks perceived by the subject are:

- There is a sold out risk
- There is no risk of better ticket quality, as
- These are visits in homogeneous groups of 20 people Maximum.

Based on these particularities the model adapted to the tourist experience in this study would be formulated not based on price, but purely in anticipation influencing it, the perception that the subject about the exhaustion of entrances to monuments or other experiences. Thus, the hypothesis evaluated in this study offer us general observations.

Subjects, as a rule, provide less early booking for the experiences and sightseeing that when it comes to booking accommodation and usually does so on dates very close to performing Experience. The factor of travel distance from the traveller/tourist origin to the point of destination, it influences anticipation.

The national visitors/tourist reserves less anticipated than non-national visitors/tourist, as he/her perceives less risk of exhaustion of entries or is more assumed by he/her.

The tourist associates security anticipation as the advance ban comes from global external channels such as TripAdvisor or Get Your Guide, which confer higher confidence as global brands. The immediate sale corresponds in greater weight to the own channels where the customer can appreciate more closet, he confidence on the local sales channels although we cannot take this conclusion generically because of the partial acceptance results of the second study hypothesis.

It is noted that there is a strong association between the advanced-booking of the experience without the purchase of the ticket by means of trusted channels, as reaffirmed in different associations. The interest in seeing the monument is clear and seeks a guarantee of its realization in advance procurement. This interest is diminished as the period of anticipation is narrowed, since the reserves include the purchase of the ticket as well, as the tourist buy together, ticket and tour and is forced to buy the tour in any case. This is reinforced by Cluster's analysis where two priority groups are clearly distinguished, one without purchase of entry and if tour in advance and another without anticipation that buys both. The two groups make the purchase online by OTAS and in English language, thus relating the factors of trust (security) and anticipation.

Advance purchases are usually made in groups and these are usually from several about three people. This is associated with the idea of risk of entry exhaustion and security developed throughout the article. The consequences of entry exhaustion are qualitatively less, the smaller the number and individuals that make up the group.

When we talk about an experience that does not include visiting a monument, the risk of ticket exhaustion is almost non-existent. The tourist perceives it as different experiences.

In general, the most decisive factor associated with the anticipation of booking on days of a tourist experience and, based on this study, are related by factors commensurate with the risk of exhaustion of tickets (sold out risk) associated with the impossibility of not being able to make the visit on an occasion since the costs of a new trip with a new trip and accommodation, with the opportunity cost associated with reusing that time of vacation and not otherwise. There is also an interesting component in the study that relates the anticipation of the reservation with tour and without tickets, which would have to be seen if it is linked with the concept of “cultural sensitivity” in future studies of a more qualitative nature.

References

Abbott, D. (2014). *Applied predictive analytics: Principles and techniques for the professional data analyst*. New Jersey: John Wiley & Sons.

Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211.

Antonio, N., de Almeida, A., & Nunes, L. (2019). Big data in hotel revenue management: exploring cancellation drivers to gain insights into booking cancellation behavior. *Cornell Hospitality Quarterly*, 60(4), 298-319.

Ayuntamiento de Sevilla (2020). https://sevilla.org

Bai, B., Hu, C., Elsworth, J., & Countryman, C. (2005). Online travel planning and college students: The spring break experience. *Journal of Travel & Tourism Marketing*, 17(2-3), 79-91.

Banabakova, V. (2015). Marketing opportunities to satisfy the client with quality service. *Turismo: Estudos & Praticas*, 4 (nº Especial), 8-33.

Buhalis, D., & O'Connor, P. (2005). Information communication technology revolutionizing tourism. *Tourism Recreation Research*, 30(3), 7-16.

Capiez, A., & Kaya, A. (2004). Yield management and performance in the hotel industry. *Journal of Travel & Tourism Marketing*, 16(4), 21-31.

Chen, C. C., Ruseski, J. E., & Schwartz, Z. (2009). Room rates as signals of quality, sell-out risk and the prospects of getting a better deal: analytical model and empirical evidence. *Tourism Economics*, 15(2), 367-380.

Chen, C. C., & Schwartz, Z. (2006). The importance of information asymmetry in customers' booking decisions: A cautionary tale from the internet. *Cornell Hotel and Restaurant Administration Quarterly*, 47(3), 272-285.

Chen, C. C., & Schwartz, Z. (2008). Timing matters: Travelers' advanced-booking expectations and decisions. *Journal of Travel Research*, 47(1), 35-42.

Choi, S., & Mattila, A. S. (2004). Hotel revenue management and its impact on customers' perceptions of fairness. *Journal of Revenue and Pricing Management*, 2(4), 303-314.

Esmi, R., & Shiran, H. S. (2020). Effect of destination image and satisfaction on loyalty of heritage tourists: Presenting a conceptual model (Case study: Sheikh Safi Al-din Ardabili collection). *Turismo: Estudos & Práticas*, Geplat: Caderno Suplementar, 2, 1-18.

Falk, M., & Vieru, M. (2019). Myth of early booking gains. *Journal of Revenue and Pricing Management*, 18(1), 52-64.

Fodness, D., & Murray, B. (1997). Tourist information search. *Annals of Tourism Research*, 24(3), 503-523.

Garrow, L., Ferguson, M., Keskinocak, P., & Swann, J. (2006). Expert opinions: Current pricing and revenue management practice across US industries. *Journal of Revenue and Pricing management*, 5(3), 237-247.

Huang, G. B. (2014). An insight into extreme learning machines: random neurons, random features and kernels. *Cognitive Computation*, 6(3), 376-390.

Kim, D. Y., Lehto, X. Y., & Morrison, A. M. (2007). Gender differences in online travel information search: Implications for marketing communications on the internet. *Tourism management*, 28(2), 423-433.

Levitt, T. (1981). Marketing intangible products and product intangibles. *Cornell Hotel and Restaurant Administration Quarterly*, 22(2), 37-44.

Liu, W., Guillet, B. D., Xiao, Q., & Law, R. (2014). Globalization or localization of consumer preferences: The case of hotel room booking. *Tourism Management*, 41, 148-157.

Lynch Jr, J. G., & Zauberman, G. (2007). Construing consumer decision making. *Journal of Consumer Psychology*, 17(2), 107-112.

Nicolau, J.L. & Masiero, L. (2017). Determinants of advanced booking. *Annals of Tourism Research*, 67, 78-82.

O'connor, P., & Piccoli, G. (2003). "Marketing hotels using Global Distribution Systems" Revisited. *Cornell Hotel and Restaurant Administration Quarterly*, 44 (5-6), 105-114.

Orkin, E. B. (1990). Strategies for managing transient rates. *Cornell Hotel and Restaurant Administration Quarterly*, 30(4), 34-39.

Park, S., & Nicolau, J. L. (2015). Asymmetric effects of online consumer reviews. *Annals of Tourism Research*, 50, 67-83.

Pearce, D. G., & Schott, C. (2005). Tourism distribution channels: The visitors' perspective. *Journal of Travel Research*, 44(1), 50-63.

Piga, C. A., & Bachis, E. (2006). Pricing strategies by European traditional and low cost airlines: or, when is it the best time to book on line? When is it the Best Time to Book on Line? Available at http://dx.doi.org/10.2139/ssrn.916505

Rabin, M., & Thaler, R. H. (2001). Anomalies: risk aversion. *Journal of Economic Perspectives*, 15(1), 219-232.

Rahman, A., Crouch, G.I., & Laing, J.H. (2018).Tourists' temporal booking decisions: A study of the effect of contextual framing. *Tourism Management*, 65, 55-68.

Sahay, A. (2007). How to reap higher profits with dynamic pricing. *MIT Sloan Management Review*, 48(4), 53-60.

Schwartz, Z. (2006). Advanced booking and revenue management: Room rates and the consumers' strategic zones. *International Journal of Hospitality Management*, 25(3), 447-462

Schwartz, Z., & Hiemstra, S. (1997). Improving the accuracy of hotel reservations forecasting: curves similarity approach. *Journal of Travel Research*, 36(1), 3-14.

Smith, S. L. (1994). The tourism product. Annals of tourism research, 21(3), 582-595.

Song, H., & Li, G. (2008). Tourism demand modelling and forecasting—A review of recent research. *Tourism Management*, 29(2), 203-220.

Su, X. (2007). Intertemporal pricing with strategic customer behaviour. *Management Science*, 53(5), 726-741.

Sun, S., Wei, Y., Tsui, K. L., & Wang, S. (2019). Forecasting tourist arrivals with machine learning and internet search index. *Tourism Management*, 70, 1-10.

Taecharungroj, V., & Tansitpong, P. (2015). The Impact of Tourists' Cultural Differences on the Likelihood of Promoting Thailand as a Travel Destination. The International Conference on Tourism and Business, 12-15 January. Available at:

http://www.academia.edu/download/36274873/The_Impact_of_Tourists_Cultural_Differences_on_the_Likelihood_of_Promoting_Thailand_as_a_Travel_Destination.pdf

Taecharungroj, V., & Mathayomchan, B. (2019). Analysing TripAdvisor reviews of tourist attractions in Phuket, Thailand. *Tourism Management*, 75, 550-568.

Talluri, K. T., & Van Ryzin, G. J. (2005). The theory and practice of revenue management (Vol. 68). New York: Springer Science & Business Media.

Toh, R. S., DeKay, C. F., & Raven, P. (2011). Travel planning: searching for and booking hotels on the internet. *Cornell Hospitality Quarterly*, 52(4), 388-398.

Tsai, T.H., &, Chen, C.M. (2019). Mixed logit analysis of trade-off-effects between international airline fares and fences. A revenue management. *Current Issues in Tourism*, 22(3), 265-275.

Tso, A., & Law, R. (2005). Analysing the online pricing practices of hotels in Hong Kong. *International Journal of Hospitality Management*, 24(2), 301-307.

Vishwakarma, P., Mukherjee, S., & Datta, B. (2019). Impact of cashback usage restriction on travel booking: a goal-directed approach, *Tourism Recreation Research*, DOI: 10.1080/02508281.2019.1683687

Webb, T. (2016). From travel agents to OTAs: How the evolution of consumer booking behaviour has affected revenue management. *Journal of Revenue and Pricing Management*, 15(3-4), 276-282.

Wu, C., & Hsing, S. (2006). Less is more: How scarcity influences consumers' value perceptions and purchase intents through mediating variables. *Journal of American Academy of Business*, 9 (2), 125-32.

Zhao, W., & Zheng, Y. (2000). Optimal dynamic pricing for perishable assets with nonhomogeneous demand. *Management Science*, 46 (3), 375-88.

COMPRA ANTICIPADA DE ACTIVIDADES TURÍSTICAS: EVIDENCIA EN UN LUGAR PATRIMONIO MUNDIAL DE LA UNESCO

Resumen

La actividad turística en Sevilla (España) se presenta como el motor económico de la ciudad y la gestión de su patrimonio cultural como reclamo central que justifica su visita. La planificación del viaje influye en las necesidades del viajero para visitar el Alcázar de Sevilla y la reserva de entradas. Usando las técnicas de Machine Learning sobre estas reservas de un producto turístico basado en una visita guiada y tomando las diferencias entre las fechas de reserva y el horario de la visita se obtienen asociaciones del comportamiento del viajero que pueden ser valoradas en las acciones de marketing de los operadores locales ante las Agencias de Viajes Online (OTA), que tienen una posición favorable en el mercado global de atracciones turísticas.

Palabras claves: *experiencias de reserva; machine learning; compra anticipada; reserva; patrimonio mundial de la Unesco.*