



Research Article

**THE RELATIONSHIP BETWEEN SERVICE QUALITY OF ACCOMMODATION
ESTABLISHMENTS IN TURKEY AND CUSTOMER SATISFACTION: A META-ANALYSIS
STUDY**

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Abstract

Service quality and customer satisfaction are two concepts which are frequently studied in the literature. These concepts are not only related to marketing and business management disciplines but also tourism. Accommodation establishments attribute importance to these concepts. And there are many national and international studies about them. The aim of this study is to analyze the relationship between service quality of accommodation establishments in Turkey and customer satisfaction with meta-analysis method. Meta analysis can be described as “analysis of the analyses” or “total analysis”. Also, it can be described as the total analysis of the quantitative studies published. For this reason, the articles which were published in Turkish were obtained and 6 samples with 6 correlation coefficients extracted from 5 articles. They were analyzed with CMA software. When the effect size which is an important finding in meta-analysis is examined, the relationship between service quality of accommodation establishments in Turkey and customer satisfaction has a positive, very large and significant correlation ($g=1,314$; $p<0,05$).

Key Words: Accommodation Establishments in Turkey, Service Quality, Customer Satisfaction, Meta Analysis, CMA

Introduction

Accommodation is one of the biggest components of tourism industry (Deng et al., 2013). Increasing competition among the service providers is affecting the accommodation market as well. Different accommodation options which create increasing expectations among the customers are helping the customers to take the maximum advantage of this competition (Oh & Kim, 2017). Accommodation providers mostly should focus on service quality and customer satisfaction to be able to remain competitive, retain their existing customers, and attract new customers. Due to the fact that customer satisfaction is a very important concept for the accommodation industry such as the other industries. Oliver (1980) has stated that customers compare their perceived service quality with their expectations before purchase or consumption. When the customers' perception exceeds their expectations the customer satisfaction increases. If the customers' perception does not exceed their expectations the customer satisfaction decreases (Andreassen & Lindestad, 1998). It is understood that customer satisfaction can affect the customer evaluation. And satisfaction can be benefitted by the organizations. Due to that reason, customers not only consume the services repeatedly but also, they have a potential to be loyal. They contribute to the Wom (Word-of-Mouth) of the firm in a positive way. Also, they are more tolerant for the potential faults about the service quality (Min, Min & Chung, 2002).

It is clear that hotel businesses that want to be successful in guest satisfaction have to please their guests more than their competitors. Ensuring the continuity of existing guests and gaining new guests depends on ensuring the satisfaction of existing guests (Eser, 2002, p.78). For hotel businesses, the ability to please the guest is the greatest success for the business (Yüksel & Demirtaş, 1999, p.424). Although these two concepts are quite important for the industry, they were not analyzed within the scope of Meta-analysis in the Turkish literature. So, these two concepts are analyzed with the meta-analysis method in this study.

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Conceptual Framework

Service Quality

Service industry has started to attract the attention of academicians working in the field of marketing and business administration, as the service industry has become more important than the industrial industry in developed countries. Due to the fact that the service industry has gained more value than the industrial industry all over the world since 1960, the number of people working in the service industry in the U.S.A. and European countries has exceeded the number of people in the product producing industry (Kozak, Özel & Yüncü, 2011, p.1).

Numerous studies have been conducted in the literature on the definition of service (Kotler, 2000; Lovelock & Wright, 2001; Umut, 2002). The American Marketing Association (AMA) first defined service as the actions, benefits, or satisfactions offered for sale or provided with the sale of goods. Since this definition could not explain the difference between goods and services properly, the concept of service in the definition was expanded and it was explained as all actions that can be defined independently and provide satisfaction of wants and needs when marketed to end consumers and businesses, regardless of the sale of a good (Öztürk, 2003, p.9). In order to better understand the concept of service, there are seven different characteristics of service in the literature, which are perishability, variability, intangibility, inseparability, lack of ownership, different distribution channels, and heterogeneity (Lovelock & Wright, 2001, pp.12-14; Kozak et al., 2011, pp.7- 9; Çıtak, 2013, p.12).

The first information on the definition of quality is quite old. In the Code of Hammurabi composed 2150 BC, the law regarding quality enforces if a builder builds a house for a man and that house is unstable and does not turn out as promised, that builder is sentenced to death. The understanding of quality and its sanctions dating back to BC has evolved from its most primitive state to this day (Şimşek, 2004, p.15).

The main point of providing competitive advantage for all businesses is to create customer satisfaction. While the satisfaction of the customers who buy the product occurs after purchasing or using the product, the satisfaction of the companies that sell the service occurs as the service is produced. At this point, the most determining factor is the quality of the service provided by the employees and the employees (Kılıç & Elenen, 2009, p.92).

Service quality is a concept related to the ease of entry to the establishment or region that provides the service, the communication skills, understanding and expertise of the personnel providing the service, the feeling of satisfaction created by the service provided in the consumer, the quality and promptness of the service as a result of the service provided (Yıldız, 1994, p.12). Many benefits can be achieved by increasing the quality of service. Many benefits, such as preventing customer losses, keeping customer satisfaction at the highest level, saving money and time spent on resolving customer complaints, are possible by increasing service quality (Hacıfendioğlu & Koç, 2009, p.148).

The basic principle of hotel management is to meet all the needs of the guests with satisfactory service. (Goodwing, Squire & Chapman, 2005, p.60). Service quality in hotel businesses and the best evaluation of performance is achieved by ensuring guest satisfaction. This can be achieved by focusing on the guest and customer satisfaction (Kawasaki, 2000, p.87).

Customer Satisfaction

The customer satisfaction is a concept related to the correspondence between the expectations of the customer from the product and the work that the product has to do and the success of doing this job in marketing. From another point of view, it is defined as meeting customer expectations with after-sales services (Gülsoy, 1999, p.128). This definition focuses on arranging production, sales, and after-sales practices in accordance with customer expectations and meeting customer expectations (Çakir & Eğinli, 2010).

Customer satisfaction involves making comparisons between the product chosen by the customer or the product they give up. The selected product is the product that the customer buys. A rejected or abandoned product is a product that has been considered for purchase but not chosen by the consumer. If the chosen product is considered superior to the abandoned product, the customer will be satisfied. In the opposite case, if the customer is not satisfied with the product he chooses, if the selected product performs less than the rejected product or shows a low quality, the customer will face dissatisfaction. The effect of customer satisfaction on repeated purchases is enormous, as the customer will continue to buy that product as long as the customer's satisfaction with the product continues. If he is a dissatisfied customer, he will complain about

the brand or product and may negatively which will affect other customers. In case of dissatisfaction, the probability of repeated purchases will also decrease (Kardes, 1999, p.110).

Apart from the degree of performance of the product/service, customer satisfaction is related to the feeling of trust, belief, and loyalty in the mind of the customer towards the institution, the concept of corporate values, philosophy, positive corporate behavior styles, that is, corporate identity and a strong corporate culture that stands at the foundation shaped by its influence. It is also important for the business to accept quality as the main starting point in all business functions and to serve the customer with an understanding based on quality, in concepts of creating customer satisfaction. With quality customer relationship management, it will be possible to create loyal customers. In this respect, there are definitions that approach the concept of customer satisfaction from a quality perspective (Çakir & Eğinli, 2010).

Quality is in question in all areas and stages where customer needs arise. Quality must be monitored at all stages from the purchase of raw materials and intermediate goods to the delivery of them to the customer. In addition, providing total customer satisfaction is to meet all the needs of customers before and after sales. Customers know what those needs are, and they are the most influential people about the acceptable level of service and quality. They make the satisfaction decision not only depending on the product, but also by looking at their experiences as a result of using the product. Satisfied customers are those who feel that they have had a good experience with the right combination of products, marketing and sales support, price, reputation, product design and fit for use. As it can be understood from the phrase "service that makes you smile", service is considered as a value added to the product. This view of service highlights the importance of meeting service needs. Service includes much more than the presentation of the product to the customer. Total customer satisfaction can only be achieved by applying a product and service approach that exceeds all expectations of customers (Acuner, 2003, p.17). Such an understanding within the scope of customer relationship management can be put forward by businesses, on the other hand, the acceptance of basic corporate values and norms that will reflect an institutional climate that puts the customer in the center and sees establishing an open communication with the customer as a necessity, and these values are adopted both in product/service designs and in corporate communication. It depends on the construction of a corporate identity that is embodied in both the forms of corporate behavior and the styles of corporate behavior. If businesses want to continue to exist in the market, they should plan their management and marketing strategies with a perspective that focuses on the customer and aims to solve his expectations, wishes and problems. Considering that all the actions of the enterprises may cause satisfaction or dissatisfaction in the customer, the pulse of the market and the target audience should be constantly monitored. In this context, businesses try to determine the expectations, wishes and general characteristics of the customers by using various primary and secondary data sources (surveys, face-to-face interviews, meetings with intermediaries, databases, electronic research etc.) collects the necessary data to help ensure customer satisfaction (Çakir & Eğinli, 2010).

According to another definition, customer satisfaction is perceived as an indicator of companies' sense of responsibility in terms of goods/services that are presented to customers as output after being processed, considering that businesses operate within a system. However, with the diversity of preferences and market mobility due to the internality required by customers as customers and the externality arising from their connections with other customers, businesses evaluate customer satisfaction depending on the characteristics, situation and special conditions of the customer and try to increase their profitability by ensuring or improving the continuity of customer satisfaction. Customer satisfaction is a barometer showing the point of harmony with the customer. Traditional studies of customer behavior studies focus on customer satisfaction as the core of the post-purchase period. On the other hand, customer satisfaction mediates what the customer has learned from their previous experiences and explained their basic purchasing actions. To put it more clearly, customer satisfaction is the transfer of knowledge to the company by the customer, which is used by the customers for the product of the company and as a guide for their purchasing actions. In this sense, customer satisfaction has a feedback quality (Altıntaş, 2000, pp.23-24).

Satisfaction encompasses a response to a particular focal point set at a particular time. In this context, customer satisfaction is cognitive or emotional responses applied to a specific focal point (purchase of experiences and/or related products, etc.). Most customer satisfaction researches focus on product attributes and performance levels. In addition, less researches on the effects of brands, outlets and salespeople on customer satisfaction are carried out in practice, (Carpenter & Fairhurst, 2005).

As it can be seen in customer satisfaction, determining whether a product is satisfactory for the customer is considered as a basic evaluation process. Satisfaction depends entirely on the customer's view of product

performance, and issues such as which standards customers use when deciding on product satisfaction and where they get these standards are important points for marketers. It is up to the customer to reveal customer satisfaction with a product/service and to consider certain benchmarking standards. Different benchmarking standards can lead to very different satisfaction decisions (Acuner, 2003, pp.33-34). These benchmarks may be related to the features, content, promise-benefit offered to external customers of the product / service, as well as the offer of the company that produces the product. It may also consist of various and broad institutional factors such as the content and nature of the service, the behavior and communication styles towards external customers, the effectiveness and adequacy of after-sales services, and the social responsibility awareness of the institution (Çakir & Eğinli, 2010).

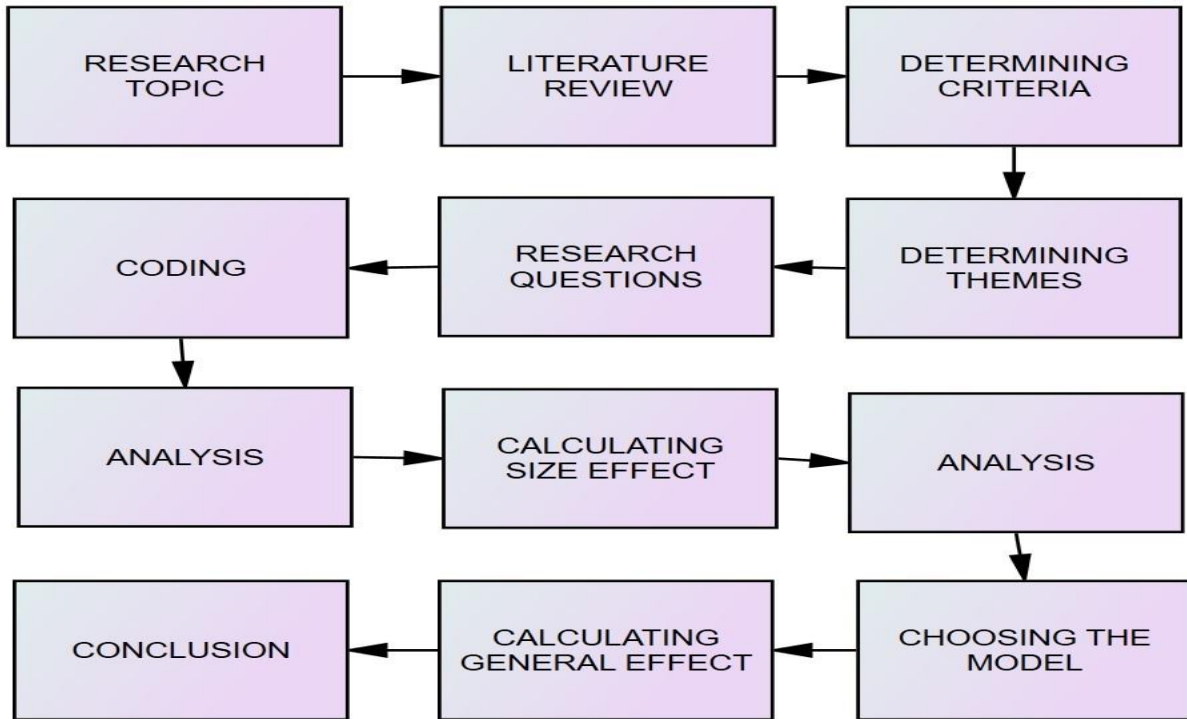
Reaching the targeted profitability in the tourism industry, which is one of the service industry, ensuring competitiveness, depends mostly on ensuring customer satisfaction by producing goods and services of appropriate quality and characteristics that will meet the needs and demands of customers. The fact that the service industry has a dynamic and competitive structure and there is no possibility of correcting the mistakes made makes customer satisfaction more important in the tourism industry compared to others. Because the competitive advantage of a hotel business that cannot meet the demands and expectations of its customers will decrease compared to its competitors (Bahar & Kozak, 2005). Customer satisfaction in hotel businesses, can be provided by taking the wishes and expectations of the customers into account. However, hotel businesses have a labor-intensive feature, and the service is intangible. Due to that feature of the industry measuring the customer satisfaction is even more complicated (Emir et al. 2010, p.294). Ensuring guest satisfaction in hotel businesses is only possible if the guest receives a higher quality product and service than the previous purchase. Guest satisfaction is closely related to the level of satisfaction with the service perceived by the guest (Öztürk & Seyhan, 2005:122). Hotel businesses work with data on the expectations of guests, perceived business performance and guest satisfaction. As information about guest satisfaction only makes sense in an environment where competitors exist, hotel businesses should monitor the guest satisfaction performance of themselves and their competitors (Kotler, Bowen, & Makens, 1998, p.350).

Services offered in hotel businesses do not have the same effect on all guests. While a guest of the same type of service may be quite satisfied, another's perception of the same service may be disappointing (Laws, 2004, p.17). Changes in satisfaction arise from the differences between the service quality received from the hotel business and the perceived service quality. Therefore, changes in guest expectations in hotel businesses may result from changes in guest needs and goals (Pizam & Ellis, 1999, p.329). It is important for hotel businesses to observe the structure of quality problems, to provide assurance to their guests that they will find solutions in a short time, to solve the problems of the guests and to take precautions against the recurrence of problems in the future (Akbaba, 2005, p.63). The expectations and satisfaction of the guests emerge with the effect of the individual needs and motives of the guest, the learning process, personality, perceptions, attitudes and beliefs, and the effect of social and economic factors (Mucuk, 1997, p.80). The factors affecting the expectations and satisfaction of guests in hotel businesses can be examined in four groups. These are: personal, social, economic, and psychological factors. (İçöz, 2001, p.77).

Methodology

Etymologically meta-analysis means totalization of the analyses. However, it means more than that statistically. Meta-analysis help researchers to combine the collected results of different studies to reach a general conclusion. Besides, it means to reanalyze the previous studies. Meta-analysis has different functions. It not only helps researchers to understand a topic deeply but also to enlighten the debatable issues. Thus, researchers who conduct a meta-analysis study can determine the further research questions (Dinçer, 2014). Therefore, meta-analysis was used in this study. The methodology of this study was presented in the chart below.

Figure 1. Methodology of the Study (Adapted from Dinçer, 2014).



Data Collection

Although meta-analysis has been widely used in the international literature, it did not draw interest of Turkish academicians in the literature (Dinçer, 2014). Moreover, there has not been found a study about “service quality”, “accommodation establishments”, “customer satisfaction” using meta-analysis and showing the current situation in Turkey. Hence, Turkish studies were used as a data set. And Google Scholar was used as a data base. According to the literature, Google Scholar was preferred as a data base in the previous meta-analysis studies (Dönbak, 2021). In addition, Dinçer (2014) stated that all of the data bases can be reached via Google Scholar except Proquest and YÖK Thesis Center. “Service quality”, “accommodation establishments”, and “customer satisfaction” key words were used without a time limitation in the google scholar on 9.10.22. As the language was chosen Turkish, only 7 articles and 2 theses were found. 5 of them were included in the study as they meet the criteria of this study. Other 2 thesis and articles were excluded. Dinçer (2014) asserts that there is no limitation for the number of studies to be included in meta-analysis. Also, he asserts that including too many studies may cause publication bias. For this reason, 5 articles were used during the analysis. This meta-analysis study does not require any research ethics committee approval to obtain these articles.

Study Group:

The studies to be included in meta-analysis should have a set of criteria (Dinçer, 2014). The criteria in this study were specified below.

- Included studies should have a correlation coefficient between service quality of accommodation establishments and customer satisfaction.
- The studies should only be related to the service quality of accommodation establishments and customer satisfaction. Also, they should have correlation coefficient of scale total points as many different scales may be used with their sub-dimensions in the studies.
- Validity and reliability analysis of the scales used in the studies should be performed.

In one of the studies, (Baştürk & Sağlık, 2020) data were collected from 2 different groups. So, these two groups were used as 2 different studies and the hotels with the cities which were used as samples were written in parenthesis. With this method, 6 samples from 5 articles were used in order to find the answer to the research questions below.

RQ1 What is the effect size coefficient for the relationship between the service quality of accommodation establishments in Turkey and customer satisfaction?

RQ2 What are the meta-analysis findings of the relationship between the service quality of accommodation establishments in Turkey and customer satisfaction?

Data Analysis

After choosing the studies to be included in the meta-analysis, data of authors and date of publishing of the chosen studies, number of the participants in the studies, and correlation coefficient (between service quality and customer satisfaction) were coded in the chart below.

Table 1. Details About the Studies Included.

Authors and Date of Publishing	N	Correlation Coefficient
Akşit Aşık, 2016	432	,629
Kazan & Güneş, 2022	400	,806
Şirin & Aksu, 2016	387	,658
Nalbant & Demiral, 2019	390	,373
Baştürk & Sağlık, 2020 (Sivas Sıcak Çermik)	207	,300
Baştürk & Sağlık, 2020 (Yozgat Sorgun)	201	,195
TOTAL	2017	

CMA (Comprehensive Meta Analysis) software was used in this study. Due to the limited number of the studies included in the meta-analysis as a sample, Hedges’s g was used instead of Cohen’s d. Because Cohen’s d may be affected from the sample size (Dönbak, 2021). The scale which was shown below may be used for both Cohen’s d and Hedges’s g (Dinçer, 2014; Akpur, 2020).

- - 0.15 < Cohen d < 0.15 negligible
- 0.15 < Cohen d < 0.40 small
- 0.40 < Cohen d < 0.75 medium
- 0.75 < Cohen d < 1.10 large
- 1.10 < Cohen d < 1.45 very large
- 1.45 < Cohen d excellent

After computing the effect sizes of individual studies, the homogeneity and heterogeneity tests should be performed. To be able to test the homogeneity and heterogeneity, there are a few values which are p, q, and I2. According to the p and q values obtained after the test, the decision is made whether the studies are homogeneous or heterogeneous. If the studies to be included in the meta-analysis are homogenous (p>0,05), computing should be in the fixed effects model. If the p value is less than 0,05 meaning that they are heterogenous and the random effects model should be performed. On the other hand, I2 statistics help researchers to be able to understand the variances. In this study, this value is between 0-100 and >75. In this case, q statistics shows that there is a high variance. It is assumed that the studies are heterogonous (Bakioğlu & Özcan, 2016, pp.160-170; Akpur, 2020).

Publication bias is another detail to be tested in the meta-analysis. To be able to test this, Egger test was used. Duval and Tweedie’s Trim and Fill test was used to be able to estimate the number of missing studies that might exist in a meta-analysis and the effect that these studies might have had on its outcome. Kendall’s tau b test was used to estimate magnitude of effects based on multiple investigations. A Failsafe-N and Orwin’s Failsafe-N tests were used to be able to estimate whether the observed effect is the result of publication bias (Gilpin,1993; Duval & Tweedie, 2000; Şen & Yıldırım, 2020).

Limitations

Google Scholar data base was used in this study.

Results

6 effect sizes which were obtained from 5 studies were used in the meta-analysis. Total number of sample is 2017 obtained from the included studies. The heterogeneity/homogeneity of studies was presented in the table below.

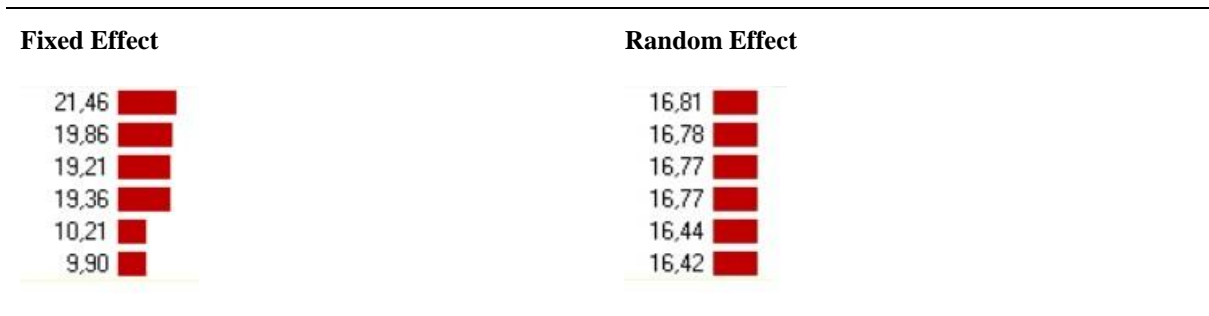
Table 2. Test Findings of the Required Model

Test	Symbol/Coefficient	Value	Result
Heterogeneity	Q	186,739	Heterogeneity: Random Effect Model should be used
	$df(Q)$	6	
	p	0,000	
	I^2	97,322	

When the Table 2 is examined, it can be clearly seen that Q statistics has a meaningful result ($p < 0,01$). It can be assumed from this result that included studies do not have homogeneity according to their actual effect sizes. On the other hand, Q ($Q=186,739$) and I^2 ($I^2=97,322$; $I^2 > 75$) tests show that there is a high variance (heterogeneity) which can be commented as random effect model usage is required in this study.

One of the components of Q statistics which is I^2 value (%97,322) and computed in the meta-analysis show that 97,322% of the observed variance is a result of the difference in effect sizes of the studies included. Higgins et al. (2003) categorizes I^2 values in to 3 which are small, moderate, and large amounts of heterogeneity (25%, 50% and 75%). In the figure 2, values of fixed effect and random effect were presented. According to the random effect, values are scattered equally between 16,42% and 16,81% (expected value $100/6=16,7\%$). Also, all of the studies which were included in the meta-analysis show that there is a positive and statistically meaningful relation ($P < .05$) between service quality in accommodation establishments in Turkey and customer satisfaction according to the figure 2.

Figure 2. Graphic of Fixed Effect and Random Effect.



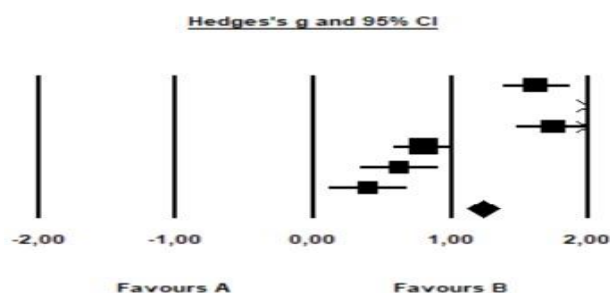
The results of meta-analysis can be seen in the table 3 and figure 3 below.

Table 3. Meta-analysis Findings of Service Quality in Accommodation Establishments and Customer Satisfaction (N: Number of the Studies, g(d): Effect Size, Z: Standardized coefficient, p: Significance Level)

Test	Symbol/Coefficient	Value	Result
Effect Size	N	6	1,314 <g: very large effect size
	$g(d)$	1,314	
	95% (lower limit)	0,687	
	95% (upper limit)	1,940	
	Z	4,111	
	p	0,000	

When the Table 3 is examined, there is a positive, very large, and meaningful correlation between service quality in accommodation establishments and customer satisfaction according to the effect sizes given in the Table 3 ($g=1,314$; $p < 0,05$). The effect estimates with lower limit is 0,687 (medium) and upper limit is 1,940 (excellent) of 95% confidence interval.

Figure 3. Graphic of Effect Sizes (Hedge’s g 95% CI)



To be able to test the publication bias, the effect of missing studies that might exist in the conducted meta-analysis, to confute the result of effect size with the relationship between variance and obtained effect size, how many more studies should be included in the meta-analysis were given in the results below. First of all, the test results of Egger test which is used to test the publication bias were presented in table 4.

Table 4. Findings related to the Publication Bias

Test	Symbol/Coefficient	Value	Result
Egger	Egger	15,437	p>0,05: No publication bias
	sh	17,647	
	t	0,874	
	p	0,431	

It is understood from the test results of Egger given in the table above that there is not a publication bias in the studies which were chosen according to the criteria and included in the conducted meta-analysis (Egger=15,437; t=0,874; p>0,05). Duval and Tweedie’s Trim and Fill test was used to be able to determine the effect of the missing studies on meta-analysis and findings were given in the table 5.

Table 5. Findings related to the Effect of the Missing Studies on Meta-Analysis

Test	Symbol/Coefficient	Observed	Adjustment	Result
Duval and Tweedie’s Trim and Fill Test	Point Estimate	1,313	1,313	Observed values-Adjustment values=0: No publication Bias.
	95% (lower limit)	0,687	0,687	
	95% (upper limit)	1,940	1,940	

The findings of Duval and Tweedie’s Trim and Fill test were presented in the table above. There has been no difference found between the results of observed values and adjustment values (Observed Values-Adjustment Values=0). According to this finding, it can be estimated that there is no potential effect of missing studies on meta-analysis. The findings of Kendall’s Tau b test were presented to be able to estimate the relation between the number of the studies and effect size in the Table 6.

Table 6. Findings Related to the Relation Between Number of the Studies and Effect Size (Z: Standardized Coefficient, p: Significance Level)

Test	Symbol/Coefficient	Without Correction	Continuity Correction	Result
Kendal’s Tau b test	Tau b	0,333	0,266	p>0,05: The number of the studies used in the meta-analysis has no effect on the effect size.
	Z	0,939	0,751	
	p	0,347	0,452	

It was concluded from the findings of the Kendal’s Tau b test that the number of the studies included in the meta-analysis has no effect on the obtained effect size (Tau b=0,333; Z=0,939; p>0,05). Findings of Fail-Safe N (Rosenthal-classic) and Fail-Safe N (Orwin) tests related to the relation between the number of the studies and effect size were presented in Table 7 These tests are used to estimate how many studies are needed to confute the result of effect size.

Table 7. Findings Related to the Relation Between the Number of the Studies and Effect Size (r: correlation Coefficient, Z: Standardized Coefficient, p: Significance Level, N: Number of the Studies)

Test	Symbol/Coefficient	Value
<i>Fail Safe N</i> (Rosenthal-classic)	<i>Z (observed)</i>	23,004
	<i>P (observed)</i>	0,000
	<i>N (observed)</i>	6
	<i>N (p>0,05)</i>	821
<i>Fail Safe N (Orwin)</i>	<i>r (observed)</i>	1,233
	<i>r (negligible)</i>	0,000
	<i>r (correlation mean of missing studies)</i>	0,000

According to the Fail-Safe N (Rosenthal-classic) and Fail-Safe N (Orwin) test results, 821 more studies are needed to be able to confute the effect size obtained in this study. On the other hand, correlation coefficient or mean of the correlation coefficient of the studies which are assumed not included in the meta-analysis should be 0,00 ($r=0,00$). As a result of the obtained meta-analysis findings in Table 4 and Table 7, there is no publication bias in this study.

Conclusion, Discussion, and Suggestions

The aim of this study is to analyze the relationship between service quality of accommodation establishments in Turkey and customer satisfaction with meta-analysis method. To be able to achieve that, 2 research questions were asked. The findings of this meta-analysis study on the relationship between the service quality of accommodation establishments in Turkey and customer satisfaction are as follows: It was concluded that the service quality of accommodation establishments in Turkey on customer satisfaction has a very large effect size value ($g=1,314$; $p<0,05$) after the computing process of the independent studies included in the meta-analysis using a set of criteria. As the actual effect sizes of 6 studies ($n=2017$) about included in the meta-analysis about the service quality provided in accommodation establishments in Turkey and customer satisfaction are heterogenous ($Q5=186,739$, $I2=97,322$; $I2>75$), random effect model was used. The effect size coefficient between service quality of accommodation establishments in Turkey and customer satisfaction was found meaningful ($g=1,314$; $p<0,05$) within 95% confidence interval according to the random effect model. This positive and very large effect size value means that the relationship between service quality of accommodation establishments in Turkey and customer satisfaction is positive. Also, this is valid for all of the studies included in the meta-analysis.

In her meta-analysis study, Dönbak (2021) stated that the relationship between tourist guide performance and tourist satisfaction has a positive and excellent effect size. Similar meta-analysis studies (Raikkonen & Honkanen, 2013; Chang, 2014; Huang et al., 2015; Kuo et al., 2018; Tsaur et al., 2018) and some of the other studies about these with different methodology in the literature (Heung, 2008; Huang et al., 2010; Cheng et al., 2019) concluded that perceived service quality of tourist one of the most important factors which is thought to affect the tourists after tour guide performance. In other words, vocational performance of a tour guide is accepted as one of the determinants on service quality of package tour and tourist satisfaction (Dönbak, 2021). Similarly, there are many studies proving the relationship between service quality of accommodation establishments and customer satisfaction in the literature both locally and globally. Bucak & Özarslan (2016) has found statistically significant difference between not only service quality and guests' satisfaction but also age and service quality. According to their study, all averages from the perception of guest satisfaction are above 3.5. This shows that the participants are generally satisfied with the 4–5-star hotels they stay in Çanakkale. The satisfaction perceptions of the participants are high. Onurlubaş & Öztürk (2020) 3 of the service quality sub-dimensions which are tangibles, reliability, and assurance have a meaningful effect on customer satisfaction in their study which was conducted on 400 boutique hotel customers in Antalya by surveys. They have found a highly positive relationship between customer satisfaction and reliability, a high positive relationship between customer satisfaction and trust, a high positive relationship between customer satisfaction and physical characteristics, and a weak positive relationship between customer satisfaction and empathy in their study. Additionally, Akşit Aşık (2016) determined that sub-dimensions of perceived service quality are the predictors of customer satisfaction in her quantitative study which was conducted on 432 hotel customers in 4 different thermal hotels in Edremit. Kazan & Güneş (2022) found that perceived service quality

sub-dimensions (physical characteristics, responsiveness, assurance, and empathy) were effective on customer satisfaction and behavioral intention. Likewise, in the study of Şirin & Aksu (2016), it was seen while demographic characteristics of customers, age, gender, marital status and occupation were not effective in-service quality perception; education status of customers was effective in the perceived service quality. Also, Nalbant & Demiral (2019) found that the satisfaction of hotel customers is affected by the quality of the service they receive. Baştürk & Sağlık (2020) prove as service quality increases, customer satisfaction increases as well in their study. Serçek & Serçek (2016) states that there is a strong correlation between frankness of the staff and customer satisfaction.

Nunkoo et al. (2020) states that the observed effects of the sub-dimensions of the service quality in hotels (infrastructure of accommodation establishments, staff expertise, room quality, security and waiting time) have an effect on customer satisfaction in line with the general literature. In this context, he defines waiting time as a very important predictor of satisfaction.

The first suggestion for this study is about the database. Although almost all databases can be accessed with Google Scholar (except Proquest and Council of Higher Education Thesis Center), different studies can be included in the meta-analysis by choosing English as a language of scientific publications in different databases (such as Wos and Scopus). In this way, the data in our country can be compared with the data in the international arena. In the upcoming years, including publications on this subject in the meta-analysis which will probably increase, may change the effect size and this may give different results. Finally, sample size and correlation were used in this meta-analysis study. Different statistics (such as p-values, t-values) may be included in different meta-analysis studies in the future.

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