



Cultural Traits in the Consumption of Luxury Hotel Services

An Exploratory Analysis Through Online Reviews Data

David D'Acunto^(✉) and Serena Volo

Faculty of Economics and Management, Free University of Bozen-Bolzano,
Piazzetta dell'Università, 1, 39031 Bruneck-Brunico, Italy
ddacunto@unibz.it, serena.volo@unibz.it

Abstract. This study investigates luxury hotel guests' online reviews to explore how ratings, language and sentiment differ according to guests' culture of origin. The study considers three large cultural groups (Asian, North American, and European) examining hotel guests in their reviews to identify the most recurring themes in association with luxury tourism.

The study uses automated text analysis to explore 16,415 hotel reviews from 22 luxury hotel brands belonging to nine global hotel chains located across six European cities over a period of 10 years. In particular, this exploratory study combines LIWC, Leximancer and SPSS analytic tools to shed light on: i) the extent luxury hotel guests' reviews vary in terms of rating, language metrics and sentiment according to reviewers' culture of origin; ii) the main themes of luxury hotel service discussed by guests, of different cultures of origin, in their reviews.

The main findings reveal that Asians guests are particularly analytical when reviewing online and are the less satisfied about their stays in luxury hotels in Europe. North Americans are the most satisfied luxury hotel guests; however, their reviews show low level of sentiment descriptions. Instead, Europeans embed more sentiment when posting a review. The three cultures examined also tend to associate luxury to different attributes.

Keywords: Luxury hotel service · Online reviews · Cultural traits

1 Introduction

The luxury segment in hospitality has been growing in the last decade, registering one of the highest occupancy rates [1, 2]. Although just 3% of travelers seek for luxury in hospitality services, the segment represents itself 20% of the total tourism expenditure [3]. Luxury tourism is therefore a crucial market segment for service providers worth investigating. The concept of luxury with specific reference to the hospitality service consumption received relatively less attention compared to overall luxury goods consumption [1], and still little is known about the differences between luxury experiential purchases and tangible goods purchases.

Luxury value in hospitality generally involves the three different subdimensions of i) experiential, ii) symbolic, and iii) functional value. While functional value refers to product's core benefits and quality [4], the experiential one evokes fantasies, fun and feelings essential to the luxury consumption, symbolic value reflects owner's wealth and status [5]. Extant research on luxury consumption has mainly focused on goods rather than on services [6]. This is unfortunate since luxury experiences strongly affect positive emotions in customers compared to material possession of luxury goods [7], and experiences are more closely connected to the self than material possessions [8]. Symbolic and experiential values have a significant impact on luxury hotel consumers, directly influencing guests' staying behavior [3], while functional value does not elicit the same effect.

Luxury services have been investigated with respect to four different value dimensions, namely i) functional, ii) financial, iii) hedonic and iv) symbolic [9] and the first three value categories were found to positively and directly affect consumers' purchase intentions. Thus, symbolic value is more likely sought by consumers in luxury goods rather than in luxury services, due to services intangible and invisible nature and their reliance on service quality and atmosphere [9].

The role of online reviews data is widely acknowledged in hospitality literature with most authors pointing out the relevance of adequately collecting, analyzing and processing online user-generated content to investigate various aspects of consumer behavior and explore guest behaviors and hospitality performances [10–12]. Online reviews have received extensive attention for their ability to serve as source of input data for companies to understand their customers and for destinations to explore the image portrayed by tourists [13, 14]. The usefulness of big data has led scholars to explore among the others: customers' motivation to contribute to online reviews [15]; the persuasive effect of online reviews [16]; online reviews value and connection to hotel performance [17]; the influence of trust and its antecedents on online reviews [18]; and hotel customer characteristics and their perception of satisfaction [19].

2 Objectives

Extant research already attempted to examine the antecedents and outcomes of luxury hotel guests' satisfaction [20] and dissatisfaction [21], and to examine the nature of e-complaints in luxury [22] by the mean of online reviews, by focusing on specific small hotel samples. Hotel guests' luxury perceptions have also been explored by focusing on the visual content of online reviews [23]. However, to the best of the authors' knowledge, no study has adopted online reviews data to investigate the influence of cultural traits on guest associations of luxury when staying at hotels.

Recent literature is examining cultural influences on hotel guests' behavior by means of online reviews data [24, 25]. Mariani and Predvoditeleva [24] examined to what extent reviewers' cultural traits may affect online ratings, showing that the cultural dimensions considered exert negative influences on hotels' online ratings. Likewise, [25] tested Hofstede's cultural dimensions relationships with visitor satisfaction at destinations, finding the presence of a positive relation with individualism and

indulgence while a negative one occurs with regards to power distance and long-term orientation.

This research aims at exploring to what extent luxury hotel guests' feedbacks differ in terms of ratings, language, and sentiment, and at investigating the pivotal attributes associated to the concept of luxury by guests with different culture of origin. The literature on cross-cultural studies shows an overreliance of scholars on well-known demographics (countries, nationalities) to study different cultures and a lack of studies that use language or ethnicity [26]. Nevertheless, validated supra-national, national, and regional affiliations are widely used in tourism research given their ability to capture cultural differences [26, 27]. Thus, this paper focuses on Asian, European, and North American luxury hotel guests who travelled to different destinations in Europe and stayed at the most recognized international luxury hotel chains. In this vein, the study offers a cross-culture comparative overview and explores to what extent the presence of culture-of-origin effect may affect guests' elaboration of luxury across different settings. Online travel reviews are used for the purpose of this paper. Exploiting the advantages of text mining techniques applied to big datasets, this study contributes to unveil how different guests discuss about luxury in their reviews and the hotel service areas they most frequently associate to the concept of luxury. Thus, the following exploratory research questions are herein considered:

RQ1: To what extent luxury hotel guests' reviews vary in terms of i) rating, ii) language and iii) sentiment according to the reviewers' culture of origin?

RQ2: What are the main themes of luxury hotel service discussed by guests in their reviews and to what extent do they vary according to the reviewers' culture of origin?

3 Methodology

Text mining techniques in association with cluster analysis have been used to explore luxury guests' review content. Automated language analysis is experiencing a rapid adoption in tourism and hospitality (e.g. [28, 29]). For the purposes of this study specific software tools have been adopted to analyse the data with the aim of identifying and describing the concept of luxury in hotel guests self-reported feedbacks (i.e. online reviews). Specifically, automated text analysis allowed to examine the structure of review content including language and sentiment used by guests when describing luxury, thus leading to identify specific patterns. Cluster analysis was then adopted in order to identify the recurring themes and concepts discussed by guests in association with luxury.

3.1 Measurements

The study employs three different software to run the analysis. Specifically, Linguistic Inquiry Word Count (LIWC) [30] was used to run the automated content analysis of reviews' text to detect the extent of guests' sentiment and the extent of analytical and authentic content. LIWC summary variables [30] have been used to run the analysis

and specifically the output variables of analytical thinking [31] and authenticity [32]. Summary variables are derived from previously published findings from LIWC authors' lab and converted to percentiles based on standardized scores from large comparison samples [30]. LIWC software reads a given text and counts the percentage of words that match predefined dictionaries which reflect different psychological constructs. Extant research by LIWC has already focused on cross-cultural word usage, for instance to compare linguistic categories expressed in online forums across groups belonging to different cultures [33] and to detect the most frequently used content words across and within cultures in the definition of self-schemas [34]. In this study LIWC is used to explore the differences in word usage across luxury hotel guests' cultural groups.

Leximancer software was used to cluster the recurrent themes and concepts relating to luxury with respect to guests' comments. Leximancer has already found wide use in hospitality research to investigate on hotel attributes as satisfaction drivers [35, 36] as well as to perform text mining in online reviews data [37–40]. The peculiarity of this software is to extract lexical co-occurrence information and to convert it from natural language into semantic patterns in an unsupervised manner, this way providing a map of the concepts and themes identified. Finally, SPSS statistic software was used to provide descriptive statistics and to run the data elaborations on LIWC outputs, such as means comparisons and ANOVA tests.

3.2 Data

A big dataset of luxury hotel reviews have been retrieved from TripAdvisor.com, the most prominent and suitable travel review platform to study guests [14, 28]. Data from this platform have already been used to investigate the luxury domain with regards to customer evaluations and preferences [20, 23]. This study focuses on the European market, therefore six main European cities [41] were chosen and investigated. GDCI index [41] considers both, volume, and revenues, generated by international overnight incoming visitors offering a reliable benchmark in the tourism industry already used in the hospitality [42] and consumer research [43]. Data was collected considering the most important global hotel chains operating in Europe in the luxury market segment. The final dataset consists of 16.415 reviews covering nine top international hotel chains and 22 luxury hotel brands. Reviewer details (e.g. nickname, age class, gender, origin, trip purpose) and reviews' text and ratings were retrieved from TripAdvisor pages. Reviews posted by Asian, European, and North American travelers were collected but only reviews originally written in English were considered, as this allowed for a straightforward use of the LIWC dictionary and to run the analysis with Leximancer. The time span considers the period 2006-16.

4 Results

4.1 Descriptive Statistics

Tables 1 and 2 respectively provide the characteristics of the dataset per hotels chains/brands and per reviewers' features.

Table 1. Luxury hotel chains/brands sample

Hotel Chain and Brand	n° of reviews	%	Hotel Chain and Brand	n° of reviews	%
Marriott	4898	29.8	IHG Intercontinental	1909	11.6
Bulgari	47	0.3	Intercontinental	1909	11.6
Edition	175	1.1	Hyatt	1757	10.7
JW Marriott	596	3.6	Andaz	819	5.0
Luxury collection	369	2.2	Grand Hyatt	382	2.3
St. Regis	480	2.9	Park Hyatt	556	3.4
The Ritz-Carlton	1085	6.6	Four Seasons	1217	7.4
W hotels	2146	13.1	Four Seasons	1217	7.4
Hilton	2904	17.7	Shangri-la	790	4.8
Conrad	880	5.4	Shangri-la hotels	790	4.8
Waldorf Astoria	2024	12.3	Melia	471	2.9
Accor	2018	12.3	Gran Melia	168	1.0
Fairmont	54	0.3	Me by Melia	303	1.8
Raffles	75	0.5	Jumeirah	451	2.7
Rixos	140	0.9	Jumeirah	451	2.7
Sofitel	1749	10.7	Total	16415	100.0

Table 2. Dataset characteristics

Variable	Measurement	n° of reviews	%	Variable	Measurement	n° of reviews	%
Reviewer age	–24	400	2.4	Trip purpose	As a couple	7870	47.9
	25–34	3387	20.6		On business	3405	20.7
	35–49	7165	43.6		Solo	769	4.7
	50–64	4585	27.9		With family	2785	17.0
	65+	878	5.3		With friends	1586	9.7
	Total	16415	100.0		Total	16415	100.0
Reviewer gender	Man	10004	60.9	City of stay	Amsterdam	1193	7.3
	Woman	6411	39.1		Barcelona	1154	7.0
	Total	16415	100.0		Istanbul	3094	18.8
Reviewer origin	Asia	1910	11.6		Paris	2380	14.5
	Europe	8366	51.0		Rome	1881	11.5
	North Ame.	6139	37.4	London	6713	40.9	
	Total	16415	100.0	Total	16415	100.0	

Preliminary findings also show that luxury hotel guests’ preferences for European cities differ according to their culture of origin. Amsterdam is associated with the highest ratings across each group of travelers (i.e. 4.72, 4.60 and 4.69 respectively for Asians, Europeans, and North Americans) unveiling the general preference of luxury hotel guests for this city. Europeans (4.40) and North Americans (4.38) express their lowest levels of satisfaction when staying in Barcelona, while Asians when staying at luxury hotels in Rome (4.27) ($F = 17.130$; $p < .000$). Figure 1 shows the results.

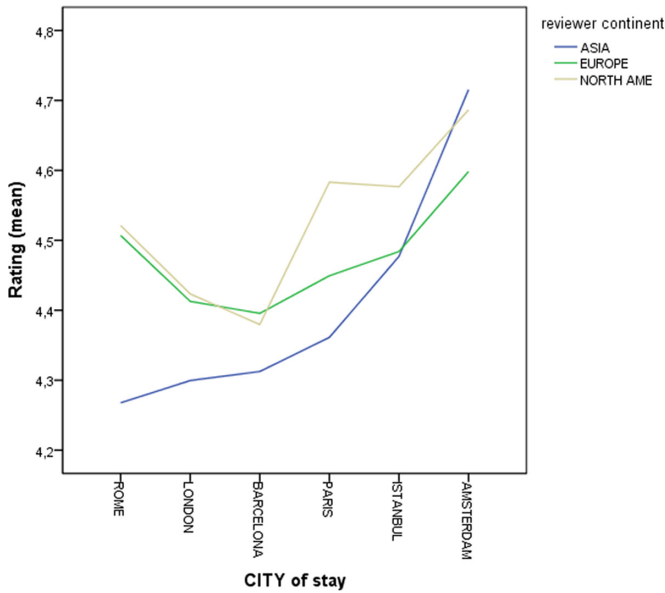


Fig. 1. Luxury hotel guests’ preferences per city of stay

4.3 Recurrent Themes with Reference to Luxury

The Leximancer concept map reveals the most common themes and concepts connected to the luxury node found in the three groups of guests’ hotel reviews. Figure 2 shows the Leximancer concept maps per reviewers’ groups. This map includes concepts, shown as small grey nodes, grouped into main themes, indicated by the larger colored circles. The colors and position of each circle in the concept map also have strong importance, since in the Leximancer concept map themes are “heat-mapped”.

The analysis of each group of guests shows that the top two recurrent themes associated with luxury are “hotel” and “room” across each group of reviewers, with a relevance of respectively 49% and 16% for North Americans, 49% and 19% for Asians, and 54% and 25% for Europeans. A main difference occurs however across the groups of guests with respect to the third attribute: luxury results respectively associated with “service” (14%) for North Americans, “location” (13%) for Asians, and “stay” (15%) for Europeans.

These preliminary findings show two cohesive themes in guests’ reviews (i.e. hotel and room) as the most recurrent in connection with luxury hotel stay, regardless of guests’ country of origin. However, significant cross-cultural differences emerge with respect to other attributes. Specifically, the third most recurrent themes of North Americans, Asians and European are respectively i) service, ii) location and iii) stay. The role of such secondary attributes thus confirms how different culture may relate to luxury in different ways. These findings offer some preliminary information on guests’ associations to luxury, providing initial insights to hoteliers on designing luxury offers to suits different cultural preferences and to better approach different customers.

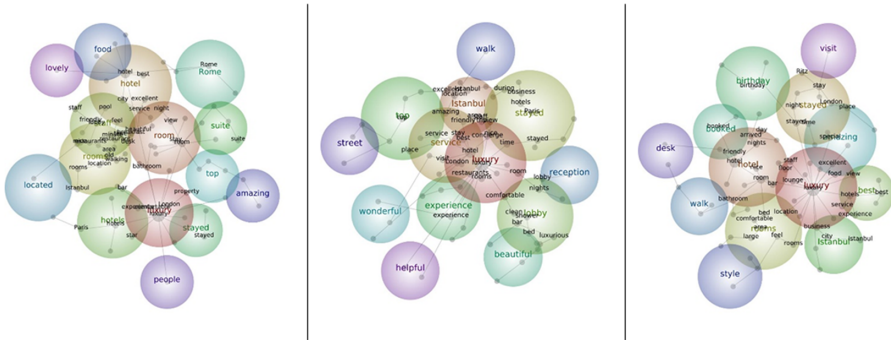


Fig. 2. Leximancer concept maps: i) North Americans, ii) Asians, iii) Europeans

5 Conclusion

This study was motivated by the general paucity of studies on luxury in tourism and hospitality services compared to the luxury goods domain [6]. The study explores luxury hotel reviews by considering guests’ culture of origin and determines how linguistic and cognitive elements embedded in the text move across the considered cultures. Furthermore, the study identifies the most recurring hotel service areas discussed by guests in association with their concept of luxury, showing a general pre-dominance of physical attributes regardless of guest origin. However, differences regarding the intangible attributes of hotel service in association with luxury occur when moving across guests’ cultures.

The study exhibits the critical role of online reviews data in understanding hotel guests’ seeking for luxury hotel experiences. The findings also exhibit how different guests may associate different themes to their luxury expectations and contribute to the ongoing discussion of luxury perceptions as a driver affecting guests’ attitudes and behaviors [3].

This study is not without limitations. First, given the purely exploratory nature of the study no causal relationships were investigated. Second, non-English mother tongue guests might have a limited style, wording, and syntax, and this can affect reviews. Third, culture of origin was assessed in a broad sense considering macro areas and further research could use other criteria that would capture the cultural variance among the three large groups. Future research should consider these limitations, and also explore different hotel market segments (e.g. midscale, upscale) and consider qualitative

methods to further study the different dimensions of luxury service, while experimental design may help to investigate their interconnection with guest satisfaction levels.

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