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# QUALITY MEASUREMENT IN RESTAURANT INDUSTRY FROM THE MARKETING PERSPECTIVE: A COMPARISON OF GUESTS' AND MANAGERS' QUALITY PERCEPTIONS

UDK / UDC: 658.56:640.43 JEL klasifikacija / JEL classification: JEL: L83, Z31 Izvorni znanstveni rad / Original scientific paper Primljeno / Received: 8. veljače 2017. / February 8, 2017 Prihvaćeno za tisak / Accepted for publishing: 21. lipnja 2017. / June 21, 2017

## Abstract

Restaurant quality management, as a fairly new area of research, requires frequent and critical academic monitoring. Previous studies have highlighted the importance of several quality attributes for the restaurant industry. However, up until now no study has compared both – restaurant managers` and guests' quality perceptions from the marketing mix (7P) perspective. This paper analyses differences in quality perceptions between managers and guests. Two samples – 207 valid questionnaires obtained by restaurant managers and 1998 questionnaires obtained by guests of the same facilities were analysed. Research results indicate that there are statistically significant differences between guests' and managers' quality perceptions. Factor analysis results show that according to both – managers and guests, by far the most important marketing quality attribute for ensuring restaurant quality is People, while other marketing quality attributes are significantly less/or not important. This research has thrown up many questions in need of further investigation. It is suggested that future research focus to other sectors of tourism industry.

Keywords: Restaurant quality, quality management, marketing attributes, guests, managers

# **1. INTRODUCTION**

In the highly competitive restaurant industry, satisfying guests is the critical objective of all businesses. A crucial challenge to all restaurant managers is how to provide proper quality offer. There are several industry specific attributes that significantly affect the level of overall service quality (e.g. volatile demand, small and mostly family run businesses, vast selection of products offered, intangibility of services, labour - intensive production, intense competition etc.). In order to gain an advantageous edge in this highly competitive environment, the marketing literature has consistently emphasized the importance of marketing orientation as a strategic tool. The growing recognition of the customer - based marketing approach has suggested that implementing quality as a marketing tool is the essential element in fostering customer relationships and sustainable market share (Sedmak, 2011; Ryu and Lee, 2017; Wang, Law, Hung and Guillet, 2014). Understanding customers' needs and expectations is the first step in delivering quality services. The best way to manage customers' expectations is to find out what their needs and wants are, strategize how to meet them and implement these strategies in practice. In the scientific literature, there are several theoretical models to explore customers' expectations and assess service quality. After the implementation of the Conceptual Model of Service Quality (also referred as the five gaps model) and the SERVQUAL instrument by Parasuraman, Zeithaml and Berry in 1985, the issue of restaurant service quality has received considerable critical attention. Several attempts have been made (Kim, Ng and Kim, 2009; Sulek and Hensley, 2004; Vanniarajan, 2009) to improve and develop specific quality measurement techniques suited to the needs of the restaurant industry (measurement tools are presented in chapter 2.1.1). All of these techniques focus on specific aspects of service delivery such as food, environment, cleanliness perception etc. (Ayeh and Chen, 2013; Barber, Goodman and Goh, 2011; Han, Back and Barrett, 2010; Mosavi and Ghaedi, 2012; Voon, 2012) and are based on the theoretical concept of the generic Service quality model. According to the Model, the gap between customers' expectations and managers' perceptions of those expectations will have a major impact on the customers' evaluation of service quality. The first step in ensuring restaurant service quality is therefore to avoid discrepancies between managers' perceptions and guests' expectations. Only a good knowledge of guests' expectations might result in managers' more realistic perceptions about actual and desired quality offerings.

Nevertheless, only a few studies (Briggs, Sutherland and Drummond, 2007; Lau, Akbar and Fie, 2005; Nasution and Mavondo, 2008; Wilkins, Merrilees and Herrington, 2007; Yavas and Rezayat, 2003) investigated managers' perceptions of restaurant quality offerings. Based on a thorough literature review we couldn't reliably determine if there are statistically significant differences in restaurant quality perceptions between restaurant managers and guests. The purpose of this paper is therefore to investigate and compare differences in quality perceptions of individual marketing quality

attributes (7P) from the managers' and guests' perspective. Restaurant managers must understand what features connote high quality to their guests in order to deliver high quality offerings.

To fill this research gap, the current study focuses on seven marketing attributes that, according to Kotler (2004), form the fundamental part of restaurant offerings. The goal of this article is to empirically investigate differences in marketing quality perceptions (7P) between restaurant managers and their guests. We therefore hypothesize (H1) that there are statistically significant differences in quality perceptions between guests and restaurant managers.

As no previous study analysed and compared guests' and managers' quality perceptions from the marketing perspective the development of a research instrument was presented. In the second part of the study the instrument (questionnaire) was empirically tested. The overall structure of the study consists of five chapters, including this introductory chapter. Chapter two begins by laying out the theoretical dimensions. Chapter three is concerned with research methodology. In chapter four results are presented and discussed and finally, conclusions presented in the last chapter give a brief summary and critique of the findings.

# 2. LITERATURE REVIEW

# 2.1 Service quality

Defining service quality requires a specific approach to quality measurement, as it is not based on general objectivity and measurability. The approach from the standpoint of the customer is based on a highly subjective perspective. While a variety of definitions have been suggested (Grönroos, 1984, 1990; Langer, 1997; Parasuraman, Zeithaml and Berry, 1988; Reeves and Bednar, 1995), this paper is based on the definition suggested by Parasuraman, Zeithaml and Berry (1985), who defined service quality as the ability of a service to fulfil and exceed guests' expectations. The common characteristic of all service quality definitions (Parasuraman, Zeithaml and Berry, 1988; Reeves and Bednar, 1995; Ryu and Jang, 2007; Van Vaerenbergh, Larivière and Vermeir, 2012) is the consumer – based concept. This makes service quality a highly subjective and relative phenomenon that differs based on who is judging the quality and which specific quality indicators (logically merged into different attributes) were used to assess service quality. In our study, specific marketing attributes involved in the marketing mix (7P) were used as key quality indicators.

A large and growing body of scientific literature has investigated the theoretical concept of service quality. Several attempts have been made to capture the essential characteristics of service quality in different theoretical models. These models are especially important because they provide a theoretical basis for various techniques (tools) for measuring service quality. The American school (Parasuraman, Berry and Zeithaml, 1993; Parasuraman, Zeithaml and Berry, 1994) is mainly focused on identifying the criteria that consumers use in evaluating the quality of services. Researchers have contributed a five-step model of service quality and an instrument for measuring service quality - the SERVQUAL instrument - in which they defined five dimensions of service quality: Reliability, Assurance, Tangibles, Empathy, and Responsiveness (also referred to as the RATER dimensions). Meanwhile, researchers from the Scandinavian school (Grönroos, 1990; Lehtinen and Lehtinen, 1991) have identified two major aspects of service quality: technical quality (the tangible aspect) and functional quality. Drawing on an extensive range of sources, the scholars (Candido and Morris 2000; Lin, Chan and Tsai, 2009) used various methods in an attempt to create valid and overall-service quality models. Candido and Morris (2000) defined a new model with 14 steps, but an in-depth analysis revealed that the model is mainly based on the five-step model. Overall, none of these modified models received a significant scientific validation. Conversely, several authors highlighted the need to break the link between the traditional American and Scandinavian schools and proposed alternative quality models. Lin, Chan and Tsai (2009) upgraded the traditional IPA (Importance Performance Analysis) model and developed a new model called IPGA. The IPGA model is designed to optimize the use of production resources with the aim of improving the quality of services offered. Kukanja, Gomezelj Omerzel and Kodrič (2016) stressed the importance of a marketing approach, while Ryu and Lee (2017) emphasized the perspective of a relationship based on provider's marketing investment. Nevertheless, all these studies highlight the need for future development of service quality management.

#### 2.1.1. Techniques for measuring service quality

In our study, we have focused on techniques that collect quality information based on pre-determined quantitative standards (research instruments), although the customers' feedback can also be obtained by a number of qualitative approaches (e.g. spontaneous observations of guests' reactions. conversations with guests and employees, following guests' comments and reviews posted on internet etc.). According to Uran Maravić, Gračan and Zadel (2014) restaurant quality can be measured through different approaches, such as: external experts' evaluation (e.g. Michelin, Gault Millau and AAA Diamonds); guests' comments and reviews posted on different web pages (e.g. Yelp, Zagat or Trip Advisor); reviews performed by journalists (culinary critics) and/or academics (researchers). Despite the unquestionable significance of qualitative techniques, in our study we have decided to use the academic approach. Different academic techniques (also referred to as models) measure service quality basing on the quality gaps that occur as a result of differences between guests' expectations and perceptions (e.g. SERVQUAL, DINESERV); some are onedimensional and focus solely on service performance evaluation (e.g.

SERVPERF, Dineserv.per); some combine quality and importance measurement of different service factors (SERVIMPERF); and finally some focus on employees' responses to specific critical situations (the Critical Incident Technique - CIT). According to Marković, Raspor and Šegarić (2012) the predominant quantitative measurement technique is the SERVQUAL instrument, which measures quality basing on the gap between guests' expectations and perceptions. According to Aigbedo and Parameswaran (2004), all five RATER dimensions of the SERVQUAL instrument have not yet been fully validated. Therefore, the authors propose additional metrics that would better explain the gap between expectations and perceptions. Other authors (Jensen and Hansen, 2007; Ryu, 2005) have highlighted the need for a tailored academic approach to service quality measurement. Kukanja (2015) analysed the inclusion of different quality dimensions in restaurant quality models. According to author (ibid.), some specific state of the art techniques (e.g. Tangserv, CIERM, CIT) have moved away from the traditional RATER dimensions of the SERVQUAL instrument, which indicates the necessity of further quality management investigation in the restaurant industry.

#### 2.2 Management perception of quality offerings

There are relatively few studies examining the management perception of quality. Wilkins, Merrilees and Herington (2007) and Nasution and Mavondo (2008) found that researchers have not considered business executives' quality perceptions as a prerequisite for high quality service delivery. This view is also consistent with previous studies in the service sector (Briggs, Sutherland and Drummond, 2007; Lau, Akbar and Fie, 2005), which suggest that managers may not always understand what customers really expect and consequently they misperceive and misevaluate company's quality offerings. In an international study conducted by Yavas and Rezayat (2003), authors found that management quality perceptions are mainly conditioned with managers' individual (cultural) characteristics and organizational characteristics of firms. In another major study, Wilkins, Merrilees and Herrington (2007) found that managers of luxury hotel properties in Australia do not perceive quality as a multidimensional construct and simplify the meaning of the service quality management. According to Lau, Akbar and Fie (2005) and Dedeoğlu and Demirer (2015) service companies must constantly monitor guests' expectations and compare them to executive managers' quality perceptions. Kukanja (2015) analysed restaurant managers' quality perceptions. According to author (ibid.) the quality of service staff significantly influences managers' quality perceptions. As noted by and Martínez-Tur, et al. (2011) balancing differences between customers' and managers' quality perceptions should be the key part of each business strategy. In the case of the Slovenian hotel industry the study by Uran (2003) offers the most comprehensive empirical analysis of the internal (organizational) gaps in delivering service quality. According to author (ibid.), due to internal organizational gaps, quality management cannot be used as a strategy of differentiation in hotel industry.

# **3 RESEARCH METHODOLOGY**

#### **3.1** Research process and samples description

Following the conceptualization and operationalization of the service quality construct, a 35-item instrument for assessing restaurant quality was formulated and empirically tested, as previously done by Kukanja, Gomezelj Omerzel and Kodrič (2016). Although in many questionnaires (Marković, Raspor and Šegarić, 2012) individual quality indicators are substantively combined to express several quality characteristics in a single, uniform quality indicator, in our study we have exclusively used one quality characteristic for the description of each quality indicator (see Table 1). The level of respondents' perceptions was measured on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The questionnaire is based on the performance (referred to as the performance – only) aspect of quality measurement (Abdullah and Rozario, 2009; Keith and Simmers, 2011). This means that guests completed the questionnaire only after the service encounter, while managers filled out the questionnaire regardless to guests' feedback. The questionnaire was pretested on five restaurant managers who were invited to participate in the formation of the research instrument. Based on their suggestions, some minor changes were made. Our study was conducted from January to June 2015. The research was performed by ten interviewers in different restaurant settings in Slovenia. A total of 332 independently operated restaurants were included in the study, representing 10% of the population. The research was conducted by direct interviews with restaurant managers (one manager per restaurant) and their guests (ten guests per restaurant) in randomly selected restaurants. Managers were kindly asked to fill in the questionnaire. According to surveyors some managers refused to participate in the study for a variety of reasons. The final analysis is therefore based on 207 valid managers' questionnaires, representing 6.2% of the population in the country. After interviewing the manager, ten randomly chosen guests in each restaurant were kindly asked to fill in the questionnaire. Out of a total of 2007 collected questionnaires, the final guests' analysis is based on 1998 valid questionnaires. All questionnaires were sequentially numbered, in order that each manager's questionnaire corresponds to (ten) guests' responses.

In the first step, descriptive statistics analysis was used to analyse respondents' demographic characteristics. The majority of managers were an average of slightly less than 40 years of age (39 years), and the sample was composed of the vast majority of male managers (69.4%). The largest proportion of managers has completed one of the programs or vocational secondary education (59.2%), while the higher education acquired 40% of managers. Despite the overwhelmingly proportion of managers with lower levels of education we have found that they have a relatively large amount of work experience in the industry, with an average of 19.2 years. Next, guests' demographic profile was analysed. Interestingly, the majority of guests were also an average of slightly less than 40 years of age (39.6 years), and the sample was composed of almost equal numbers of male (49.4%) and female respondents (50.6%). The highest

number of guests had completed secondary education (47.2%), while 41.5% of guests had acquired a high school education, 4.9% had only finished elementary school, and 6.3% had obtained a Master's degree or PhD.

# 3.2. Research instrument development

A relatively small number of studies focusing on managers' perceptions meant (see chapter 2.2) that we primarily had to base on studies which analysed customers' quality perceptions from various marketing perspectives. Results from several studies presented below emphasize the importance of different quality attributes. Nevertheless, no study before has compared managers' and guests' quality perceptions from the marketing perspective.

#### 3.2.1. Product

Numerous studies have reported that food is undoubtedly the most important quality attribute in restaurant offering (Gupta, McLaughlin and Gomez, 2007; Kim, Ng and Kim, 2009; Sulek and Hensley, 2004; Vanniarajan, 2009). Sulek and Hensley (2004) proposed that the quality of food should be simply defined by three key quality indicators: food safety, attractiveness, and digestibility. Sedmak (2011) highlighted the importance of food selection, while Namkung and Jang (2007) stressed the importance of appearance and taste. Based on presented studies, we used the following quality indicators (marked as I) in our questionnaire: (I1) offer volume – selection of dishes; (I2) size of portions; (I3) taste; (I4) appearance; (I5) perception of food safety.

#### 3.2.2. People

A large volume of studies (Andaleeb and Conway, 2006; Jaafar, Lumbers and Eves, 2008; Mosavi and Ghaedi 2012; Voon, 2012) describe the role of people as the most important quality attribute. Several researchers (Luohe and Tsaur, 2011; Martínez-Tur, Tordera, Peiró, and Potocnik, 2011) confirmed the correlation between guests' quality evaluation process and demographic profile of employees', while Wall and Berry (2007) concluded that guests' quality perceptions heavily depend on the type of restaurant itself. A study conducted by Waxman (2006) not only stressed the significance of staff's attitude but also revealed the importance of their social competencies (e.g. sense of altruism, warmth, understanding etc.). The importance of people (staff) was also highlighted by Kukanja, Gomezelj Omerzel and Kodrič (2016). The design of our questionnaire has been based on the results of the presented studies, and some quality indicators were logically introduced from the SERVQUAL instrument (employees' politeness), DINESERV model (well-trained, competent and experienced staff; number of staff) and the Tangserv questionnaire (customers' interactions with other guests). Indicators that have been introduced to our questionnaire are: (I6) hospitality of staff; (I7) professional competencies; (I8) sufficient number of staff; (I9) importance of the presence of the restaurant manager; (I10) distracting presence of other guests.

## 3.2.3. Price

Assessment of quality is particularly problematic in terms of individual price perception. According to Kim and Kachersky (2006) the perceived price level is the result of a personal psychological process. This view is also supported by Meng and Elliott (2008) who stressed the importance of individualism in price perception. According to authors (ibid.), especially the "fair price" perception significantly influences guests' overall quality perception. We have noted, that price was not identified as the most important quality attribute in any of the presented studies. Nevertheless, several studies stressed the importance of different individual price indicators (e.g., an accurate bill is also a quality indicator in the DINESERV model). Following the above discussion, we may suppose that price perception can be measured based on the following indicators: (I11) understandability of prices; (I12) bill accuracy; (I13) value for money; (I14) price competitiveness; (I15) expected price level vs. actual price level.

## 3.2.4. Processes

The quality of this attribute is most often assessed according to different activities of service staff. Ha and Jang (2010) have primarily treated the quality of the service encounter as a multidimensional construct, which is most often the result of guests' subjective evaluation of different service activities (e.g. the process of welcoming guests, acceptance of orders etc.). Heung, Wong, and Qu (2000) reported that the speed of service is the most important element in determining guests' perception of quality. Conversely, Nam, Ekinci and Whyatt (2011) state that it still remains unknown which service activities actually influence guests' overall quality perceptions. Based on the literature review, the following quality indicators were included in our study: (116) staff responsiveness to questions; (117) staff helpfulness in serving guests' needs; (118) staff responsiveness, (I19) restaurant working hours; (I20) waiting time.

## 3.2.5. Physical evidence

The importance of the physical – tangible environment (also referred to as the servicescape) has been stressed by several authors (Cheng, et al., 2012; Kim and Moon, 2009; Ryu and Jang, 2007). According to Barber and Scarcelli (2010) especially factors associated with cleanliness and noise significantly influence guests' perception of restaurant quality. The design of our questionnaire has been based on the results of the presented studies, and some quality indicators were logically introduced from the SERVQUAL instrument and the DINESERV model (neat and presentable staff); Tangserv (design in accordance with food offering and sense of security); and the SERVPERF questionnaire (cleanliness and visual appearance). Based on findings presented in this section the following quality indicators were included in our questionnaire: (I21) cleanliness of the premises; (I22) neat and presentable staff, (I23) comfort; (I24) design in accordance with food offering; (I25) sense of security.

#### 3.2.6. Promotion

According to Sedmak (2011) direct sales present the only form of promotion that provides instant feedback from guests. The success of direct (personal) sales heavily depends on competences, professionalism and charisma of service staff. Aside from the functional aspect of quality, which heavily depends on staff's recommendations and guests' promotional activities (e.g., word of mouth), the quality this attribute is also perceived through the quality of different technical elements, such as menu design, outdoor sign boards, leaflets and wine lists (Din, et al., 2012). Taylor and Long-Tolbert (2002) found that discounts and special offers (e.g. happy hours) also influence guests' quality perceptions. In light of the evidence presented in this section, the following quality indicators were included in our questionnaire: (I26) visible marketing signs; (I27) signs of special attention and compliments; (I28) service staff recommendations; (I29) special offers; (I30) advertising activities in media.

#### 3.2.7. Placement

In restaurant industry, channels of distribution are most often direct – personal. Sedmak (2011) states that other important channels of distribution are geographical location and indirect distribution through travel agencies and other providers. The importance of location was also emphasized by Bowie and Buttle (2004), and Parsa, et al. (2011). We have decided to include the following indicators in our study (tangible indicators were logically introduced from the Tangserv questionnaire): (I31) entrance accessibility; (I32) accessible parking areas; (I33) neat and clean surroundings; (I34) perception of whether the restaurant is worth the distance travelled; (I35) indirect distribution.

# 4. **RESULTS AND DISCUSSION**

The next section of the survey was concerned with the evaluation of perceived quality. Results presented in table below (Table 1) show that both groups of respondents (guests and managers) evaluated all marketing quality attributes relatively highly. The average mean value for managers' perceptions is 4.24. Among the seven quality attributes, the highest-rated attribute was product (mean value 4.72), with food safety as the highest rated indicator (4.89). Results indicate that the lowest perceptions are related to attribute promotion (mean value 3.86), with the lowest scores related to indicator I29 – special offers (2.83).

Evaluation of guests' responses show that the average mean value of their perceptions is slightly lower (3.98) in comparison to managers' feedback. Among the seven quality attributes, the highest-rated dimension was also product (mean value 4.34), with 15 - food safety as its highest rated indicator (4.47). Interestingly, the lowest guests' perceptions are also related to the attribute promotion (mean value 3.57), with the lowest scores related to indicator I30 – advertising in social media (2.95).

#### Table 1.

Quality attributes	Mean		<b>Coefficient of variation (%)</b>		
	Guests' Managers'		Guests' Managers'		
attributes	perceptions	perceptions	perceptions	perceptions	
Product					
I1	4.26	4.58	18.64	13.78	
I2	4.27	4.75	19.11	10.61	
13	4.35	4.80	17.70	9.58	
I4	4.28	4.58	18.88	13.47	
15	4.47	4.89	16.82	7.77	
People					
16	4.26	4.68	20.52	11.86	
I7	4.13	4.50	21.84	14.98	
18	4.13	4.35	21.40	18.89	
19	3.68	4.27	32.80	25.74	
I10	2.51	2.58	54.26	53.39	
Price	·	·	·	·	
I11	4.52	4.83	16.17	9.68	
I12	4.67	4.93	13.88	5.48	
I13	4.26	4.82	19.95	10.13	
I14	4.11	4.60	22.21	17.65	
I15	2.12	1.90	57.50	62.56	
Processes					
I16	4.24	4.56	21.84	14.57	
I17	4.04	4.69	24.80	12.06	
I18	4.18	4.68	21.10	11.79	
I19	4.29	4.63	19.81	14.47	
I20	4.10	4.57	22.00	13.00	
P. evidences					
I21	4.34	4.74	18.04	10.11	
I22	4.28	4.65	19.30	12.29	
123	4.22	4.66	20.14	12.75	
I24	4.26	4.61	20.16	14.45	
125	4.49	4.86	16.35	7.97	
Promotion				,,	
126	3.97	4.35	25.69	18.89	
127	3.41	4.24	36.86	20.25	
128	4.00	4.49	23.68	18.09	
129	3.53	2.83	34.31	46.89	
130	2.95	3.36	43.90	37.06	
Placement	2.75	5.50	13.90	57.00	
I31	4.01	4.40	26.38	21.57	
131	3.78	4.18	33.99	30.58	
132	3.99	4.45	24.51	17.38	
I33 I34	3.99	4.57	24.71	17.98	
135	3.37	2.65	38.43	52.06	

# Quality assessment - descriptive statistics

Source: Author's calculations

In order to test our hypothesis (H1), which suggests that there are statistically significant differences between guests' and managers' marketing quality perceptions, a detailed analysis of quality assessment between the two groups of respondents was performed. Paired *t*-test was used in order to determine whether there are statistically significant differences between different attributes' mean scores (see Table 2). As can be seen from the table below, there are statistically significant differences between guests' and managers' perceptions for all seven quality attributes. Research results clearly indicate that restaurant managers assess restaurant quality significantly higher than guests.

Table 2

Quality	Mean value	Mean	Comparison of means		
Quality attributes	(managers)	value (guests)	Difference	t – statistics	Significance level
Product	4,72	4,34	0,38	11,68	0,000
Physical e.	4,70	4,33	0,37	11,15	0,000
People	4,08	3,75	0,32	8,78	0,000
Processes	4,63	4,19	0,44	10,93	0,000
Promotion	3,86	3,58	0,28	7,08	0,000
Placement	4,05	3,83	0,22	5,83	0,000
Price	4,22	3,94	0,27	10,28	0,000
Average	4,32	3,99	0,32	-	-

Quality assessment (t – statistics)

Source: Author's calculations

In the next section of the study, two exploratory factor analyses were performed in order to assess guests' (EFA1) and managers' (EFA2) structure of perceived quality. With factor analyses, we have tried to obtain further in-depth information on the importance of different quality attributes. Preliminary evidences of scales' reliability, factor structures and validity on the basis of the analysed data are presented next.

First, we checked whether the answers to the above 35 indicators (factors) were normally distributed. Because we could not confirm a normal distribution for any of the selected factors for EFA1 and EFA2 (the Kolmogorov Smirnov Test was used), we had to use the Principal Axis Factoring method for both analyses. The first test was performed in order to evaluate the suitability of information for the inclusion in EFA1. Thus, on the basis of the value of the Kaiser - Meyer - Olkinov (KMO) measure of sampling adequacy (0.958), as well as the outcome of the Bartlett test of sphericity ( $\chi 2=31071,468$ ; degrees of freedom=595), we estimated that all included variables are suitable for factor analysis. The majority of factors had satisfactory communalities (> = 0.50), suggesting that the greater part of their variability can be explained by the influence of common factors. Three indicators with too low communalities - I9 (0.132), I10 (0.190), and I30 were excluded from the evaluation process. After a few successive iterations of the EFA1 model evaluation, we finally selected as most appropriate the model with 23 indicators (presented in Table 3). The suitability of information for inclusion in the final model is also supported by the

values of KMO (0.957) and the outcome of the Bartlett test ( $\chi$ =223289.398; degrees of freedom=253). Factor weights with factor loadings above 0.3 and factors that contain more than three items were retained. Based on a rotated factor solution, we have chosen a final model with 23 indicators belonging to three main factor groups (attributes). Results presented in table 3 clearly indicate that guests' quality perceptions are mainly based on the quality of the following marketing attributes (respectively): people (40.97%), placement (5.05%), and product and physical evidences (4.22%). In order to assess internal consistency Cronbach's alpha ( $\alpha$ ) was calculated. The values for all factor groups (people = 0.764; placement = 0.900; product and physical evidences = 0.900) indicate a reasonably good reliability ( $\alpha$  >0.8).

Table 3.

	Quality attributes – 7P				
Quality indicators (I)	People	Placement	Product and physical evidences		
I17	0.879	-0.096	0.047		
I16	0.751	-0.045	-0.049		
I27	0.740	0.024	0.144		
I18	0.709	-0.006	-0.096		
I28	0.649	0.094	-0.034		
I7	0.646	0.038	-0.137		
I6	0.551	0.054	-0.158		
18	0.473	0.019	-0.187		
I13	0.450	0.084	-0.178		
134	0.259	0.448	-0.074		
132	-0.104	0.759	0.038		
I31	0.082	0.733	0.020		
133	0.094	0.602	-0.104		
13	0.027	-0.041	-0.747		
I4	0.002	-0.016	-0.743		
15	-0.072	0.022	-0.729		
125	-0.041	0.097	-0.676		
12	-0.026	-0.008	-0.667		
I1	0.108	-0.060	-0.649		
I23	0.138	0.088	-0.502		
I21	0.211	0.094	-0.495		
I22	0.328	0.054	-0.416		
I24	0.320	0.044	-0.395		
Explained variance %	40.973	5.058	4.221		

#### Rotated factor solution – EFA1

\*Indicators greyed out were removed from factor analysis. Source: Author's calculations

Next, EFA2 was performed. Based on the value of the KMO measure of sampling adequacy (0.828), as well as the outcome of the Bartlett test of sphericity ( $\chi$ 2=2536.781; degrees of freedom=595), we estimated that all

indicators are suitable for factor analysis. The majority of factors had satisfactory communalities (> = 0.50). Two indicators with too low communalities - I5 (0.290) and I10 (0.237) were excluded from the analysis. After a few successive iterations of the model evaluation, we selected the model with 15 indicators (presented in Table 4). The suitability of information for the inclusion in EFA2 is also supported by the values of KMO (0.866) and the outcome of the Bartlett test ( $\chi$ =1130.289; degrees of freedom=105). Although some communalities belonging to different factors have little lower values than recommended (0.5) (see Table below), based on a rotated factor solution we have decided to include three main factor groups in the final model, as it allows a more meaningful interpretation of the model. As can be seen from table 4, factors (quality indicators) belonging to quality attributes promotion, placement and price, were logically merged into a new - common quality attribute. Based on the rotated matrix of factor weights presented in table 4, it is clearly evident that according to managers' quality perceptions only 15 indicators belonging to three attributes (factor groups) are important in delivering overall restaurant quality (respectively): people (33.04%); promotion, placement and price (8.46%); and product (5.60%). To assess internal consistency Cronbach's alpha ( $\alpha$ ) was employed. The values for all factor groups (people = 0.689; promotion, placement and price = 0.800; product = 0.756) indicate acceptable reliability.

Table 4.

	Quality attributes – 7P			
Quality indicators (I)	People	Promotion, placement and price	Product	
18	0.703	0.039	0.040	
I7	0.665	-0.126	0.112	
I27	0.643	-0.031	-0.098	
I17	0.622	-0.086	0.073	
I6	0.445	-0.196	0.276	
I24	0.323	-0.249	0.194	
I14	0.025	-0.846	-0.067	
I34	-0.035	-0.722	0.078	
128	0.298	-0.596	-0.060	
I2	-0.088	0.070	0.724	
I25	-0.153	-0.261	0.604	
13	0.093	-0.062	0.584	
I4	0.240	0.113	0.506	
I1	0.254	0.055	0.445	
I22	0.311	-0.006	0.416	
Explained variance %	33.043	8.468	5.605	

Rotated factor solution – EFA2

\*Indicators greyed out were removed from factor analysis.

Source: Author's calculations

Based on results of both analyses – EFA1 and EFA2, it is clearly evident that according to guests' (40.97%) and managers' (33.04%) beliefs the quality of people (staff) has the greatest importance in assuring overall restaurant quality. These results are consistent with studies (Andaleeb and Conway, 2006; Jaafar, Lumbers and Eves, 2008; Mosavi and Ghaedi 2012; Ryu and Lee, 2017; Voon, 2012) describing the quality of people (staff) as the most important quality attribute for the restaurant industry. Interestingly, the second most important attribute for guests is placement, while for managers the second most important attribute is composed from attributes promotion, placement and price. Results clearly indicate that price did not influence guests' quality perceptions, although demand in restaurant industry tends to be highly price elastic (Sedmak, 2011). Therefore, we may suppose that guests (in terms of quality perceptions) are not price sensitive, if restaurant offerings satisfy their quality expectations. This is an important issue for future research. Finally, results indicate that for both groups of respondents product (food) is only the third most important quality attribute. This finding is contrary to previous studies (Gupta, McLaughlin and Gomez, 2007; Kim, Ng and Kim, 2009; Sulek and Hensley, 2004; Vanniarajan, 2009) which have suggested that food is undoubtedly the most important quality attribute in restaurant offering. The most obvious finding to emerge from the analysis is, that according to guests' and managers' responses not all seven marketing quality attributes (7P) influence restaurant quality perceptions.

# 5. CONCLUSION

The purpose of this study was to determine how guests and restaurant managers perceive restaurant quality from the marketing perspective. In reviewing the literature, no data was found on the association between guests' and restaurant managers' quality assessment. Previous studies evaluating restaurant quality highlighted the importance of different quality attributes for the restaurant industry. Based on the literature review, we have tested a new marketing – oriented research instrument for measuring guests' and managers' perceptions of restaurant quality.

The evaluation of responses shows that the overall mean value for guests' quality assessment is slightly lower in comparison to managers' overall quality perception. Interestingly, for both groups of respondents the highest – rated attribute was product and the lowest perceptions are related to the attribute promotion. Based on results of exploratory factor analyses (EFA1 and EFA2), it is clearly evident that according to guests' and managers' beliefs the quality of people has the greatest importance in assuring overall restaurant quality. Surprisingly, food quality was found to have little significance in determining the perception of restaurant quality. Returning to the hypothesis posed at the beginning of this study (H1), it is now possible to state that there are statistically significant differences between guests' and managers' perceptions of different

marketing quality attributes. Nevertheless, we can conclude that similarities in quality perceptions exist between both groups of respondents.

This research extends our knowledge of restaurant quality management. This is the first time that marketing attributes have been used to compare guests' and managers' quality perceptions. The generalisability of the marketing approach makes these results easily comparable to other tourism sectors. Nevertheless, number of important limitations need to be considered. The current study only examined domestic respondents' perceptions of restaurant quality. Therefore, additional caution must be applied in generalizing these findings.

In terms of directions for future research, further work could examine whether differences exist between managers of different types of facilities (e.g. full board hotel restaurants, traditional inns etc.) and different segments of guests. Randomised controlled trials combining quantitative and qualitative research approaches could provide more precise evidence on the importance of the presented results. Further research should also focus on determining how restaurant managers measure/explore guests' quality perceptions. Concerning the enormous importance of staff, further research focusing on the role of this attribute could provide a more detailed understanding on how to manage human resources in the restaurant industry. For managers, these results indicate the value of investing substantial effort in understanding the complexity of restaurant quality management. Furthermore, as people presents only one attribute of the marketing mix, managers should regularly measure guests' quality perceptions in order to improve the quality of their offerings and re-evaluate their marketing strategies.

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# MJERENJE KVALITETE U RESTORANSKOJ INDUSTRIJI S MARKETINŠKE PERSPEKTIVE: USPOREDBA PERCEPCIJE KVALITETE S GLEDIŠTA GOSTIJU I MENADŽERA

#### Sažetak

Upravljanje kvalitetom u restoranima, kao relativno novo područje istraživanja, potrebno je učestalo i kritički pratiti iz akademske perspektive. Ranija istraživanja skrenula su pozornost na važnost nekoliko atributa kvalitete u industriji restorana. Međutim, do danas nijedna studija nije usporedila percepcije kvalitete od strane, i menadžera restorana, i njihovih gostiju u kontekstu marketinga (7P). U ovom radu analiziraju se razlike između percepcij kvalitete menadžera i gostiju. Istraživanje je provedeno na dva uzorka – 207 valjanih upitnika koje su uspunili menadžeri restorana i 1998 upitnika koje su ispunili njihovi gosti. Rezultati istraživanja pokazuju postojanje statistički značajnih razlika u percepcijama kvalitete između gostiju i menadžera. Rezultati faktorske analize pokazuju da su ljudi i prema menadžerima i prema gostima daleko najvažniji atribut kvalitete u marketingu kojim se utvrđuje kvaliteta restorana. Ostali atributi kvalitete u marketingu prema ovim rezultatima manje su ili nimalo značajni. Istraživanja trebala bi se usmjeriti na druge sektore turističke industrije.

Ključne riječi – kvaliteta restorana, upravljanje kvalitetom, marketinški atributi, gosti, menadžeri.

JEL klasifikacija: JEL: L83, Z31