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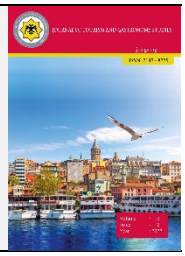

Foreign Visitors' Dining Experiences in Asian Restaurants Operating in Istanbul

*** Semra AKTAS POLAT** [a]

[a] Department of Tourism Management, Faculty of Tourism, Istanbul Medeniyet University, Istanbul/Turkey

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Abstract

The purpose of this study is to reveal the dimensions of dining experience by modeling the foreign visitors reviews for Asian restaurants operating in Istanbul, Turkey. In the study, the latent Dirichlet allocation (LDA) algorithm, sentiment analysis, dimensional salience and valence analysis (DSVA), and lexicon salience and valence analysis (LSVA) were used as text mining methods to analyze 3,843 online English reviews for Asian restaurants on TripAdvisor. Five dimensions were found for the Asian restaurants experience: authenticity, staff, sushi, service, and view. According to the dimensional salience analysis, the authenticity forms the core of the Asian restaurants experience. As a result of the dimensional valence analysis, the staff has a highly positive valence and the service has a highly negative valence dimension. As a result of lexicon salience analysis based on the SVM estimation, the most salience term was food, while the least salience term was Bosphorus. Bosphorus, delicious, and amazing were determined as the terms with the highest positive valence by lexicon valence analysis, respectively. The results may also be of interest to various gastronomy stakeholders interested in the Asian restaurant experience from a customer perspective.

** Corresponding Author*

E-mail: saktaspolat@gmail.com (S. Aktas-Polat)

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INTRODUCTION

Food has become a cultural object that melts different cultures in a pot with the global movements such as trade, migration, and tourism (Aktas-Polat & Polat, 2020). Farrer (2015) mentions that it is not surprising that culinary cultures are popular due to the transnational travel of Asian cuisine in the age of travel. As a result of this mobility, the number of restaurants serving dishes from Asian cuisine has increased in global food markets (Tey, et al., 2018). With the increasing number of restaurants, the awareness of this cuisine and the frequency of testing have also increased (Verbeke & López, 2005). These developments have also increased the need for a better understanding of the elements of the experience of customers gravitating towards Asian cuisine (Jang & Ha, 2009).

Studies on food experience are handled together with restaurant attributes (Johns & Pine, 2002). Food quality, physical environment, and service quality are considered as basic aspects in measuring dining experiences (Canny, 2014). In the extant literature, these aspects are expanded and emphasized on the factors such as food, service, décor, atmosphere, restaurant interior, cuisine, company, price, and other guests affecting diners' experiences (Andersson & Mossberg, 2004; Finkelstein, 1989; Gustafsson et. al., 2006; Susskind, 2000). A restaurant customer, who especially gets epistemic and emotional benefits (Kim & Choe, 2019), interprets their experience within the framework of these aspects experienced at the same time.

Customers convey their feelings and thoughts about these elements that make up the restaurant experience to the large audiences including potential customers through online reviews they write on various platforms such as TripAdvisor. Online reviews describing diners' food consumption experiences (Oh &Kim, 2020) have become an important data source for the experience-oriented research by providing a richer source of data than traditional survey methods to better understand customers' holistic experiences (Sutherland, et. al., 2020). Online reviews are considered more reliable than other analytical data as reviewers write their reviews without realizing that the reviews are being analyzed by others (Oh &Kim, 2020). At the same time, the up-to-dateness of online reviews and the sample size have made online reviews widely accepted (Luo et al., 2021). However, there is scant research in the restaurant industry despite the growing popularity and importance of online restaurant reviews (Gan et. al., 2017; Racherla et. al., 2013).

There are three gaps in the extant literature for the Asian restaurants experiences. First, there are very limited studies examining various aspects of the Asian restaurants experiences in the context of restaurant marketing (Ingerson & Kim, 2016). The studies on Asian restaurants mostly focused on customer perception (Choi et. al., 2011; Ingerson & Kim, 2016; Jang et. al., 2009; Josiam et. al., 2007; Lee et. al., 2012; Lee & Liu, 2021; Liu & Jang, 2009; Min & Han, 2017), customer expectation (Sukalakamala & Boyce, 2007), and customer satisfaction (Ma et. al., 2011). Second, although there are studies that interpret online restaurant reviews in the context of experience (Le et. al., 2021; Pantelidis, 2010; Pezenka & Weismayer, 2020), "limited efforts have been exerted to explore food consumption experiences in ethnic restaurants using text analytics" (Oh & Kim, 2020). Online restaurant reviews were examined by the studies on review helpfulness (Meek et. al., 2021), customer revisit intention (Yan et. al., 2015), customer delight, satisfaction, and dissatisfaction (Aktas-Polat & Polat, 2022), restaurant attributes (Luo & Xu, 2019), restaurant preferences (Vu et. al., 2019), consumer perception of Asian restaurants (Fanelli & Di Nocera, 2018; Park et. al., 2016), and sentiments on the restaurant star ratings (Gan et. al., 2017). Third, despite the rapid

increase in the unstructured data, the studies on extracting information from the unstructured texts within the framework of online restaurant reviews are still insufficient.

This research was initiated by the author' interest in revealing foreign visitors' views on dining experiences in Asian restaurants operating in Istanbul. This study is an attempt to contribute to the extant literature by revealing the dimensions of dining experiences in Asian restaurant with the topic modeling in foreign visitors' reviews. Thus, it will help to make predictions about trends in future consumer behaviour (Puranam et. al., 2017), to understand what factors are important to Asian restaurant visitors in their dining experiences, and to help customer-oriented marketing efforts. In this context, the study seeks answers to the following three research questions.

- RQ1: What are the dimensions of dining experiences in Asian restaurants?
- RQ2: What are the most important dimension of dining experiences in Asian restaurants and most important terms of these dimensions?
- RQ3: What are the most positive and negative dimensions and the most positive and negative terms of each dimension of dining experiences in Asian restaurants?

Materials and Methods

This research is qualitative because the data used is textual and unstructured, and it is also an exploratory study due to the fact that it tries to reveal the dimensions of the restaurant experience (Oh & Kim, 2020). It was used Knime (Konstanz Information Miner) Analytics Platform 4.4.1 for the data preprocessing and analysis in the study. This study consists of seven stages including data collection, preprocessing, topic modeling, sentiment analysis, model comparison, determining most salience dimension and term, and finally determining most the positive dimension and term.

The data set of the study consists of the reviews written on TripAdvisor for the experiences of foreign visitors eating in 96 Asian Restaurants operating in Istanbul. Between 2007 and 2021 3,843 reviews written in English for these restaurants were collected manually in 2021. The data set was preprocessed with OpenNLP English WordTokenizer.

For RQ1, topic modeling based on creating clusters (i.e. topics) (Laakso et. al., 2021) was used in the examined document by identifying words that often appear together. In this context, it was used the LDA algorithm, which enables to discover the hidden thematic structure in large text archives (Blei, 2012), and the elbow method to determine the number of topics.

For RQ2 and RQ3, firstly sentiment analysis, which became important because what other people thought became an important source of information for the decision-making process (Pang & Lee, 2008) was used and then Dimensional Salience and Valence Analysis (DSVA) and Lexicon Salience and Valence Analysis (LSVA) developed by Taecharungroj and Mathayomchan (2019) were used. In this study, Dimensional Salience Analysis was used for determining the most important dimension, Lexicon Salience Analysis was used for determining the most important term of dimensions, Dimensional Valence Analysis was used for determining the most positive and negative dimensions, and Lexicon Valence Analysis was used for determining the most positive and negative terms of dimensions.

For sentiment analysis, which can be interpreted as a classification task in which each category represents an emotion (Prabowo & Thelwall, 2009), first of all, visitor reviews were labeled by their ratings as positive (4-5 stars) and negative (1-2-3 stars) (Kirilenko et. al., 2021; Taecharungroj & Mathayomchan, 2019). Afterwards, the classification performance was tested with Support Vector Machine (SVM) and Naïve Bayes (NB) algorithms which are frequently used in the field of tourism (Kirilenko, et. al., 2018), and 10-fold cross validation method. The performance results were compared with accuracy and Cohen's kappa score. The algorithm results, which were determined in this step and whose classification performance was higher than the other, were used for determining the most positive and negative terms of dimensions.

The dimensions that visitors mostly consider were determined by dividing of dimension reviews to total reviews (Taecharungroj & Mathayomchan 2019). For RQ2, determining the most important terms of dimensions, with the suggestion of Taecharungroj and Mathayomchan (2019), the most emphasized terms in the visitor reviews were determined by calculating the term salience by taking the logarithm of the term frequency of ten terms assigned to each topic and calculating the base 10 logarithm.

Using the cross-tabulation analysis results on the labeled data set used for sentiment analysis for RQ3, the valence value of each topic model (i.e., dimension) was calculated by dividing the difference between observed and expected positive reviews of dimensions to total reviews of dimensions (Taecharungroj & Mathayomchan 2019).

For determining the most positive and negative terms of dimensions, firstly, the positive mean ($\bar{x}$POS) and negative mean ($\bar{x}$NEG) of each term (x represents the term) were calculated. For this, using the results of the most successful machine learning algorithm, $\bar{x}$POS and $\bar{x}$NEG values were extracted for the first ten terms assigned to the topics determined as a result of LDA. For this process, the ratio of the number of repetitions of the related term in the reviews assigned by the classification algorithm for each category (positive and negative) to the number of reviews assigned to the relevant category was calculated. Finally, the valence value of each term was calculated by dividing the difference between the positive mean ($\bar{x}$POS) and negative mean ($\bar{x}$NEG) of each term to the sum of the positive mean ($\bar{x}$POS) and negative mean ($\bar{x}$NEG) of each term (Taecharungroj & Mathayomchan, 2019).

Results

It was found five dimensions as the visitors' Asian restaurant experiences. Table 1 presents the word list (10 words with their weights) assigned to each dimension. For dimension naming, the dimension was tried to be summarized by making an evaluation on the most frequently used words in the dimension word distributions (Hindle et. al., 2009). The dimension naming was verified by reading the 10 reviews with the highest probability of each dimension by the authors (Aktas-Polat & Polat, 2022; Sutherland & Kiatkawsin, 2020).

Table 1. The main dimensions of Asian restaurant experience

Staff		Service		Authenticity		View		Sushi	
Term	**Weight**	**Term**	**Weight**	**Term**	**Weight**	**Term**	**Weight**	**Term**	**Weight**
food	2603.0	food	854.0	food	3076.0	view	1122.0	sushi	1574.0
Thai	1561.0	dish	853.0	Indian	2531.0	food	1096.0	food	1011.0
restaurant	1149.0	chicken	830.0	restaurant	1674.0	restaurant	901.0	restaurant	905.0
Istanbul	770.0	rice	759.0	Istanbul	921.0	service	631.0	Japanese	684.0
service	699.0	restaurant	757.0	service	592.0	Istanbul	530.0	Istanbul	651.0
staff	611.0	Chinese	530.0	chicken	501.0	nice	377.0	service	648.0
friendly	552.0	service	516.0	staff	463.0	amazing	331.0	Chinese	519.0
nice	515.0	waiter	508.0	taste	438.0	drink	324.0	time	387.0
delicious	405.0	Table	426.0	day	416.0	Bosphorus	316.0	price	364.0
Turkish	387.0	noodle	413.0	Taksim	326.0	night	314.0	quality	363.0

The first dimension, called staff, includes the restaurant staffs' attitudes and behaviours comprising the smiling face, sincerity, and courtesy. The second dimension, called service, covers the visitors' opinions about the service during the restaurant experience, such as service speed, the delivery of correct order, and waiting time. The third dimension, called authenticity, covers expressions about the taste of the dish, whether this taste is authentic or not, and the emotions aroused in the visitors with the authentic food of the restaurant. The fourth dimension, called view, includes the elements, such as the restaurant's view, location, and atmosphere. The fifth dimension, called sushi, includes the details, such as types, shapes, price, taste, service, and the quality of sushi.

For RQ2 and RQ3, firstly the dimensions affecting the experience was labeled as positive (4- and 5-star) and negative (1-, 2- and 3-star) according to the visitor ratings. Table 2 presents the distribution of positive and negative reviews of dimensions.

Table 2. The Distribution of Positive and Negative Reviews of Dimensions

Dimension	Review Count	Positive		Negative	
		n	%	*n*	%
Staff	877	783	89.3	94	10.7
Service	633	251	39.7	382	60.3
Authenticity	984	739	75.1	245	24.9
View	622	526	84.6	96	15.4
Sushi	727	609	83.8	118	16.2

According to Table 2, the dimension with the highest positive sentiment rate was the staff with 89.3% followed by the view with 84.6%, the sushi with 83.8%, and the authenticity with 75.1%, respectively. However, the dimension with the highest negative sentiment rate was the service with 60.3%.

Table 3 presents the classification performance results of Naïve Bayes (NB) and Support Vector Machine (SVM) algorithms based on accuracy and Cohen's kappa score (κ).

Table 3. Confusion Matrix and Model Comparison

Algorithm	Sentiment Prediction	True	False	Accuracy	κ
SVM	POS	2715	193	0.855	0.58
	NEG	570	365		
NB	POS	2864	44	0.796	0.26
	NEG	194	741		

According to Table 3, SVM estimated 6.6% (193 reviews) of the positive labeled reviews as negative while NB estimated 1.5% (44 reviews) of the positive labeled reviews as negative. On the other hand, SVM estimated 39% (365 reviews) of the negative labeled reviews as positive while NB estimated 79.3% (741 reviews) of the negative labeled reviews as positive. Accordingly, the accuracy score of SVM was 85.5% while the NB accuracy score was 79.6%. Furthermore, Cohen's kappa scores were found 0.58 for SVM and 0.26 for NB. According to Landis and Koch (1977), it can be interpreted that these scores as moderate level and fair level respectively.

Table 4 presents the Dimensional Salience and Valence Analysis (DSVA) results for RQ2 and RQ3.

Table 4. The Dimensional Salience and Valence Analysis Results

Dimension	Review Total	Positive Reviews		Dimensional Valence (%)	Dimensional Salience (%)
		Observed	Expected		
Staff	877	783	664	13.6	22.8
Service	633	251	479	–36.1	16.5
Authenticity	984	739	745	–0.6	25.6
View	622	526	471	8.8	16.2
Sushi	727	609	550	8.1	18.9

According to Table 4, the authenticity (25.6%) was the most salience dimension. The authenticity dimension was followed by the staff (22.8%) and the sushi (18.9%), respectively. The view (16.2%) and the service (16.5%) were the two dimensions with lower salience compared to the other topics. Moreover, the staff was the dimension with the highest valence (13.6%) while the service was the dimension with the lowest valence (–36.1%). Figure 1 shows the dimensional salience and valence analysis results of each dimension together.

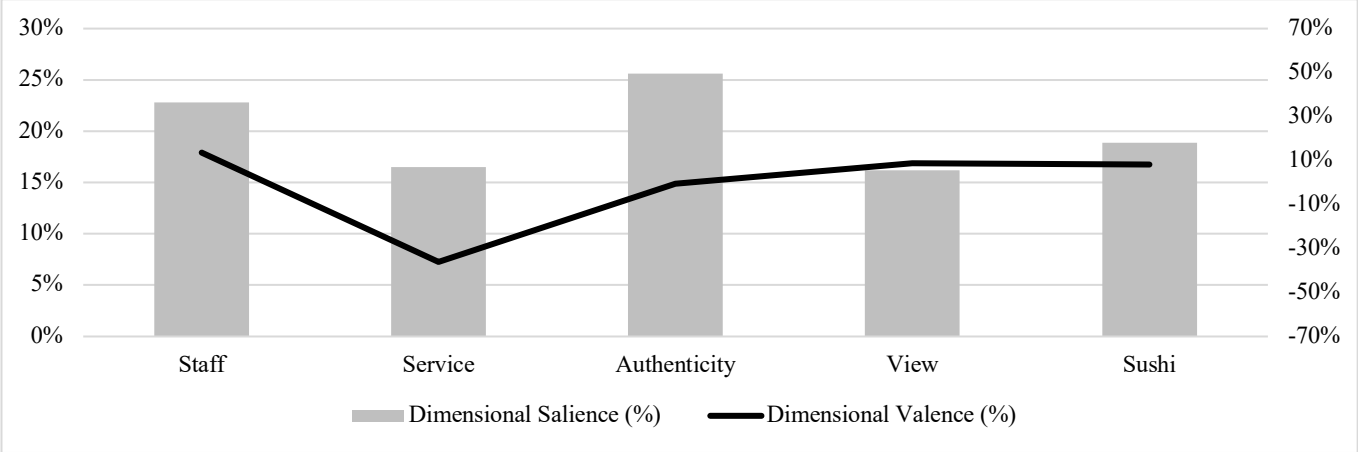

Figure 1. Dimensional Salience-Valence Analysis of the Dimensions

According to Figure 1, it can be stated that there is a five-layer structure that affects the Asian restaurant experience. The authenticity of the food forms the basis of this experience. Above this layer is the restaurant staff who make visitors feel special with their attitudes and behaviours. In the third layer, there are elements such as the taste, price, and quality of sushi, which is the signature dish of Japan (Farrer, 2015, p. 13). The fourth layer consists of the elements required for service. In the fifth layer, there are elements such as the view of the restaurant due to its location and the atmosphere of the restaurant.

Figure 2 shows a bubble chart in which Lexicon Valence and Salience Analysis (LSVA) is presented for RQ2 and RQ3.

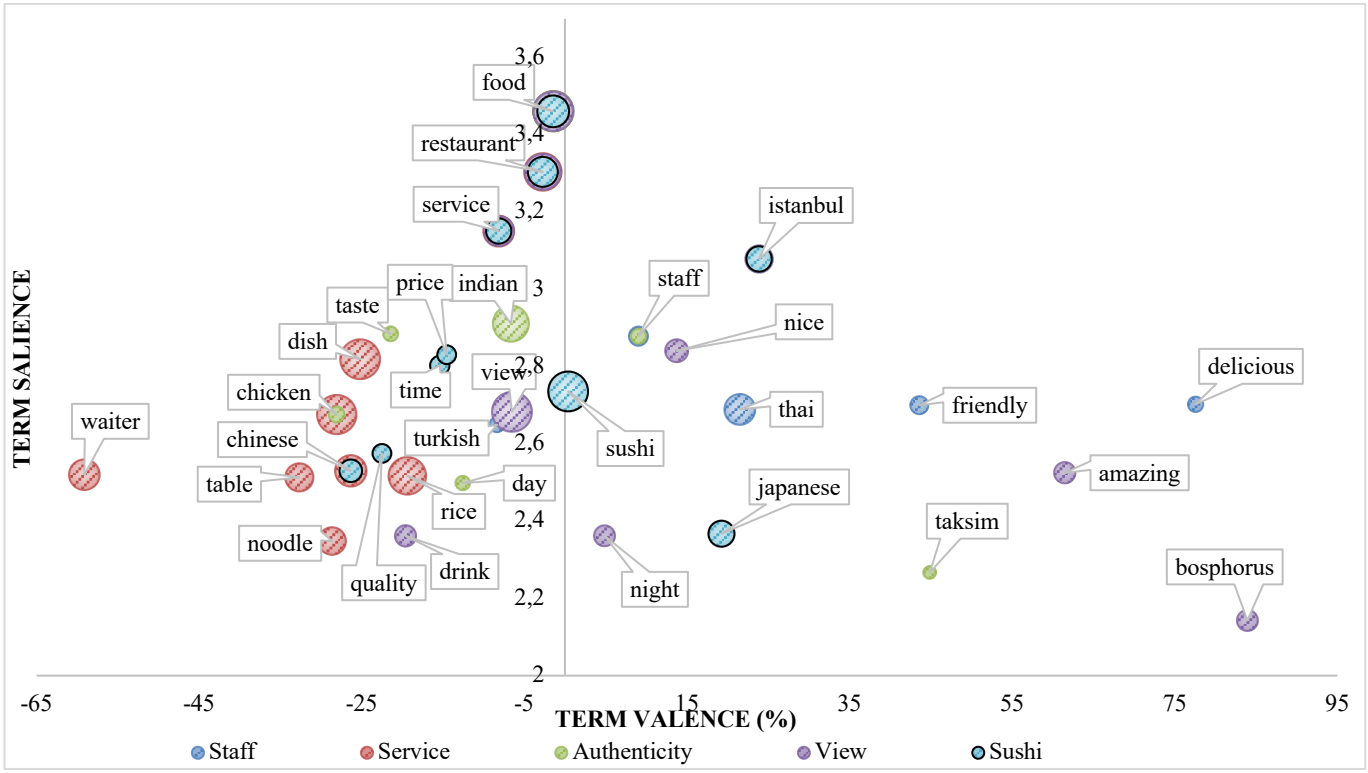

Figure 2. Lexicon Valence and Salience Dimension's

The bubble size was determined by dividing the weights of each term by the maximum weight of the dimension (Taecharungroj & Mathayomchan, 2019). According to the Lexicon Salience Analysis result, the term with the highest salience was food followed by the terms restaurant and service, respectively. However, the term with least salience was Bosphorus followed by the terms Taksim and noodle, respectively. The three terms most frequently repeated (i.e., most salience) in all dimensions were food, restaurant, and service, respectively. Turkish in the staff, noodle in the service, Taksim in the authenticity, night in the view, and Japanese in the sushi were the least repeated (i.e., least salience) terms in the reviews.

According to the Lexicon Valence Analysis result, the term with the highest valence in the staff dimension was delicious, and it was supported by the terms friendly, Istanbul, Thai, nice, and staff. In the staff dimension, food, restaurant, service, and Turkish were the terms with negative valence values. In the staff dimension, although the friendly behaviour of the staff is positive, it is seen that the visitors generally think negatively about the elements such as food, restaurant, and service. The service dimension, on the other hand, has become a dimension in which the negativities stated in the staff dimension become clearer. All of the terms in the service dimension have a negative valance value. Among these terms, food was the term with the lowest negative valence value, while waiter was the term with the highest negative valence value. In the authenticity dimension, Taksim, Istanbul, and staff are the terms with positive valence, while other terms of this dimension have negative valence. The lowest term for the valence of this dimension is chicken followed by the taste term. This points to that the chicken taste is far from the authentic taste that visitors usually seek in such an experience. In the view dimension, the terms Bosphorus, amazing, Istanbul, nice, and night were the terms with positive valence values, respectively. However, the terms food, restaurant, view,

service, and drink have negative valence. This dimension indicates that the visitors pay attention to the view of the restaurant, especially the view of the Bosphorus is amazing for them. This dimension also shows that with the terms with negative valence, the restaurant experience can be evaluated as a whole not only with the elements such as restaurant, food, and service, but also with the view. In the sushi dimension, Istanbul, Japanese, and sushi with positive valence show that visitors have positive sentiments about sushi associated with Japan. However, when the elements such as price, service, and quality are added to this evaluation, it has been determined that visitors have negative sentiments.

Discussion and Conclusion

The dimensions which were found in this paper indicate that the visitor focus on staff behaviour, service speed, service process, food taste, food authenticity, the view, atmosphere and ambiance in a restaurant.

In terms of the service and the view dimensions, the present study confirms service and ambiance (Finkelstein, 1989), which has been shown to be a central variable in dining out. This study has indicated that the restaurant landscape is nearly as important to the experience as the service element. In this respect, it overlaps with the work of Oh and Kim (2020). It can be stated that the Bosphorus view of Istanbul is an effective factor on the importance given to the view in the Asian restaurant experience. In addition to the service and view dimensions, with the staff dimension the paper also confirmed the findings of atmosphere and service quality (Fanelli & Di Nocera, 2018; Josiam et. al., 2007; Liu & Jang, 2009; Park et. al., 2016), which are two factors that affect the visitors' restaurant perceptions apart from the food quality.

This paper showed that in the Asian restaurants experience, visitors pay attention to the authenticity of the food. In this respect, the study supports the finding that authenticity affects visitors (Jang et. al., 2011; Sukalakamala & Boyce, 2007). This result was also supported by the dimensional salience analysis, and the most salience factor (i.e., the most important factor affecting the visitor experience) was authenticity. In this respect, the paper differs from the study of Oh and Kim (2020), who identified service and food as the central dimension. In the reviews, the rate of rating the reviews under the staff dimension as 4 or 5 stars is higher than the other dimensions. However, it has been determined that the rate of rating the reviews under the service dimension as 1, 2, or 3 stars is higher than the other dimensions. This result was also seen as a result of Dimensional Valence Analysis, and staff was the dimension with highly positive valence and service was the dimension with highly negative valence. In the context of this result, it can be stated that although visitors are generally satisfied with personnel attitudes and behaviours, they are sensitive about the service process, waiting time or correct delivery of the order.

In sentiment classification prediction, it has been determined that SVM, one of the machine learning algorithms, achieves better than the NB algorithm with 85.5% accuracy and 0.58 Cohen's kappa score. Therefore, as a result of lexicon salience analysis made on the basis of SVM estimation, food was the most salience term and Bosphorus was the least salience term. Accordingly, even though visitors draw attention to the Bosphorus view of the restaurant, it can be stated that this is not as important as food, since they share their experiences with food more.

As a result of lexicon valence analysis, the highest positive valence terms were Bosphorus, delicious, and amazing, respectively. However, the terms with the highest negative valence were waiter, table, and noodle, respectively. On the basis of this result, it can be stated that visitors have positive sentiment towards the restaurant's Bosphorus view

and the taste of the food, but they have negative sentiment towards factors such as waiter behaviour and table position and layout. In addition, it can be stated that visitors compare the restaurant experience on the basis of quality and price, which are the terms having negative valence.

Theoretical and Managerial Implications

The paper revealed a five-layer structure that affects the Asian restaurants experience. According to the order of importance determined by Dimensional Salience Analysis, the core of the dining experience in Asian restaurant is the authenticity of the food. This layer is surrounded by the attention and courtesy of the restaurant staff. Another top layer that influenced this experience was the sushi itself, which is associated with Asian Cuisine. The fourth layer that shapes the experience is the service, while the top layer is the view.

It was found that visitors especially have positive sentiments towards staff and negative sentiments towards service. This shows that in the restaurant experience, visitors evaluate the courtesy and attention of staff separately from the service process (e.g., speed and correct delivery) and the impact of these two elements on the experience can be at two extremes.

It should be noted that authenticity plays an important role in Asian restaurants experience, and tourists visiting different countries tend to go to these restaurants in search of familiar or new tastes, especially on days when they are away from their home country. In this context, the preservation of originality should be considered as one of the most important priorities for Asian restaurants management. In addition, taking into account staff and service, which are at two extremes in terms of dimensional valence and to which visitors are sensitive, potential negativities can be prevented by taking measures to improve personnel development and service process.

In addition, the study determined that the SVM algorithm for binary classification for Asian restaurants visitor ratings has higher accuracy than the NB algorithm and a higher score than Cohen's kappa statistics. With the lexicon valence analysis structured on the SVM estimates, it has been observed that visitors are positively affected by the Bosphorus view of the restaurant and the taste of the food, but the perception of the waiter behaviour in particular is negative.

Limitations and future research directions

This study has some limitations. It can be stated that the most important limitation is that the Asian restaurants examined in the study operate in a different country than their own. Although the research data set includes all the reviews made for the restaurants examined, the number of reviews was limited compared to the number of restaurants. In addition, the research data set only consists of English reviews written by foreign visitors obtained from TripAdvisor. In future research to be conducted on Asian restaurants in different countries will contribute to revealing common dimensions of these restaurants are experienced by visitors.

Declaration of Interests

None.

REFERENCES

Aktas-Polat, S. & Polat, S. (2022). Discovery of factors affecting tourists' fine dining experiences at five-star hotel restaurants in Istanbul. *British Food Journal*, 124(1), 221–238. https://doi.org/10.1108/BFJ-02-2021-0138

Aktas-Polat, S. & Polat, S. (2020). A theoretical analysis of food meaning in anthropology and sociology. *Tourism: An International Interdisciplinary Journal*, 68(3), 278–293. https://doi.org/10.37741/t.68.3.3

Andersson, T. D. & Mossberg, L. (2004). The dining experience: do restaurants satisfy customer needs? *Food Service Technology*, 4(4), 171–177. https://doi.org/10.1111/j.1471-5740.2004.00105.x

Blei, D. M. (2012). Probabilistic topic models. *Communications of the ACM*, 55(4), 77–84. https://doi.org/10.1145/2133806.2133826

Canny, I. U. (2014). Measuring the mediating role of dining experience attributes on customer satisfaction and its impact on behavioral intentions of casual dining restaurant in Jakarta. *International Journal of Innovation, Management and Technology*, 5(1), 25–29. https://doi.org/10.7763/IJIMT.2014.V5.480

Choi, J., Lee, J. M., & Cho, M. S. (2011). East Asian cuisine perceptions in New York City between 1997 and 2007. *British Food Journal*, 113(11), 1427–1438. https://doi.org/10.1108/00070701111180021

Fanelli, R. M. & Di Nocera, A. (2018). Customer perceptions of Japanese foods in Italy. *Journal of Ethnic Foods*, 5(3), 167–176. https://doi.org/10.1016/j.jef.2018.07.001

Farrer, J. (2015). Introduction: traveling cuisines in and out of Asia: toward a framework for studying culinary globalization. In The Globalization of Asian Cuisines (pp. 1-19). Palgrave Macmillan, New York.

Finkelstein, J. (1989). Dining Out: A Sociology of Modern Manners. Cambridge, Polity Press.

Gan, Q., Ferns, B. H., Yu, Y., & Jin, L. (2017). A text mining and multidimensional sentiment analysis of online restaurant reviews. *Journal of Quality Assurance in Hospitality & Tourism*, 18(4), 465–492. https://doi.org/10.1080/1528008X.2016.1250243

Gustafsson, I. B., Öström, Å., Johansson, J., & Mossberg, L. (2006). The five aspects meal model: A tool for developing meal services in restaurants. *Journal of Foodservice*, 17, 84–93. https://doi.org/10.1111/j.1745-4506.2006.00023.x

Hindle, A., Godfrey, M. W., & Holt, R. C. (2009). What's hot and what's not: Windowed developer topic analysis. In 2009 IEEE international conference on software maintenance (pp. 339–348). IEEE.

Ingerson, S. & Kim, A. K. (2016). Exploring the value of an ethnic restaurant experience: A consumer perspective towards Korean restaurants. *Tourism Recreation Research*, 41(2), 199–212. https://doi.org/10.1080/02508281.2016.1151163

Jang, S. S., Ha, A., & Silkes, C. A. (2009). Perceived attributes of Asian foods: From the perspective of the American customers. *International Journal of Hospitality Management*, 28(1), 63–70. https://doi.org/10.1016/j.ijhm.2008.03.007

Jang, S. S., Liu, Y., & Namkung, Y. (2011). Effects of authentic atmospherics in ethnic restaurants: Investigating Chinese restaurants. *International Journal of Contemporary Hospitality Management*, 23(5), 662–680. https://doi.org/10.1108/09596111111143395

Jang, S. & Ha, A. (2009). Asian foods in the U.S: Developments, customer profiles, and experiences. *Journal of Foodservice Business Research*, 12(4), 403–412. https://doi.org/10.1080/15378020903344372

Johns, N. & Pine, R. (2002). Consumer behaviour in the food service industry: A review. *International Journal of Hospitality Management*, 21(2), 119–134. https://doi.org/10.1016/S0278-4319(02)00008-7

Josiam, B., Sohail, M. S., & Monteiro, P. (2007). Curry cuisine: Perceptions of Indian restaurants in Malaysia. *Tourismos: An International Journal of Tourism*, 2(2), 25–38.

Kim, S. S. & Choe, J. Y. J. (2019). Testing an attribute-benefit-value-intention (ABVI) model of local food consumption as perceived by foreign tourists. *International Journal of Contemporary Hospitality Management*, 31(1), 123–140.

Kirilenko, A. P., Stepchenkova, S. O., & Dai, X. (2021). Automated topic modeling of tourist reviews: Does the Anna Karenina principle apply? *Tourism Management*, 83, 104241. https://doi.org/10.1016/j.tourman.2020.104241

Kirilenko, A. P., Stepchenkova, S. O., Kim, H., & Li, X. (2018). Automated sentiment analysis in tourism: Comparison of approaches", *Journal of Travel Research*, 57(8), 1012–1025. https://doi.org/10.1177/0047287517729757

Laakso, S., Niva, M., Eranti, V., & Aapio, F. (2021). Reconfiguring everyday eating: Vegan challenge discussions in social media. *Food, Culture & Society*, https://doi.org/10.1080/15528014.2021.1882796

Landis, J. R. & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics*, 33(1), 159–174.

Le, T. H., Arcodia, C., Novais, M. A., Kralj, A., & Phan, T. C. (2021). Exploring the multi-dimensionality of authenticity in dining experiences using online reviews. *Tourism Management*, 85, 104292. https://doi.org/10.1016/j.tourman.2021.104292

Lee, L. E., Niode, O., Simonne, A. H., & Bruhn, C. M. (2012). Consumer perceptions on food safety in Asian and Mexican restaurants. *Food Control*, 26(2), 531–538. https://doi.org/10.1016/j.foodcont.2012.02.010

Lee, S. & Liu, P. (2021). Examining customers' perceptions of high-end ethnic dining in the United States: An application of importance-performance analysis. *International Journal of Hospitality & Tourism Administration*. https://doi.org/10.1080/15256480.2021.1981184

Liu, Y. & Jang, S.S. (2009). Perceptions of Chinese restaurants in the US: what affects customer satisfaction and behavioral intentions? *International Journal of Hospitality Management*, 28(3), 338–348. http://dx.doi.org/10.1016/j.ijhm.2008.10.008

Luo, Y. & Xu, X. (2019). Predicting the helpfulness of online restaurant reviews using different machine learning algorithms: A case study of Yelp. *Sustainability*, 11(19), 5254. https://doi.org/10.3390/su11195254

Luo, Y., He, J., Mou, Y., Wang, J., & Liu, T. (2021). Exploring China's 5A global geoparks through online tourism reviews: A mining model based on machine learning approach. *Tourism Management Perspectives*, 37, 100769, https://doi.org/10.1016/j.tmp.2020.100769

Ma, J., Qu, H., Njite, D., & Chen, S. (2011). Western and Asian customers' perception towards Chinese restaurants in the United States. *Journal of Quality Assurance in Hospitality & Tourism*, 12(2), 121–139. https://doi.org/10.1080/1528008X.2011.541818

Meek, S., Wilk, V., & Lambert, C. (2021). A big data exploration of the informational and normative influences on the helpfulness of online restaurant reviews. *Journal of Business Research*, 125, 354–367. https://doi.org/10.1016/j.jbusres.2020.12.001

Min, K.-H. & Han, S. (2017). Local consumers' perceptions and preferences for Asian ethnic foods. *International Journal of Tourism Sciences*, 17(3), 165–179. https://doi.org/10.1080/15980634.2017.1349628

Oh, M. M. & Kim, S. S. (2020). Dimensionality of ethnic food fine dining experience: An application of semantic network analysis. *Tourism Management Perspectives*, 35, 100719. https://doi.org/10.1016/j.tmp.2020.100719

Pang, B. & Lee, L. (2008). Opinion mining and sentiment analysis. Foundations and Trends® in Information Retrieval, 2(1–2), 1–135. https://doi.org/10.1561/1500000001

Pantelidis, I. S. (2010). Electronic meal experience: A content analysis of online restaurant comments. *Cornell Hospitality Quarterly*, 51(4), 483–491. doi:10.1177/1938965510378574

Park, S. B., Jang, J., & Ok, C. M. (2016). Analyzing Twitter to explore perceptions of Asian restaurants. *Journal of Hospitality and Tourism Technology*, 7(4), 405–422. doi:10.1108/JHTT-08-2016-0042

Pezenka, I. & Weismayer, C. (2020). Which factors influence locals' and visitors' overall restaurant evaluations? *International Journal of Contemporary Hospitality Management*, 32(9), 2793–2812. https://doi.org/10.1108/IJCHM-09-2019-0796

Prabowo, R. & Thelwall, M. (2009). Sentiment analysis: A combined approach. *Journal of Informetrics*, 3(2), 143–157. https://doi.org/10.1016/j.joi.2009.01.003

Puranam, D., Narayan, V., & Kadiyali, V. (2017). The effect of calorie posting regulation on consumer opinion: A flexible latent Dirichlet allocation model with informative priors. *Marketing Science*, 36(5), 726–746. https://doi.org/10.1287/mksc.2017.1048

Racherla, P., Connolly, D. J., & Christodoulidou, N. (2013). What determines consumers' ratings of service providers? An exploratory study of online traveler reviews. *Journal of Hospitality Marketing & Management*, 22(2), 135–161. https://doi.org/10.1080/19368623.2011.645187

Sukalakamala, P. & Boyce, J. B. (2007). Customer perceptions for expectations and acceptance of an authentic dining experience in Thai restaurants. *Journal of Foodservice*, 18(2), 69–75.

Susskind, A. (2000). How restaurant features affect check averages: A study of the Toronto Restaurant Market. *The Cornell Hotel and Restaurant Administration Quarterly*, 41(6), 56–63. https://doi.org/10.1016/s0010-8804(00)80023-3

Sutherland, I. & Kiatkawsin, K. (2020). Determinants of guest experience in Airbnb: A topic modeling approach using LDA. *Sustainability*, 12(8), 3402. http://dx.doi.org/10.3390/su12083402

Sutherland, I., Sim, Y., Lee, S. K., Byun, J., & Kiatkawsin, K. (2020). Topic modeling of online accommodation reviews via latent Dirichlet allocation. *Sustainability*, 12(5), 1821. https://doi.org/10.3390/su12051821

Taecharungroj, V. & Mathayomchan, B. (2019). Analysing TripAdvisor reviews of tourist attractions in Phuket, Thailand. *Tourism Management*, 75, 550–568. https://doi.org/10.1016/j.tourman.2019.06.020

Tey, Y. S., Arsil, P., Brindal, M., Liew, S. Y., Teoh, C. T., & Terano, R. (2018). Personal values underlying ethnic food choice: Means-end evidence for Japanese food. *Journal of Ethnic Foods*, 5(1), 33–39. https://doi.org/10.1016/j.jef.2017.12.003

Verbeke, W. & López, G. P. (2005). Ethnic food attitudes and behaviour among Belgians and Hispanics living in Belgium. *British Food Journal*, 107(11), 823–840. https://doi.org/10.1108/00070700510629779

Vu, H. Q., Li, G., Law, R., & Zhang, Y. (2019). Exploring tourist dining preferences based on restaurant reviews. *Journal of Travel Research*, 58(1), 149–167. https://doi.org/10.1177/0047287517744672

Yan, X., Wang, J., & Chau, M. (2015). Customer revisit intention to restaurants: Evidence from online reviews. *Information Systems Frontiers*, 17, 645–657. https://doi.org/10.1007/s10796-013-9446-5