DOES RESTAURANT PERFORMANCE MEET CUSTOMERS' EXPECTATIONS? AN ASSESSMENT OF RESTAURANT SERVICE QUALITY USING A MODIFIED DINESERV APPROACH

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Preliminary communication

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Abstract
The purpose of this study is to determine restaurant service quality. The aims are to: (a) assess customers' expectations and perceptions, (b) establish the significance of difference between perceived and expected service quality, (c) identify the number of dimensions for expectations and perceptions scales of modified DINESERV model, (d) test the reliability of the applied DINESERV model.
The empirical research was conducted using primary data. The questionnaire is based on Stevens et al. (1995) and Andaleeb and Conway's (2006) research. In order to meet survey goals, descriptive, bivariate and multivariate (exploratory factor analysis and reliability analysis) statistical analyses were conducted.
The empirical results show that expectations scores are higher than perceptions scores, which indicate low level of service quality. Furthermore, this study identified seven factors that best explain customers' expectations and two factors that best explain customers' perceptions regarding restaurant service.
The results of this study would help management identify the strengths and weaknesses of service quality and implement an effective strategy to meet the customers' expectations.
Keywords Srvice quality, SERVQUAL, DINESERV, Satistical analysis, Restaurant industry

INTRODUCTION

The restaurant industry is a demanding sector that stresses the provision of high-level customer service and continuous quality improvement. As lifestyles change and dining out becomes more and more commonplace, customers desire new flavors, comfortable ambience and pleasant memories. What is more, they prefer an excellent overall dining experience.

Dining experience is comprised of both tangible and intangible elements. While tangible elements can easily be improved, the intangible part of restaurant service requires considerable attention. Researchers have noted that the ability to deliver high quality service will provide long-term financial viability and sustainable business success (Keiser, 1988). Hence, restaurants that provide customers with quality services can gain a stronger competitive position in today's dynamic marketplace.

The Croatian restaurant industry represents a considerable market that so far has failed to capture the attention of researchers. The restaurants have experienced increased competition and growing expectations of customers concerning overall service quality. There has been a need to encourage local consumption, attract the arrival of visitors, and recognize the customers' wants and meet their needs.

In this context, the study intended to answer the following research questions:

1. What are the levels of expected and perceived restaurant service quality?
2. What are the differences between perceived and expected service quality in Croatian restaurants?
3. What is the factor structure of the modified DINESERV model?

Based on the defined research questions, study objectives are to: (a) assess customers' expectations and perceptions, (b) establish the significance of difference between perceived and expected service quality, (c) identify the number of dimensions for expectations and perceptions scales of modified DINESERV model, (d) test the reliability of applied DINESERV model.

1. LITERATURE REVIEW

1.1. Restaurant service quality

Service quality is an issue that has engaged academics and practitioners, leading to substantial debate over its conceptualization. The concept is often defined as the overall difference between a customer's expectations and perceptions of the service experience (Parasuraman et al. 1988; Grönroos 1990).

Individuals' dining expectations have evolved over the years due to changing social environment, better education, the development of culinary culture, healthy dieting awareness and cultural influences. Wishna (2000) predicted that, in the future, customers will be more sophisticated in their dining decisions mainly because of their willingness to expand their dining horizons and try new things. Customers will seek new dining experiences that will satisfy their ever-changing expectations. Thus, it is important to know, understand and meet customers' expectations.

Expectations are defined as beliefs about service process and form the standards against which actual performance will be assessed (Zeithaml and Bitner 2003). According to these authors, there are five levels (types) of customer's expectations, ranging from minimum tolerable expectations, through acceptable expectations, experience-based norms, normative "should" expectations to ideal expectations or desires.

In this study the term expectations is used to describe what customers believe about the capability of the service provider. Specifically, expectations represent what customers feel a restaurant should offer. Mohsin et al. (2005) revealed that value for money, variety and quality of the products available, staff-related skills, staff presentation and

manners, and well-timed service were ranked as the five most important expectations of customers in New Zealand restaurants and cafes.

According to Zeithaml et al. (1990), perceived service quality is the extent to which a firm successfully serves the purpose of customers. The restaurant customers' perception of service quality results from their evaluation of dining experience and expected service.

There are many factors that may influence customers' assessments of restaurant quality. Previous researches suggested that food quality, physical environment and service are the major components of overall restaurant service quality (Dulen 1999; Susskind & Chan 2000). Among these attributes, food quality is the most important dimension of the restaurant experience (Sulek & Hensley 2004). What is more, it is an essential requirement to satisfy the needs and expectations of restaurant customers (Peri 2006). Although there is no consensus on the individual attributes that constitute food quality, the researchers focus on presentation, healthy options, taste, freshness and temperature (Namkung & Jang 2008).

Several studies have cited the importance of service quality for customer satisfaction with a service encounter (Stevens et al. 1995; Qu 1997). Additionally, in restaurants settings, service quality is an important determinant of customer satisfaction (Kim et al. 2009) and return intention (Kivela et al. 2000).

1.2. Service quality measurement in the restaurant industry

The quality of service in the restaurant industry is difficult to evaluate, because the assessments are made not only on the service outcome, but also on the process of service delivery. Wu and Liang (2009) stated that service encounter in restaurant settings consists of three main elements: environmental elements (e.g. design, music, lighting), employees (e.g. professional skills, reliability) and customers (e.g. interaction with other customers). To understand all characteristics of the restaurant service quality an appropriate measurement instrument should be developed.

Several authors concurred that service quality can be measured by comparing the expectations of customers with their perception of the actual service performance (Grönroos 1982; Lehtinen and Lehtinen 1982; Parasuramn et al. 1985, 1988; Barrington and Olsen 1987).

One of the well-tested instruments available to measure service quality from the customer's perspective is the SERVQUAL instrument. It was developed by Parasuraman et al. in 1985 and was later refined. The instrument contains two sections. One section consists of 22 items that measure consumers' expectations. The other section includes 22 corresponding items that measure consumers' perceptions of the service they received. The 22 statements represent the five service dimensions that consumers use to evaluate service quality: tangibles, reliability, responsiveness, assurance and empathy.

According to Parasuraman et al. (1988) tangibles relate to physical facilities, equipment and appearance of personnel. Reliability refers to the ability to perform the promised services dependently and accurately. Responsiveness means willingness to help customers and provide prompt service. Assurance is defined as the knowledge and courtesy of employees, as well as their ability to convey trust and confidence. Empathy refers to the provision of caring and individualized attention to customers.

In the SERVQUAL instrument the service quality measurement is based on the comparison of customers' expectations and their perceptions of delivered service. The difference between expectations and perceptions scores is called the SERVQUAL gap. A negative gap indicates that received service did not met customers' expectations. On the contrary, a positive gap indicates that customers perceived that service delivery exceeded their expectations.

The instrument has received serious academic attention, because it represents a useful tool for monitoring and assessing a service provider's performance. The original or modified version of SERVQUAL instrument was used in a variety of service industries (Ladhari 2008). Several researchers have applied SERVQUAL methodology in the restaurant industry, as well (Bojanic and Rosen 1994; Lee and Hing 1995; Yuksel and Yusel 2002; Andaleeb and Conway 2006).

Stevens, Knutson and Patton (1995) created an instrument called DINESERV to assess customers' perceptions of restaurant service quality. The instrument was adapted from SERVQUAL and was proposed as a reliable and relatively simple tool for determining how customers view a restaurant's quality. The final version of DINESERV contained 29 items, measured on a seven-point scale. DINESERV items fall into five service quality dimensions. In the restaurant industry, tangibles refer to a restaurant's physical design, appearance of staff and cleanliness. Reliability involves freshness and temperature of the food, accurate billing and receiving ordered food. Responsiveness in restaurants relates to staff assistance with the menu or wine list or appropriate and prompt response to customers' needs and requests. Assurance means that restaurant customers should be able to trust the recommendations of staff, feel confident that food is free from contamination and be able to say any concern without fear. Finally, empathy refers to providing personalized attention to customers by anticipating special dietary requirements or by being sympathetic towards customers' problems.

Furthermore, several studies were conducted in the context of service quality and customer satisfaction relationship in restaurant settings. Andaleeb and Conway's (2006) research showed that customer satisfaction was significantly influenced by the responsiveness of the employees, price and food quality. Kim et al. (2009) found out that five extracted restaurant dimensions (food quality, service quality, price and value, atmosphere and convenience) had a significant effect on overall customer satisfaction. Wu and Liang (2009) reported that restaurant employees positively affect customer satisfaction. The findings of Liu and Jang (2009) indicated that food quality (taste, food safety, menu variety, food presentation), service reliability, environmental cleanliness, interior design, and neat and well dressed employees significantly influenced customer satisfaction.

In addition, Zopiatis and Pribic (2007) revealed that overall cleanliness, employees' attitude, quality of menu items, employees' professionalism and atmosphere are the most important factors influencing restaurant customers' dining choices. The importance-performance analysis conducted by Liu and Jang (2009) on a sample of Chinese restaurant customers indicated that most important restaurant attributes were taste, food safety, food freshness, environmental cleanliness and appropriate food temperature.

2. RESEARCH METHODOLOGY

2.1. The instrument

The empirical research was conducted using primary data. The questionnaire was developed based on the extensive literature review. It was divided into three parts. First, the respondents' expectations regarding service quality in restaurants in general were measured. The second part examined the respondents' perceptions of restaurant service quality in Opatija Riviera. The third part of questionnaire consisted of demographic questions. The questionnaire was prepared in the Croatian, English, Italian and German language to capture both domestic and international restaurant visitors.

The level of expected and perceived service quality was measured on the basis of 35 restaurant attributes. The first 29 attributes were adapted from Stevens et al (1995) study. These attributes represent five dimensions: tangibles, reliability, responsiveness, assurance and empathy. The remaining six attributes were selected from Andaleeb and Conway's (2006) research and represent two dimensions, namely, price and satisfaction. The level of agreement with given statements was assessed using a seven-point Likert-type scale, with anchors "strongly disagree" as 1 and "strongly agree" as 7.

2.2. Data analysis

The questionnaires were distributed in 32 restaurants in the Opatija Riviera (Croatia). Restaurants that were included in the research represent different types of dining establishments, e.g. fine-dining restaurants, fast food restaurants, pizzerias and spaghetterias. The research was conducted only in those settings which managers agreed to participate in the study. Data were collected during a two-week period in April 2007.

The restaurants' staff helped to distribute and collect the survey sheets from the participating customers. A convenience sampling method was utilized to collect data. Questionnaires were distributed to the customers that were willing to participate in the research, after their dining experience (e.g. after they paid the bill). Data analysis is based on 156 valid questionnaires. The response rate was 31.2 per cent.

Data were analyzed using the statistical package SPSS 12.0. In order to meet the survey's goals, descriptive, bivariate (paired sample t-test) and multivariate (exploratory factor analysis and reliability analysis) statistical analyses were conducted.

First, the demographic profiles of the respondents were examined. Second, descriptive analysis was used to evaluate service quality expectations and perceptions of restaurant customers. Third, a paired sample t-test was performed to determine the significance of differences between perceived and expected scores of service quality. Fourth, exploratory factor analysis was conducted to derive factors from expectations and perceptions attributes. Principal component analysis with varimax rotation was used. Items with eigenvalues equal or greater than 1, factor loadings above 0.4, and factors, which contain at least three items, were retained (Hair et al., 2006). Finally, by employing reliability analysis, the reliability of the modified DINESERV scale and inner consistency of extracted factors were tested.

At this point it should be noted that the primary data analysis method in this study is exploratory factor analysis. According to Allen and Rao (2000) there is no hypotheses regarding factor composition or structure. Thus, no research hypotheses will be formulated.

3. RESEARCH RESULTS

3.1. Respondents' profile

Descriptive statistical analysis was run on respondents' demographic variables. The results are shown in Table 1.

Table 1: Profile of survey respondents

Items	Percentage	Items	Percentage
Gender		*Age*	
Male	50.6	16-25	21.8
Female	49.4	26-35	17.3
		36-45	27.6
Level of education		46-55	15.4
Primary school	1.3	56-65	10.3
Secondary school	42.3	66 and above	7.7
College and university	44.9		
MSc or PhD	11.5		
Country of residence		*Number of previous visits to the restaurant*	
Austria	6.4	Never	14,7
Croatia	65.4	Once	19,2
Italy	9.0	Twice or more	66,0
Germany	10.9		
Others	8.3		

Source: Authors

Table 1 reports the respondents' profile characteristics. The sample contained slightly more males (50.6 per cent) than females (49.4 per cent). The average age of the respondents was 41 years of age and almost 45 per cent of them were between 26 and 45 years old. The majority of the respondents (65.4 per cent) were domestic visitors and nearly 45 per cent of them had a university or college education. Lastly, 66 per cent of the respondents visited the restaurant two or more times.

3.2. Descriptive and bivariate analyses

The results of descriptive and bivariate analyses are presented next. Table 2 shows the results for the respondents' expectations and perceptions of restaurant service quality, as well as service quality gap.

Table 2: Customers' expectations and perceptions of service quality in restaurant settings

Attributes	Expectations		Perceptions		Gap	t-value
	Mean	SD	Mean	SD		
V1 - Visually attractive parking areas and building exteriors.	5.97	1.16	4.99	1.81	-0.98	6.99*
V2 - Visually attractive dining area.	6.23	1.04	5.33	1.65	-0.90	6.97*
V3 - Clean, neat and appropriately dressed staff.	6.49	0.82	5.81	1.31	-0.68	7.06*
V4 - Restaurant's decor typical to its image and price range.	6.29	0.86	5.78	1.35	-0.51	4.95*
V5 - Easily readable menu.	6.24	0.93	5.94	1.08	-0.30	3.43*
V6 - Visually attractive menu.	6.06	1.22	5.69	1.32	-0.37	3.40*
V7 - Comfortable dining area.	6.25	1.01	5.55	1.53	-0.70	6.22*
V8 - Clean rest rooms.	6.52	0.99	5.47	1.68	-1.05	9.25*
V9 - Clean dining areas.	6.46	1.00	5.66	1.60	-0.80	7.21*
V10 - Comfortable seats in the dining room.	6.17	1.05	5.37	1.54	-0.80	6.93*
V11 - Service in the promised time.	6.12	1.02	5.61	1.37	-0.51	4.73*
V12 - Quick correction of wrong service.	6.27	1.04	5.54	1.43	-0.73	6.19*
V13 - Dependable and consistent restaurant.	6.30	0.89	5.57	1.47	-0.73	6.45*
V14 - Accurate bill.	6.62	0.66	6.23	1.12	-0.39	4.10*
V15 - Error-free served order (food).	6.42	0.80	5.92	1.29	-0.50	4.57*
V16 - Maintaining speed and quality of service during busy times.	5.94	1.17	5.19	1.55	-0.75	5.48*
V17 - Provision of prompt service.	6.14	0.89	5.57	1.41	-0.57	4.88*
V18 - Extra effort for handling	5.94	1.13	5.51	1.50	-0.43	3.41*

Attributes	Expectations		Perceptions		Gap	t-value
	Mean	SD	Mean	SD		
special requests.						
V19 - Employees can answer questions completely.	6.10	1.05	5.62	1.52	-0.48	3.68*
V20 - Comfortable and confident feeling	6.35	0.89	5.64	1.50	-0.71	6.09*
V21 – Staff provide information about menu items, their ingredients, and method of preparation.	6.31	0.93	5.61	1.56	-0.70	5.79*
V22 - Feeling safe.	5.97	1.18	5.59	1.49	-0.38	3.08*
V23 - Well-trained, competent and experienced staff.	6.32	0.83	5.65	1.47	-0.67	5.76*
V24 - Restaurant supports the employees.	6.13	1.03	5.54	1.45	-0.59	4.98*
V25 - Employees provide individual attention.	6.06	1.08	5.62	1.44	-0.44	3.90*
V26 - Special feeling.	5.97	1.20	5.51	1.60	-0.46	3.56*
V27 - Anticipation of customers' individual needs and wants.	5.46	1.54	5.21	1.67	-0.25	1.72
V28 - Sympathetic and reassuring employees.	5.80	1.15	5.43	1.44	-0.37	3.54*
V29 - Customers' best interests at heart.	6.25	0.95	5.51	1.50	-0.74	6.33*
V30 - Expensive food items.	4.36	1.84	4.16	2.00	-0.20	1.43
V31 - Paying more than planned.	4.22	1.83	3.84	2.00	-0.38	2.49*
V32 - Overall satisfaction with dining experience.	5.86	1.18	5.57	1.58	-0.29	2.46*
V33 - Returning to the restaurant.	5.78	1.36	5.58	1.68	-0.20	1.62
V34 - Recommending the restaurant to others.	6.04	1.08	5.60	1.69	-0.44	3.84*
V35 - Excellent quality of service.	6.01	1.10	5.69	1.55	-0.32	2.98*
Overall mean for 35 attributes	*5.85*		*5.49*		*-0.36*	

Note: * t-test (2-tailed Sig.) $p < 0.05$
Source: Authors

Customers' expectations and perceptions are measured on a seven point Likert-type scale, where the higher the score, the greater the expectation (perception) of restaurant service. The mean scores of customers' expectations ranged from 4.22 to 6.62. The lowest expectation item was "paying more than planned", which indicates that restaurant customers did not expect to pay more than they planned to. On the other hand, restaurant customers' highest expectations were regarding the "accurate bill", „clean rest rooms", „clean, neat and appropriately dressed staff" and „clean dining areas". Thus, cleanliness is an important attribute that should be considered in meeting

the customers' expectations. The overall mean score for service quality expectation items was 5.85. This score indicates rather high expectations of restaurant customers regarding the service quality.

The mean scores of customers' perceptions ranged from 3.84 to 6.23. The lowest perception items were "paying more than planned" and "expensive food items", which indicate that restaurant customers did not pay more than they planned to and that prices in restaurants are not high. On the other hand, customers' highest perceptions were regarding the "accurate bill", "easily readable menu", "error-free served order (food)" and "lean, neat and appropriately dressed staff". The overall mean score for service quality perceptions items was 5.49. This score indicates rather high perceptions of restaurant customers regarding service quality.

According to the results in Table 2, restaurant customers' expectations are higher than their perceptions of delivered service. Thus, the DINESERV gap is negative for all restaurant attributes. The narrowest gaps are for the attributes "expensive food items" and "returning to the restaurant". These low negative gap scores imply that there is a small difference between perceived and expected service. Thus, these restaurant attributes are close to the expected service quality. However, the widest gap is for the item "clean rest rooms", indicating that customers expected much cleaner rest rooms than they actually are. Finally, the overall DINESERV gap is -0.36. These results imply that restaurant service quality should be improved, because all restaurant attributes were assessed below customers' expectations.

A comparison of customers' perceptions of service quality with their expectations, using the paired samples t-test, indicated a statistically significant difference on 32 of the 35 examined restaurant attributes. Although the narrowest gaps are "expensive food items" and "returning to the restaurant", they are not statistically significant (Sig. 0.154 and Sig 0.108, respectively). The biggest negative gap ("clean rest rooms") is statistically significant (Sig. 0.000).

3.3. Factor and reliability analyses

The exploratory factor analysis was conducted to assess the structure of the expectations and perceptions items included in the questionnaire. Factors that explain customers' expectations and perceptions of restaurant service quality are noted in Table 3.

The analysis for expectation scale produced an eight-factor solution, which explains 77 per cent of variance in the data. Since factor F8 contains only two items it cannot be considered as a factor and will not be interpreted. The expectation scale factors were labeled as follows:

- *Factor 1, "cleanliness and appearance of facilities and staff"*, indicates attractive parking and dining areas, comfort and cleanliness. Items that loaded high on this factor are V2, V8, V9, V3, V1, V21, V7 and V20.
- *Factor 2, "assurance"*, gathered items reflecting employees' readiness to answer questions, to make extra effort for handling special requests, as well as the safety

of the customers. Items that loaded high on this factor are V4, V19, V22, V6, V18, V12 and V13.

- *Factor 3, "individual attention"*, involved personalized treatment of customers. High factor loadings occurred on the items V26, V27, V25, V17 and V23.
- *Factor 4, "satisfaction and loyalty",* refers to customers' intention to return to the restaurant and to recommend it to others, as well as to their overall satisfaction with the dining experience. This factor includes items V33, V34, V35 and V32.
- *Factor 5, "basic demands"*, grouped items regarding easily readable menu, comfortable seats and timeliness of service. High factor loadings occurred on the items V5, V11 and V10.
- *Factor 6, "responsiveness"*, included items referring to sympathetic and reassuring employees who are supported by the restaurant and are able to maintain quality of service during the rush time. This factor includes high factor loadings of items V24, V16 and V28.
- *Factor 7, "reliability",* indicates accurate billing, error-free service and having customers' best interests at heart. This factor includes items V14, V15 and V29.

Most of the factor loadings (not presented in the Table 3) were greater than 0.60, implying a reasonably high correlation between extracted factors and their individual items.

The reliability analysis was conducted on seven factors that comprised 33 items. The results showed that Cronbach's alpha coefficients of the seven factors ranged from 0.721 to 0.924. For the overall expectations scale, Cronbach's alpha totals 0.963. These values are well above the generally agreed upon lower limit of 0.60 (Hair et al., 2006), indicating good internal consistency of the factors and high reliability of the scale.

The analysis for perceptions scale extracted four factors, which accounted for 79.064 per cent of variance in the data. Since the third and the fourth factor contained only two items each, they could not be considered as factors and are not interpreted. The two remaining factors are labeled as follows:

- *Factor 1, "overall dinning experience",* comprises all aspects of restaurant service, including appearance of the dining area, staff knowledge and courtesy, ability of performing error-free service at promised time, providing individual attention, customers' safety and satisfaction. This factor gathered the majority of items, namely, V20, V26, V19, V27, V18, V35, V25, V21, V32, V28, V23, V34, V22, V24, V29, V17, V13, V33, V12, V2, V16 and V11.
- *Factor 2, "restaurant ambience",* refers to restaurants' cleanliness, comfort, attractiveness and decoration. Items that loaded high on this factor are V4, V3, V6, V5, V8, V7, V1, V10 and V9.

Most of the factor loadings (not presented in the Table 3) were greater than 0.60, implying a reasonably high correlation between extracted factors and their individual items.

Table 3: Factor and reliability analyses for expectations scale and perceptions scale (summary)

Scale	Factors	Number of items	Eigenvalue	% of Variance	Cronbach's alpha
Expectation scale	F1	8	5.211	14.887	0.924
	F2	7	4.391	12.545	0.918
	F3	5	3.618	10.336	0.864
	F4	4	3.343	9.552	0.869
	F5	3	3.239	9.256	0.843
	F6	3	3.091	8.831	0.786
	F7	3	2.134	6.097	0.721
	F8	2	1.925	5.499	-
	Overall	*35*	*26.952*	*77.003*	*0.963**
Perception scale	F1	22	14.209	40.597	0.985
	F2	9	7.219	20.626	0.951
	F3	2	4.321	12.347	-
	F4	2	1.923	5.494	-
	Overall	*35*	*27.672*	*79.064*	*0.987**

Note: * Cronbach's alpha for overall expectation scale is calculated on 33 items; Cronbach's alpha for overall perception scale is calculated on 31 items.
Source: Authors.

Cronbach's alpha coefficients for the two factors varied from 0.951 to 0.985, which is considered acceptable as an indication of scale reliability (Hair et al. 2006). Thus, these values suggest good internal consistency of the factors. For the overall perceptions scale Cronbach's alpha is 0.987 and indicates its high reliability.

DISCUSSION AND CONCLUSION

The gap between customers' expectations and their perception of delivered service has become the principal indicator for determining and assessing service quality of particular service provider. The methodology is known as SERVQUAL scale and provides management with important insights about how well actual service performance meets customers' expectations. Thus, it was justified to employ the modified scale in the Croatian restaurant industry to see whether delivered service meets, exceeds or falls below customers' expectations.

The analysis of respondents' expectations scores suggested that the most important expectations items were "accurate bill", "clean rest rooms", "clean, neat and appropriately dressed staff" and "clean dining areas", which fall under the dimensions reliability and tangibles. The results reveal similarities to studies conducted by other authors. Stevens et al. (1995) reported that reliability is the most important expectations dimension, followed by tangibles, assurance, responsiveness and empathy. Zopiatis and Pribic (2007) stated a similar order – reliability, responsiveness, tangibles, assurance and empathy. On the other hand, in the study conducted by Lee and Hing (1995),

assurance and reliability were the two most important expectations dimensions of restaurant customers, while tangibles were the least important expectations dimension.

It should be noted that managers should not ignore the restaurant attributes that were assessed with the lowest expectations scores (price and empathy). These items are just less important when compared to other attributes. If the service price and staff empathy meet the expected minimum, customers will focus on other dimensions in the service quality evaluation process. Hence, managers should maintain at least this expected minimum of restaurant service.

The overall mean score for service quality perceptions items was 5.49. This score indicates that Croatian restaurants as a whole performed rather well. The top attributes were "accurate bill", "easily readable menu", "error-free served order (food)" and "clean, neat and appropriately dressed staff", which are part of reliability and tangibles dimensions. Results are similar to the findings presented by Liu and Jang (2009), who reported that the highest performance score was given to the attribute "accurate guest check". Furthermore, Lee and Hing (1995) concluded that in French restaurants the highest rated dimensions were assurance and reliability, while in Chinese restaurants the highest perceived dimensions were tangibles and reliability.

The reported differences could occur due to different sample characteristics (e.g. college students in Zopiatis and Pribic's study, customers of fine-dining restaurants in Lee and Hing's study, and customers of different types of restaurant settings in the present study), and because of the different modifications of DINESERV instrument used in each of the studies mentioned.

The results of gap analysis imply that restaurant service providers did not meet customers' expectations. The overall DINESERV gap is -0.36, which indicates that the overall restaurant service quality fell below customers' expectations and that there is room for service quality improvement in the restaurant industry in Croatia. According to the findings of this study, the biggest gap related to "clean rest rooms", meaning that customers expected much cleaner rest rooms than they actually are. The attributes with the widest statistically significant gaps represent serious shortfalls and require significant attention of restaurant managers in terms of making improvement efforts.

The findings of exploratory factor analysis indicated that customers' expectations regarding restaurant service are best explained by the following seven factors - "cleanliness and appearance of facilities and staff", "assurance", "individual attention", "satisfaction and loyalty", "basic demands", "responsiveness" and "reliability". The results imply that restaurant managers should consider clean and attractive restaurant facilities, timeliness of service, employees' empathy and competence, personalized treatment of customers, accurate billing, error-free service, and customer satisfaction and their positive recommendation to others, when trying to understand customers' expectations.

The exploratory factor analysis for perception scale revealed that the main dimensions of perceived service quality in restaurant settings are "overall dining experience" and "restaurant ambience". Thus, restaurant customers assess quality of service based on

the physical environment (internal and external), service outcome and on the process of service delivery.

The factor structure for perceived service quality in the present study is somewhat different in comparison with results presented in similar studies. Andaleeb and Conway (2006) reported a four-factor solution. Extracted factors were interpreted as responsiveness, food quality, physical design and price. Kim et al. (2009) identified five factors, labeled as food quality, service quality, price and value, atmosphere and convenience. The proposed factor structures in the present study, as well as in the studies conducted by Kim et al. (2009) and Andaleeb and Conway (2006), have explained a considerable percentage of variance in original data – 79.06 per cent, 77.22 per cent and 72.40 per cent, respectively.

The results of reliability analysis indicate inner consistency of the extracted factors and high reliability of both expectations and perceptions scale. It can be concluded that the modified DINESERV instrument tested in this study is suitable for use by restaurant managers in gaining easily interpretable data. By administering the modified DINESERV questionnaire to restaurant customers, managers can get information on how customers view the restaurant's quality and identify where the problems are. The measurement instrument also provides a quantified measure of what customers expect in a restaurant.

Despite its managerial implications, the study has several limitations. The results are based on a relatively small sample size chosen from a limited geographic area and gathered during a short time period. Although it is not expected that the findings would be significantly different, it would be worthwhile to expand this research throughout the country to improve the generalizability of the results. Also, the measurement of restaurant service quality was limited to 35 restaurant attributes. Even though these attributes were included in other studies and their validity is tested, there could be other relevant restaurant attributes that are likely to influence customers' expectations and perceptions about overall dining experience.

Nevertheless, the study implies two main contributions. Generally, the findings contribute to the development of a service excellence approach that helps identify customers' requirements (e.g. expectations) and secure performance improvement in restaurant settings. In this context, results may broaden the knowledge of restaurant service quality and are suitable for international comparison. In particular, the study itself is considered useful for Croatian academics and practitioners, as it is the first that presents the application of the DINESERV instrument in the Croatian restaurant industry, and captures the measurement of both expectations and perceptions attributes.

Improving service quality in Croatian restaurant settings will, in turn, not only increase customer satisfaction and strengthen customer loyalty, but also improve the restaurant's reputation and generate greater revenue.

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