



## The Determinants of Gastronomic Tourists Satisfaction

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**ABSTRACT:** In spite of the significance of tourist's gastronomic experience which was either dissatisfying as well as satisfying, therefore for satisfaction with their gastronomic experience, as well as studies focusing on tourists, along with the competitiveness of tourist destinations have been almost non-existent. More significantly, for supporting the factor structure of the gastronomy satisfaction, no evidence has been produced by the researchers yet. In Portugal, in order to calibrate the extent of satisfaction among the tourists who are gastronomic, through empirically validating as well as advancing an analysis method comprised of factor of second order which is structure for investigating its presence is the main objective of this paper. A single second-order factor as well as distinct first-order factors has been comprised of satisfaction as theorized. It has been suggested from the results that, within any setting comprising tourism the satisfaction of gastronomy are a structure which includes multiple dimensions which has been comprised of three factors they are, atmosphere, as well as price and quality, along with gastronomy. From the following three factors the most significant determinant of tourist satisfaction was gastronomy, which has been followed by atmosphere along with quality as well as price.

**Keywords:** Portugal, consumer behaviour, second-order factor analysis, satisfaction, gastronomy.

**Abbreviations:** CAGR, Compound annual growth rate; EFA, Exploratory factor analysis; CFA, Confirmatory factor analysis.

### I. INTRODUCTION

The relationship among gastronomy as well as tourism has been close one along with long-standing. A number of authors have linked cultural tourism with gastronomy, signifying that the appearance of the culture lived by that tourist at his/his native place gastronomy could be seen [1]. Gastronomy has not only been regarded as the main cultural product which has the capability of attracting the tourist on their own, is considered merely not as an access to the products of the culture, nevertheless, the ability to grab attention from the consumers on its own, on the other hand correspondingly, for cultural products to the traditional portfolio has been a valued accompaniment, that consist of elements like monuments, as well as museums, along with architecture including the events. In other tourism settings, destination choice has also been uncovered, the gastronomic experience which is critically significant. For instance, gastronomy has been ranked for the destination of city as well as rural amongst the utmost significant attributes [2] tourists [3, 4]. In a parallel vein, for a summer holiday, the vacation decision has been influenced by the element which basically was gastronomy [5]. Consequently, maybe not unexpectedly, gastronomy has now become the promotion of tourist destinations along with the centre of tourism policies [6, 7]. Through the analysis of the tourist's expenditure pattern has provided an auxiliary sign of relation amongst the tourism as well as gastronomy. Through tourist's viewpoint, it has been cleared that between tourism as well as gastronomy

there is strong link. It has been indicated through the surveys which have been carried out by [8] that beverages as well as food were the chief products which are consumed through visitors came to visit Portugal – approximately one fourth of the expenses of the visitors have been involved in the refreshment items and food. The vacations which are found in other countries along with the food expenditure, their structure has been mirrored through this [9]. A significant economic as well as social role has been played by the Portugal's food service sector, through macro-analysis perspective.

According to previous researchers from the total number of companies approximately 10% of the companies which are operating in Portugal have beverage as well as food businesses, about 6% of the working population are employed through the country's level of employment, a valuable contribution has been provided through this [10]. In revenue, around 5.5 billion Euros has been generated through the beverage as well as food businesses which has been seen through the National statistics, since 1995, following average annual growth of 12% [11]. Precise numbers weren't accessible, restaurants' income, account for a large slice of expenses of tourists on beverages as well as food were expected to be reasonable. To satisfy tourist requirements as well as motivations capacity has been associated with the destinations attractiveness. It has been suggested through the recent studies that in tourism setting food consumption has not been restricted to the human's basic requirement satisfaction.

Moderately, the gastronomy of the country including social as well as symbolic along with entertainment aspects together with the other purposes has been experienced by the tourists [12, 13].

Bundle of intangible as well as tangible attributes gastronomy could be conceptualized that contribution in diverse extents to the complete gastronomic experience. For instance, for experiencing high-quality food for his/her desire, one tourist might be fascinated to a gastronomic experience.

Whereas, in the non-food aspects like decoration as well as location another tourist might be interested. For altered motives of the gastronomic experience tourists were expected to be drawn, it might be expected that in a different way they evaluate their experiences. Through certain aspects than others, the gastronomic experience might be influenced with the tourist's satisfaction depending on what they chase for experience. Hence, for planning tourism activities, marketing policy as well as product development could be informed, along with that to understand that to influence satisfaction is the most important factor. However, in Portugal, gastronomic experience by evaluation of tourists has not only known little, but then again, in a tourism setting, understanding of satisfaction structure is limited. Furthermore, in nature previous studies have been exploratory on satisfaction, whereas structural equations models as well as confirmatory factor analysis were practically non-existent. As a result, in Portugal in order to calibrate the extent of satisfaction among the tourists who are gastronomic, empirically validating as well as developing a second-order factor analysis model was the main goal of this paper. The primary advantage of the proposed model is that it will provide significant structure related to gastronomy satisfaction and also factors affecting the tourism will be identified.

## II. LITERATURE REVIEW

In countless studies, business success has been highlighted for satisfaction of the consumer and its importance. Though, in this field an analysis of the literature has suggested that regarding satisfaction definitional considerations have been limited [14]. For clarifying the construct of multi-ordinarily (multi-ordinarily states to numerous meanings, as well as dependent upon abstraction level), [15] recommended that at two levels the analysis of concepts has been made. Hypothetical qualities as well as more abstract have been denoted by the constitutive definition of the concept. Despite the fact that measurable qualities as well as less abstract has been denoted by the operational definition of the construct. Service as well as experience, as an evaluation of the product, satisfaction could be regarded at the higher abstraction level has been suggested through the literature analysis on satisfaction.

Performance criteria of the consumer has been fulfilled through the destination in a tourism setting, it has been referred as consumer satisfaction to an extent. Satisfaction has been effectively defined as an argumentative matter. To perform an evaluation through consumers, establishment of the criterion has been taken in usage which is required for operationally defining satisfaction. When evaluating the consumption

act, consumers are expected to employ which emerge from the differential criteria in order to investigate the satisfaction with varying approaches [16], illustration on model of Oliver's of satisfaction has identified numerous elements which are influencing satisfaction. When evaluating their experience of consumption, differential heuristics that could be taken in usage through consumers as these antecedents could be regarded. When clear estimated levels of enactment have not been developed by the consumers, satisfaction has been influenced by the expectation as anticipation. As the performance of the service unfolds as the performance of the service unfolds in such cases, their expectations evolve. In a monotonic relationship in a monotonic relationship satisfaction as well as expectations, an assimilation process has been resulting which has been associated with this. To be precise, when expectations are high as well as low, satisfaction judgments of consumer tend to be high as well as low, a discrepancy among satisfaction along with expectation, would get resulted in order to avoid dissonance [16].

Satisfaction of consumers is an outcome of extent whose services matches their desires as well as their needs, as stated by the performance antecedent. On the basis of the incurred expenses, this assessment has been made [17-19]. As suggested by the perspective of disconfirmation of expectation that expectations have been developed by the consumers for the performance after that against these standards their actual performance has been compared [16, 20, 21]. When the actual results surpass the positive disconfirmation as well as expectation than satisfaction occurs, whereas when genuine perceived performance doesn't match negative disconfirmation as well as expectation than it results in dissatisfaction. Lastly, it has been suggested from the perspective of the equity that when superficial stage comprising justice by the means of individuals gets treated results in satisfaction [17-19].

When developing their perception of justice, through consumers three aspects has been taken in usage, as suggested through this perspective: a comparison among their outcomes as well as their inputs, procedural justice that is an extent to which the outcome delivery was fair, along with the interactional justice that is an extent to which they have been treated with dignity as well as politeness along with respect. As per the level of their satisfaction, consumers behave differently, consumer satisfaction stems from the fact of managing as well as understanding the importance of the consumer satisfaction. As the consequences of satisfaction, response has been treated through these [17] model. In the literature, numerous significant behavioural results have been emphasized [17], containing grumpy behaviour, as well as word of mouth, including the reference to friends as well as relatives, along with the thinking intention to purchase again. At the level of psychology, towards the direction of more optimistic attitudes greater satisfaction leads towards the product, as well as service along with the experience [18]. Most of all, for the satisfaction of the consumer, businesses are keen for the improvement due to positive relationship they have in the long run amid changes in profitability along with the changes in

consumer satisfaction [22]. Hence, several works have been carried out in the same field; still none of the works are carried out in determining the factors structure of gastronomy satisfaction. This creates the gap for research based on the above literature.

### III. MATERIAL AND METHODS

#### A. Tourist Visits and Ranking in Uttar Pradesh

**CAGR.** Compound annual growth rate (CAGR) is the degree or extent of any return that might be required regarding any investment to advance from its very starting balance towards its final last end balance, considering the benefits in terms of funds were invested again at the end of year annually regarding the lifespan of the investment is the rate of return that might be needed for an investment to grow from its beginning balance to its ending balance, assuming the profits were reinvested at the end of each year of the investment's lifespan Fig. 1-3.

To calculate compound annual growth rate (CAGR), the following numerical formula is applied. Divide the value of tourists/visitors at the end of the period by its value at the beginning of that period, raise the result to an exponent of one divided by the number of years and subtract one from the result.

$$CAGR = \left( \frac{EV}{SV} \right)^{\left( \frac{1}{N} \right)} - 1$$

where,

EV = Ending value of an investment  
SV = Starting value of an investment

N = Total number of periods (years)

The following graphical representations are generated using MINITABS. The parameters used in the tool are taken from Table 1.

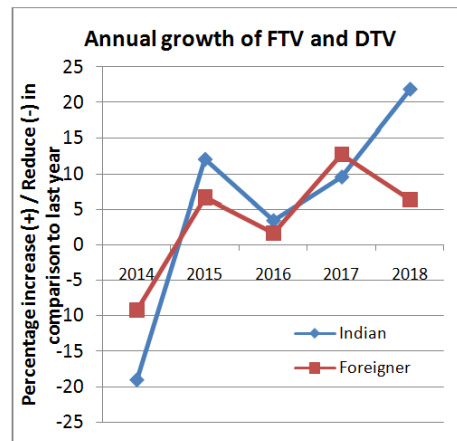


Fig. 1. Annular Growth.

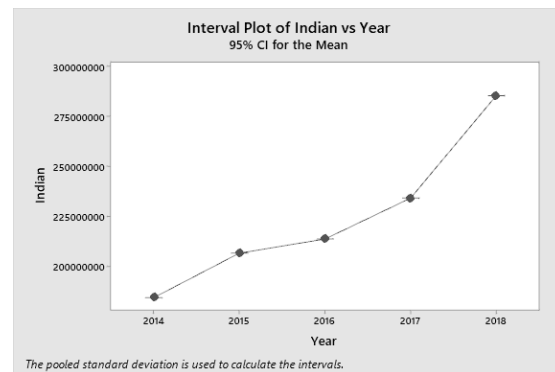


Fig. 2. Indian tourist visits.

Table 1: Indian and Foreign tourist visits in important tourist places of Uttar Pradesh in year 2014 to 2018.

Year	Foreigner	Indian	Total	Percentage increase (+) / Reduce (-) in comparison to last year		
				Foreigner	Indian	Total
2014	2909735	184277423	187187158	(-) 9.23 %	(-) 19.11 %	(-) 18.97 %
2015	3104062	206515617	209619679	(+) 6.67 %	(+) 12.06 %	(+) 11.98 %
2016	3156812	213544204	216701016	(+) 1.69 %	(+) 3.40 %	(+) 3.37 %
2017	3556204	233977619	237533823	(+) 12.65 %	(+) 9.56 %	(+) 9.61 %
2018	3780752	285079848	288860600	(+) 6.31 %	(+) 21.84 %	(+) 21.60 %
<b>Mean</b>	3301513	224678942	227980455			
<b>CAGR</b>	6.77	11.53	11.46			

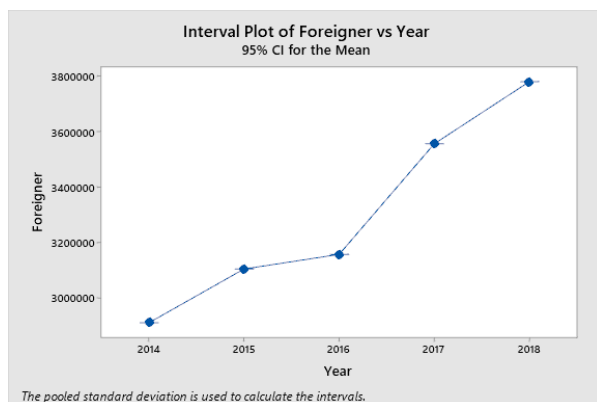


Fig. 3. Foreigner tourist visits.

#### B. Satisfaction Studies in a Food/Gastronomy Setting

Assessing the food experience satisfaction in studies of restaurant patrons is fertile in the literature of the food service area. On different kinds of fast food as well as restaurants these studies have been focused [23] along with the themed restaurants [24], including different contexts, as well as hospitals [25] along with the schools [26]. Identifying experiences of food have not been similar across persons, on different segments some studies have been focused, like the elderly [26] along with the students [26]. In a number of studies, satisfaction of the tourist of assessment has been targeted. On the entire satisfaction regarding the journey, one set of studies has been focused with several components through studying satisfaction that make up the tourism experience. Comprised their sequence of items under satisfaction, usual elements

comprising the experience of gastronomy has been included in these studies like 'gastronomy', as well as variation of food along with the quality of food.

Considering a single constituent regarding the experiences of the tourist, by studying tourists' satisfaction, different approaches have been taken by other studies. Whereas the focus of satisfaction studies have been the numerous products as well as tourist activities like hotels [20, 27], as well as cruises [28] along with tour guides [29], to specifically address tourists' satisfaction studies has been designed with the gastronomy experience have been moderately limited. For the whole tourist experience, significance of the gastronomic experience has been recognized with widespread which has been provided surprisingly [30]. Another work in this direction has specifically designed to study the satisfaction of tourists along with the food service experience [31].

Through regression, the elements of food service satisfaction have been identified through some attempted study, as independent variables, a number of food service attributes has been taken in usage, along with the measuring items with overall satisfaction as a dependent variables has been taken in usage. Whereas, to the elements of satisfaction, some clues has been provided through the results, exploration has not been done of the scale as well as few attributes have been taken in usage. a different approach has been taken by [31] as well as examined the influence of satisfaction of the tourists to the overall travel experience with the gastronomy experience.

On a multi-attribute model conceptual framework has been based [32], to define gastronomy satisfaction, infinite no. of attributes might be taken in usage. In different weights, the overall satisfaction has been contributed through these attributes, for the individual as per their significance [32]. A pull satisfaction perception adopted through previous studies have been typically conducted exploratory factor analysis into a further manageable set in order to decrease the no. of characteristics of satisfaction [33, 34]. To be dimensions of satisfaction, these factors have been then assumed.

On the other hand, through sufficient analysis, a single factor that is satisfaction has not been supported, due to the assumption that every single of those some factors have been constituted. Thus, in the survey, construct has been signified sufficiently, whether or not this factor that is first-order, validity has been required, of the scale's construct through further thorough assessment that is a single second-order factor. In spite of the significance of safeguarding the second-order factor analysis as well as the construct validity of scales is not so common. A satisfaction study of second-order factor analysis has not been restricted with the little employment. Two studies has been found in the field of tourism [24, 35] whereas the dimensionality of satisfaction of two other studies has been assessed in a non-commercial context. Silvestre & Correia [36] studied the properties of psychometric along with the Life Satisfaction Questionnaire, whereas the validity of the SERVQUAL has been evaluated, in a library setting, model of service quality gaps has been measured. Through a set of attributes like food quality, as well as price-quality relationship, along with the atmosphere,

including the hygiene, together with the location along with the convenience gastronomy has been perceived as well as recognized through the literature on foodservice satisfaction [37-39].

Dependable on the pull approach towards motivation, to define foodservice satisfaction, a no. of foodservice attributes has been taken under consideration of foreign tourists which have experienced the Portuguese gastronomy. Particular no. of latent variables have been defined though these variables which have been measured by the satisfaction of food services. General satisfaction of a single higher-order abstraction should be made up in turn of these factors. Tourist's model of foodservice satisfaction has been shown in the Fig. 4, whereby as a hierarchical construct, satisfaction has been viewed containing numerous of correlated a single second-order factor along with the first-order factors.

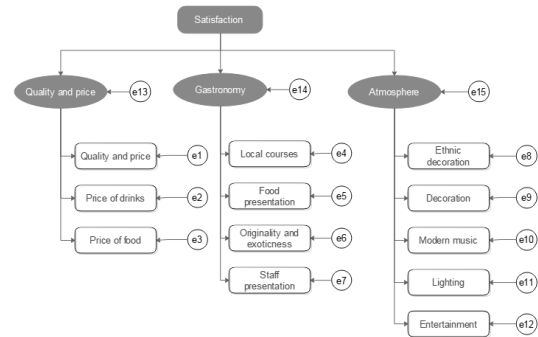


Fig. 4. The second-order confirmatory factor model.

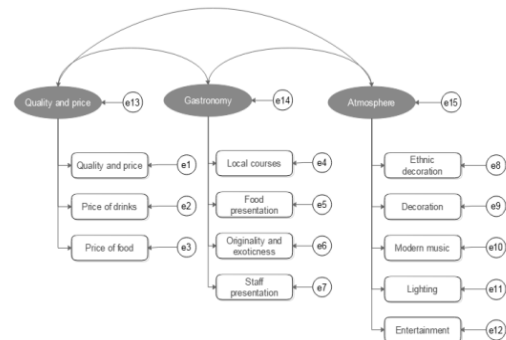


Fig. 5. The first-order factor model.

Two stages of analysis have been involved in the model testing: EFA followed through CFA. Through extracting the underlying latent variables as well as the factors of the structure of the satisfaction scale has been assessed through EFA. Particular previous research has presented that it is sensible to take up that gratification which has been a structure for multiple dimensions, the coming section hypothesis are observed (Fig. 5).

H1: The correlated (first-order) satisfaction factors describe a significant part of the variance in the data.

Each and every time when a no. of correlated first-order factors have been found, so as to recognize the second-order latent factors which were underlying, these must

be further analyzed. through the first-order order factors, a higher-order construct has been defined of which satisfaction is consisted to test the proposition, the following hypothesis has been investigated through lead, through EFA factor analysis, the factors scores have been derived (Fig. 6):



**Fig. 6.** The second-order factor model.

H2: The set of satisfaction dimensions comprises overall satisfaction as well as the latent variable.

Pleasurableness of the experience is not satisfaction, the experience was exact same as it thought it would be is the evaluation rendered, has been stated [45, 46]. One of the most significant influences i.e. caused on satisfaction is by the appearance of food quality, whereas in previous research it has been seen that satisfaction is a multidimensional construct [39, 40]. Instead of determining the factors have been taken in consideration through tourists while evaluation of the gastronomic experience in the second-order factor analysis model, the most significant satisfaction factor has been also allowed to identify. Thus, an additional hypothesis has been formulated:

H3: The utmost significant cause of the complete satisfaction has been the gastronomy factor.

For the measurement of the chief determinants of gastronomic satisfaction, to construct a confirmatory factor analysis model as well as through the estimation of these factors, along with that with only one factor, a confirmatory second-order model has been validated which is the main objective of this paper.

### C. Methodology

The research is performed on the level of satisfaction so that the previous circumstances can be recognized that can be strongly connected with the satisfaction. There is influence in the choice of measure that estimates the link among the satisfaction along with antecedents which is found in this research and hence, a result must be carefully analyzed also the selection of the measure must belong to the research context. Afterwards, there was so much concern and then only the decision came out that the disconfirmation from the point of view of expectation is satisfied. Some suggestions are given on this and the first evidence recommends that other scales are outperforming the disconfirmation scale. For instance [21] this author has found that in both the performance along with scale of satisfaction is performed superior in the disconfirmation scale. The conclusions found states that the approach demonstrates the satisfaction along with strongest correlations. Secondly, the satisfaction is measured by

[19] that are involving context of foodservice [39, 40, 41]. The third approach demonstrates an appropriate measurement for the post consumption satisfaction that is compared with the expectations before the consumption for satisfaction; it is the main case of the current study [16]. However, disconfirmation paradigm without any criticism is still to be identified. The effect of combination inherent in asking the expectation or after the occurrence, there are changes in the outlook of the experience course [19]. The main determinants of gastronomy satisfaction has been captured, through the data which has been obtained in this study, which are the set of variables as well as questionnaire design as per the main objectives of the survey. On the evaluation of the food services, on the basis of the previous studies variables definition has been given [31, 37, 38, 40, 42, 43, 47]. To influence the satisfaction of the tourists a total of 31 factors have been expected with the experience of local gastronomy has been identified while on holiday. With the usage of five-point Likert scale which has been ranging to worst from the expectation, through which the level of satisfaction also got measured, along with the disconfirmation paradigm with consistent from much better which has been expected. A section covering tripographic which is trip-related along with the socio-demographic has been included with the questionnaire including the profile of the respondent as well as its age, along with the income together with gender, in addition with the length of stay, also kinds of accommodation.

### D. Data Collection

From Lisbon (Portugal) airport, a stratified sample of foreign tourists, on which the study has been employed for the testing of the proposed hypotheses. For 2005, with the usage of airport's arrival figures, by nationality the sample was stratified as well as comprised of Spanish, along with British, including French together with German tourists.

At Lisbon Airport, more than 60% of the arrivals have been accounted by them due to these four markets which got selected. Just before boarding the plane while waiting for departure, approaches have been towards the respondents. During their stay, the tourists have eaten Portuguese gastronomy as well as have embedded a minimum of two nights in Lisbon in order to qualify for participation. Thus, with local gastronomy (Portuguese), on the satisfaction of the tourists is the main focus of this study. With the usage of airport's database, as per the nationality, stratification of sample has been done. Only 391 questionnaires which have to be collected, limited time available as well as budgetary restrictions have been allowed, and through this, due to other problems along with non-response some of them has been discarded. He actual sample of the study has been formed as well as for data analysis a total of 377 questionnaires which was usable have been recorded in form of coding for the purpose of analysis of data and produce the actual sample comprising the research. As recommended by Rittichainuwat *et al.*, this result is in a ratio of satisfaction items to the number of cases greater than 1:10 [31]. In Table 2, tripographic profiles along with the socio-demographic of the sample have been presented. Using Lisbon Airport, the profile of travellers have been consistent, the most of the sample comprises

Spanish nationals, whereas German as well as French nationals account for less than 10% of the sample each.

**Table 2: Socio-demographic profile and journey characteristics of the sample (n = 377).**

Variable	%	Mean (SD)
<b>Gender</b>		
Male	55.1	
Female	44.7	
<b>Age</b>		37.45 (11.37)
<b>Education</b>		
Primary intermediary	1.2	
Secondary	12.1	
Undergraduate	82.3	
Postgraduate	4.5	
<b>Purpose of Visit</b>		
Holiday	92.3	
Friends and relatives	3.2	
Business	4.5	
<b>Accommodation</b>		
Quality Hotel	45.5	
Luxury Hotel	22.9	
Budget Hotel	11.4	
Own House	6.5	
Friends and relatives	7.6	
Bed and breakfast	4.9	
Camping	1.1	
<b>Country of residence</b>		
Spain	57.0	
UK	25.5	
France	8.8	
Germany	8.8	

The sample has been relatively young with the mean age of 37 years, which is consisted of more female, that is 55% as compared to males which is 45%, along with those individuals which are highly educated featured; most of them had a university degree. As far as characteristics of tripographic has been taken under concern, vast majority that is 92% have gone on holidays, only a small proportion have been visiting relatives as well as friends or else on business. The favored kinds of accommodation are hotels, notably quality as well as luxury hotels.

#### E. Data Analysis

On the basis of previous research along with theoretically driven studies, in this study, the usage of satisfaction scale is quite unique, on foodservice satisfaction from a range of previous studies; the selection of items has been drawn. It has been specified that in order to examine the design of the scale is tough, to recognize the factors in addition with the included dimensions in the information set, EFA was implemented. Then after, two factors which were confirmed for the analysis of the models were evaluated by the means of Moment structure analysis which is a numerical based modeling for structures. In the fig.5, in order to validate the on-going second-order model a second order factor is employed, ultimately, in fig. 3 the confirmation factors of second order in the model analysis is depicted and validated in the last phase.

#### IV. RESULTS AND DISCUSSION

EFA has been taken in usage for reducing the 31 satisfaction statements of underlying constructs to a

more manageable number. With the usage of the varimax rotation methods as well as the principal components, EFA has been performed with a cut-off eigenvalue of 0.5. (Table 3). Three factors have been arisen: from the total data variance, the first accounts for 22% as well as it is associated with the observed variables – quality as well as price, including the price of drinks, together with the price of courses. This factor has been essentially concerned with quality as well as price variables along with that it was designated quality including the price. 20.7% of the total data variance has been explained as well as the second factor has been named as gastronomy. The following items have been included in this factor: local courses, as well as food presentation, along with originality including exoticness, together with the staff presentation. The third factor has been named atmosphere which is related to ethniccoration, as well as decoration, along with fashion music, including the lighting together with the entertainment, representing 19.3% of the total data variance. Therefore, approximately 62% of the total data variance has been explained by these three factors. The scales have been considerably dependable as entire Cronbach's alpha coefficients above 0.6 has been considered as trustworthy [47-49]. From the results of EFA it has been suggested that as a summary measures of the indicators these three factors could be taken in usage which make up every single factor. Therefore, a new factor analysis model has been estimated with the usage of EFA through which the factor scores are derived. Three factors has been defined through the data which has been shown from the first-order confirmatory factor analysis with its estimation. Actually, at the 1% level ( $P < 0.001$ ), all the regression coefficients have been significant which are factor loading (Fig. 4). Consequently, the hypothesis H1 has been accepted. An analysis of the correlations specifies that 'quality as well as price' has been correlated significantly with the (0.51) gastronomy factor as well as (0.37) with the atmosphere factor. The correlation among the atmosphere factor as well as the gastronomy factor (0.48) has also been positive along with significant.

Instead of being supportive of the hypothesis by several factors (H1) satisfaction has been measured, it has been suggested from the results that on overall satisfaction, the three factors have a similar weight, even though, through the second order factor analysis this could only be confirmed. A set of observable variables has been comprised of the three factors comprise which define the satisfaction with quality as well as price, along with gastronomy including the atmosphere. The utmost significant indicators for the quality as well as price factor are 'price of drinks' along with the 'price of courses', followed through the 'quality as well as price'. The satisfaction with the gastronomy derives primarily from the existence of 'local courses' along with the 'originality as well as exoticness'. The presentation of the staff as well as of the courses has been significant, but to a lesser extent. The gastronomic experience takes place in the surrounding environment with satisfaction which is determined through lighting, as well as music along with decoration, followed by the ethnic decoration aspects including the entertainment.

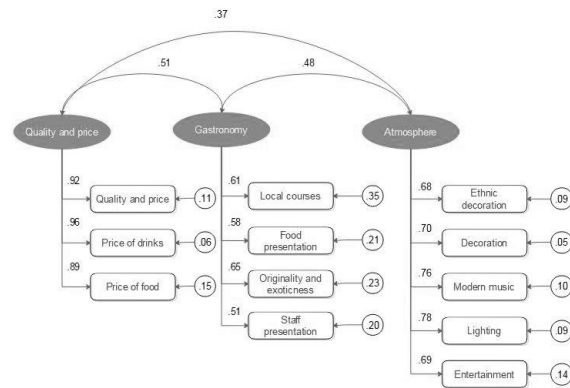
**Table 3: Rotated component matrix of the factors derived from the EFA.**

	Factor		
	Price and quality	Atmosphere	Gastronomy
Price of drinks	0.907		
Price of food	0.926		
Quality of price	0.886		
Local courses			0.620
Staff courses			0.638
Originality and exoticness			0.690
Food presentation			0.0674
Ethnic decoration		0.508	
Decoration		0.0572	
Modern music		0.849	
Lightning		0.734	
Entertainment		0.710	
Variable explained	22.0%	20.7%	19.3%
Reliability	0.931	0.675	0.773

On condition that the fit of this model has been concerned, the value of the chi-square statistic ( $c^2$ ) with 51 degrees of freedom (d.f.) is  $c^2 = 86.963$ , with an related significance value of  $P = 0.001$  along with a ratio  $c^2/d.f. = 1.705$ . Due to the sensitivity of this indicator to large samples, the value of the  $c^2$  statistic has been significant [44].

The values of other goodness-of-fit indices are the following: the N of Hoelter of 233 (5%) and 263 (1%), as well as RMSEA (Root Mean Square Error of Approximation) = 0.043, along with the RMR (Root Mean Square Residual) = 0.055, together with the CFI (Comparative Fit Index) = 0.946, including with the NFI (Normed Fit Index) = 0.891, in addition with the AGFI (Adjusted Goodness of Fit Index) = 0.960 and also GFI (Goodness of Fit Index) = 0.981. An acceptable fit of the data has been suggested through these values.

In Fig. 3, the second-order factor model has been represented, as well as estimated with the usage of the factor scores of the first-order factor model, which fits the data precisely well. The value of the chi-square statistic has been  $c^2 = 86.963$ , with 51 d.f. as well as a P-value of 0.001, which has been significant at the 1% level ( $P < 0.001$ ). The values of several former goodness-of-fit indices have been given in the following: RMSEA = 0.04, as well as RMR = 0.055, along with CFI = 0.832, including the AGFI = 0.833, together with GFI = 0.981. Hence, the three satisfaction factors conclude an exclusive factor, as well as the overall satisfaction, along with the supporting hypothesis H2.



**Fig. 7. Standardized regression coefficients of the first-order CFA model.** The values shown are standardized beta values. For example, a value of 0.61 (local courses) means that when satisfaction with local courses increases one, gastronomy satisfaction increases 0.61 CFA, confirmatory factor analysis.

In Table 3, the model of the standardized regression coefficients have been shown. All coefficients have been significant, even at the 1% level ( $P < 0.001$ ), with the gastronomy factor being the most important one (0.814). This means that by 0.814, the overall satisfaction increases when by one, gastronomy satisfaction increases. The second utmost significant factor of satisfaction has been quality as well as price (0.625), whereas atmosphere has been the least imperative one, with a slightly lower coefficient than quality as well as price (0.585). Thus, hypothesis H3 has also been supported.

## V. CONCLUSIONS

In spite of the significance of the gastronomic experience for the satisfaction as well as dissatisfaction of the tourists, as well as hence forth for the effectiveness of tourist destinations, along with the studies focusing on the satisfaction of the tourist with their gastronomic experience have been virtually non-existent. Further decisively, the evidence for supporting the hierarchical factor structure of foodservice satisfaction has not yet produced by the researchers. Through structural equation modelling to examine this proposition was the main purpose of this paper. Even though foodservice satisfaction has been the subject of particular factors analysis along with the numerous studies could be found, a hierarchical factor analysis, no studies were found employing different perspective has been provided by these conformer factor analysis on satisfaction as compared to the additional normally employed first-order factor analysis. The identifies how many individual mountains are there (the factors) has been identified by the first order factor analysis, while the second-order analysis explores whether or not they can be viewed as part of a 'single mountain range. It has been shown from the results that satisfaction is a concept of multidimensional which results from the disconfirmation of expectation of the tourists.

**Table 4: Regression weights of the second-order factor model in Fig. 3.**

			Standardised Estimate	SE	CR	P
Quality and price	←	Overall satisfaction	0.625	*		**
Gastronomy	←	Overall satisfaction	0.814	0.155	4.672	**
Environment	←	Overall satisfaction	0.585	0.095	3.487	**
Local course	←	Gastronomy	0.61	*		**
Food presentation	←	Gastronomy	0.582	0.109	6.601	**
Originality and exoticness	←	Gastronomy	0.647	0.123	7.199	**
Ethnic decoration	←	Environment	0.685			**
Decoration	←	Environment	0.704	0.096	7.921	**
Modern music	←	Environment	0.755	0.17	7.52	**
Lighting	←	Environment	0.776	0.183	6.818	**
Entertainment	←	Environment	0.687	0.157	7.738	**
Price of drinks	←	Quality and price	0.924	*		**
Price of course	←	Quality and price	0.956	0.029	33.191	**
Quality and price of food	←	Quality and price	0.89	0.032	28.749	**
Staff presentation	←	Quality and price	0.512	0.12	4.995	**

As speculated, satisfaction has been comprised of a single second-order factor as well as distinct first-order factors. In Lisbon, the gastronomic satisfaction of tourists with second order factor could be viewed as a predominant view. From the findings support of the satisfaction of the tourists with gastronomy from past studies: satisfaction has been influenced along with the attributes with variety as well as not a single one [31]. Through authors like [11] multiple factors which has been made by the assertion through which experience of gastronomy has been influenced. It has been stated that 'consumption embraces the structure of the meal, as well as the taste of the food, along with the manner of serving, including the style of eating together the spatial organization in addition with the decoration of the establishment' [11]. The results further designate that in Portugal the satisfaction with gastronomy were related with gastronomy related factors, along with the local courses, as well as originality including exoticness, in addition with the presentation of food as well as staff. These results in the tourist market, for restaurants operating have important implications. It has been cleared from the results that to the gastronomy factors, restaurateurs need to pay a huge amount of attention. On the other hand, this study demonstrates that developing gastronomic credentials by the means of good courses along with even ethnic ingredients have not been enough. As an alternative, gastronomy tourism has to be viewed as a holistic experience encompassing other factors, as well as atmosphere, including price together with the quality, as these are the significant determinants of satisfaction. With each of these three main determinants those factors that influence satisfaction, the information regarding it has been also provided in this study. Towards the originality of the gastronomy, managers of restaurant need to pay specific attention possibly through proposing conventional regional courses comprised of exclusive twists, such as giving the offer in more innovative way. For the destined marketers, it appears that there is more than required focus on gastronomy at the expenses of different factors might not be required.

It is advised that the plan for marketing regarding the tourism board of Portugal might add up the three way view of the satisfaction of gastronomy. Utilizing the visitors from different countries as well as travelling to other destinations, this research could replicate this study. In this research, one approach to the study of satisfaction has been employed: the disconfirmation of expectations. On the other hand, a number of other valid approaches have been identified in the literature review; nonetheless suggestions have been also given that different scales might measure quite different constructs [21].

**VI. FUTURE SCOPE**

Different approaches could be taken in usage for this studies future replication, in attempting as well as in isolation for the comparison of the factor structure across approaches of satisfaction. A cognitive nature is observed under the satisfaction in range of pull attributes that are selected for inclusion. In recent times, towards emotion huge amount of attention has been paid as a tourist experience component, as well as the attributes which are related to the experience of the restaurant and their emotional pull can be involved in study related to design. Across segments the satisfaction structure could be taken in comparison through the research of Final Avenue [34]. It has been concluded that across segments, there is a difference in the formation of the post-purchase judgments as well as heterogeneous is found to be as the dining market. It has been found by the [31] that in the regards of gastronomy experience differences has been found between the national groups. Consequently, as per the residence country, an assessment of satisfaction could be particularly significant, as several aspects of the experience of the tourist are country specific as well as subsequently of the marketing strategy destination.

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**REFERENCES**

[1]. Van Westering, J. (1999). Heritage and gastronomy:



The pursuits of the “new tourist”. *International Journal of Heritage Studies*, 5(2), 75–81.

[2]. Kastenholz, E., Davis, D., & Paul, G. (1999). Segmenting tourism in rural areas: The case of north and central Portugal. *Journal of Travel Research*, 37(4), 353–363.

[3]. Fox, R. (2007). Reinventing the gastronomic identity of Croatian tourist destinations. *International Journal of Hospitality Management*, 26(3), 546–559.

[4]. Hui, T. K., Wan, D., & Ho, A. (2007). Tourists' satisfaction, recommendation and revisiting Singapore. *Tourism Management*, 28(4), 965–975.

[5]. Decrop, A., & Snelders, D. (2005). A grounded typology of vacation decision-making. *Tourism Management*, 26(2), 121–132.

[6]. Rand, G. E., & Heath, E. (2012). *Current Issues in Tourism Towards a Framework for Food Tourism as an Element of Destination Marketing Towards a Framework for Food Tourism as an Element of Destination Marketing*. (September), 37–41.

[7]. Okumus, B., Okumus, F., & Mc Kercher, B. (2007). Incorporating local and international cuisines in the marketing of tourism destinations: The cases of Hong Kong and Turkey. *Tourism Management*, 28(1), 253–261.

[8]. Clark M, Wood R. (1998). Consumer loyalty in the restaurant industry –a preliminary exploration of the issues. *International Journal of Contemporary Hospitality Management*, 10:139–44.

[9]. Cai, L. A. (1998). Analyzing household food expenditure patterns on trips and vacations: A tobit model. *Journal of Hospitality and Tourism Research*, 22(4), 338–358.

[10]. Cook, C., Thomson, B. (2000). Higher-order factor analysis as a score validity evaluation tool: an example with a measure of perceptions of library servicesetting. *Paper presented at the Annual Meeting of the Southern Educational Research Association (Dallas, TX)*, January 27–29.

[11]. Henriques, C., & Custódio, M. J. (2010). Turismo e Gastronomia: a valorização do património gastronómico na região do Algarve. *Revista Encontros Científicos-Tourism & Management Studies*, (6), 69-81.

[12]. Richards, G. (2002). Gastronomy: An essential ingredient in tourism production and consumption. *Tourism and gastronomy*, 11, 2-20.

[13]. <https://doi.org/10.1016/j.annals.2003.12.014>

[14]. Correia, A., Barros, C. P., & Silvestre, A. L. (2007). Golf tourism repeat choice behaviour in the Algarve: A mixed logit approach. *Tourism Economics*, 13(1), 111–127.

[15]. Giese, J. L., & Cote, J. A. (2000). Defining consumer satisfaction. *Academy of marketing science review*, 1(1), 1-22.

[16]. Haines, G. H., Howard, J. A., & Sheth, J. N. (1970). The Theory of Buyer Behavior. *Journal of the American Statistical Association*, 65(331), 1406. <https://doi.org/10.2307/2284311>

[17]. Oliver R. L. (1980). A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions. *Journal of Marketing Research*, 17(4), 460–

469.

[18]. Tse, D. K., & Wilton, P. C. (1988). Models of consumer satisfaction formation: An extension. *Journal of marketing research*, 25(2), 204-212.

[19]. Gyimóthy, S., Rassing, C. R., & Wanhill, S. (2000). Marketing works: a study of the restaurants on Bornholm, Denmark. *International Journal of Contemporary Hospitality Management*, 12(6), 371–379

[20]. Gilbert, G. R., Veloutsou, C., Moutinho, L., & Goode, M. M. H. (2004). Measuring customer satisfaction in the fast food industry: A cross-national approach. *Journal of Services Marketing*, 18(5), 371–383.

[21]. Barsky, J. (1992). A strategy for customer satisfaction. *The Cornell Hotel and Restaurant Administration Quarterly*, 33(5), 32–40.

[22]. Danaher, P. J., Haddrell, V., Pizam, A., & Ellis, T. (1999). International Journal of Service Industry Management A comparison of question scales used for measuring customer satisfaction. *International Journal of Service Industry Management Iss International Journal of Service Industry Management Iss European Journal of Marketing*, 7(18), 4–26.

[23]. Bernhardt, K. L., Donthu, N., & Kennett, P. A. (2000). A longitudinal analysis of satisfaction and profitability. *Journal of Business Research*, 47(2), 161–171. [https://doi.org/10.1016/S0148-2963\(98\)00042-3](https://doi.org/10.1016/S0148-2963(98)00042-3)

[24]. Brady, M. K., & Robertson, C. J. (2001). Searching for a consensus on the antecedent role of service quality and satisfaction: An exploratory cross-national study. *Journal of Business Research*, 51(1), 53–60. [https://doi.org/10.1016/S0148-2963\(99\)00041-7](https://doi.org/10.1016/S0148-2963(99)00041-7)

[25]. Petrick, J. F. (2002). An examination of golf vacationers' novelty. *Annals of Tourism Research*, 29(2), 384–400. [https://doi.org/10.1016/S0160-7383\(01\)00040-8](https://doi.org/10.1016/S0160-7383(01)00040-8)

[26]. O'Hara, P. A., Harper, D. W., Kangas, M., Dubeau, J., Borsutzky, C., & Lemire, N. (1997). Taste, temperature, and presentation predict satisfaction with foodservices in a Canadian continuing-care hospital. *Journal of the American Dietetic Association*, Vol. 97, pp. 401–405. [https://doi.org/10.1016/S0002-8223\(97\)00100-4](https://doi.org/10.1016/S0002-8223(97)00100-4)

[27]. Meyer, M. K., & Conklin, M. T. (1998). Variables affecting high school students' perceptions of school foodservice. *Journal of the American Dietetic Association*, Vol. 98. [https://doi.org/10.1016/S0002-8223\(98\)00322-8](https://doi.org/10.1016/S0002-8223(98)00322-8)

[28]. Kandampully, J., & Suhartanto, D. (2000). Customer loyalty in the hotel industry: The role of customer satisfaction and image. *International Journal of Contemporary Hospitality Management*, 12(6), 346–351. <https://doi.org/10.1108/09596110010342559>

[29]. Qu, H., & Ping, E. W. Y. (1999). A service performance model of Hong Kong cruise travelers' motivation factors and satisfaction. *Tourism Management*, 20(2), 237–244.

[https://doi.org/10.1016/S0261-5177\(98\)00073-9](https://doi.org/10.1016/S0261-5177(98)00073-9)

[30]. Zhang, H. Q., & Chow, I. (2004). Application of

- importance-performance model in tour guides' performance: Evidence from mainland Chinese outbound visitors in Hong Kong. *Tourism Management*, 25(1), 81–91. [https://doi.org/10.1016/S0261-5177\(03\)00064-5](https://doi.org/10.1016/S0261-5177(03)00064-5)
- [31]. Rittichainuwat, B. N., Qu, H., & Leong, J. K. (2003). The Collective Impacts of a Bundle of Travel Determinants. *Journal of Hospitality & Tourism Research*, 27(2), 217–236. <https://doi.org/10.1177/1096348003251433>
- [32]. Nield, K., Kozak, M., & LeGrys, G. (2000). The role of food service in tourist satisfaction. *International Journal of Hospitality Management*, 19(4), 375–384. [https://doi.org/10.1016/S0278-4319\(00\)00037-2](https://doi.org/10.1016/S0278-4319(00)00037-2)
- [33]. Lancaster, K. (1966). *A New Approach to Consumer Theory* Author (s): Kelvin J. Lancaster Reviewed work (s): *Source Journal of Political Economy*, 74(2), 132-157.
- [34]. Kivela, Jakša, & Crotts, J. C. (2006). Tourism and Gastronomy: Gastronomy's Influence on How Tourists Experience a Destination. *Journal of Hospitality and Tourism Research*, 30(3), 354–377. <https://doi.org/10.1177/1096348006286797>
- [35]. Yüksel, A., & Yüksel, F. (2003). Measurement of tourist satisfaction with restaurant services: A segment-based approach. *Journal of Vacation Marketing*, 9(1), 52–68. <https://doi.org/10.1177/135676670200900104>
- [36]. Silvestre, A. L., & Correia, A. (2005). A second-order factor analysis model for measuring tourists' overall image of Algarve, Portugal. *Tourism Economics*, 11(4), 539–554. <https://doi.org/10.5367/000000005775108773>
- [37]. Cook, C., & Thompson, B. (2000). *Higher-Order Factor Analysis as a Score Validity Evaluation Tool: An Example with a Measure of Perceptions of Library Service Quality*.
- [38]. Auty, S. (1992). Consumer choice and segmentation in the restaurant industry. *The Service Industries Journal*, 12(3), 324–339. <https://doi.org/10.1080/02642069200000042>
- [39]. Tripp, C., Greathouse, K. R., Shanklin, C. W., & Gregoire, M. B. (2010). *Journal of Travel & Factors Influencing Restaurant Selection by Travelers Who Stop at Visitor Information Centers*, 37–41. <https://doi.org/10.1300/J073v04n02>
- [40]. Dba, L. S. P., Dba, C. E. P., Luke, R. H., Pettijohn, L. S., Dba, C. E. P., Luke, R. H., & Luke, R. H. (2008). *An Evaluation of Fast Food Restaurant Satisfaction An Evaluation of Fast Food Restaurant Satisfaction: Determinants, Competitive Comparisons*, 37–41. <https://doi.org/10.1300/J061v02n03>
- [41]. Woodside, A. G., Frey, L. L., & Daly, R. T. (1989). Linking service quality, customer satisfaction, and behavioral intention. *Journal of Health Care Marketing*, 9(4), 5–17.
- [42]. Yoon, Y., & Uysal, M. (2005). An examination of the effects of motivation and satisfaction on destination loyalty: A structural model. *Tourism Management*, 26(1), 45–56. <https://doi.org/10.1016/j.tourman.2003.08.016>
- [43]. Clark, M. A., & Wood, R. C. (1998). Consumer loyalty in the restaurant industry - a preliminary exploration of the issues. *International Journal of Contemporary Hospitality Management*, 10(4), 139–144. <https://doi.org/10.1108/09596119810222104>
- [44]. Correia, A., Oom do Valle, P., & Moço, C. (2007). Modeling motivations and perceptions of Portuguese tourists. *Journal of Business Research*, 60(1), 76–80. <https://doi.org/10.1016/j.jbusres.2005.10.013>
- [45]. <https://doi.org/10.1016/j.tourman.2006.08.008>
- [46]. Hunt, R., Take-aways, T., & Coverage, R. (2009). Case Study : State Bank of India, World ' s Largest. 1–9.
- [47]. <https://doi.org/10.1177/004728759903700405>
- [48]. Kivela, Jakia, Inbakaran, R., & Reece, J. (2000). Consumer research in the restaurant environment. Part 3: Analysis, findings and conclusions. *International Journal of Contemporary Hospitality Management*, 12(1), 13–30. <https://doi.org/10.1108/09596110010304984>
- [49]. MacLaurin, D. J., & MacLaurin, T. L. (2000). Customer perceptions of Singapore's theme restaurants. *Cornell Hotel and Restaurant Administration Quarterly*, 41(3), 75–85. [https://doi.org/10.1016/S0010-8804\(00\)80019-1](https://doi.org/10.1016/S0010-8804(00)80019-1)

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