Online complaining behavior: Does cultural background and hotel class matter?

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ABSTRACT

This study investigates online complaining behavior targeting six different hotel attributes to determine whether there are distinct patterns of behavior exhibited by i) guests of different cultural backgrounds and ii) guests visiting different classes of hotels. The hotel attributes given focus include: (a) *Service*, (b) *Cleanliness*, (c) *Room*, (d) *Sleep Quality*, (e) *Location*, and (f) *Value*. In total, 353 hotels with 2,020 usable individual complaining reviews representing five different continents and 63 nationalities were collected for the analysis, which was conducted using a manual coding approach. Results indicate that online complaining behavior is influenced by cultural background. Asian and non-Asian travelers appear to place a similar emphasis on *Value* for money. However, Asian guests are more likely to complain about *Service*, while non-Asian guests are more likely to complaint about *Cleanliness*, *Room*, *Sleep Quality*, and *Location*. Additionally, online complaining behavior varies between different classes of hotel. Guests of high-class hotels are more likely to complain about *Service* and *Value*, while guests of low-class hotels are more likely to complain about *Cleanliness*, *Room*, *Sleep Quality*, and *Location*. This study contributes to the realm of hotel management by providing a better understanding of how customers from different cultural backgrounds are likely to perceive different hotel attributes.

1. Introduction

Advances in information and communication technologies (e.g. Facebook, TripAdvisor) have led to increasingly significant changes in consumer behavior. In the hotel industry, these changes have altered the focus of companies' marketing strategies and approaches to business administration (Cantallops & Salvi, 2014). Nowadays, nearly every hotel or tour company provides interactive features on its website; as such, features are considered key drivers for consumer loyalty. For prospective travelers, Web 2.0-enabled travel community websites are the most popular choice for trip planning. For example, one of the most influential and largest travel communities in the US is TripAdvisor, which gives users access to over 15 million reviews on hotels, sights, and related tourism services (Papathanassis & Knolle, 2011). Importantly, online review websites such as TripAdvisor have become essential platforms for travelers to share their experiences and express their opinions on products and services (Lee & Ro, 2016). Literature has demonstrated that following recommendations from family and friends, these online reviews are the next most trusted sources for brand information and messaging; especially in the tourism market where consumers are unable to effectively judge cost for value prior to making a purchase (Liu, Schuckert, & Law, 2018; Yen & Tang, 2015).

Online consumer reviews offer rich data that reflect customer characteristics and their perceptions of services in terms of satisfaction and dissatisfaction (Gao, Li, Liu, & Fang, 2018). Currently, however, only a few researchers have conducted studies looking at the relationship between the different profiles or language groups of travelers and their tendencies to express satisfaction or dissatisfaction towards different hotel attributes. Among these include Banerjee and Chua (2016) who examined TripAdvisor review rating patterns across different traveler profiles. Radojevic, Stanisic, and Stanic (2015) who utilized TripAdvisor reviews to explore the characteristics of different demographic categories of travelers with regards to their reported levels of satisfaction. As well as Liu, Teichert, Rossi, Li, and Hu (2017) who also tapped into TripAdvisor reviews as a data source while working to understand the determinants of hotel guest satisfaction by discriminating between customers with respect to language group. When investigating the related literature, it became quite evident that a gap

still exists in the understanding of the relationship between complaints directed at different classifications of hotel attributes and the cultural backgrounds of the hotel guests. This therefore sets the context for this study which will explore the correlations between complaints directed at various hotel attributes and cultural differences of hotel guests.

A study by Chen, Cheung, and Law (2012) revealed that customers of different cultural and/or linguistic backgrounds may have different perceptions of and reactions to certain products or services. Schuckert, Liu, and Law (2015) segmented cultural differences into four areas: differences in perceptions of service (Hsieh & Tsai, 2009), differences in expectations (Mattila, 2000; Mattila & Choi, 2006; Mey, Akbar, & Fie, 2006; Mok & Armstrong, 1998; Wang, Royo Vela, & Tyler, 2008), differences in emphasis on or demands for services (Kuo, 2007), and differences in complaints, where language and culture play a role (Huang, Huang, & Wu, 1996; Ngai, Heung, Wong, & Chan, 2007; Yuksel, Kilinc, & Yuksel, 2006). Previous studies have reported that people from distinct cultural backgrounds may exhibit differences with respect to the expectations they hold (Mattila, 2000; Mattila & Choi, 2006), attitudes (Mok & Armstrong, 1998) and behavior (Mok & Armstrong, 1998; Wang et al., 2008) in relation to encounters with services. Moreover, cultural differences also produce differences in required standards for services (Mey et al., 2006). Naturally, once a service provider does not meet these required standards, the customer will find the service to dissatisfying – for those inclined, this may lead them to complain. Consumer complaints give hotels opportunities to improve their marking strategies, enhance customer satisfaction levels and, in turn, increase profitability; however, customer complaints may also create unfavorable reputations for hotels and hinder their profitability (Huang et al., 1996). Consequently, it is very important for business operators to have a solid understanding of the complaining behaviors of their consumers. In the hospitality industry, Huang et al. (1996); Ngai et al. (2007); and Yuksel et al. (2006) have illustrated that distinctions can be seen in the types of complaining behaviors of people coming from different cultural backgrounds. For example, Asian guests are less likely to complain directly to hotel management, preferring instead to spread negative word-of-mouth (Ngai et al., 2007). Meanwhile, American customers are more likely to complain directly to the hotel management and warn their families and friends (Huang et al., 1996). This difference in complaining behavior exhibited by guests from distinct cultural backgrounds complicates matters for hoteliers operating in ever-diversifying market places. As such, hotel managers would do well to equip themselves with more nuanced understandings of the ways in which cultural differences may result in different forms of complaining behavior (Kuo, 2007), so that they can design more effective marketing strategies (Hsieh & Tsai, 2009), and bring service delivery behavior more in-line with the cultural values of their diverse clientele (Mattila, 2000).

In an effort to build a more solid and far reaching understanding of complaining behavior, this study has taken an approach unlike those of its predecessors. a) In the past, researchers have attempted to shed light on complaining behavior tendencies by conducting analyses which utilize traditional numerical data with Likert-Scale questionnaires. As of yet, there have been no comprehensive studies carried out using data derived through text-mining (e.g. negative online reviews) to examine online complaining behavior with respect to various hotel attributes. b) Due to the approaches previously adopted (e.g. Huang et al., 1996; Ngai et al., 2007; Yuksel et al., 2006) samples have been relatively limited in scope; however, data mining has enabled the current study to include over 2000 complaining reviews posted by travelers from more than 60 countries in its analysis. (c) Prior studies have also been limited with respect to the number of hotels included in the samplings and have mainly chosen to give focus to small numbers of four- and five-star rated hotels (luxury hotels). Vastly expanding the outlook, the present study looks into guests complaints directed at over 350 establishments covering the full star-rating spectrum of hotels in the United Kingdom. (d) This study also offers the first attempt to analyze and compare

online complaining behavior trends seen among guests of different cultural backgrounds and guests of different classes of hotel.

While giving proper consideration to the limitations of prior studies and taking full advantage of online hotel review data, the main purposes of this research are:

i. To examine the cultural background differences and distributions of guests who have engaged in online complaining behavior with respect to the following attributes: (a) *Service*, (b) *Cleanliness*, (c) *Room*, (d) *Sleep Quality*, (e) *Location*, and (f) *Value*.
ii. To examine the class differences and distributions of hotels targeted by guests engaging in online complaining behavior with respect to the same six attributes

Accordingly, this study's objectives are two-fold: First, it explores the different patterns of online complaining behavior characteristic of members of different cultural backgrounds (Asia and non-Asia) with respect to different hotel attributes. Then, to further specify the differences among cultures of origin, this study analyzes the online complaining behavior differences of hotel guests representing five different continents in relation to the same set of hotel attributes. Secondly, this paper analyzes the differences in online complaining behaviors across hotel classes (low-class and high-class hotels) with consideration given to different hotel attributes. Then, to develop a clearer understanding of the variations associated with hotel quality, the present study also analyzes differences in online complaining behavior characteristic of guests visiting hotels falling under four different hotel star-rating categories, once again considering the same set of hotel attributes. As mentioned above, previous studies have been limited in this respect, with focus given either to hotels of lower and higher star-ratings or, simply, to luxury hotels. These limitations have made it evident that further investigation was needed to develop an understanding of the online complaining behavior of guests staying at hotels representative of the full scale of star ratings. With such information at hand, hotel managers will be better equipped to address the potential concerns that customers may have while visiting any given category of hotel.

Few studies hitherto have applied traditional methods to shed light on customer complaining behaviors across distinct cultures. This study attempts to enrich tourism literature by examining variations in online complaining behaviors across distinct cultural origins and hotel class by using text-mining data (e.g. negative online reviews). As previous research has not adequately pursued these avenues of inquiry, hopes are that the results of this study will offer hoteliers new insight into the ways in which guests from different cultural backgrounds may emphasize hotel attributes differently. This study focuses on Asian and non-Asian guests as the primary objects of comparison. Consideration is also given to economic factors that may cause the members of either group to have different expectations when travelling in developed countries. Based on the information provided, hoteliers will be better equipped to train their first-contact employees to more adequately identify the demands, expectations and concerns of their guests.

The literature review results are illustrated in section 2 of this paper. Other related studies were also consulted and referred to in order to establish the hypotheses. The study first displays the hypotheses in the context of the theoretical background and then defines the methods and results. The implications and future research recommendations then follow in the discussion.

2. Literature review

2.1. Word-of-mouth (WOM) and electronic word-of-mouth (eWOM)

To reduce cognitive effort, uncertainty and the perceived risk associated with making purchases, customers will source out opinions from acquaintances, friends or family members when making buying decisions (Kim & Lee, 2015). When it comes to product information,

these voices are still among the most crucial channels of transmission, as consumers usually trust their peers more than advertisers or marketers (Nieto, Hernández-Maestro, & Muñoz-Gallego, 2014). This traditional transaction of commercial information is commonly referred to as *word-of-mouth* or **WOM**, in short. WOM has been defined as "*informal communication which is specifically focused on consumers' behaviors about the usage or characteristics of either services or service providers*" (Memarzadeh, Blum, & Adams, 2015, p. 261). WOM is also related to the exchange of oral or otherwise expressed messages conveyed between a contiguous source and recipient who are in direct real-life communication with one another. They are not thought to be pre-formulated or pre-written conversational exchanges about products or services; nor are they expected to remain in any tangible form following the completion of their utterance (Mauri & Minazzi, 2013).

With the growth and rapid development of internet technologies and increasing popularity of online social networking, there are more and more online consumer communities taking root, and providing spaces where consumers are encouraged to share their product reviews with others. These reviews or comments shared online are now referred to in related literature as *electronic word-of-mouth* or **eWOM** (Xu, 2014). eWOM is different from WOM in several ways. One of the main disparities, however, is that it is not limited by the size of a social network (Sparks & Browning, 2011) as it can operate in virtual relationships and communities with influence that reaches far beyond the readers and producers of traditional WOM (Litvin, Goldsmith, & Pan, 2008). According to a study by Hennig-Thurau, Gwinner, Walsh, and Gremler (2004, p. 39), eWOM refers to "*any positive or negative statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet*". Compared to WOM, eWOM is "*more influential due to its speed, convenience, one-to-many reach, and its absence of face-to-face human pressure*" (Bronner & Hoog, 2011, p. 15); and also, "*it has a stronger influence on decision making than that of the WOM*" (Luo & Zhong, 2015, p. 281). WOM is an activity that generally is very limited in reach, commonly involving only a few people at a time. Conversely, eWOM is amplified in its online environment, where service providers can easily be subjected to the reviews of dozens of customers representing diverse backgrounds (Xie, Miao, Kuo, & Lee, 2011).

Generally speaking, there are two dimensions that define the eWOM typology; namely, scope and chronology. With respect to scope, communications might be one-to-one (emails), one-to-many (review sites) or many-to-many (virtual communities); while in terms of chronological interactivity, the information transactions may be asynchronous (emails, review sites, blogs) or synchronous (chat rooms, newsgroups, instant messaging) (Cantallops & Salvi, 2014). Based on the conventional eWOM typology, customers making travel plans are able to search for travel-related information and make online reservations or purchases by themselves rather than relying on traditional travel agencies (Buhalis & Law, 2008). With the great importance of eWOM for online business, comprehending how customers perceive and use online reviews under realistic conditions is both relevant for practitioners and intriguing, yet challenging, for academics (Papathanassis & Knolle, 2011).

2.2. Hypotheses

According to Hofstede (2009), cultural differences comprise four prominent dimensions, including power distance, individualism versus collectivism, masculinity versus femininity, and uncertainty avoidance. Among these, the "individualism versus collectivism" dimension has a particular relationship with the primary distinctions in consumer behaviors representative of Eastern and Western cultures (Au, Buhalis, & Law, 2014; Patterson & Smith, 2003). Inasmuch, varying cultural backgrounds may express themselves in the variant modes of complaint behavior and intentions of customers (Ngai et al., 2007). Literature has also illustrated that customers from cultures that are low in

individualism or high in uncertainty avoidance (e.g. Asian ones) are less likely to complain even if they receive poor service (Au et al., 2014). Similar conclusions can be drawn from Ngai et al. (2007), who maintained that Asian guests are less likely to complain to the hotel management for fear of "*losing face*" and are also less familiar with the channels for making complaints. In contrast, guests from cultures with lower levels of collectivism (e.g. non-Asian ones) tend to express their dissatisfaction directly to management (Yuksel et al., 2006). In terms of expectational differences, Mattila (2000) found that Asian travelers gave significantly lower ratings to service providers both in hotel check-out and fine dining scenarios when compared with non-Asian patrons. The study pointed out that Asian travelers had high expectations for quality of service, regardless of the type of service encountered. Furthermore, while examining the cultural perspectives of Chinese tourists to the UK with respect to hotel service quality, Wang et al. (2008) found that Chinese guests had higher expectations for service quality in developed country; and the higher the expectations were, the greater the disappointment was. This could manifest itself in higher numbers of negative hotel ratings. Also, in terms of overall satisfaction levels, non-Asian hotel guests have been shown to have higher levels of satisfaction than Asian guests (Mey et al., 2006). Literature has also pointed out that when service failures occur, Western customers are more likely to complain than those from the East. One example that highlights the disparity can be seen in Nakayama and Wan's (2018) research, which showed that Japanese guests rated superior service significantly lower than guests from the US, but were more forgiving of inferior service than their American counterparts (Nakayama & Wan, 2018). Thus, with consideration given to the way in which distinct cultural backgrounds can lead to differences in customer attitudes and complaining behaviors, we hypothesize that:

H₁. Asian guests and non-Asian guests will demonstrate significantly different online complaining behavior in relation to the hotel attributes of (a) *Service*, (b) *Cleanliness*, (c) *Room*, (d) *Sleep Quality*, (e) *Location*, and (f) *Value*.

According to Hofstede (2001), culture can be understood as "*the collective programming of the mind distinguishing the members of one group or category of people from others*" (Ayeh, Au, & Law, 2016, p. 144). Culture exists everywhere and on many different scales. For instance, it can be seen at various levels of society, including national, industrial, occupational, corporate and/or organizational levels. Specifically, when focusing on national culture, general common denominators that are variant in nature are referred to with consideration given to the physical boundaries of the nation state (Ayeh et al., 2016). Regional differences, however, might be distinguished in accordance with different language groups or other patterns that have developed over long periods of time, often times associated with religious or philosophic teachings. For instance, many of non-English speaking or Asian countries are characterized as high power distances and low individualism. Conversely, many of English speaking or Western countries tend to hold low collectivistic value and low power distances (Hofstede, 1991). Mattila (2000) provided a summary of studies which concurred that Asian guests tend to hold higher expectations for the interaction quality in service encounters. Meanwhile, Western customers were more likely to focus on the outcome rather than the process component of the service delivery.

Previous studies have found that distinct differences in responses to unsatisfactory hotel services were adopted by members of different cultural character. Huang et al. (1996) revealed that Japanese guests were more likely to take no action in response to unsatisfactory service, while American guests were more likely to stop patronizing the hotel, complain to hotel management and warn family or friends. Yuksel et al. (2006) studied complaining behavior differences across multiple nations (e.g. Turkey, Netherlands, Britain and Israel) and the results revealed that British guests were more likely to talk to supervisors to resolve problems, while Dutch and Israeli travelers were more likely to

demand manger interventions than to communicate their dissatisfaction with staff members. The findings also indicated that Dutch and Israeli tourists were unlikely to ignore the problem. Customers of different nationalities also exhibited differences in their emphasis on service attributes. For instance, American guests have been shown to emphasize employees' problem solving abilities, when compared with Taiwanese travelers who placed greater importance on employees' politeness and attire (Kuo, 2007). Thus, we hypothesize:

H$_2$. The online complaining behavior of guests from 5 different continents will exhibit significant differences with respect to the following hotel attributes: (a) *Service*, (b) *Cleanliness*, (c) *Room*, (d) *Sleep Quality*, (e) *Location*, and (f) *Value*.

There is a wide variety of hotel rating assessments throughout the world, as many different countries have developed their own systems. In total, there are around 100 formal and informal hotel rating systems globally (Stringam & Gerdes, 2010). A rating system provides an objective criteria by which hotels can measure themselves up against and use as a tool to communicate their quality standards to hotel guests (Ingram, 1996). According to Ruetz and Marvel (2011), there are two types of hotel: i) budget hotel or *low*-class hotel; and ii) luxury hotel or *high*-class hotel. The terms of "budget/*low*-class" and "luxury/*high*-class" can be applied interchangeably. A general definition of *low*-class hotel is "*limited service, simple rooms, standardized accommodation, low cost, low construction and operation costs, and fewer than 150 rooms*" (Peng, Zhao, & Mattila, 2015, p. 141), while Ren, Qiu, Wang, and Lin (2016) and Peng et al. (2015) addressed *low*-class hotel as "*zero to two-three-star*" hotels, normally with a minimum of 50 rooms at a modest price. On the other hand, high-class hotel offers luxury properties, elaborate physical surroundings, personalized services, and high value offerings; generally, four-star and five-star hotels are classified as *high*-class hotels (Heo & Hyun, 2015; Liu, Wong, Tseng, Chang, & Phau, 2017; Mattila, 2016; Peng et al., 2015).

Traditionally, customers have been influenced by hotel ratings; however, the Internet has dramatically changed this pattern by allowing customers to evaluate and rate the hotels based on their own personal experiences. This resulted in hotels losing some of the control they had over the way they would be presented to the outside world (Stringam & Gerdes, 2010). Previous studies have also shown that the different classes of hotel could create differences in perceptions and expectations among hotel guests. In this respect, linguistic and/or cultural backgrounds also play their roles. Schuckert et al. (2015) illustrated that English speaking travelers preferred high-class hotels and desired bigger rooms, while non-English speaking guests preferred relatively low-class hotels and demanded higher service quality. Also, differences in satisfaction levels were greater in lower class hotels or in hotels with fewer English speaking travelers. In terms of expectations and evaluations of the service quality at both high and low class international tourist hotels, different patrons from cultures have been shown to exhibit some significant differences. For instance, Taiwanese guests were more concerned about overall service quality than American guest were (Hsieh & Tsai, 2009). Therefore, we hypothesize:

H$_3$. In comparison with guests of high-class hotels, the guests of low-class hotels will exhibit significant differences in online complaining behavior regarding to the hotel attributes of (a) *Service*, (b) *Cleanliness*, (c) *Room*, (d) *Sleep Quality*, (e) *Location*, and (f) *Value*.

The official hotel classification or star system of ranking hotels originated in 1905 with the advent of the Automobile Association (AA) in the United Kingdom (Blomberg-Nygard & Anderson, 2016). The universally recognized hotel star rating as the most popular system for classifying hotel is from 1 to 5 stars, with a higher star rating indicating higher quality (Nunkoo, Teeroovengadum, Ringle, & Sunnassee, 2019). Different star-rated hotels provide customers with different levels of service. However a disconnect still exists. A study by Schuckert et al. (2015) demonstrated that guests visiting hotels of a lower star-rating
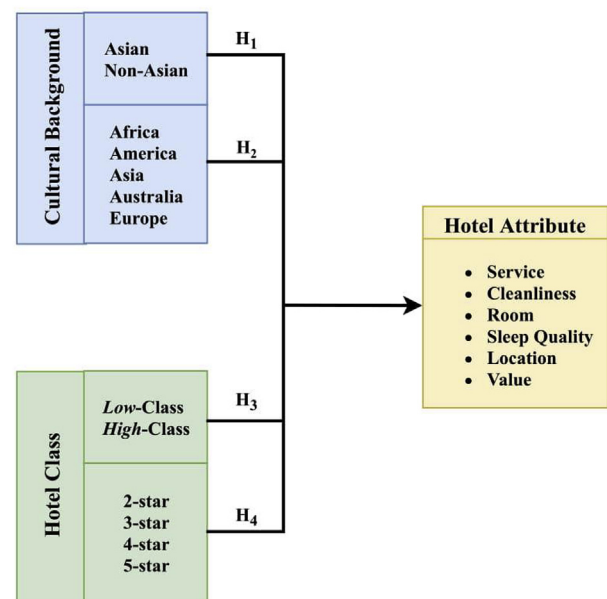

Fig. 1. The research model.

were most likely to be satisfied, in contrast with those visiting hotels of a higher star-rating. Liu, Teichert, et al. (2017) and Liu, Wong, et al. (2017) also reported that some hotels with fewer star were able to outperform hotels with more-star hotels in regards to customer ratings. Thus, we hypothesize:

H$_4$. There will be significant differences in online complaining behavior by guests of different star-rated hotels regarding the hotel attributes of (a) *Service*, (b) *Cleanliness*, (c) *Room*, (d) *Sleep Quality*, (e) *Location*, and (f) *Value*.

Fig. 1 illustrates the research model developed based on the above reasoning. This study primarily tests the influence that cultural background has on expectations for select hotel attributes; for further analysis consideration is then directed at online complaining behavior in relationship to various levels of hotel class.

3. Methodology

3.1. Sample and data source

The information that is used for analysis in this study is derived from comments made on the TripAdvisor platform by dissatisfied hotel guests. Guests were deemed to be unsatisfied when their star rating was 1 or 2 stars (Ho, 2018). TripAdvisor was selected as the main data source with consideration given to several factors. Firstly, data extracted from TripAdvisor was able to provide the researchers with large samples of biased-free reviews; thus, the study was able to achieve a high level of external validity (Liu et al., 2017). Secondly, TripAdvisor offers multiple language interfaces and indicates the nationalities of the reviewers, thereby providing the researchers with readily accessible information on the factors of interest in the current study (Radojevic et al., 2015). Finally, TripAdvisor provides detailed client reviews of hotels, ranging from "*Terrible*" (1 star) to "*Excellent*" (5 star) (Melian-Gonzalez, Bulchand-Gidumal, & Lopez-Valcarcel, 2013); also, the review system allows clients to voice their opinions towards a variety of different hotel attributes, including "*Service*", "*Cleanliness*", "*Room*", "*Sleep Quality*", "*Location*", and "*Value*". Thus, TripAdvisor has provided the researchers with a rich source of data to conduct a multivariate analysis on the way in which guests of different cultural background experience different hotel attributes differently (Gao et al., 2018). Fig. 2 shows the items subjected to data analysis and the demographics of the
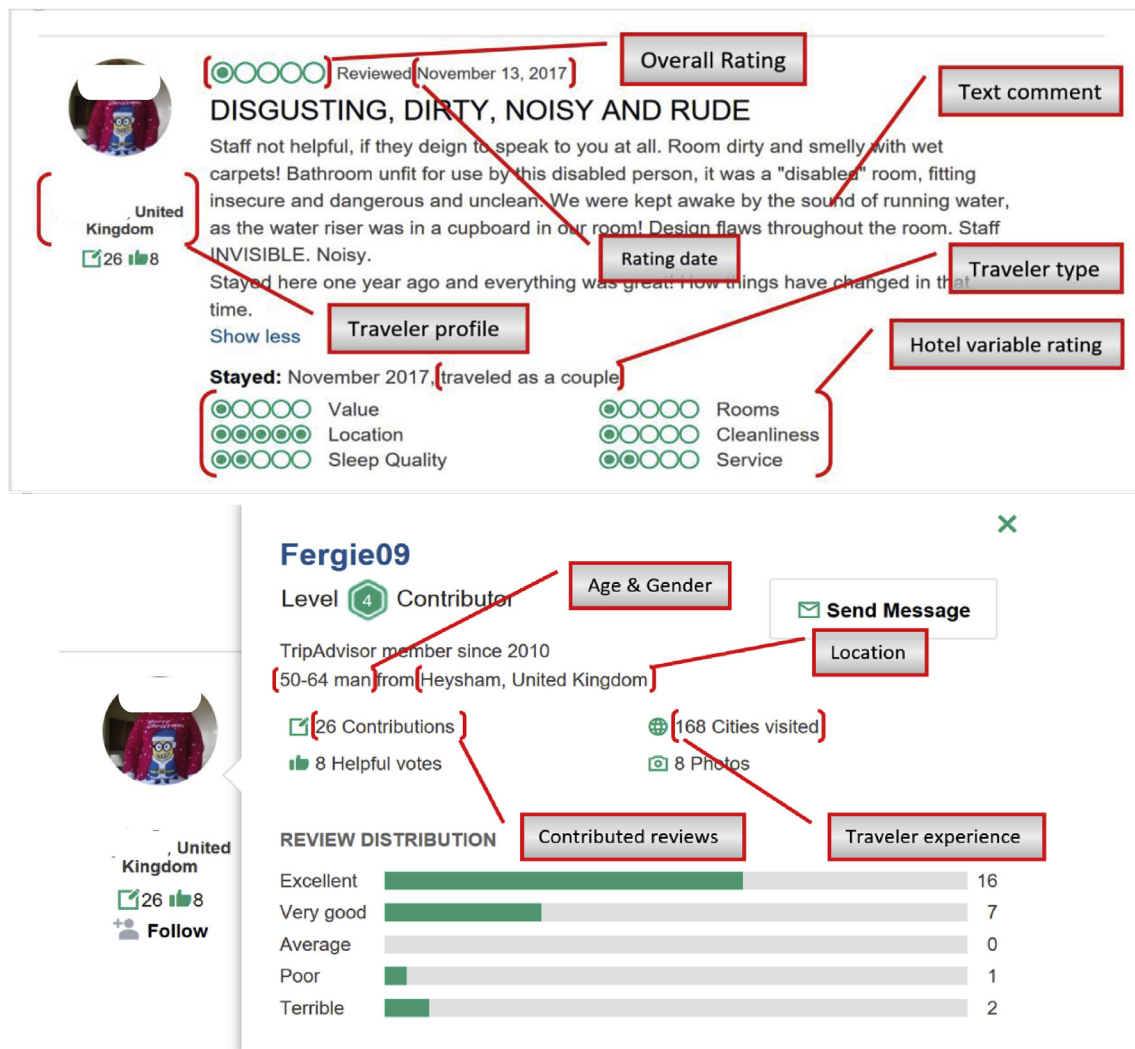
Fig. 2. Items for data analysis and demographic information of sample.

sample.

3.2. Data collection and sample characteristics

The targeted objects of review by the subjects in this study were TripAdvisor-listed British hotels. A total of 404 hotels were randomly selected from a population of 1086 hotels located in the United Kingdom (TripAdvisor, 2018). The hotels ranged from 2- to 5-stars according to the British hotel rating system. Hotels not listed on TripAdvisor were excluded from the sample frame. To ensure both the credibility of the source and size of the sample, this study only included hotels with more than 200 reviews. With consideration given to efficiency and proper representation, a maximum of 20 of the most recently posted negative reviews (with details of the complaint) starting from the lowest *Overall* rating (1-star to 2-stars) were manually extracted for analysis. The reviews on TripAdvisor to which an *Overall* rating of 1- or 2-stars were given were designated as negative/complaining in nature (Stringam & Gerdes, 2010). Reviews from travelers whose nationalities (demographic information) were not listed in their profiles were excluded. Consequently, 51 hotels were omitted from the study on account of the fact that the related information did not meet the necessary criteria. A manual approach was applied to conduct the initial data collection, meaning that the researchers went through every single review to code it subjectively. In total, 353 hotels with 2,020 usable individual complaining reviews were collected for the analysis.

The total sample of 2,020 complaining online reviews represents 5 continents and 63 nationalities. The reviews were classified as belonging to either Asian or non-Asian travelers based the regional markings (UN, 2019). Of the comments, 51% (N = 32) were provided by non-Asian travelers, mainly originating from England (N = 678, 33.56%), America (N = 258, 12.77%), Australia (N = 227, 11.24%), Canada (N = 63, 3.12%), Ireland (N = 42, 2.08%), New Zealand (N = 33, 1.63%), and other (N = 198, 9.8%). Asian travelers provided 49% (N = 31) of the comments; these travelers primarily came from United Arab Emirates (N = 99, 4.90%), Singapore (N = 81, 4.01%), Hong Kong (N = 62, 3.07), China (N = 30, 1.49%), India (N = 30, 1.49%), Thailand (N = 30, 1.49), Malaysia (N = 23, 1.14%), and other (N = 166, 8.22%). More supplementary details of the dataset (e.g. cultural backgrounds and hotel classes) are illustrated in Table 1.

3.3. Measurements

The study identified 5 variables and measured all variables according to a single item scale. The selected variables are representative of what is necessary for hoteliers to identify in the relationship between hotel service quality and traveler background. The variables of *Service, Cleanliness, Room, Sleep Quality, Location,* and *Value* for money were measured according to single-item five-point Likert Scale evaluations (Kim, Li, & Brymer, 2016). The rating scale, from one- to five-stars, represents the interval data and also reflects the level of guest

Table 1
Sample profile: dataset characteristics.

Variables/Demographic Factors	Comments (N = 2020)	(%)
Hotel Star-Rating		
2-Star	315	15.6
3-Star	557	27.6
4-Star	603	29.9
5-Star	545	27
Hotel Class		
Low-Class	872	43.2
High-Class	1148	56.8
Continent		
Africa	33	1.6
America	329	16.3
Asia	517	25.6
Australia	261	12.9
Europe	880	43.6
Cultural Background		
Asia	517	25.7
Non-Asia	1503	74.3
Length of Stay		
Short Stay (1–2 days)	257	12.72
Medium Stay (3–6 days)	159	7.87
Long Stay (7-above)	33	1.63
N/A	1571	77.77
Number of Rooms		
Small Hotel (Less than 99 rooms)	959	47.47
Medium Hotel (100–299 rooms)	825	40.84
Large Hotel (300 room-ups)	208	10.30
N/A	28	1.38

Table 2
Variables and their levels.

Variables	Categories/Descriptions
Cultural background	Asia; Non-Asia
Continent	Africa; America; Asia; Australia; Europe
Hotel class	*Low*-class (*2*- to *3*-star hotel); *High*-class (*4*- to *5*-star hotel)
Hotel star-rating	2-star; 3-star; 4-star; 5-star
Hotel attribute	Service; Cleanliness; Room; Sleep Quality; Location; Value

satisfaction, from "*Strong Dissatisfaction*" to "*Strong Satisfaction*". Cronbach's Alpha was utilized to assess the reliability of scale. The ratings of the six hotel attributes were treated as the dependent variables (Gao et al., 2018). Table 2 presents the variables and their categories.

3.4. Data analysis

The analyses include mean values and standard deviations. The mean values of the ratings were used to rank order the hotel attributes. Then, a series of descriptive analyses, independent sample T-tests (*t*-tests), and one-way analysis of variance (ANOVA) tests were run to determine the significant factors (*Cultural Background*, *Continental Guest*, *Hotel Class*, and *Hotel Star-Rating*) with respect to the different *Hotel Attributes*. *Scheffe's* post hoc test was utilized to help explain what kind of differences occurred between the groups and where they occurred. *Cronbach's alpha* was used to evaluate the reliability of the variables. Finally, SPSS 24.0 software was employed to test the hypotheses. Fig. 3 presents the research framework for extracting online complaining reviews from TripAdvisor.

3.5. Reliability test

The variables and items were accessed for reliability and validity. *Cronbach's Alpha* and *Mean Inter-Item Correlations* were included in the analysis. *Cronbach's Alpha* was used to assess the reliability of scale and measure the internal consistency. The value ranges from 0 to 1, with a higher value suggesting higher internal consistency (Al-Refaie, 2015). According to Cortina (1993), a factor could be utilized if its tested value

is at least 0.65 or 0.7. The *Alpha* values of all the factors used were above the recommendation value of 0.65, thus indicating reliability. *Mean Inter-Item Correlations* were also used in analyzing internal consistency reliability and assessing whether the scale is unidimensional or not (Piedmont & Hyland, 1993). In line with the range suggested by Briggs and Cheek (1986), the *Mean Inter-Item Correlation* values varied between 0.2 and 0.4 and were thus deemed eligible for the study. From the results, all the variables and items were qualified to be used as tools of measurement; therefore no items were removed from the study.

4. Results and discussions

4.1. Frequency characteristics of hotel attributes

Customer ratings of one or two stars were considered by this study to be complaining in nature. For the *Overall* rating, the majority of these 62.4% (N = 1260) were 2-star ratings; with the remaining 37.6% (N = 760) being 1-star ratings. The *Service* (N = 529), *Room* (N = 333), *Sleep Quality* (N = 304) and *Value* (N = 483) attributes received 1-star ratings the most, followed by 2- and 3-star ratings. This implies that these four attributes were the most important concerns to the customers when they were complaining about their stays at the hotels. Meanwhile, the *Cleanliness* attribute received 3-star ratings the most 29.2% (N = 314), followed by 4-star rating 24.4% (N = 263). The attribute contributing least to the overall dissatisfaction of the customers was *Location*, which received 4-star ratings the most 33.1% (N = 350), followed by 5- and 3-star ratings. In other words, the hotel location is less likely to be complained by hotel guests (see Appendix A).

4.2. Descriptive statistics of hotel attributes

The number of Hotel Rooms had a mean value at 138.39, meaning that most travelers wrote complaints for medium size hotels (100–299 room). Length of Stay had a mean value of 3.05, suggesting that travelers on average are spending 3 nights at their destinations. It was this group of traveler that was most likely to make online complaints about their hotels. Table 3 details the descriptive values of the hotel attributes. The rating of *Location* (M = 3.64) was the highest among all the attributes, meaning that guests had fairly-low levels of dissatisfaction with respect to the locations of the hotels. The *Cleanliness* (M = 2.95) attribute was a medium-low level object of complaint for the travelers. The rating of *Service* (M = 2.25), *Room* (M = 2.23) and *Sleep Quality* (M = 2.41) were also quite similar in the type of attention they received, implying that the intangibles of *Service*, *Room* and *Sleep* carry similar importance to hotel guests (Mok & Armstrong, 1998). This is also shown in the frequency characteristics, which indicate that the same three attributes were important concerns to the customers at the time they were expressing their overall dissatisfaction about their stays at the hotels. Finally, *Value* (for money) was more likely to be the object of complaint by travelers. With a mean value of 1.85, it is evident that guests felt that they had received less than they expected (what they paid for). By-and-large, the findings indicate that the *Overall* ratings were negative; however, it is crucial to understand the variations in complaining patterns when it comes to the various attributes of the hotels, since the *Overall* ratings alone cannot be directly used to enhance the quality of services (Chang, Ku, & Chen, 2019).

4.3. Differences between cultural background and hotel attributes

An independent sample *t*-test was applied to evaluate whether a statistical relationship exists between hotel attributes and cultural differences. The results show that hypothesis $H_{1(f)}$ (which assumed that "Asian guests and non-Asian guests will demonstrate significantly different online complaining behavior in relation to the hotel attribute of *Value*") was invalid, with a value of 0.05 (p > .05). However, with
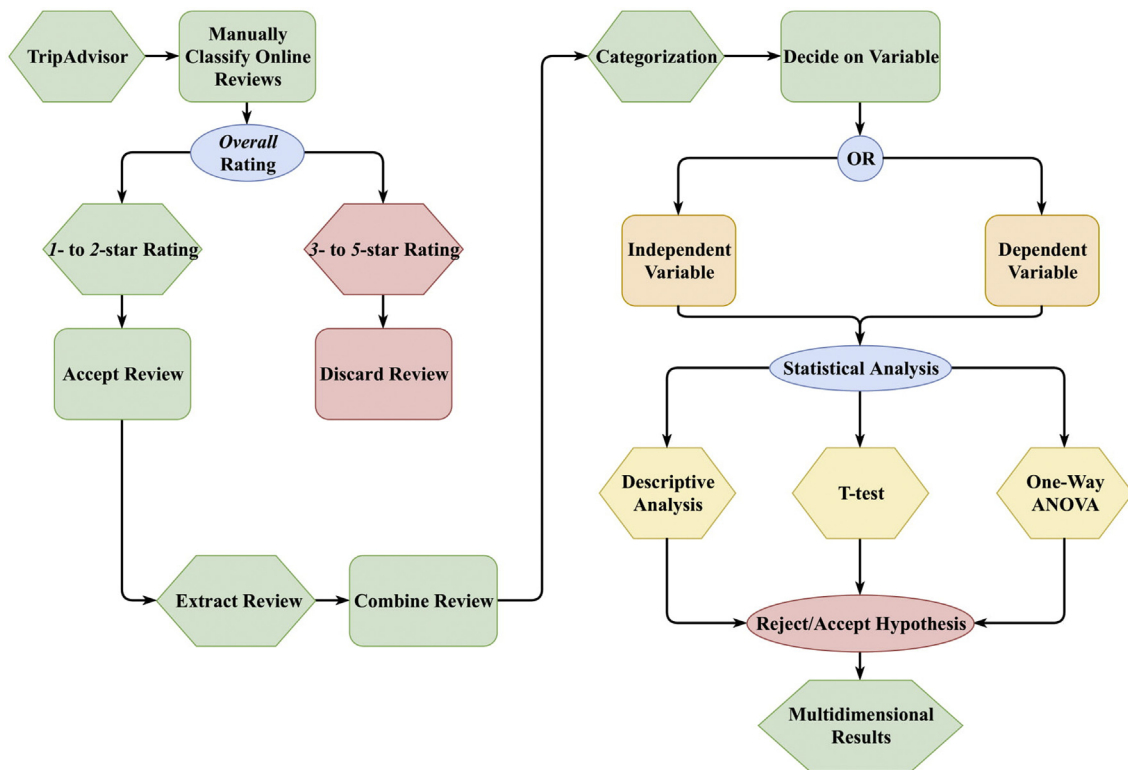
Fig. 3. Framework for extracting online complaining reviews from TripAdvisor.

respect to *Service*, *Cleanliness*, *Room*, *Sleep Quality*, and *Location* significant differences occurred ($p < .01$) (Table 4). The results revealed that Asian guests were less likely to complain on account of *Cleanliness*, *Room*, *Sleep Quality* and *Location* than non-Asian guests. Asian guests believe that making complaints publically could resulting in them losing their patience and, as a consequence, "*lose face.*" Moreover, they are less familiar with the available channels by which to make their complaints. Thus, Asian guests prefer to engage in private complaining behavior, such as spreading negative word-of-mouth and telling their friends or families about their bad experiences (Ngai et al., 2007). Another factor might be language barriers which could dissuade Asian guests from choosing to communicate their dissatisfaction directly to English speaking hotel management teams. Meanwhile, non-Asian guests were less likely to complain on *Service* ($M_{Non-Asian} = 2.34 > M_{Asian} = 1.91$) than Asian guests. The reversal on this attribute can been associated with perceptual differences acquired by those living in service-oriented Asian cultures which cultivate high-expectations with respect to service; additionally, most Asian cultures are characterized by high-context communication and large power distances (Mattila, 2000). Finally, the results show that Asian and non-Asian travelers placed a similar emphasis on *Value* for money ($M_{Asia, Value} = 1.77$; $M_{Non-Asia, Value} = 1.87$). This also emphasizes the importance of this factor

Table 4
The cultural background test on hotel attributes.

Variables	Cultural Background						*t-value*
	Asia			Non-Asia			
Attributes	N	Mean	Std.	N	Mean	Std.	
Service	309	1.91	1.03	1208	2.34	1.21	−5.75***
Cleanliness	225	3.22	1.20	852	2.88	1.24	3.59***
Room	217	2.47	1.10	836	2.17	1.11	3.62***
Sleep Quality	191	2.66	1.16	796	2.35	1.23	3.17**
Location	220	3.86	1.15	837	3.58	1.18	3.17**
Value	226	1.77	0.89	892	1.87	0.92	−1.42

(two-tail based); *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

when it comes to overall customer satisfaction (Table 4).

One-way ANOVA and *Scheffe's* post hoc were used to test the differences in attitudes of guests from different continents with respect to the various hotel attributes. The findings depicted significant differences in the predispositions of guests from different continents in regards to the individual hotel attributes of *Service*, *Cleanliness*, *Room*, *Sleep Quality*, *Location*, and *Value* at $p < .01$; thus, H₂ is fully

Table 3
Descriptive statistics of hotel attributes.

Variables	N	Min.	Max.	Mean	Std.	Skewness		Kurtosis	
						Statistic	SE	Statistic	SE
Service	1517	1	5	2.25	1.18	0.61	0.06	−0.58	0.13
Cleanliness	1077	1	5	2.95	1.24	−0.08	0.08	−0.96	0.15
Room	1053	1	5	2.23	1.12	0.64	0.08	−0.38	0.15
Sleep Quality	987	1	5	2.41	1.22	0.41	0.08	−0.83	0.16
Location	1057	1	5	3.64	1.18	−0.69	0.08	−0.27	0.15
Value	1118	1	5	1.85	0.91	0.99	0.07	0.74	0.15
Overall	2020	1	2	1.62	0.49	−0.51	0.05	−1.74	0.11

Table 5
The differences among guests from five continents with respect to hotel attributes.

Continents	Asia (1)			Africa (2)			America (3)			Europe (4)			Australia (5)			F	Scheffe's
Attributes	N	Mean	Std.	N	Mean	Std.	N	Mean	Std.	N	Mean	Std.	N	Mean	Std.		
Service	309	1.91	1.03	22	1.68	0.95	245	2.31	1.24	769	2.40	1.20	172	2.20	1.17	11.09***	(1 < 3,4)
Cleanliness	225	3.22	1.20	13	3.31	1.03	174	3.05	1.23	545	2.81	1.25	120	2.96	1.23	5.01***	(1 > 4)
Room	217	2.47	1.10	16	1.81	0.83	170	2.24	1.04	540	2.14	1.13	110	2.25	1.15	4.14**	(1 > 4)
Sleep Quality	191	2.66	1.16	15	2.40	0.91	156	2.48	1.27	516	2.31	1.21	109	2.39	1.30	3.17**	(1 > 4)
Location	220	3.86	1.15	14	3.93	1.07	164	3.73	1.13	539	3.46	1.19	120	3.88	1.12	6.92***	(5 > 1,4)
Value	226	1.77	0.89	15	1.53	0.64	188	1.94	0.90	555	1.91	0.95	134	1.63	0.78	3.77**	(3,4 > 5)

$*p < 0.05, **p < 0.01, ***p < 0.001.$

supported. The post hoc analysis indicates that Asian travelers are more likely to complain on *Service* than American and European travelers. This is consistent with Huang et al.'s (1996) study showing that American guests tend to have milder levels of dissatisfaction on account of slow service as well as Kuo's (2007) and Wang et al.'s (2008) studies showing that American guests are easier to satisfy in regards to employee services when compared with Asians. The results from the present analysis also show that European travelers are most likely to complain on *Cleanliness*, *Room*, and *Sleep Quality* than Asian travelers are. Since Western travelers have been shown to be willing to spend most of their vacation budget on accommodations, they consider room quality to be the most influential factor in determining their overall satisfaction (see Mey et al., 2006). Furthermore, in terms of the attributes of *Location* and *Value*, the results show that Australian guests are less likely to complain about *Location* than Asian and European guests, while European customers are less likely to complain on *Value* ($M_{European}$ = 1.91 > $M_{Australian}$ = 1.63) than Australian guests (Table 5).

4.4. The differences between hotel class and hotel attributes

Findings from an independent sample *t*-test between hotel classes and hotel attributes revealed that guests of low-class hotels exhibit significant differences in online complaining behavior when compared to guests of high-class hotels with respect to each of the hotel attributes: *Service, Cleanliness, Room, Sleep Quality, Location,* and *Value* ($p < .001$); therefore, H$_3$ was fully supported. The results further demonstrate that guests of high-class hotels are more likely to complaint on *Value* ($M_{High-Class}$ = 1.76 < $M_{Low-Class}$ = 1.94) and *Service* ($M_{High-Class}$ = 2.13 < $M_{Low-Class}$ = 2.38) than guests of low-class hotels (Table 6). It can be understood that guests of high-class hotels have higher expectations for high quality services based on the amount of money spent—while the hotels are not living up to these expectations. This is evident from complaints such as these: "…*My 3rd stay here and this time am paying the most expensive rate and get the worst room possible*"; "…*very expensive for an average experience … you are kidding I just paid 300GBP for a room …*"; and "…*Bad service … I wonder how this hotel is rated 5* property!*"

Table 6
The hotel class test on individual hotel attributes.

Variables	Hotel Class						t-value
	Low-Class			High-Class			
Attributes	N	Mean	Std.	N	Mean	Std.	
Service	741	2.38	1.19	776	2.13	1.17	4.14***
Cleanliness	531	2.64	1.22	546	3.26	1.19	−8.56***
Room	528	2.07	1.06	525	2.39	1.15	−4.65***
Sleep Quality	484	2.21	1.15	503	2.61	1.26	−5.15***
Location	524	3.34	1.21	533	3.93	1.07	−8.45***
Value	547	1.94	0.94	571	1.76	0.88	3.41***

(two-tail based); $*p < 0.05, **p < 0.01, ***p < 0.001.$

Staff are very unhelpful and shouldn't be in service industry …". Meanwhile, guests of low-class hotels are more likely to complain on *Cleanliness*, *Room*, *Sleep Quality*, and *Location* than travelers staying at high-class hotels. The dissatisfaction is voiced in complaints such as these: "*Seriously, you can find a better room in a refugee camp … This was the worst hostel room I have seen in my entire life. Three nights on this double private room was a complete torture. Smallest room I have stayed in my life … not a free centimeter between the bed and the wall on three of the four sides of the bed. Completely Humid, no heating, very low roof … completely suffocating …*" and "*…Dish drying towels are disgustingly filthy …*"

In analysis of the star rating factor, the results of the 4 (hotel star-rating) × 6 (hotel attributes) one-way ANOVA test indicate significant differences in online complaining behavior among guests of different star-rated hotels in relation to the individual hotel attributes of *Service, Cleanliness, Room, Sleep Quality, Location,* and *Value* at the 0.001 level ($p < .001$); thus, hypothesis H$_4$ is fully supported. *Scheffe's* multiple comparison analysis shows that guests are less likely to complain about hotels with higher star counts with respect to *Cleanliness, Room, Sleep Quality,* and *Location* than those with fewer stars. When it came to *Service* and *Value*, guests were most likely to complain about hotels with greater numbers of stars than those with fewer stars (Table 7). This, generally speaking, suggests that the higher the customers' expectations are, the lower the probability that service quality will be perceived favorably, and vice versa (Mok & Armstrong, 1998). Table 8 summaries of the study's hypotheses.

5. Conclusions and implications

This study aims to enrich literature on service quality in the tourism industry by examining variations in online complaining behaviors across distinct cultures of origin and classes of hotel. By grouping hotel guests according to their cultural background, the study identified different patterns of online complaining behavior exhibited by guests from those backgrounds with respect to various hotel attributes. The study then isolated the guests according to the class of hotel they stayed in and also found significant differences in online complaining behavior of patrons of different classes of hotels with respect to the same hotel attributes.

This study provides some theoretical insights and discusses the relevant practical implications as they relate to the area of hospitality. One of the many fresh contributions in the theoretical realm is related to the importance of the different concerns held by hotel guests engaging in online complaining behavior. These can be understood in relation to: i) different cultural background; and ii) different hotel classes. Prior studies of customer complaints have typically given less focus to such factors. Based on the data retrieved in the present study, however, we suggest that in order to obtain more precise understandings of the unique concerns held by hotel guests and the corresponding complaints or sentiments of dissatisfaction that result therefrom, it is necessary to recognize that such contexts as culture of origin and/or hotel category requires appropriate attention. Another theoretical contribution is

Table 7
One-Way ANOVA test for hotel star-rating and each hotel attribute.

Star-Ratings	2-Star			3-Star			4-Star			5-Star			F	Scheffe's
Attributes	N	Mean	Std.	N	Mean	Std.	N	Mean	Std.	N	Mean	Std.		
Service	270	2.43	1.16	471	2.35	1.20	410	2.18	1.18	366	2.07	1.16	6.51***	(2 > 3,5)
Cleanliness	199	2.37	1.16	332	2.80	1.22	280	3.20	1.20	266	3.33	1.17	30.79***	(2 < 3,4,5)
Room	198	1.85	0.91	330	2.21	1.12	266	2.26	1.18	259	2.53	1.10	14.57***	(2 < 3,4,5)
Sleep Quality	182	2.13	1.07	302	2.26	1.19	255	2.52	1.22	248	2.70	1.30	10.18***	(5 > 2,3,4)
Location	206	3.17	1.13	318	3.45	1.24	269	3.90	1.05	264	3.97	1.10	26.64***	(5 > 2,3,4)
Value	200	1.82	0.93	347	2.01	0.94	296	1.87	0.91	275	1.63	0.83	9.13***	(5 < 3,4)

$*p < 0.05, **p < 0.01, ***p < 0.001.$

related to the manual approach that has been applied in the past to conduct the initial data collection. Our study is among the first in hotel customer online complaint research to acquire data based on a text-mining approach. Consequently, this study has benefited from a relatively broad sample of 2020 complaining reviews directed at 353 hotels and posted by guests originating from 63 countries. Such data has enabled us to make reliable generalizations which would most certainly been impracticable based on traditional methods. In future studies, researchers should take into consideration the application of this approach as a manner by which greater sample sizes with high level of external validity can be obtained. Additionally, this study has presented a number of managerial insights for the consideration of hotel operators, as the following paragraph will highlight.

The major findings of the study show that online complaining behavior is influenced by cultural background. For example, Asian guests are more likely to complain about *Service* than Non-Asian guests. The reason for this may be attributable to the influence that service-oriented Asian cultures have on expectations for this attribute (see Mattila, 2000). When the expectations are not met, negative disconfirmation takes place due to the gap between guest expectation and service performance perceptions. Failure in the delivery of services often results in guest dissatisfaction and complaining behavior, such as negative word-of-mouth, complaints, and higher customer turnover (Sezgen, Mason, & Mayer, 2019). Moreover, Asian cultures tend to prefer high-context communications; meaning that nonverbal cues are more important than explicit utterances. This emphasis on contextual cues highlights the significance of the interaction quality of the service encounter for Asian guests (Mattila, 2000). On the other hand, non-Asian guests are more likely to complain about *Cleanliness*, *Room*, *Sleep Quality*, and *Location* than Asian guests are. Furthermore, non-Asians (e.g. Americans, Australians, and Europeans) are willing to spend most of their money on accommodations. Guests of this variety consider room quality to be the most important factor in determining their overall satisfaction with the hotels they are staying at (Mey et al., 2006). Thus, hoteliers should consider additional resources to improve room quality, including room temperatures, beds and pillow softness, all of which have an influence on sleep quality. They should also maintain hotel cleanliness not only in the rooms, but in the common areas as well. If the location of the hotel is an object of dissatisfaction, hotel managers could help remedy the problem to some degree by offering complimentary shuttle services from the hotel to areas of interest. Furthermore, cultural training for customer-contact employees should be conducted – especially for front-line employees who will be handling complaints — so that customers

from different cultural or linguistic backgrounds are more likely to feel their concerns are being addressed adequately (Mattila, 2000; Ngai et al., 2007). This will hopefully reduce the likelihood that they will choose to voice grievances via online channels.

The results of this study also illustrate that the online complaining behavior of hotel guests will vary with respect to the different class of hotel providing the services. For example, guests of high-class hotels are more likely to complain about *Service* and *Value*, while guests of low-class hotels are more likely to complain about *Cleanliness*, *Room*, *Sleep Quality*, and *Location*. The results of the present study are consistent with those of Hu, Zhang, Gao, and Bose (2019), who found that customer complaints about high-end hotels were mainly related to service and pricing issues, whereas customers of low-end hotels were frequently annoyed about tangible services (facility-related problems). According to the theory of expectancy disconfirmation (Oliver, 1980), once a service has been experienced, outcomes are compared against expectations. When the outcome meets expectations, confirmation occurs. Disconfirmations take place when there are differences between expectations and outcomes. Negative disconfirmation happens when the outcome (in this case the service delivery) is worse than expected (Pizam & Milman, 1993). Negative disconfirmation is more likely to generate dissatisfaction or complaining behavior. Mok and Armstrong (1998) also demonstrated that guest satisfaction is largely based on meeting or exceeding expectations. In the present study, guests' perceptions of high quality services were based on their past experiences of staying at high-class hotels. During subsequent travels, they bring along high expectations about the quality of the services they should receive while staying at such establishments. If there is a gap, a negative disconfirmation will occur. Therefore, high-class hoteliers should try to reduce room for such gaps by paying more attention to their service modes or providing different services (e.g. enthusiastic and generic services) (see Schuckert et al., 2015). Surprise and delight strategies can also be employed as satisfiers that can add more value beyond the basic function of the service itself (Mey et al., 2006). When good things come unexpectedly it creates potential for heightened levels of customer satisfaction.

In sum, differences do exist in the patterns of online complaining behavior exhibited by hotel guests from different parts of the world. This can be explained by the fact that different cultural backgrounds tend to foster different perceptions and expectations towards various hotel attributes and also influence understandings about what type of responses are appropriate in situations of discontent. Therefore, this study examined the different objects of dissatisfaction of customers of

Table 8
Summary of the study's hypotheses.

Hypotheses	(a) Service	(b) Cleanliness	(c) Room	(d) Sleep Quality	(e) Location	(f) Value
H₁	Supported	Supported	Supported	Supported	Supported	*Rejected*
H₂	Supported	Supported	Supported	Supported	Supported	Supported
H₃	Supported	Supported	Supported	Supported	Supported	Supported
H₄	Supported	Supported	Supported	Supported	Supported	Supported

different cultural backgrounds by reviewing online complaining behavior directed at various hotel attributes. Meanwhile, guests staying at different classes of hotels also exhibited differences with respect to complaining behaviors on different hotel attributes. The common thread between the two leads back once again to the relationship between expectations and satisfaction. Consequently, hotels working to create experiences that will allow their patrons to walk away satisfied need to acquire clear understandings of what their customers are expecting to receive from the time they first arrive to the time they checkout and make their departures. Based on the results of this study, it is evident that this will mean different things for people from different cultural backgrounds; and so, understanding the nuanced perceptions held by travelers coming in from different parts of the world is going to be a factor determining success, failure or something somewhere in between.

Finally, there are several limitations to this study which could be the basis for future research. First, our study contains only six hotel attributes. To build on the results herein, further studies could increase the amount of variables to explore other discrepancies in the online complaining behavior patterns of customers from different cultural backgrounds. Secondly, the data used for this study included negative online reviews from a single platform, TripAdvisor. Therefore, future studies could compare trends on alternative channels of communication. Last but not least, this research only concentrated on hotels in the UK. For future studies on cultural differences, it would be worth expanding the analysis to other international tourism destinations, such as Hong Kong, Singapore, Paris, or New York.

Appendix A. Frequency characteristics of the hotel attributes

Hotel Attributes	Service		Cleanliness		Room		Sleep Quality		Location		Value		Overall	
Guest Ratings	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
1-Star	529	34.9	178	16.5	333	31.6	304	30.8	80	7.6	483	43.2	760	37.6
2-Star	396	26.1	200	18.6	330	31.3	223	22.6	85	8.0	388	34.7	1260	62.4
3-Star	347	22.9	314	29.2	243	23.1	267	27.1	256	24.2	198	17.7		
4-Star	172	11.3	263	24.4	107	10.2	133	13.5	350	33.1	33	3.0		
5-Star	73	4.8	122	11.3	40	3.8	60	6.1	286	27.1	16	1.4		
Total	1517	100.0	1077	100.0	1053	100.0	987	100.0	1057	100.0	1118	100.0	2020	100.0

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