

# Perception of Hotel Customers Based on Nationality: A Comparative Analysis of Reviews and Ratings

**Adrian A. Amador**

School of Graduate Studies

Mapua University

Muralla St., Intramuros, Manila, Philippines

[aaamador@mymail.mapua.edu.ph/adrianamador0104@gmail.com](mailto:aaamador@mymail.mapua.edu.ph/adrianamador0104@gmail.com)

**Rene D. Estember**

School of Industrial Engineering and Engineering Management

Mapua University

Muralla St, Intramuros, Manila, Philippines

[rdestember@mapua.edu.ph](mailto:rdestember@mapua.edu.ph)

## Abstract

This paper determined the performance indicators that are a source of customer satisfaction and dissatisfaction towards hotel. This has evaluated the satisfaction and dissatisfaction considered the significance of nationality, which found to be lacking in previous researches. This paper considered four nationalities such as United Kingdom, USA, Canada, and Philippines. Through the hotel reviews, determinants were determined using a text mining analysis. Furthermore, determinants identified in every review were evaluated and used to determine which performance indicator is the most source of customer satisfaction and dissatisfaction. Through the analysis, it was found that the performance indicators to be unequally important per nationality. In this paper, it was found that location and interaction to the staff, a major indicator of satisfaction. It was also found that staff, room quality, facilities and amenities, comfort, and service are the most critical performance indicators in the hotel business. Furthermore, through the utilization of the results, it was statistically tested the significance of customer nationality on satisfaction and dissatisfaction. This was tested through the Chi-square test and Cramer measure of association. At the end of this paper, it is defined which determinant and performance indicators are most critical in achieving customer loyalty.

## Keywords

Hotel, Customer Experience, Service quality, Customer Satisfaction, Nationality.

## 1. Introduction

Global economies have made countries open doors for people to travel to other countries, which made the number of travelers increasing (Heo et al., 2004; Radojevic et al., 2018). According to (Tourism & Unwto, 2018) the international travelers grew by remarkably 7% in 2017 to reach a total of 1,326 million. Europe reached 672 million in 2017, a remarkable 8% increase from 2016. The Hotel industry has become more globalized and along with this progress comes the same challenges as other globalized industries (Nazarian et al., 2017). Which gives hotels reason to understand the impact of cultures on the performance and profitability (Nazarian et al., 2017) and engage in the international market expansion (Xia et al., 2019), in which they should investigate both domestic and foreign customers characteristics (Trong et al., 2019). Through this investigation and understanding, hotels can forecast customer behavior, decisions, and expectation (Trong et al., 2019). There are different levels of cultures that affect the perception of customers; these are national, organizational, industry, professional, and individual (Chen et al., 2012). Of these, the national level is the most fundamental (Chen et al., 2012; Wu, 2013), giving people their values and beliefs (Nazarian et al., 2017).

The challenge of global economies to understand the different perceptions of customers (nationalities), has been a continuous problem (Archakova, 2013; Heo et al., 2004; Roy et al., 2019). According to Weerasiri, (2015), there's

still a significant amount of customer complaints in the service industry despite the continuous attention of managers towards service quality. Where it has been discussed the indifference on service quality if whether to base on the management's perspective or the customer's perspective (Weerasiri, 2015). Service quality can be measured in terms of customer perception, customer expectation, customer satisfaction, and customer attitude (Weerasiri, 2015), being nationality as the most fundamental factor of perception and attitude (Chen et al., 2012). Furthermore, the global connection of customers through online platforms have affected the Hotel Industry (Li et al., 2017; Weerasiri, 2015).

Online platforms have made it possible for customers to post their reviews of the hotel they stayed, which greatly affect the marketing image of hotels (Dong et al., 2014; Hargreaves, 2015; Hu et al., 2019b; Xia et al., 2019; Xu & Li, 2015). Especially of negative reviews which were considered to be more credible, and influential than positive reviews (Hu et al., 2019b) and damaging to reputation and profitability (Mohsin et al., 2019). In the hotel industry, customer experience and service quality are the basic opportunities which help to run, to improve service, to increase market share and profitability and gain customer loyalty, which give more reason to understand and base standard from the perception of customers (Archakova, 2013; Grewal et al., 2009; Kalidas, 2007; Mohsin et al., 2019; Nazarian et al., 2017).

Service Quality and Customer Experience has become a distinct component in service sectors; and with the developments in information technology, many businesses find demanding and knowledgeable customers (Li et al., 2017; Weerasiri, 2015). In an increasingly competitive and developing environment, companies must be customer-oriented (Weerasiri, 2015). According to Khan, et al., (2015), it can be possible that foreign customers have a different perception of service quality and experience than a domestic customer. The Asian focus on service customization, personal attention, and experience while the Westerners focus on efficiency, time-saving, result, and standardization (Heo et al., 2004; Khan et al., 2015). This research will define the perception of different nationalities towards hotels. Nationalities such as Philippines, United Kingdom, America, and Canada will be considered in this research.

In research by (Weerasiri, 2015) to understand service quality, it is discussed that Service Quality is about technical quality and functional quality. However customers have no idea of the technical aspect of the service, therefore, functional quality becomes the major factor from which to form the perception of service quality (Weerasiri, 2015). Several pieces of research also made studying service quality and customer experience in the Hotel Industry. (Dong et al., 2014) studied attributes of customer satisfaction such as location and well-furnished amenities. (Dong et al., 2014) describe the amenities, should bring comfort and location for its convenience. Several pieces of research made to study service quality and customer experience in the Hotel Industry very few have considered the effect of nationality in the perception of customers. Other researches are shown in Table 1.

Table 1. Factors considered in previous researches

Author	Hotel Industry	Online Reviews	Factors or Determinants
(Dong et al., 2014) China	√	√	Customer satisfaction : Room, Staff, Location and Amenities Being location as the major factor, also major determinants for the room to be the cleanliness and comfort ( <i>quietness and sleep comfort</i> ).
(Grewal et al., 2009) Retail Industry			Price and Location
(Khan et al., 2015) India	√		Peace of mind, Outcome focus, Product experience
(Heo et al., 2004) Japanese and Korean travelers New York	√		Language, Food and Beverage, Product customization, Staff
(Xu & Li, 2015) New York	√	√	Staff Performance ( <i>friendly and helpful</i> ), Room Quality ( <i>nice, clean, spacious, comfortable and temperature</i> ), Location and Accessibility, Wifi, Facility, Food and Beverage, Room Rate, Facility ( <i>bed and furniture</i> ), Bathroom, Waiting Time
(Hu et al., 2019b) New York	√	√	Facilities ( <i>Noise, Dirtiness, Decoration, Internet, Public Facilities, Bathroom, Room, Bath Experience, Recreation, Bugs</i> ) Service ( <i>Staff Attitude, Room Type, Booking and Cancellation, Room size, Celebration, Food Service</i> )

			Location ( <i>Decent Location, Landmark Building, Transportation, Construction site, Neighborhood</i> ) Value ( <i>overcharging</i> ) General Experience ( <i>concern elimination, Good feeling, Experience Comparison, Brand Image, Pets</i> )
(Jang, et al., 2018) Chicago, IL	√	√	Staff ( <i>front desk, smile</i> ), Room, Service, Internet, Quietness, Modernity, Cleanliness, Lobby, Bathroom, Amenities, Location( <i>Park</i> ), Restaurant,
(Geetha et al., 2017) India	√	√	Room, Staff, Food, Pool, Place, Service
(Xia et al., 2019) Hongkong	√	√	Cleanliness, Comfort, Location, Facilities, Staff, Value, WiFi
(Hargreaves, 2015) Singapore	√	√	Location, Sleep Quality, Rooms, Service Quality, Value for money and Cleanliness.
(Mohsin et al., 2019) Portugal	√		Reservation, Staff (helpful, friendly, appearance, product knowledge), Service (timely, room service, handling complaints), check in/out Food and Beverage, Restaurant (ambience, value for money, food quality, variety) Room, Bathroom, Cleanliness, Bed comfort Internet Access, Television Standard of fixtures and fittings Range of complimentary services

### 1.1 Objectives

This paper analyzed the determinants of satisfaction and dissatisfaction and evaluated performance indicators that are influential to the four nationalities through the evaluation of positive and negative reviews of comparable (same star rating and brand) hotels in the Philippines and United Kingdom. Determinants such as room space, service delivery, facilities, breakfast, location, the staff, etc. were considered in the analysis. Based on the determinants it was determined which performance indicator is a source of satisfaction and dissatisfaction and compared their rankings. Comparing the ranking showed which performance indicators are essential in getting customers and in gaining customer loyalty. Furthermore, through the evaluation of the reviews, the significance of nationality to satisfaction and dissatisfaction was determined. This paper observed several hypotheses.

- The performance indicators in satisfaction are not equally important for every nationality.
- The performance indicators in dissatisfaction are not equally important for every nationality.
- The nationality of the customer is significant to the satisfaction towards hotels.
- The nationality of the customer is significant to the dissatisfaction towards hotels.

### 2. Literature Review

The service society has made an instrument of social changes in every country, the force of globalization has greatly increased competitive pressures in the hospitality industry (Kalidas, 2007). Two of the dimensions of competition in the hospitality industry is service quality and customer experience (Grewal et al., 2009; Kalidas, 2007; Khan et al., 2015; Roy et al., 2019). Research has been made to understand the concept of service quality and customer experience in the Service Industry (Archakova, 2013; Grewal et al., 2009; Hosseini et al., 2015; Ijadi et al., 2019; Lockwood & Pyun, 2019; Roy et al., 2019; Weerasiri, 2015; Xie, 2011). These researches have studied service quality and customer experience mostly by conducting surveys to the customers and few have evaluated through reviews. Of these researches, few have considered the contribution of nationality.

Research was also made studying the effect of nationality on customer perception in other industries. One of which is in the airline industry. In research by Pantouvakis & Renzi, (2016) pointed out that nationality is a significant influence on forming opinions and is a major limitation to the generalization of quality of service. (Pantouvakis & Renzi, 2016) considered nationality as a factor of perception of service quality in the airline industry. (Pantouvakis & Renzi, 2016) studied airport service quality as a multidimensional construct consisting of four dimensions, namely servicescape, signage, service, and image. Where the image is affected by several attributes such as cleanliness, waiting times, restaurants and cafes, shops, and bathrooms.

## 2.1 Service Quality

Service Quality means the ability of a service provider to satisfy the customer in an efficient manner through which he can better the performance of the business (Kalidas, 2007). It is generated through the perception of quality attributes that are under the control of the service provider. (Helkkula, 2015; Lemke et al., 2011) According to Xie, (2011), perceived quality has been a better determinant in customers revisiting.

## 2.2 Customer Experience

Customer Experience is defined as the customer's cognitive assessment of customer-company interaction of service (Janiszewski, 2009; Khan et al., 2015; Roy et al., 2019). Customer Experience has been seen as new competition in the service industry (Khan et al., 2015; Roy et al., 2019). The better experience the customers have, the more positive reviews and loyalty will be received and other benefits such as better "word of mouth" and recommendations (Angelova & Zekiri, 2011; Hosseini et al., 2015; Khan et al., 2015; Roy et al., 2019).

## 2.3 Online Reviews

Online travel reviews have become popular among travelers. Travelers would like to make comments on the travel services they have experienced and share with others (Dong et al., 2014). They post their positive reviews and negative reviews online after they experienced at the hotel (Xu & Li, 2015). Apart from customers share experience, online reviews are important, because, according to Thakur, (2018) it is observed that 50% of online purchasing decisions were due to the information consumers acquired from online ratings and reviews. Compared with ratings, reviews in words reflect the customer satisfaction and dissatisfaction in a more detailed way (Xu & Li, 2015), and thus, affecting the perception, expectation and the purchase decision of customers (Angelova & Zekiri, 2011; Hu et al., 2019a; Hu et al., 2019b; Khan et al., 2015)

Literature have shown great competition in the Hotel Industry. As an effect, the society has developed more knowledgeable customers which suggests the industry to be more customer-oriented and adaptive. Literature has shown determinants of satisfaction and dissatisfaction in the Hotel Industry and showed factors that greatly affect customer satisfaction and loyalty. These researches have defined different determinants that were most considered by hotel customers. Determinants such as the location, staff, facility, breakfast, and service and presented in different ranks. These researches have given the Hospitality Industry a generalized idea of what determinant of satisfaction and dissatisfaction mostly considered by the customers. This idea has allowed the hotel industry to improve a certain area of service. What has been lacking in the previous researches is the opportunity to have hotels customized their service by anticipating the need of the customer according to their nationality.

## 3. Methods

Text analysis was performed in the evaluation of positive and negative reviews to determine the determinants of satisfaction and dissatisfaction that are most influential per nationality. Online reviews were considered in the study. After determinants of satisfaction and dissatisfaction were determined and grouped to respective performance indicators, the significance of nationality to satisfaction and dissatisfaction is tested using the Chi-Square test and Cramer measure of association using Minitab. This evaluation was done by using a summarized table of performance indicators and nationality.

Technical analysis was necessary to understand all perspectives and emotions in all reviews. This paper used Sentiment Analysis, which refers to the process of extracting useful, meaning, and nontrivial information from unstructured text to analyze words that relate to the review. Sentiment analysis is a Natural Language Processing technique that identifies sentiments within the text, allowing businesses to understand their customer's emotions in reviews and surveys. The processing of information was done per Nationality and sampling country, which are eight (8) sets of word extraction. Sentiment Analysis studies people's sentiments towards certain entities (Geetha et al., 2017). Sentiment Analysis is done by getting frequencies of keywords that corresponded to the positive and negative tones of the reviews. These frequencies were used to determine the score of each determinant in each set of reviews. To determine the emotion of the review a positive tone is given a score of +1 for each frequency and the negative tone is -1. These scores were summed to determine the emotion of the review a negative result means a negative emotion and positive means a positive emotion.

#### 4. Data Collection

The data was comprised of details such as the username of the reviewer, nationality, and positive and negative reviews. This paper considered online reviews of comparable hotels in United Kingdom and in the Philippines, from different nationalities, such as United Kingdom, USA, Canada, and Philippines. The collection of data covered the reviews from January 2018 to December 2019 from Booking.com. The reviews collected are reviews of two hotels in United Kingdom and two hotels in the Philippines, namely, Hyatt Regency London-The Churchill, with 520 English reviews, Hyatt Regency Manila City of Dreams, with 511 English reviews, Holiday Inn London Kensington High Street, with 2,621 English reviews and Holiday Inn & Suites Makati, with 521 English reviews. Furthermore, online reviews were posted with the corresponding rating given by the reviewer, which is an evaluation of the reviewer based on different performance indicators as provided by Booking.com, namely, Staff, Facilities, Cleanliness, Comfort, Value for Money, Location and Free Wifi. However, other indicators such as Food and Beverage, Service, Room Quality (Geetha et al., 2017; Heo et al., 2004; Hu et al., 2019b; Jang et al., 2018; Mohsin et al., 2019; Xu & Li, 2015) and Safety and Security as observed in the hotel reviews, were considered in this paper. Table 2 shows the different performance indicators with corresponding determinants based as shown in the gathered reviews.

Table 2. Performance indicators and determinants

Performance Indicator	Determinants
Staff	Satisfaction : Friendly, Accommodating, Helpful, Smile, Efficient (all Staff, Reception Staff, Concierge and Housekeepers) Dissatisfaction: Not know what to do, Not oriented, Rude, Unfriendly <ul style="list-style-type: none"> <li>• Staff includes all services performers such as the reception, front desk, concierge, housekeepers, waiters and bar staff</li> </ul>
Facilities and Amenities	Satisfaction: Clean, updated, spacious swimming pool, spacious lobby Dissatisfaction: not clean, outdated, smell of cigarette in lobby, slow elevator, not enough carpark, limited guest allowed in swimming pool (TV, bar, gym, decorations, design, swimming pool, sauna, spa, telephone, furniture, elevator, lobby, carpark, casino)
Cleanliness	Cleanliness, tidiness, maintained clean
Comfort	bed, atmosphere, quietness, calmness, air-condition, sleep
Value for money	Price of food versus serving, hidden and additional charges, value for money, money worth for the stay, expensive
Location	Accessible and convenient location, great and excellent location, near to mall, shopping centers, stores, train station or to mode of transportation, parks, tourist spots and airport Dissatisfaction: neighborhood congestion
Free Wifi	Satisfaction: fast Dissatisfaction, slow, not compatible to Linux, inconvenient access, not good for gaming
Food and Beverage	Satisfaction: Variety of choices, Large serving, Delicious and Healthy Dissatisfaction: non-refundable breakfast coupon, Expensive, Few Serving, Limited choices, machine made pancakes
Service	Satisfaction: Good customer service, good room service, fast, feedback. Fast and early check in/out, free shuttle service to malls and airport Dissatisfaction: Slow, no feedback on concern, issues not addressed, slow check in/out, payment process
Security and Safety	Great Security, Safety of kids
Room Quality	Satisfaction: Spacious, Clean, Regularly changed sheets, functional layout, bathroom, toilet, good view Dissatisfaction: without good view, not near the lift, small, not clean,

#### 5. Results and Discussion

##### 5.1 Numerical Results

Sentiment Analysis performed on positive and negative reviews for each nationality and hotel location was presented to determine determinants that are mostly considered or most influential to customer satisfaction (positive review) and dissatisfaction (negative review) for each nationality. Sentiment Analysis was performed by getting frequencies of each determinant and summed to get the total score of each determinant for a specific set of reviews. These scores

were used to determine weights on satisfaction and dissatisfaction for each performance indicator in percentage. Tables 3 to 4 show the top 5 performance indicators of satisfaction and dissatisfaction, respectively, as a result of the analysis.

Table 3. Top 5 performance indicators in satisfaction

Nationality	United Kingdom		USA		Canada		Philippines	
Location	UK	PH	UK	PH	UK	PH	UK	PH
Performance Indicator	Rank							
Location	1	1	1	1	1	1	1	2
Staff	2	2	2	2	2	2	2	1
Food and Beverage	5	5	5	3	3	4	3	4
Facilities and Amenities	4	3	4	4	5		5	
Room Quality			3		4			3
Comfort	3							
Service				5		5	4	5
Cleanliness		4				3		

The results in the Table 3 showed the highest rankings in satisfaction for location and staff. In these, results we can say that location and staff performance and interaction are critical performance indicators in making sure there will be customers to the hotel. In the sentiment analysis, accessibility to malls, shopping centers, convenience stores, and airport were observed to be significant. In the above table, it can be noticed of the four nationality, Only United Kingdom showed significant satisfaction to comfort and that the other three nationalities have shown satisfaction to service. Also, it can be noticed that Philippines (nationality) during the stay in hotels in the Philippines (location) has shown more satisfaction to staff interaction compared to location and otherwise during the stay in United Kingdom (location). In this result, it can be viewed the difference in perspective of a domestic customer from a foreign customer, which can also be viewed from the result of United Kingdom (nationality), on the consideration of comfort and cleanliness. Another set in the Sentiment analysis is the dissatisfaction (negative reviews), in which determinant of dissatisfaction looked to determine performance indicators that are influential to customer dissatisfaction. Table 4 shows the top 5 performance indicators of dissatisfaction.

Table 4. Top 5 performance indicators in dissatisfaction

Nationality	United Kingdom		USA		Canada		Philippines	
Location	UK	PH	UK	PH	UK	PH	UK	PH
Performance Indicator	Rank							
Room Quality	1	1	1	2	1	1	1	2
Facilities and Amenities	3	3	2	1	2	2	2	1
Food and Beverage	4		3	3	3	4	4	5
Staff		5	5		5		5	
Comfort	2	4	4	5	4	3	3	3
Service	5	2		4		5		
Value for Money								4

The result in Table 4 showed that room quality, and facilities and amenities to be critical in dissatisfaction, although showed in different rankings. These performance indicators are most influential to dissatisfaction because this is where the core of the business lies and expectations of the customers are critical to meet. In the above table, it can be observed that United Kingdom(nationality) has given more attention to comfort and service compared to facilities and amenities during their stay in United Kingdom and Philippines respectively. Also, in the table, it is showed that apart from room

quality, and facilities and amenities, comfort is also seen to be critical in dissatisfaction. It can also be observed, the similarity in the perception of USA and Canada, where they have considered similar performance indicators in both stay in United Kingdom and Philippines. During the stay in United Kingdom, USA and Canada have the same ranking of performance indicator, while during the stay in the Philippines, different ranking in performance indicator is observed. Furthermore, The performance indicators of USA and Canada during their stay in the Philippines are the same but of different rankings to the stay of United Kingdom (nationality) in United Kingdom (location). It can also be observed in the table that of the four nationalities Philippines has given more attention to value for money. Also, it can be observed that USA and Philippines (nationality) during their stay to hotel in the Philippines (location) have more attention to facilities and amenities.

Tables 3 and Table 4 showed the performance indicators that are a source of satisfaction and dissatisfaction for every nationality, which evaluated Sentiment analysis. Sentiment analysis is typically used to determine the overall emotion on reviews whether the whole review is positive or negative. This can be used to determine emotion on each performance indicator whether the specific performance indicator is an overall source of satisfaction or dissatisfaction. Weights of each performance indicator or the effect will be computed as, [positive score – negative score], to get the score for each performance indicator. A positive score will signify an effect on satisfaction and a negative score will signify an effect on dissatisfaction. Then, weights were computed using absolute values. Table 5 shows the combined net effect of both hotel locations or over-all net effect of performance indicators towards satisfaction and dissatisfaction.

Table 5. Over-all net effect of performance indicators

Performance Indicators	Satisfaction				Dissatisfaction			
	United Kingdom	USA	Canada	Philippines	United Kingdom	USA	Canada	Philippines
Location	33.51%	40.05%	41.96%	27.93%				
Staff	15.83%	17.96%	8.39%	23.74%				
Cleanliness	8.18%	5.83%	4.20%	7.26%				
Food and Beverage	7.65%	2.43%	2.80%	9.50%				
Facilities and Amenities	4.49%					8.01%	4.90%	12.01%
Room Quality				6.70%	24.27%	16.99%	27.97%	
Comfort	1.32%			2.23%		1.21%	4.90%	
Service		1.46%	0.70%	5.31%	3.43%			
Security and Safety			1.40%	0.56%		0.24%		
Free Wifi			0.70%		0.53%	2.18%		
Value for Money					0.79%	3.64%	2.10%	4.75%

The result showed that location and staff are equally important in the satisfaction of the four nationalities and other performance indicators showed different rankings to satisfaction and dissatisfaction, as similarly showed in the previous results. The result showed that location, staff, cleanliness, and food beverage as the major source of satisfaction to the nationalities. Also, the result showed value for money as the common source of dissatisfaction to the four nationalities. As referred to the previous results of dissatisfaction which showed room quality to be the major source of dissatisfaction, this result showed room quality as a major source of dissatisfaction to United Kingdom, USA, and Canada, and showed to be a source of satisfaction to Philippines. Furthermore, facilities and amenities were showed to be a source of dissatisfaction to USA, Canada, and Philippines and a source of satisfaction to United Kingdom.

In the evaluation and analysis, first is to compare performance indicators in satisfaction and dissatisfaction. Second is to test if nationality is significant to satisfaction and dissatisfaction using Chi-square test and Cramer measure of association, which results showed in Tables 6 to 7.

Table 6. Statistical result of significance of nationality to performance indicator

	Satisfaction	Dissatisfaction
<b>Chi-Square P-value</b>	0.000	0.000
<b>Cramer's V</b>	0.012	0.029

Note: Chi-square test result, P-value<0.05 significant association  
 Cramer's V value <0.05 very weak effect on association

Table 7. Statistical result of significance of nationality to performance indicator, by hotel location

Location	Satisfaction		Dissatisfaction	
	United Kingdom	Philippines	United Kingdom	Philippines
<b>Chi-square P-value</b>	0.028	0.000	0.844	0.016
<b>Cramer's V</b>	0.012	0.021	-	0.024

Note: Chi-square test result, P-value < 0.05, significant association  
 P-value > 0.05, no significant association  
 Cramer's V value <0.05 very weak effect on association

The statistical test was done by using the top 5 performance indicators, which were obtained by getting the total score of each performance indicator from the four nationalities. The result, as shown in Table 6, showed that for those who stayed in both United Kingdom and in the Philippines, there is a significant association between nationality and performance indicators of satisfaction. The association showed with a P-value of 0.000, furthermore, the result showed that nationality has a very weak effect on performance indicator of satisfaction with a Cramer's V square value of <0.05. On the other hand, the result, as presented in Table 7, showed that for those who stayed in hotels in the Philippines, there is a significant association between nationality and performance indicators of dissatisfaction. The association showed with a P-value of <0.05, furthermore, the result showed that nationality has a very weak effect on performance indicator of dissatisfaction with a Cramer's V square value of <0.05. The result showed this is otherwise to the stay in hotels in United Kingdom with a P-value of >0.05.

## 5.2 Validation

### Satisfaction

In the course of the analysis, it was observed the critical importance of performance indicators of satisfaction. These indicators are location, staff, cleanliness, and service. The accessibility and convenience of the location are important in generating customer satisfaction and getting more customers, when customers save more time in getting into places and where nearby establishments provide luxury and people necessities (Hu et al., 2019b; Xu & Li, 2015). Also, the location of the hotel is always associated with high accommodation demand, higher revenue, better performance, and lower failure rate. (Xu & Li, 2015). Another performance indicator of satisfaction is the staff, this indicator gives value to the emotional level of customer experience. Where customers want the staff to be friendly, accommodating, helpful, and efficient. Customers give attention about staff performance because of the positive relationship between customer satisfaction and employee performance is strong in industries where the frequency of customer and employee interaction is relatively high (Xu & Li, 2015). Cleanliness and service are also major performance indicators. Cleanliness and service are factors that are essential to image (Pantouvakis & Renzi, 2016).

### Dissatisfaction

The result of this evaluation showed that dissatisfaction is critical in the core of the hotel industry namely, room quality, facilities and amenities, and food and beverage and further expectation as a return for the purchase namely, the quality of service, the comfort during the stay and the value for money. These indicators were presented in different rankings. As a result of the analysis, it was showed that room quality is the major source of dissatisfaction, it was also showed that facilities and amenities is also considered by the three nationalities, namely, USA, Canada, and Philippines. Booking.com, which is the source of the reviews describes the hotel, such as the room and the included facilities accompanied by pictures. These descriptions set the initial expectation of the customer of what to experience during the stay in the hotel, which if not met also becomes a source of dissatisfaction. Another performance indicator

that is a source of dissatisfaction is the food and beverage, where the major determinant found during the analysis is the disappointment of customers to the serving of the breakfast, which includes the size of the serving and the lack of variety. As a return to the purchase of the product, another indicators that are a source of dissatisfaction are comfort and the quality of service. To understand the dissatisfaction in service, as observed during the analysis, showed that the convenience and efficiency in the check-in/out process is a major determinant of dissatisfaction under service. Another performance indicator that is a source of dissatisfaction is the staff. In contrary to satisfaction, the staff becomes a source of dissatisfaction when staff is not accommodating, friendly, and helpful. For further improvement, customers expect staff to be properly oriented of the processes and product.

### **Significance of nationality to satisfaction and dissatisfaction towards hotel**

Using the result from the sentiment analysis scores of each determinant was summarized to each corresponding performance indicator and nationality. The summary of these data was used to evaluate significance using the Chi-square test and the Cramer measure of association. The evaluation used performance indicators such as location, staff, facilities and amenities, food and beverage, and room quality as the performance indicator of satisfaction, on the other hand, performance indicators such as room quality, facilities and amenities, food and beverage, staff, comfort, and service, which are amongst the top 5 performance indicators of dissatisfaction. The result of the Chi-square test showed that there is a significant association between nationality and the performance indicators, furthermore, the result of the Cramer measure of association showed a very weak effect of nationality to the satisfaction and dissatisfaction towards hotel. Although the result of the evaluation showed nationality to have a very weak effect, does not mean that this is not important to consider in achieving customer satisfaction and loyalty; also as a subject for future researches. Being of the few researches to consider nationality to have an effect on satisfaction and dissatisfaction towards hotels there is still so much to explore. This paper has considered the perception of customers in hotel reviews in booking site and has not considered evaluating the perception of the customer using a form of a survey, which can be a recommendation for future research.

## **6. Conclusion**

The paper attempted to identify the performance indicators that are sources of satisfaction and dissatisfaction and their corresponding determinants, by evaluating reviews from different nationalities, namely, United Kingdom, USA, Canada and Philippines. This attempt was done through Sentiment Analysis, a text analysis technique that evaluates emotions on reviews by gathering keywords that correspond to the positive or negative emotion on the review. In the result of this paper several conclusion have been observed.

1. Location is a major source of satisfaction and ensures hotel to have customers. A hotel that is located nearby malls, shopping centers, access to transportation, airport and tourist destinations, have larger potential of market of customers and more reason to be competitive in the industry.
2. Staff is a major source of satisfaction. Customers want friendly, accommodating, helpful and efficient staff. To further provide excellent experience to the customer, staff should be oriented of their functions, and work processes, and should have knowledge of the products.
3. Cleanliness is a major source of satisfaction. Being cleanliness as a factor of image, this affects the perception and impression of the customer on how good and well managed a hotel is.
4. Food and Beverage is major source of satisfaction. Customers not only appreciate the food serving but also the variety of choices. In the analysis, it was found that breakfast is most critical service. A good and varied choices in breakfast serving gives the customer convenience of not looking for a nearby restaurant in the morning before doing his activities. To ensure satisfaction of every customer, the hotel should develop capability to customize menu according to the diet of different customers.
5. Value for money is a major source of dissatisfaction. During the analysis of this paper it was found that it is the cost of the product to be a major determinant, where customers find the product to be expensive.
6. Room quality is major source of dissatisfaction to United Kingdom, USA and Canada, where these nationalities find the size of the room to be small. The booking.com being the source of this paper provides pictures and description of the room and even the hotel facilities. This become a basis of

customer expectation of the room he is booking, where if different became a dissatisfaction. Furthermore, to ensure satisfaction of customers to the room they are booking, hotel developers should take into consideration the room size based on the standard way of living of various nationalities that are found to be frequent customers in the area.

7. Service is a source of satisfaction to USA, Canada and Philippines and a source of dissatisfaction to United Kingdom. Apart from being able to provide excellent service to customer by being able address customer concern and give feedbacks, provide a good and fast room service, customer's also find the check in / out process to be very important. The check in /out process being the first encounter of the customer to the service controls the customer's perception of how good customer service the hotel can give.

These results of this paper showed that the performance indicators that are the most source of satisfaction are important to ensure customers as well as to achieve customer loyalty. While the performance indicators that are the most source of dissatisfaction are critical to achieving customer loyalty when turning into satisfaction. To summarize the result on both satisfaction and dissatisfaction, it can be concluded that the performance indicators that are critical in the hotel operations are, staff, room quality, facilities and amenities, comfort, service, and value for money. Hotel owners should focus on developing competency and commitment to continuous improvement on these performance indicators, to ensure the ability to customize service to any customer nationality. On the other hand, the results showed that location to be a major source of satisfaction, which is defined to be critical in ensuring customers or a large market for the hotel. In addition, regular checking of online reviews is important to evaluate the strengths of the hotel as well as the opportunities for improvement.

## References

- Angelova, B., & Zekiri, J. (2011). Measuring Customer Satisfaction with Service Quality Using American Customer Satisfaction Model (ACSI Model). *International Journal of Academic Research in Business and Social Sciences*, 1(3), 27. <https://doi.org/10.6007/ijarbss.v1i2.35>
- Archakova, A. (2013). *Service Quality and Customer Satisfaction. Case study: Company X*. 39. Retrieved from [https://www.theseus.fi/bitstream/handle/10024/65503/Archakova\\_Asy\\_a.pdf?sequence=1&isAllowed=y%0Ahttps://docit.tips/download/ir-definition-classification-resort-tourism-and-leisure\\_pdf](https://www.theseus.fi/bitstream/handle/10024/65503/Archakova_Asy_a.pdf?sequence=1&isAllowed=y%0Ahttps://docit.tips/download/ir-definition-classification-resort-tourism-and-leisure_pdf)
- Becker, C., & Murrmann, S. K. (1999). *The effect of cultural orientation on the service timing preferences of customers in casual dining operations : An exploratory study*. 18.
- Chen, R. X. Y., Cheung, C., & Law, R. (2012). International Journal of Hospitality Management A review of the literature on culture in hotel management research : What is the future ? *International Journal of Hospitality Management*, 31(1), 52–65. <https://doi.org/10.1016/j.ijhm.2011.06.010>
- Dong, J., Li, H., & Zhang, X. (2014). *Classification of Customer Satisfaction Attributes : An Application of Online Hotel Review Analysis*. (2008), 238–250.
- Geetha, M., Singha, P., & Sinha, S. (2017). Relationship between customer sentiment and online customer ratings for hotels - An empirical analysis. *Tourism Management*, 61, 43–54. <https://doi.org/10.1016/j.tourman.2016.12.022>
- Grewal, D., Levy, M., & Kumar, V. (2009). *Customer Experience Management in Retailing : An Organizing Framework*. 85, 1–14. <https://doi.org/10.1016/j.jretai.2009.01.001>
- Hargreaves, C. A. (2015). Analysis of hotel guest satisfaction ratings and reviews: An application in Singapore. *American Journal of Marketing Research*, 1(4), 208–214. Retrieved from [https://www.researchgate.net/publication/291832800\\_Analysis\\_of\\_Hotel\\_Guest\\_Satisfaction\\_Ratings\\_and\\_Reviews\\_An\\_Application\\_in\\_Singapore](https://www.researchgate.net/publication/291832800_Analysis_of_Hotel_Guest_Satisfaction_Ratings_and_Reviews_An_Application_in_Singapore)
- Helkkula, A. (2015). *Characterising the concept of service experience*. (June 2011). <https://doi.org/10.1108/09564231111136872>
- Heo, J. K., Jogaratnam, G., & Buchanan, P. (2004). Customer-focused adaptation in New York City hotels: Exploring the perceptions of Japanese and Korean travelers. *International Journal of Hospitality Management*, 23(1), 39–53. <https://doi.org/10.1016/j.ijhm.2003.07.003>
- Hosseini, R. S., Zainal, A., & Sumarjan, N. (2015). The Effects of Service Performance of Hotel Customers on Quality of Experience and Brand Loyalty in Iran. *Procedia - Social and Behavioral Sciences*, 201(February), 156–164. <https://doi.org/10.1016/j.sbspro.2015.08.163>
- Hu, N., Zhang, T., Gao, B., & Bose, I. (2019a). What do hotel customers complain about ? Text analysis using

- structural topic model. *Tourism Management*, 72(March 2018), 417–426.  
<https://doi.org/10.1016/j.tourman.2019.01.002>
- Hu, N., Zhang, T., Gao, B., & Bose, I. (2019b). What do hotel customers complain about? Text analysis using structural topic model. *Tourism Management*, 72(December 2018), 417–426.  
<https://doi.org/10.1016/j.tourman.2019.01.002>
- Ijadi, A., Saghaei, A., & Hafezalkotob, A. (2019). Service quality measurement model integrating an extended SERVQUAL model and a hybrid decision support system. *European Research on Management and Business Economics*, 25(3), 151–164. <https://doi.org/10.1016/j.iedeen.2019.04.004>
- Jang, S., Liu, T., Hye, J., & Yang, H. (2018). Understanding important hotel attributes from the consumer perspective over time. *Australasian Marketing Journal (AMJ)*, 26(1), 23–30.  
<https://doi.org/10.1016/j.ausmj.2018.02.001>
- Janiszewski, C. (2009). *The Consumer Experience*. (1), 1–15.
- Kalidas.M.G. (2007). *SERVICE QUALITY - THEORETICAL OVERVIEW*.
- Khan, I., Garg, R. J., & Rahman, Z. (2015). Customer Service Experience in Hotel Operations: An Empirical Analysis. *Procedia - Social and Behavioral Sciences*, 189, 266–274.  
<https://doi.org/10.1016/j.sbspro.2015.03.222>
- Lemke, F., Clark, M., & Wilson, H. (2011). *Customer Experience Quality : An exploration in business and consumer contexts using repertory grid technique*. 846–869.
- Li, C., Cui, G., & Peng, L. (2017). The signaling effect of management response in engaging customers : A study of the hotel industry. *Tourism Management*, 62, 42–53. <https://doi.org/10.1016/j.tourman.2017.03.009>
- Lockwood, A., & Pyun, K. (2019). How do customers respond to the hotel servicescape? *International Journal of Hospitality Management*, 82(November 2018), 231–241. <https://doi.org/10.1016/j.ijhm.2019.04.016>
- Masiero, L., Yang, Y., & Qiu, R. T. R. (2019). Understanding hotel location preference of customers: Comparing random utility and random regret decision rules. *Tourism Management*, 73(January), 83–93.  
<https://doi.org/10.1016/j.tourman.2018.12.002>
- Mohsin, A., Rodrigues, H., & Brochado, A. (2019). Shine bright like a star: Hotel performance and guests' expectations based on star ratings. *International Journal of Hospitality Management*, 83(November 2018), 103–114. <https://doi.org/10.1016/j.ijhm.2019.04.012>
- Nazarian, A., Atkinson, P., & Foroudi, P. (2017). Influence of national culture and balanced organizational culture on the hotel industry's performance. *International Journal of Hospitality Management*, 63, 22–32.  
<https://doi.org/10.1016/j.ijhm.2017.01.003>
- Pantouvakis, A., & Renzi, M. F. (2016). Exploring different nationality perceptions of airport service quality. *Journal of Air Transport Management*, 52, 90–98. <https://doi.org/10.1016/j.jairtraman.2015.12.005>
- Radojevic, T., Stanisic, N., Stanic, N., & Davidson, R. (2018). The effects of traveling for business on customer satisfaction with hotel services. *Tourism Management*, 67, 326–341.  
<https://doi.org/10.1016/j.tourman.2018.02.007>
- Roy, S., S., S., & Bhatia, S. (2019). Service quality versus service experience: An empirical examination of the consequential effects in B2B services. *Industrial Marketing Management*, (February).  
<https://doi.org/10.1016/j.indmarman.2019.02.017>
- Thakur, R. (2018). Customer Engagement and Online Reviews. *Journal of Retailing and Consumer Services*, 41(February 2017), 48–59. <https://doi.org/10.1016/j.jretconser.2017.11.002>
- Tourism, W., & Unwto, O. (2018). *2018 Edition UNWTO International Tourism Trends 2017*. 1–20.
- Trong, L., Tran, T., Thi, P., Ly, M., & Le, L. T. (2019). International Journal of Hospitality Management Hotel choice : A closer look at demographics and online ratings. *International Journal of Hospitality Management*, 82(February), 13–21. <https://doi.org/10.1016/j.ijhm.2019.03.015>
- Weerasiri, R. A. S. (2015). A Study on Service Quality and Customer Satisfaction of Supermarkets in Sri Lanka. *Sri Lanka Journal of Marketing, University of Kelaniya*, 10(1), 1–21.  
<https://doi.org/10.15706/jksms.2009.10.1.001>
- Wu, L. (2013). *Cultures and Organizations : Software of the Mind By Geert Hofstede and Gert Jan Hofstede. Executive Book Summary*, 8.
- Xia, H., Vu, H. Q., Law, R., & Li, G. (2019). Evaluation of hotel brand competitiveness based on hotel features ratings. *International Journal of Hospitality Management*, (March), 102366.  
<https://doi.org/10.1016/j.ijhm.2019.102366>
- Xie, X. (2011). Service Quality Measurement from Customer Perception Based on Services Science, Management and Engineering. *Systems Engineering Procedia*, 1, 337–343. <https://doi.org/10.1016/j.sepro.2011.08.051>
- Xu, X., & Li, Y. (2015). Determinants of Customer Satisfaction and Dissatisfaction towards Hotels among Various

Demographic Groups of Customers. *Decision Science Institute*, 27.

## Biographies

**Adrian A. Amador** has eight years of experience in Property and Facilities Management and held different level of functions. Mr. Amador holds a Bachelor of Science in Electrical Engineering from Saint Louis University and Master of Science in Engineering Management from Mapua University, all located in the Philippines. He is a member of IIEE and ENPAP.

**Rene D. Estember** is a Professor in the School of Industrial Engineering and Engineering Management at the Mapua University in Manila City, Philippines. He earned his B.S. in Management and Industrial Engineering from Mapua Institute of Technology, Master in Business Administration from Ateneo de Manila University, Master of Science in Industrial Engineering from the University of the Philippines, and finishing his Doctorate in Business Administration from the Pamanatasan ng Lungsod ng Maynila (PLM), all located in the Philippines. He is presently undertaking consultancy work on quality management systems documentation and also involved as a regular resource speaker of a training company conducting technical trainings. His research interests include human factor and ergonomics, manufacturing, risk management and optimization.