SOİR DERGİ SEYAHAT VE OTEL İŞLETMECİLİĞİ DERGİSİ
JTHB - The Journal of Travel and Hotel Business
P-ISSN: 1304-7590 E-ISSN: 2548-0871
www.soidergi.com.tr

Seyahat ve Otel İşletmeciliği Dergisi/
Journal of Travel and Hotel Business
Cilt/Vol:22(1),Yıl/ Year:,2025 ss/pp, 24-48
Gönderim Tarihi/ Received: 29.07.2024
Kabul Tarihi /Accepted: 29.11.2024
DOI: 10.24010/soid.1524409

Araştırma Makalesi/ Research Article

RESQUAL: Restoranlarda Hizmet Kalitesini Ölçmeye Yönelik Bir Ölçek Geliştirme Çalışması*

RESQUAL: A Scale Development Study for Measuring Service Quality in Restaurants

Dr. Eylem TAŞDAĞITICI
Eskişehir Teknik Üniversitesi
Eskişehir, Türkiye
E-posta: eylemt@eskisehir.edu.tr

Prof. Dr. Muharrem TUNA
Ankara Hacı Bayram Veli Üniversitesi
Turizm Fakültesi, Ankara, Türkiye
E-posta: muharrem.tuna@hbv.edu.tr

Abstract

This study aimed to develop a new restaurant service quality scale, RESQUAL, that addresses the empirical and conceptual deficiencies of existing restaurant service quality scales and takes into account the changes in customer perceptions. Within the scope of the research, Exploratory Factor Analysis (EFA) was applied to the data obtained from a sample of 224 people, and Confirmatory Factor Analysis (CFA) was applied to the data obtained from a sample of 230 people. Restaurant service quality in this study was conceptualized in five dimensions as food, personnel, atmosphere, hygiene and menu. The EFA results indicated that the scale had high internal consistency (Cronbach's Alpha = 0.91), and the five-factor structure of the scale was confirmed by the CFA results. These findings show that RESQUAL is a valid and reliable measurement tool.

Keywords: Service Quality, Restaurants, Scale Development, Perception, Uncertainty

Öz

Bu çalışmada, mevcut restoran hizmet kalitesi ölçeklerinin ampirik ve kavramsal eksikliklerini gideren ve müşteri algılarında meydana gelen değişimleri dikkate alan yeni bir restoran hizmet kalitesi ölçeği olan RESQUAL'in geliştirilmesi amaçlanmıştır. Araştırma kapsamında 224 kişilik bir örneklemden elde edilen veriler doğrultusunda Açımlayıcı Faktör Analizi (AFA), 230 kişilik bir örneklemden elde edilen veriler doğrultusunda Doğrulayıcı Faktör Analizi (CFA) uygulanmıştır. Restoran hizmet kalitesi bu çalışmada; yiyecek, personel, atmosfer, hijyen ve menü olmak üzere beş boyutta kavramsallaştırılmıştır. AFA sonuçları ölçeğin yüksek iç tutarlılığa sahip olduğunu (Cronbach's Alpha = 0,91) göstermiş olup, CFA sonuçları ile ölçeğin beş faktörlü yapısı doğrulanmıştır. Bu bulgular RESQUAL'in geçerli ve güvenilir bir ölçüm aracı olduğunu göstermektedir.

Anahtar Kelimeler: Hizmet kalitesi, Restoranlar, Ölçek geliştirme, Algı, Belirsizlik

**This article is derived from the author's doctoral thesis completed in 2023 at the Gazi University Institute of Social Sciences, Department of Tourism Management.*

Extended Summary

Purpose

Existing restaurant service quality scales contain both empirical and conceptual shortcomings. This study aims to develop a valid and reliable service quality scale, RESQUAL, which addresses these deficiencies while considering changes in customer perceptions.

Background

SERVQUAL, developed by Parasuraman et al. (1988), is the first and most widely used scale for measuring service quality. Despite its popularity, it has faced criticism regarding its dimensions (Babakus and Boller, 1992; Babakus and Mangold, 1992), sector suitability (Babakus and Boller, 1992; Carman, 1990), focus on service delivery (Babakus and Mangold, 1991; Richard and Allaway, 1993), negative statements (Babakus and Boller, 1992; Philip and Hazlett, 1997), its Likert scale (Değermen, 2005), and its neglect of service interaction (Değermen, 2005). It also adopts a disapproval paradigm (Cronin and Taylor, 1992) and lacks grounding in economic, statistical, and psychological theories (Buttle, 1996). In response, SERVPERF, developed by Cronin and Taylor (1994), refines SERVQUAL by focusing solely on perceptions, using 22 items of SERVQUAL and eliminating the need to measure expectations (Albayrak, 2018). SERVPERF is considered superior in some studies (Al Khattab and Aldehayyat, 2011; Brown et al., 1993; Carrillat et al., 2007; Jain and Gupta, 2004; Zhou, 2004) but criticized for its diagnostic power and the same dimensional issues as SERVQUAL (Haghighat, 2017).

To address SERVQUAL's limitations, sector specific scales have been developed, such as DINESERV (Stevens et al., 1995), which focuses on restaurant service but has been criticized for neglecting food quality. TANGSERV (Raajpoot, 2002) addresses physical environment factors but overlooks intangible elements. DINESCAPE (Ryu and Jang, 2008) centers on the internal dining environment but ignores external aspects. DINEX (Antun et al., 2010) improves on this by including atmosphere, food, service, and social aspects. GRSERV (Chen et al., 2015) and CFFRSERV (Tan et al., 2014) further refine service quality assessment for green and fast food restaurants respectively, by adding dimensions like environmental focus and cleanliness. Despite these advancements, the need for new measurement tools continues due to evolving conditions and ongoing criticisms (Uslu and Eren, 2020).

Method

In the study, a new scale called RESQUAL was developed to address previous scales' limitations in measuring service quality in restaurants. The development followed DeVellis's guidelines, beginning with a comprehensive review of existing literature to identify gaps. An inductive approach was employed to generate a pool of 90 positive items and which were translated into Turkish and validated for content by 12 experts using Lawshe's method. The finalized questionnaire and featuring a 5-point Likert scale and was piloted with 50 participants to refine items based on reliability and expert feedback, resulting in a 29 item scale. Main data collection occurred between February and April 2022 with university personnel in Eskişehir and Türkiye and using random sampling. Both Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were performed to validate the scale’s structure and with measures taken to minimize common method bias.

Findings

In the study, Exploratory Factor Analysis (EFA) revealed that the service quality scale, RESQUAL, comprised five dimensions, accounting for 82.5% of the total variance. The KMO value was excellent at 0.902 and Bartlett's Test of Sphericity was significant, indicating that the data were suitable for factor analysis. The Cronbach's Alpha was high at 0.91 and reflecting strong internal consistency. Confirmatory Factor Analysis (CFA) further validated the model, with fit indices showing acceptable levels. The analysis supported a five factor structure comprising hygiene, personnel, atmosphere, food and menu, confirming the EFA results. After excluding one item for better model fit, both first and second level CFA demonstrated that the scale achieved good fit, with convergent and discriminant validity confirmed by appropriate CR and AVE values.

Result

Existing service quality scales have faced criticism, prompting the development of a new scale to better measure current customer perceptions. Instead of modifying criticized scales, a fresh approach was taken, leading to the creation of a new scale that addresses past criticisms. In studies on service quality scales for restaurants, the varimax method has been predominantly used. Exploratory Factor Analysis (EFA) identified 21 items with high communality values and an explained variance of 82.5% and categorizing them into five factors: atmosphere, hygiene, food, menu and personnel. Confirmatory Factor Analysis (CFA) refined this to a final scale with 20 items across five dimensions: atmosphere (3 items), hygiene (6 items) , food (4 items) , menu (3 items) and personnel (4 items), including a new item on social distance within the hygiene dimension. This new scale, named RESQUAL, demonstrates both validity and reliability and offering a comprehensive tool to assess restaurant service quality in line with current customer perceptions.

1. Introduction

Today, the changes and uncertainties have not only affected economies, but also forced businesses to be more flexible and innovative. The changes and uncertainties have significantly shaped various sectors, including the food and beverage sector, which is a fundamental pillar of economies. The food and beverage sector, which emerged with the changing needs of people, is one of the complementary elements of the tourism sector (Çetinoğlu et al., 2017) and is of vital importance for economies. In 2019, the sector created an economic volume of 125 billion TL (approx. 21.93 billion dollars) in Türkiye, created a workforce of 100 thousand businesses and provided direct employment to 2 million people in the sector (Deloitte, 2020). However, alterations in consumer perceptions due to global crises such as COVID-19 pandemic have significantly influenced the sector (Çulfacı and Kılıçhan, 2023; Kim and Lee, 2020). As indicated in the study by Di Crosta et al. (2021), the COVID-19 pandemic significantly impacted consumer perceptions by deepening the distinction between essential needs and non essentials, with a 61% increase in average expenditures observed during quarantine, particularly for food, hygiene and cleaning products. Besides this, as per the findings of TOBB (2020), the record of closures in the food and beverage sector exhibited an approximate 50 percent surge in the year 2020 in contrast to the figures recorded in 2018. Additionally, Kaplan et al. (2023) indicated that the COVID-19 pandemic has permanently increased the use of third-party restaurant apps, grocery stores, and takeout by many people, while deepening the digital divide and leading to differences in perceptions of service quality, especially by income level and geographic location. In this context, measuring consumers' quality perceptions in accordance with changes is of critical importance for survival and

achievement of goals by businesses, arising from the belief in the essential role of measurement for effective management (Boshoff, 1999).

In an environment where competition and change are intense, it is important for businesses to measure service quality accurately in order to gain competitive advantage. However, the general service quality scales (Cronin and Taylor, 1992; Parasuraman et al., 1985) and restaurant-specific service quality scales (Cheng et al., 2019; Mendocilla et al., 2021; Raajpoot, 2002; Ryu and Jang, 2008; Stevens et al., 1995; Tan et al., 2014) used by researchers to measure service quality in restaurants have deficiencies. Although the problems posed by the modified SERVQUAL scales in terms of sectors have been discussed by researchers (Bradley and Wang, 2022), it has been determined that the majority of the scales used in the literature are modified versions of the SERVQUAL scale and have been subject to some criticism. In the literature, the SERVQUAL scale, has been criticized in various aspects such as focusing only on the service delivery process, having negative items, being in the form of a seven-point Likert scale, convergent-discriminant validity and in terms of the paradigm it is based on. Besides this, DINESERV scale (Stevens et al., 1995), which was developed to measure service quality in restaurants, and TANGSERV scale (Raajpoot, 2002), which was developed to measure service quality in food services and SERVPERF scale (Cronin and Taylor, 1994), which was based on performance, have been subject to similar criticisms as the SERVQUAL scale, because they were developed on the basis of SERVQUAL scale. In addition, the DINESERV scale has been criticized for its inadequate dimensions, and the TANGSERV scale has been criticized for having intangible features that are ignored, such as employee-customer relations. The DINESCAPE (Ryu and Jang, 2008) scale, which aims to measure service quality in upscale restaurants, has been criticized for neglecting the restaurant's exterior spaces and surroundings.

The aim of this study is to develop a new scale that can measure customers' rapidly changing perceptions of restaurant service quality, rather than modifying existing criticized restaurant service quality scales. In this context, the RESQUAL scale aims to provide an up-to-date, valid and reliable restaurant service quality measurement tool that will contribute to businesses gaining competitive advantage by covering the basic elements of restaurant service quality (food, personnel, atmosphere, hygiene and menu). The findings of this study are of great importance to restaurant managers, industry representatives and academics, as accurately measuring service quality is an important strategic tool for businesses to achieve sustainable competitive advantage in the sector.

2. Theoretical and Conceptual Framework

2.1. Service Quality

While quality was a competitive advantage for companies in the past, today it has become a necessity to exist in the market (Mendocilla et al., 2021). Changes in communication and information technologies have reduced the distances between people and increased interaction. Due to these changes, consumers have had the opportunity to compare products and services, as well as to access information about many new products and services. As consumers become more conscious and selective, businesses that offer services have started to follow rapid changes to maintain their existence. Ultimately, service quality has become essential not only for attracting and retaining customers but also for staying competitive in a rapidly changing environment. In this regard, understanding the way customers perceive service quality

is essential for businesses to gain sustainable competitive advantage (Grönroos, 1984: 36).

Service quality has been extensively researched since the 1980s (Brogowicz et al., 1990). However, the multidimensional, abstract and dynamic nature of service quality, as well as the differentiation of service expectations according to sectors, makes it difficult to establish a common definition of the concept. According to Grönroos (1984: 37) the perceived service quality is "the outcome of an evaluation process where the customers compare their expectations with service they have received." Similarly, Cronin and Taylor (1992) emphasized that service quality is based only on evaluating service performance. According to Zeithaml (1988: 3), perceived quality is defined as the subjective judgment of customers about the superiority or excellence of a product or service.

2.2. Service Quality Assessment

SERVQUAL is the first and most widely used scale to determine service quality, developed by Parasuraman et al. (1988). However, it faced criticisms on certain facets. Some researchers have argued that SERVQUAL's five dimensions are not suitable for every service sector (Babakus and Boller, 1992; Babakus and Mangold, 1992; Bouman and Van der Wiele, 1992; Carman, 1990; Finn and Lamb, 1991; Headley and Miller, 1993; Oyewole, 1999; Reidenbach and Sandifer-Smallwood, 1990). Babakus and Boller (1992), indicated that SERVQUAL's five dimensions vary across different sectors; specifically, Carman (1990) applied the SERVQUAL scale in four different service sectors and found that some dimensions needed to be added to the original dimensions in different settings. Buttle (1996), highlighted the critiques concerns about SERVQUAL's convergent and discriminant validity. Their research pointed out that when assessing convergent validity, the dimensions often do not show strong correlations with one another. Additionally, the examination of discriminant validity revealed insufficient evidence to support the independence of the items. One of the critics included its focus on service delivery (Cronin and Taylor, 1992; Mangold and Babakus, 1991; Richard and Allaway, 1993). SERVQUAL emphasizes the service delivery process but neglects the service encounter outcomes; whereas assessing both service delivery process and outcome together offers a more accurate prediction than evaluating either one alone (Ko and Chou, 2020). SERVQUAL is also criticized for using negative statements. The negative items create problems for respondents and evaluators, which affects result of analysis (Babakus and Boller, 1992). Besides this, the seven-point Likert scale in SERVQUAL has been criticized. Lewis (1993) noted that not labeling the second to sixth points could lead participants to overuse the extreme points. The scale has also been criticized in the context of the disapproval paradigm on which it is based (Cronin and Taylor, 1992) rather than economic, statistical and psychological theories (Buttle, 1996). It was claimed that the conceptualization of SERVQUAL needed to be corrected due to the disapproval paradigm on which it was based (Bolton and Drew, 1991; Cronin and Taylor, 1992). It is not based on economic, statistical and psychological theories (Buttle, 1996). "The disconfirmation model has conceptual, theoretical, and measurement problems and suggests that alternative perceived quality models be used." (Teas, 1993 as cited in Dabholkar et al., 2000). In this regard, the literature supports a performance based paradigm (Babakus and Boiler, 1992; Babakus and Mangold, 1992; Cronin and Taylor, 1994). SERVPERF scale was developed by Cronin and Taylor in 1994 based on SERVQUAL to measure service quality. The scale uses expressions of perceived quality, which consists of only 22 items of the SERVQUAL scale. Researchers have argued that expectancy assessment should be excluded because customers generally have high expectations and these expectations are rarely exceeded (Naderian and Baharun, 2015).

Additionally, they agreed that measuring perceptions was sufficient to measure service quality and there was no need to measure expectations (Albayrak, 2018). Therefore, they determined that perceptions were a better indicator than the difference value calculated in measuring service quality (Çatı and Baydaş, 2008). Empirical studies evaluating the validity, reliability and methodological robustness of service quality scales have determined the superiority of the SERVPERF scale (Al Khattab and Aldehayyat, 2011; Brown et al., 1993; Carrillat et al., 2007; Jain and Gupta, 2004; Zhou, 2004). SERVQUAL has been criticized for causing problems in the measurement of expectation and performance (Brown et al., 1993). In particular, its validity needs to be revised due to conceptual problems in the measurement of expectations and performance (Teas, 1993). Dabholkar et al. (2000) emphasized that perception measures are more successful than disconfirmation measures. In this context, some researchers advocate the superiority of performance rather than the expectation-perception relationship (Avkiran, 1999; Brady et al., 2002; Hahm et al., 1997; Lee et al., 2000, McAlexander et al., 1994). Zeithaml et al. (1988) found in their research that service quality is only affected by perceptions (Boulding et al., 1993). Babakus and Boller (1992) determined that some psychological pressures cause customers to make their evaluations of the difference between “expected” and “perceived” suspicious. Cronin and Taylor also argued that there was little evidence that the relationship between perceived quality and expected quality on which SERVQUAL is based, was relevant to the measurement of service quality. In this context, it was claimed that service quality could only be measured based on performance (Cronin and Taylor, 1992). Cronin and Taylor (1994) stated that the SERVQUAL scale could not measure service quality (Buttle, 1996); hence, they developed a model called SERVPERF that only measures performance. However, the diagnostic power of the SERVPERF scale was found insufficient (Jain and Gupta, 2004). Additionally, it has been criticized for using SERVQUAL’s dimensions (Haghighat, 2017). Over the years, sector based scales have been formulated in response to the critiques of the structural inadequacy of the SERVQUAL scale, which is deemed unsuitable for every sector. In this context, some scales have been developed to measure the service quality of the restaurant industry (Cheng et al., 2019; Mendocilla et al., 2021; Raajpoot, 2002; Ryu and Jang, 2008; Stevens et al., 1995; Tan et al., 2014).

2.3. Restaurant Quality Assessment

Stevens et al. (1995) developed the DINESERV scale based on SERVQUAL and LODGSERV to measure service quality in the food and beverage sector. However, DINESERV was criticized for overlooking food quality, an essential element in quality measurement. Besides this, Raajpoot (2002) developed the TANGSERV scale to measure tangible quality in the food and beverage businesses. Nevertheless, the reliability and validity of the findings are discussed due to the methodological dilemma in question (Ryu and Jang, 2008). Raajpoot also argued that future service quality models should be wider than previous studies. TANGSERV addressed the service quality in restaurants regarding physical environmental factors. Although the TANGSERV scale measured tangible features such as food quality, it overlooked intangible feature as customer relationships (Mendocilla et al., 2021). In addition, the scale was criticized for its validity and reliability due to methodological dilemmas (Arslan Ayazlar and Gün, 2018). Ryu and Jang (2008) developed the DINESCAPE scale for the criticisms of the previous scales for measuring service quality in upscale restaurants. The DINESCAPE scale has been subject to criticism due to its exclusive focus on the internal dining environment of a restaurant, neglecting considerations pertaining to external areas and the restaurant's surroundings. This critique emphasizes a potential limitation in the scale's holistic assessment and as it fails to

account for factors beyond the limits of the restaurant's interior (Ryu and Jang, 2007; 2008, as cited in Arslan Ayazlar and Gün, 2018). A more comprehensive evaluation, encompassing both internal and external elements, is essential for a thorough analysis of the overall dining experience and a more nuanced understanding of the factors influencing customer satisfaction. Some researchers claimed that the DINESERV scale was dimensionally inadequate; in this regard, researchers developed scales to measure service quality only in certain restaurants by adding new dimensions. In response to this need, Chen et al. (2015) developed the GRSERV scale to measure the consumer's perception of service quality in green restaurants by adding the dimensions of “environmentally focused services and food quality” to the dimensions of the DINESERV scale. The development of the GRSERV scale exemplifies a targeted approach to service quality evaluation, where in the unique characteristics of green restaurants are considered. Similarly, the CFFRSERV scale, devised by Tan et al. (2014) for the fast food industry, represents another instance of tailoring service quality assessment tools to a specific sector. The scale was derived by expanding the dimensions of the DINESERV scale with the inclusion of "cleanliness and food quality." Although the developed scales have made significant contributions to the literature, they also been subject to criticism, as mentioned. With the constant change of consumer needs and increasing competition in the market, business models and services in restaurants have become more diversified (Cheng et al., 2019). Hence, the necessity of new measurement tools has emerged due to changing conditions (Uslu and Eren, 2020) and the criticisms directed at the previous scales. The critiques aimed at prior scales, coupled with the transformations and uncertainties brought about by recent changes, initiated the development of a new measurement instrument. For this reason, in the study it was decided to develop a new scale to measure service quality, taking into account the existing criticisms of current scales, as well as recent perceptional changes, technological developments and uncertainties. In this regard, RESQUAL scale has been developed, which encompasses dimensions such as food, personnel, atmosphere, hygiene and menu; thereby providing a comprehensive framework for assessing restaurant service quality. Given the significant impact of service quality on customer satisfaction (Andaleeb and Conway, 2006; Makassy and Meng, 2020; Razak, 2019), customer loyalty (Chen, 2016; Keshavarz et al., 2016) and perceived value (Maisya et al., 2019; Sayuti and Setiawan, 2019), it is crucial for restaurants to prioritize and invest in enhancing their service quality. In this respect, accurately measuring service quality of restaurant becomes imperative.

Table 1: Service Quality Scales in Restaurants

Scale	Researchers	Dimensions	Scope	Based on	Limitation
SERVQUAL	Parasuraman, Zeithmal& Berry, 1985, 1988, 1991, 1994	Tangibles (4 items), reliability (5 items), responsiveness (4 items), assurance (4 items) and empathy (5 items) *22 items assessing expectations and 22 items assessing perceptions	General service sector	-	* It has been criticized on the grounds that different services may have different evaluation dimensions and that its five dimensions are not sufficient for every service sector. * It has been criticized for not being strong enough in terms of convergent and discriminant validity. *It has been criticized for focusing on service delivery process but neglects the service encounter outcomes. * It has been criticized because its negative items create confusion for respondents and evaluators. * Its seven-point Likert scale has been criticized because it suggests that respondents may resort to extremes. * It has been criticized for the paradigm of disapproval paradigm on which it is based.
SERVPERF	Cronin& Taylor, 1992, 1994	Tangibles (4 items), reliability (5 items), responsiveness (4 items), assurance (4 items) and empathy (5 items) *22 items assessing perceptions	General service sector	SERVQUAL	*It has been criticized for its diagnostic power. *It has been criticized for having same limitations as SERVQUAL.
DINESERV	Stevens, Knutson& Patton, 1995	Tangible (10 items), reliability (5 items), responsiveness (3 items), assurance (6 items), and empathy (5 items)	Restaurants	SERVQUAL and LODGSERV	* It has been criticized for being dimensionally inadequate.
TANGSERV	Raajpoot, 2002	Layout/design (5 items), product/service (4 items) and ambiance/social (4 items)	Food and beverage businesses	SERVQUAL	* It has been criticized for overlooking intangible features.
DINESCAPE	Ryu&Jang, 2008	Facility aesthetics (5 items), ambiance (4 items), lighting (3 items), table setting (3 items), layout (3 items) and service staff (3 items)	Upscale restaurants	SERVICESCAPE	* It has been criticized for neglecting external areas and the restaurant's surroundings.

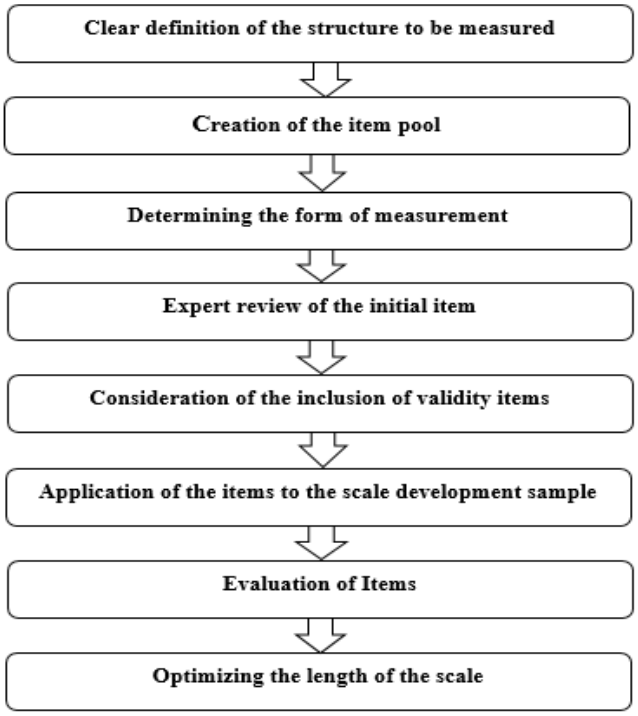
Table 1. Continued

GRSERV	Chen, Cheng & Hsu, 2013	Tangible (6 items), reliability (3 items), responsiveness (3 items), assurance (3 items), empathy (3 items), environmental-oriented services (5 items) and food quality (5 items)	Green restaurants	DINESERV	* It is focusing on evaluating environmental sustainability practices.
CFFRSERV	Tan, Oriade& Fallon, 2014	Assurance&empathy (8 items), cleanliness (4 items), food quality (5 items), reliability (4 items), responsiveness (4 items) and tangibles (3 items)	Fast-food restaurants	DINESERV	* It is focusing on evaluating fast-food service practices.
LORSERV	Cheng, Chang, Tsai, Chen & Tseng, 2019	Internal sense of happiness (6 items), transitiveness (6 items), environment (4 items), healthy catering (5 items), service commitment (7 items), green practicability (3 items) and thoughtfulness (2 items)	LOHAS restaurants	SERVQUAL, DINESERV and GRSERV	* It is focusing on LOHAS (lifestyles of health and sustainability) restaurants.
QUICKSERV	Mendocilla, Miravitless& Matute, 2021	Physical environment perception (4 items), operations performance perception (3 items), personnel service perception (3 items) and food quality perception (4 items)	Quickservice restaurants	-	* It is focusing on evaluating quick-service practices.

3. Methodology

In this study, a new scale (RESQUAL) was developed by taking into account the criticisms of the previous scales. As shown in Figure 1, in the scale development stage, the steps defined by DeVellis (2017) were followed.

Figure 1: Scale Design Process



In the first phase of the scale development process, studies on service quality were examined. At this stage, the focus was on determining the characteristics, scope and limitations of the service concept in the context of restaurants. Subsequently, the deficiencies and criticisms identified in previous studies were analyzed. Deductive and inductive methods can be used to create an item pool (Hinkin, 1998). According to the inductive method, new items can be created with the help of content analysis and interviews or focus group studies (Kanten and Arda, 2020). In the study, an inductive method was adopted. To establish conceptual boundaries, a target group of 40 individuals was tasked with composing reflections on the quality of restaurants. In this regard, 40 people were selected from the universe who were easily accessible and were selected using a convenience sampling method. As stated in Erkuş (2012), qualitative data were collected by asking the target audience to convey their thoughts on their perception of quality in the restaurant in the form of a composition on a blank paper. Qualitative and quantitative content analysis are the two types of content analysis forms (Schreier, 2012). Quantitative content analysis is a method for determining the frequency of written texts based on the idea that numerical expression of data can increase reliability and reduce bias (Metin and Ünal, 2022). The researchers conducted a quantitative content analysis on the data obtained from the target group. The obtained data was organized and formatted. Categories related to perceptions of service quality were identified. Keywords were determined for each category and the frequency analysis was conducted to assess how often the identified

keywords appeared in the data set. Derived from the analysis results within this context, researchers proceeded to generate items for the pool by seeking expert opinions. DeVellis (2017: 80) suggests that it is customary to include three to four times the number of intended items into the item pool. For this reason, an initial item pool consisting of 90 statements was established. DeVellis (2017: 83-85) cautions against the utilization of negatively framed items due to their intrinsic limitations; therefore, the study exclusively integrated positively framed statements.

The items were initially formulated in English and translated into Turkish. The translation back translation method, as delineated by Chidlow et al. (2014), was employed for the pertinent questionnaire. In this process, two researchers, proficient in both English and Turkish, took into account the linguistic, cultural contexts while translating the English text into Turkish and then the Turkish text was translated back into English by another researcher who is proficient in both English and Turkish. After the back translation, the original text and the back translated text were compared to assess semantic shifts, cultural appropriateness, language fluency and necessary corrections were implemented. As a result, the consistency of the texts in both languages was ensured and the validity of the scale was increased.

To ensure the scale's content validity, the prepared items form was sent to 12 experts and asked to mark each item as not at all suitable, partially suitable, or suitable according to the degree of measuring the desired structure. Sections that allow experts to write their comments on the item were left next to each item. Among the group of experts were individuals specializing in grammar, statistical methods, service quality, restaurant management and scholars with expertise in both tourism and gastronomy. The assessments were grounded in the findings derived from the Lawshe (1975) analysis. Subsequently, based on the evaluations of the experts, the Content Validity Ratio (CVR) for each item and The Content Validity Index (CVI) for the test were calculated. The determination of which items would be retained in the item pool was made according to the content validity rate table proposed by Ayre and Scally (2014). Ultimately, face and content validity were established through the consensus of expert opinions. Furthermore, a 5 point Likert scale was adopted for this study in response to critiques associated with the utilization of 7 point Likert scales in previous assessments of service quality (Lewis, 1993). The questionnaire comprised two distinct sections. The initial segment encompassed seven questions related to demographic information. The subsequent section consisted of inquiries aimed at clarifying factors associated with customers' perceptions of service quality following.

For the pilot study, a survey was administered to a sample group comprising 50 individuals. Correlations among the items and Cronbach's alpha coefficient for the scale were computed, expert opinions on the items were solicited. Subsequent to the pilot implementation, a decision was made to retain items with a Cronbach's alpha coefficient exceeding 0.70 on the scale. In this context, the performance of the scale's questions was evaluated through item analysis and necessary revisions were made. Following the reorganization of items, the total count was established at 29, thus finalizing the questionnaire in its ultimate form. After this stage, the research proceeded to the main data collection phase to apply the scale on a large sample. The main application's research universe encompasses university personnel, including academic, administrative and other personnel in Eskişehir, Türkiye. Eskişehir was selected as the research city due to its cultural richness attributed to immigration. Additionally, based on data from the Turkish Statistical Institute, it stands out as one of the cities with the highest frequency of dining out. The research employed a random sampling methodology. A list of university personnel in Eskişehir was compiled from the websites of the relevant universities. A random sample was created using certain

sequential numbers such as 1th, 10th, 20th, 30th. 40th from the list. Due to the inability to access suitable data during the initial data collection phase, a second data collection process was carried out. The study considered the sample sizes used in previous studies on service quality scales. The sample size was determined as 224 participants for Exploratory Factor Analysis (EFA) and 230 participants for Confirmatory Factor Analysis (CFA). Research data were collected between 23.02.2022 and 01.04.2022 through a survey link distributed to university personnel following the announcement of the survey. The ethics committee approval required for the collection of data within the scope of this research was obtained with the decision of Ankara Hacı Bayram Veli University Ethics Commission dated 20.01.2022 and numbered 71486. To minimize common method bias, a series of measures were implemented, including encouraging participants to provide honest and objective responses by emphasizing the complete confidentiality and security of the obtained answers, as well as randomly selecting the order of the questions in the survey, highlighted with a statement on the survey link. The collected data were subjected to statistical analyses to examine the characteristics of the scale. Both EFA and CFA were employed to evaluate the construct validity of the scale. Within the scope of the research, descriptive analyses, including frequency and percentage analyses, were utilized for the analysis of demographic characteristics. In the course of the Exploratory Factor Analysis (EFA), due diligence has been exercised in addressing the phenomenon of cross loading. Before conducting the statistical analyses, the responses were examined to ensure that participants completed the scale accurately and in its entirety. Following this examination, it was observed that some of the scale forms were randomly filled out. Consequently, the scale forms filled out randomly were excluded from the analysis.

To demonstrate the construct validity of the developed scale, Exploratory Factor Analysis (EFA) was performed using the SPSS 25.0 program, applying the Varimax rotation technique, one of the vertical rotation techniques and principal component analysis. Confirmatory Factor Analysis (CFA) was employed to validate the obtained structure through AMOS 24.0.

4. Findings

4.1. Exploratory Factor Analysis

Within the scope of the research, the demographic characteristics of the participants subjected to the Exploratory Factor Analysis (EFA) were examined. As indicated by Table 2, the majority of the participants were male (55.35%), aged between 36-45 (35.26%), married (68.30%), held a bachelor's degree (37.94%), were employed as administrative personnel (49.10%), had an income level between 10.000 and 11.999 TL (24.10%).

Table 2: Demographical Findings of the Scale Development Study (EFA)

Variables	Groups	F	%
Gender	Female	100	44.64
	Male	124	55.35
Age	26-35	56	25
	36-45	79	35.26
	46-55	66	29.46
	56-65	20	8.92
	Over 65	3	1.33
Marital Status	Married	153	68.30
	Single	64	28.57
	Other	7	3.12
Education Status	Primary Education	2	0.89
	Secondary Education	6	2.67
	Associate Degree	18	8.03
	Bachelor's Degree	85	37.94
	Master's Degree	39	17.41
	Doctorate degree	74	33.03
Occupation	Academic Personnel	97	43.30
	Administrative Personnel	110	49.10
	Other Personnel	17	7.58
Income Level (TL)	3999 and below	2	0.89
	4000-5999	35	15.62
	6000-7999	49	21.87
	8000-9999	25	11.16
	10.000-11.999	54	24.10
	12.000-13.999	18	8.03
	14.000 and above	41	18.30

Exploratory Factor Analysis (EFA) was employed to assess the construct validity of the scale. The Kaiser Meyer Olkin (KMO) value was calculated to evaluate the data's suitability for factor analysis. Additionally, the significance of the Bartlett Sphericity test indicates the acceptability of the values (Field, 2013). The scale's Cronbach's Alpha, an indicator of internal consistency, is 0.91. According to Kayış (2009: 405), if the Cronbach alpha value is $0.80 \leq \alpha < 1.00$, the scale has high reliability. According to this value, it is determined that the RESQUAL scale has high reliability. In the analysis, the varimax method was applied. Rotation is necessary in interpreting factor loadings (Henson and Roberts, 2006). Analysis should continue with factors with eigenvalues greater than one (Yurdabakan and Tüm, 2017). According to the analysis and the KMO value was determined as 0.902; additionally, the result of the Bartlett sphericity test was significant (Chi Square = 4913.284, Df = 210; $p = 0.00 < 0.01$). According to Field (2009), KMO values above 0.9 are superior; hence, it can be determined that the KMO value obtained in this study is superior. Moreover, the result of the Bartlett sphericity test was determined as significant. According to the Rotated Component Matrix, as Table 3. demonstrates, the factor values of items in the first dimension ranged from 0.824 to 0.713, in the second dimension from 0.854 to 0.790, in the third dimension from 0.887 to 0.795, in the fourth dimension from 0.803 to 0.671 and in the fifth dimension from 0.868 to 0.819.

Table 3: Rotated Component Matrix, Communalities and Total Variance Explained Results

Rotated Component Matrix						Communalities			Total Variance Explained										
									Initial Eigenvalues				Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings			
Items	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Items	Initial	Extraction	Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
Q3	0.824					Q1	1.000	0.925	1	10.704	50.973	50.973	10.704	50.973	50.973	4.714	22.447	22.447	
Q1	0.822					Q2	1.000	0.914	2	2.523	12.016	62.989	2.523	12.016	62.989	3.556	16.935	39.382	
Q2	0.816					Q3	1.000	0.905	3	1.746	8.314	71.303	1.746	8.314	71.303	30346	15.934	55.316	
Q4	0.804					Q4	1.000	0.896	4	1.260	5.999	77.302	1.260	5.999	77.302	3.036	14.459	69.775	
Q5	0.770					Q5	1.000	0.809	5	1.093	5.204	82.506	1.093	5.204	82.506	2.673	12.730	82.506	
Q6	0.713					Q6	1.000	0.758	6	0.490	2.336	84.841							
Q7		0.854				Q7	1.000	0.805	7	0.417	1.985	86.826							
Q8		0.810				Q8	1.000	0.897	8	0.372	1.772	88.599							
Q9		0.808				Q9	1.000	0.846	9	0.340	1.619	90.217							
Q10		0.790				Q10	1.000	0.845	10	0.293	1.393	91.611							
Q11			0.887			Q11	1.000	0.895	11	0.281	1.338	92.949							
Q12			0.887			Q12	1.000	0.799	12	0.276	1.316	94.265							
Q13			0.862			Q13	1.000	0.789	13	0.261	1.245	95.510							
Q14			0.795			Q14	1.000	0.709	14	0.220	1.049	96.559							
Q19				0.803		Q15	1.000	0.830	15	0.194	0.925	97.484							
Q18				0.773		Q16	1.000	0.826	16	0.136	0.647	98.131							
Q20				0.753		Q17	1.000	0.849	17	0.118	0.561	98.691							
Q21				0.671		Q18	1.000	0.781	18	0.098	0.465	99.156							
Q15					0.868	Q19	1.000	0.812	19	0.079	0.376	99.532							
Q16					0.843	Q20	1.000	0.734	20	0.060	0.285	99.817							
Q17					0.819	Q21	1.000	0.701	21	0.039	0.183	100.000							
Extraction Method: Principal Component Analysis.																			
Rotation Method: Varimax with Kaiser Normalization																			
Rotation converged in 6 iterations																			

When examining the extracted communalities of the RESQUAL scale, as revealed by the Table 3., the scale item values were between 0.925 and 0.701. Additionally, it was determined that five factors contributed more than 5% to the total variance. As a result of Exploratory Factor Analysis (EFA), five factors were obtained that explained 82.5% of the total variance.

4.2. Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis (CFA) is a form of structural equation modeling specifically designed for measurement models, focusing on the relationships between observed measures or indicators (such as test items, test scores, or behavioral observation ratings) and latent variables or factors (Brown and Moore, 2012). The literature offers varying opinions on the necessary sample size for CFA, with some suggesting a minimum of 100 participants (Gorsuch, 2015; Kline, 1994). In line with previous service quality scales, data were collected from 230 individuals for this study. In this section, Confirmatory Factor Analysis (CFA) and its findings are included to assess the validity of the structure obtained through Exploratory Factor Analysis (EFA). The Confirmatory Factor Analysis for the service quality scale in restaurants involved 21 items. As part of the research, demographic characteristics of the participants subjected to CFA analysis were examined. As indicated by the Table 4., the majority of participants were male (52.60%), aged between 36-45 years (36.08%), married (54.34%), holding a doctorate degree (33.91%), employed in academic positions (49.56%), and reported an income level between 10.000- 11.999 TL (23.04%).

Table 4: Demographical Findings of the Scale Development Study (CFA)

Variables	Groups	F	%
Gender	Female	109	47.39
	Male	121	52.60
Age	26-35	49	21.30
	36-45	83	36.08
	46-55	68	29.56
	56-65	24	10.43
	Over 65	6	2.60
Marital Status	Married	125	54.34
	Single	86	37.39
	Other	19	8.260
Education Status	Primary Education	2	0.869
	Secondary Education	11	4.782
	Associate Degree	34	14.78
	Bachelors Degree	60	26.08
	Masters Degree	45	19.56
	Doctorate	78	33.913
Occupation	Academical Personnel	114	49.56
	Administrative Personnel	101	43.91
	Other Personnel	15	6.52
Income Level (TL)	3999 and below	1	0.43
	4000-5999	12	5.21
	6000-7999	37	16.08
	8000-9999	39	19.95
	10.000-11.999	64	27.82
	12.000-13.999	24	10.43
	14.000 and above	53	23.043

The mean and standard deviation values of the expressions related to the dimensions of the service quality perception scale are presented in Table 5.

Table 5: Means and Standard Deviations of RESQUAL

Questions	Dimension	Mean	Standard Deviation
Q1	Hygiene	3.591	1.009
Q2	Hygiene	3.334	1.227
Q3	Hygiene	3.452	1.127
Q4	Hygiene	3.452	0.998
Q5	Hygiene	3.491	0.860
Q6	Hygiene	3.526	0.843
Q7	Food	4.482	1.085
Q8	Food	4.452	1.043
Q9	Food	4.678	0.899
Q10	Food	4.682	1.090
Q11	Personnel	4.243	0.971
Q12	Personnel	4.282	0.890
Q13	Personnel	4.226	0.857
Q14	Personnel	4.221	0.829
Q15	Atmosphere	3.669	0.973
Q16	Atmosphere	3.569	0.972
Q17	Atmosphere	3.630	0.931
Q18	Menu	3.308	1.027
Q19	Menu	3.165	1.128
Q20	Menu	3.191	1.064

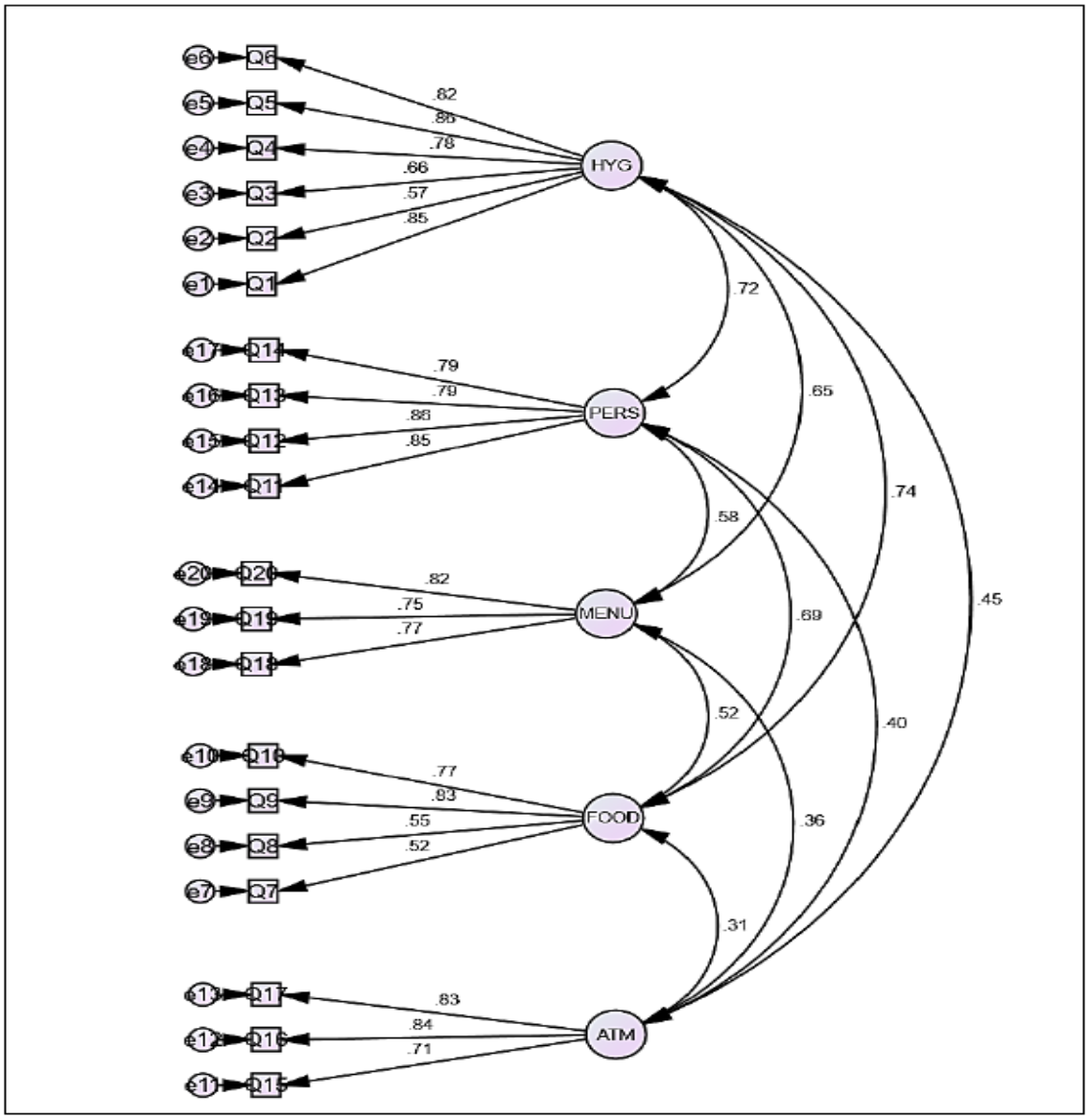
In confirmatory factor analysis, some values are considered to determine the model's good fit. In the literature, it has been determined that at least four of these tests are commonly employed to evaluate the model's goodness of fit (Ayyıldız and Cengiz, 2006). As shown in Table 6., the model achieved a good fit with the data.

Table 6: Model Fit Index Values of RESQUAL

Index Name	Reference	Acceptable Values	Obtained Value
CMIN/DF	Turner et al. (2005)	< 3.0	1.426
CFI	Bentler (1990)	> 0.90	0.973
GFI	Hair et al. (2010)	> 0.90	0.909
RMSEA	Browne and Cudeck (1993)	< 0.08	0.043
NFI	Kline (2005)	> 0.90	0.915

In the study, as shown in the Figure 2., the first level multi factor structure of the service quality perception scale, comprising five sub dimensions including hygiene, personnel, atmosphere, food and menu with a total of 21 items, was analyzed using the AMOS 24.0 program.

Figure 2: Confirmative Factor Analysis Modelling for RESQUAL



During the analysis, it was decided to exclude one item from the scale to achieve goodness of fit values. Additionally, the first level CFA result was found to be consistent and acceptable with the data of the proposed five factor model. These findings indicated that the RESQUAL dimensions identified by exploratory factor analysis were confirmed by confirmatory factor analysis. After the first-level CFA analysis, a second-level CFA analysis was conducted. The results from the second level confirmatory factor analysis indicated that the model fit indices of the scale were

at acceptable levels (cmin/df: 1.780; RMSEA: 0.04; CFI:0.98; RFI:0.94; IFI:0.99; NFI:0.96; GFI:0.95). As indicated in the Table 7., it was determined that the CR values of the scale were above 0.70 and the AVE values were above 0.50. Additionally, it was determined that the CR values of the dimensions were greater than the AVE values. Based on these findings, it was seen that convergent validity was achieved. Since the MSV value of the scale is smaller than the AVE value and the ASV value is smaller than the MSV value, it has been concluded that the scale demonstrates discriminant validity.

Table 7: Dimension, Alpha, CR and AVE Values

Dimension	Alpha	CR	AVE
Hygen	0.90	0.91	0.59
Food	0.81	0.85	0.51
Personnel	0.91	0.93	0.73
Atmosphere	0.73	0.86	0.59
Menu	0.72	0.76	0.53

5. Conclusion and Discussion

Existing service quality scales faced criticism in the literature from various perspectives. Due to the criticisms and the shifts in service quality perceptions of customers, there has arisen a need for a scale that measures current perceptions. In response, instead of modifying previously criticized scales, we developed a new scale, considering the criticisms.

When examining service quality scale development studies for restaurants, it is evident that the varimax method is predominantly used in these studies (Chen et al., 2015; Mendocilla et al., 2021; Raajpoot, 2002; Ryu and Jang, 2008; Tan et al., 2014). In this context, as in other restaurant service quality scale development studies, the varimax method was used in the development phase of RESQUAL. According to the Exploratory Factor Analysis (EFA), 21 items were identified. The SERVQUAL scale consists of 22 expectation and 22 perception statement; while SERVPERF includes 22, DINESERV 29, DINESCAPE 21, TANGSERV 13, GRSERV 28, CFFRSERV 28 items and LORSERV 33. In this regard, the number of items in RESQUAL is reasonable. Additionally, RESQUAL's each item having a commonalities extraction value above 0.7 and the total explained variance was determined as 82.5%. All five factors contributed more than 5% to the total variance. Factor 1 comprised 6 items, Factor 2 had 4 items, Factor 3 included 4 items and Factor 4 consisted of 4 items and Factor 5 comprised 3 items. These factors were given names that align with the items and relate to the theoretical structure. Accordingly, the factor consisting of Q15, Q16, Q17 is named 'atmosphere'; Q1, Q2, Q3, Q4, Q5, Q6 is named 'hygiene'; Q7, Q8, Q9, Q10 is named 'food'; Q18, Q19, Q20 is named 'menu'; and Q11, Q12, Q13, Q14 is named 'personnel' dimensions.

The EFA results determined that the Kaiser-Meyer-Olkin (KMO) value was 0.902 and the Barlett Spehecity value was significant. Also, since the obtained KMO value was above 0.9, it was accepted as superior. The present study has a higher KMO value than Tan et al. (2014)'s study which has a KMO value of 0.88. Similar to the current study, Stevens et al. (1995) defined 5 dimensions to measure service quality. However, since it is based on the SERVQUAL scale, its dimensions are tangible, reliability, responsiveness, assurance and empathy. Chen et al. (2015) defined seven dimensions as tangible, reliability, responsiveness, assurance, empathy,

environmental-oriented services and food quality. Raajpoot (2002) clarified three dimensions: ambiance, layout/design and product/ service. Ryu and Jang (2008) defined six dimensions: facility aesthetics, ambiance, lighting, table setting, plan and service staff. Tan et al. (2014) determined six dimensions: assurance-empathy, cleanliness, food quality, reliability, responsiveness and tangibles. When comparing the goodness of fit findings of the current study with the scale development studies on service quality in restaurants in the literature, it was found that the CFI value of the current scale was the same as the Ryu et al. (2008) 's CFI values in their studies study. The GFI value was higher than Mendocilla et al. (2021)'s GFI values in their studies. However, the current study's RMSEA value was lower than Ryu et al. (2008) 's RMSEA value in their study. On the other hand, the p-value of the current study is similar to Ryu et al. (2008), Mendocilla et al. (2021) and Raajpoot (2002) 's p values in their studies study. Although the EFA initially yielded 21 items, one item was excluded from the scale during Confirmatory Factor Analysis (CFA). The resulting scale (Appendix 1) consists of 5 dimensions, 20 items and demonstrating both validity and reliability. This developed scale encompasses 5 dimensions: atmosphere (3 items), hygiene (6 items), food (4 items), menu (3 items) and personnel (4 items). An interesting aspect of the hygiene dimension is the inclusion of the 'social distance' item, which emerged as a new item in comparison to previous scales.

5.1. Theoretical Implications

This study contributes to the existing service quality literature by developing an updated service quality scale for restaurants, taking into account the criticized shortcomings of previous scales and the changing perceptions of customers. RESQUAL is a newly developed scale that is not a modification of previously criticized scales. As a result of the Exploratory Factor Analysis conducted during the scale development process, the KMO value of the scale was determined as 0.902 and the total explained variance was 82.5%. With the first-level Confirmatory Factor Analysis (CFA) and the second-level Confirmatory Factor Analysis (CFA), it was determined that the model fit values were at acceptable levels. In addition, convergent validity and discriminant validity were ensured. In this context, the RESQUAL scale, consisting of five dimensions (food, personnel, atmosphere, hygiene and menu), and 20 items, was added to the literature as a valid and reliable tool for measuring service quality in restaurants.

5.2. Managerial Implications

In highly competitive food and beverage sector, measuring service quality accurately will place businesses one step ahead of their competitors to gain a sustainable competitive advantage. In order to accurately measure service quality, it is crucial for restaurants to use an up-to-date, valid and reliable scale to measure service quality. In this context, the RESQUAL scale provides a robust and practical tool for measuring service quality in restaurants. This scale evaluates various factors including the restaurant's exterior design and interior decoration, air conditioning system, being arranged according to social distance rules; the cleanliness of the dining room, the restrooms and hand washing areas; the cleanliness of the service sets; the cleanliness and well-grooming of the personnel; their compliance with the hygiene rules during service, their attention to orders, their compliance with the rules of courtesy, their knowledge about food and beverages and their fast service; the freshness, naturalness, proper cooking and service of the foods and their taste; menu options and visuality. By using RESQUAL, restaurants can periodically measure their service quality status, identify deficiencies, make plans, manage resource allocation, and thus provide better service to customers.

5.3 Limitations and Future Research

There are two main limitations to this study. First, the data were collected from university employees in Eskişehir, Türkiye. As a result, the findings only represent the evaluations of university personnel (academic, administrative, and other) in Eskişehir. Second, the research data were collected between 23.02.2022 and 01.04.2022; Therefore, the study is limited to the opinions of the participants in this specific time period. Thus, further research is needed to examine the RESQUAL factor structure in different cultural contexts. It is also recommended to include different occupational groups in future studies to comprehensively evaluate the scale quality. Additionally, examining different restaurant types is suggested to provide more detailed information about service quality dimensions. Although the effect of restaurant service quality dimensions on customer satisfaction has been extensively investigated in the literature, studies addressing the effect of service quality dimensions on customer loyalty and perceived value remain limited. It is recommended that future research investigate the effect of service quality dimensions (food, personnel, atmosphere, hygiene and menu) on variables such as customer loyalty and perceived value.

6. References

Albayrak, B. (2018), *Hizmet Kalitesinin Servperf Metodu ile Ölçümü ve Sonuçların Doğrulayıcı Faktör Analizi ile Desteklenmesi Kırıkkale Üniversitesi Tıp Fakültesi Uygulaması.*Yayımlanmamış Yüksek Lisans Tezi, Kırıkkale Üniversitesi Fen Bilimleri Enstitüsü, Kırıkkale, 51.

Al Khattab, S. A. and Aldehayyat, J.S. (2011), "Perceptions of service quality in Jordanian Hotels", *International Journal of Business and Management,* 6(7), 226–233.

Andaleeb, S. S. and Conway C. (2006), "Customer Satisfaction in the Restaurant Industry: An Examination of the Transaction-Specific Model", *Journal of Services Marketing*, 20 (1), 3-11.

Antun, J. M., Frash, R. E., Costen, W. and Runyan, R. C. (2010), "Accurately Assessing Expectations Most Important to Restaurant Patrons: The Creation of the DinEX Scale", *Journal of Foodservice Business Research,* 13(4), 360–379.

Arslan Ayazlar, R. ve Gün, G. (2018), "Yiyecek Deneyiminin Müşteri Memnuniyeti ve Davranışsal Niyetine Etkisi", *Karadeniz Sosyal Bilimler Dergisi*, 10(18), 381.

Avkiran, N.K. (1999), "Quality Customer Service Demands Human Contact", *International Journal of Bank Marketing,* 17 (2), 61-71.

Ayre, C., and Scally A. J. (2014), "Critical Values for Lawshe's Content Validity Ratio: Revisiting the Original Methods of Calculation", *Measurement and Evaluation in Counseling and Development,* 47(1), 79–86.

Ayyıldız, H. ve Cengiz, E. (2006), "Pazarlama Modellerinin Testinde Kullanılabilecek Yapısal Eşitlik Modeli (Yem) Üzerine Kavramsal Bir İnceleme", *Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi,* 11(1), 77.

Babakus, E. and Boller, G. W. (1992), "An Empirical Assessment of the SERVQUAL Scale", *Journal of Business Research,* 24, 253-68.

Babakus, E. and Mangold, W.G. (1992), "Adapting the SERVQUAL Scale to Hospital Services: An Empirical Investigation", *Health Services Research Journal,* 26, 767.

Bolton, R. N. and Drew, J.H. (1991), "A Multi-Stage Model of Customers' Assessment of Service Quality and Value", *Journal of Consumer Research,* 17, 375384.

Boshoff, C. (1999), "Recovsat: an instrument to measure satisfaction with transaction specific service recovery", *Journal of Service Research,* 1(3), 236.

Boulding, W., Staelin, R., Kalra, A. and Zeithaml, V.A. (1993), "A Dynamic Process Model of Service Quality: From Expectations to Behavioral Intentions", *Journal of Marketing Research*, 30(1), 7-27.

Bouman, M. and Van der Wiele, T. (1992), "Measuring Service Quality in the Car Service Industry: Building and Testing An Instrument", *International Journal of Service Industry Management*, 3(4), 4-16.

Bradley, G.T. and Wang, W. (2022), "Development and Validation of A Casino Service Quality Scale: A Holistic Approach", *Tourism Management*, 88, 4.

Brady, M.K. Cronin, J.J. and Brand, R. R. (2002), "Performance-only measures of service quality: a replication and extension", *Journal of Business Research,* 55(1), 17-31.

Brogowicz, A. A., Delene, L.M. and Lyth, D.M. (1990), "A Synthesised Service Quality Model with Managerial Implications", *International Journal of Service Industry Management,* 1(1), 27-45.

Brown, T.J., Churchill, G.A. Jr. and Peter, P.J. (1993), "Improving the Measurement of Service Quality", *Journal of Retailing*, 68(1), 127-39.

Brown, T. A. and Moore, M. T. (2012), Confirmatory Factor Analysis, *In R. H. Hoyle (Ed.), Handbook of structural equation modeling,* New York: Guilford Press, NY.

Buttle, F. A. (1996), "Servqual: Review, Critique, Research Agenda", *European Journal of Marketing,* 30(1), 8-32.

Carman, J. M. (1990), "Consumer Perceptions of Service Quality: An Assessment of the SERVQUAL Dimensions", *Journal of Retailing*, 66(1), 33- 55.

Carrillat, F. A., Jaramillo, F. and Mulki, J. P. (2007), "The validity of the SERVQUAL and SERVPERF Scales: A Meta-Analytic View of 17 Years of Research Across Five Continents", *International Journal of Service Industry Management,*18(5), 472–490.

Chen, J. L. (2016), "The Relationship among Service Quality, Relationship Quality, and Customer Loyalty for Chain Restaurant Industry", *International Journal of Marketing Studies*, 8 (3), 33-42.

Chen, T. C., Cheng, C. C. and Hsu, F. S. (2015), "GRSERV Scale: An Effective Tool for Measuring Consumer Perceptions of Service Quality in Green Restaurants", *Total Quality Management and Business Excellence,* 26(4), 355-367.

Cheng, C. C., Chang, Y. Y., Tsai, M. C., Chen, C. T., and Tseng, Y. C. (2019), "An evaluation instrument and strategy implications of service attributes in LOHAS restaurants", *International Journal of Contemporary Hospitality Management, 31*(1), 194–216.

Chidlow, A., Plakoyiannaki, E. and Welch, C. (2014), "Translation In Cross-Language International Business Research: Beyond Equivalence", *Journal of International Business Studies.* 45, 1-21.

Cronin, J. J. and Taylor, S. A. (1992), "Measuring Service Quality: A Reexamination and Extension", *Journal of Marketing,* 56, 55-68.

Cronin, J. J. and Taylor, S. A. (1994), "SERVPERF versus SERVQUAL: Recoinciling Performance-Based and Perceptions-Minus-Expectations Measurement of Service Quality", *Journal of Marketing,* 58(1), 125–131.

Çatı, K., ve Baydaş A. (2008), *Hizmet Pazarlaması ve Hizmet Kalitesi,* Asil Yayın Dağıtım, İstanbul.

Çetinoğlu, D., Mesci, Z. and Mesci, M. (2017), "Yeşil Nesil Restoranların Uygulanabilirliğine Yönelik Bir İnceleme: Akçakoca Örneği", *Journal of Recreation and Tourism Research*, 4, (Special ISsue 1), 112-120.

Çulfacı, G. and Kılıçhan, R. (2023), "The Effect of Measures Taken by Food and Beverage Busınesses Durıng Coronavırus Pandemıc Perıod on Consumers' Perceıved Value, Satısfactıon and Behavıoral Intentions", *Journal of Gastronomy, Hospitality and Travel*, 6(3), 1027-1045.

Dabholkar, P. A., Shepherd, C. D. and Thorpe, D. I. (2000), "A Comprehensive Framework For Service Quality: An Investigation of Critical Conceptual and Measurement Issues Through a Longitudinal Study", *Journal of Retailing,* 76(2), 139–173.

Değermen, A. (2005), "Hizmet Kalitesi Ölçümünde Kullanılan Servqual Modelinin Zayıf Olduğu İleri Sürülen Teorik ve Uygulama Yönlerine Yönelik Olarak Yapılan Değerlendirmeler", İstanbul Üniversitesi İktisat Fakültesi Maliye Araştırma Merkezi Konferansları, 72-86.

Deloitte. (2020), "COVID-19 Etkisinde Restoran Sektörünün Bugünü ve Geleceği", available at:https://www2.deloitte.com/content/dam/Deloitte/tr/Documents/consumer-business/COVID-19-etkisinde-restoran-sektorunun-bugunu-ve-gelecegi.pdf.

DeVellis, R.F. (2017), *Ölçek Geliştirme Kuram ve Uygulamalar.* (3. baskı), Nobel Akademik Yayıncılık, İstanbul.

Di Crosta, A., Ceccato, I., Marchetti, D., La Malva, P., Maiella, R., Cannito, L., Cipi, M., Mammarella, N., Palumbo, R., Verrocchio, M. C., Palumbo, R., and Di Domenico, A. (2021), "Psychological factors and consumer behavior during the COVID-19 pandemic", *PLOS ONE,* 16(8), e0256095. https://doi.org/10.1371/journal.pone.0256095

Erkuş, A. (2012*), Psikolojide Ölçme ve Ölçek Geliştirme-1: Temel Kavramlar ve İşlemler*, Ankara: Pegem Akademi.

Field, A. (2009), *Discovering statistics Using SPSS,* London: SAGE Publications Ltd.

Field, A. (2013), *Discovering Statistics Using IBM SPSS Statistics,* (4. edition). Sage, London.

Finn, D.W. and Lamb, C.W. (1991), "An Evaluation of the Servqual Scales in a Retailing Setting", *Advances in Consumer Research,*18, 483-490.

Gorsuch, L. (2015), *Factor Analysis,* Routledge, New York.

Grönroos, C. (1984), "A Service Quality Model and its Marketing Implications", *European Journal of Marketing,* 18(4), 36-44.

Haghighat, N. (2017), "Airline service quality evaluation: A review on concepts and models", *Economics, Management and Sustainability,* 2(2), 31-47.

Hahm, J., Chu, W. and Yoon, J.W. (1997), "A Strategic Approach to Customer Satisfaction in the Telecommunications Service Market*", Computers and Industrial Engineering*, 33, 3-4.

Headley, D.E. and Miller, S.J. (1993), "Measuring Service Quality and Its Relationship to Future Consumer Behaviour", *Journal of Healthcare Marketing,* 13(4), 32-41.

Hinkin, T. (1998), "A Brief Tutorial on Development of Measures for Use in Survey Questionnaires", *Organizational Research Methods,* 1(1), 104-121.

Jain, S. K. and Gupta, G. (2004), "Measuring Service Quality: SERVQUAL vs. SERVPERF Scales", *Vikalpa,* 29(2), 25–38.

Kanten, P. and Arda, B. (2020), "The Methodological Analysis of Scale Development Studies in Management and Organizational Behavior Fields", *Business and Economics Research Journal*, 11(2), 581-590.

Kaplan, M., Hotle, S., and Heaslip, K. (2023), "How has COVID-19 impacted customer perceptions and demand for delivery services: An exploratory analysis", *Transport Policy,* 134, 217-230. https://doi.org/10.1016/j.tranpol.2023.02.020

Kayış, A. (2009), Güvenirlik Analizi. Ş. Kalaycı (Ed), *SPSS Uygulamalı Çok Değişkenli Istatistik Teknikleri* (403-419), Ankara: Asil Yayıncılık.

Keshavarz, Y., Jamshidi, D. and Bakhtazma, F. (2016), "The Influence of Service Quality on Restaurants' Customer Loyalty". *Oman Chapter of Arabian Journal of Business and Management Review*, 6(4), 1-16.

Kim, J., and Lee, J. C. (2020), “Effects of COVID-19 on preferences for private dining facilities in restaurants”, *Journal of Hospitality and Tourism Management,* 45, 67–70.

Kline, P. (1994), *An Easy Guide to Factor Analysis,* Routledge, New York.

Ko, C.H and Chou, C.M. (2020), “Apply the SERVQUAL Instrument to Measure Service Quality for the Adaptation of ICT Technologies: A Case Study of Nursing Homes in Taiwan”. *Healthcare (Basel).* 24;8(2):108. doi: 10.3390/healthcare8020108. PMID: 32344589; PMCID: PMC7349199.

Lawshe, C. H. (1975), *A quantitative approach to content validity*, Personnel psychology, 28(4), 563-575.

Lee, H., Lee, Y. and Yoo, D. (2000), “The Determinants of Perceived Service Quality and Its Relationship with Satisfaction”, *Journal of Services Marketing,* 14(23), 217232.

Lewis, B.R. (1993), “Service quality measurement”, *Marketing Intelligence and Planning*, 11(4), 4-12.

Maisya, K. L., Rahmat, S. T. Y., and Rina, A. (2019), “Influence of Service Quality and Customer Satisfaction on Customer Loyalty in Restaurants of the Tangerang Area”, *Russian Journal of Agricultural and Socio-Economic Sciences,* 92(8), 142-147.

Makassy and Meng (2020), “Factors Influencing Consumers’ Behavioural Intentions Towards Restaurant Patronage in China: A Structural Equation Modeling Approach”, *Journal of Marketing and Consumer Research,* 66, 43-52.

Mangold, W.G. and Babakus, E. (1991), “Service Quality: The Front Stage vs. the Back Stage Perspective”, *Journal of Services Marketing,* 5(4), 59-70.

McAlexander, J.H., Kaldenburg, D.O. and Koenig, H.F. (1994), “Service Quality Measurement”, *Journal of Health Care Marketing,* 14(3), 3440.

Mendocilla, M., Miravitlles, P. and Matute, J. (2021), “QUICKSERV: A Service Quality Assessment Tool for the Quick-Service Restaurant Industry”, *British Food Journal,* 123(13), 243-245.

Metin, O. ve Ünal, Ş. (2022), “İçerik Analizi Tekniği: İletişim Bilimlerinde ve Sosyolojide Doktora Tezlerinde Kullanımı”, *Anadolu Üniversitesi Sosyal Bilimler Dergisi*, 22(Özel Sayı 2), 273-294.

Naderian, A. and Baharun, R. (2015), “Service Quality and Consumer Satisfaction and Loyalty Association Moderated by Switching Cost in Hospitality Industry”, *International Journal of Hospitality and Tourism Systems,* 8(1), 10-22.

Oyewole, P. (1999), “Multi-Attribute Dimensions of Service Quality in the Fast Food Restaurant Industry”, *Journal of Restaurant and Foodservice Marketing,* 3 (3-4), 65-91.

Parasuraman A., Zeıthaml V.A and Berry, L. L. (1985), “A Conceptual Model of Service Quality and Its Implications for Future Research”, *Journal of Marketing,* 49(4), 41- 50.

Parasuraman, A., Zeithaml, V.A and Berry, L. L. (1988), “SERVQUAL: A MultipleItem Scale for Measuring Consumer Perceptions”, *Journal of Retailing,* 64(1), 12-40.

Philip, G. and Hazlett, S. (1997), “The Measurement of Service Quality: A New P-C-P Attributes Model”. *International Journal of Quality and Reliability Management,* 14
(3), 260-286.

Raajpoot, N. A. (2002), “TANGSERV: A Multiple Item Scale for Measuring Tangible Quality in Food Service Industry”, *Journal of Foodservice Business Research,* 5, 109- 127.

Razak, N., A. (2019), “Service Quality and Customer Satisfaction in Restaurant Industry Using Partial Least Square, AAMC”, The 13th Asian Academy of Management International Conference, 218-225.

Reidenbach. R.E. and Sandifer-Smallwood, B. (1990), "Exploring Perceptions of Hospital Operations by a Modified SERVQUAL Approach", *Journal of Healthcare Marketing,*10(4), 47-55.

Richard, M.D. and Allaway, A.W. (1993), "Service Quality Attitudes and Choice Behaviour", *Journal of Service Marketing,* 7(1), 59-68.

Ryu, K. and Jang, S. S. (2008), "DINESCAPE: A Scale for Customers' Perception of Dining Environments", *Journal of Foodservice Business Research,*11(1), 2-22.

Sayuti, A. and Setiawan, H. (2019), "The Effect of Service Quality, Physical Environment and Restaurant Images on Consumer Satisfaction through Perception of Value", *SIJDEB,* 3(3), 243-256.

Schreier, M. (2013), *Qualitative Content Analysis in Practice,* (2nd Printing), London: Sage Publications Ltd.

Stevens, P., Knutson, B. and Patton, M. (1995), "DINESERV: A Tool for Measuring Service Quality in Restaurant", *Cornell Hotel Restaurant Administration Quarterly,*36, 56- 60.

Tan, Q., Oriade, A. and Fallon, P. (2014), "Service Quality and Customer Satisfaction in Chinese Fast Food Sector: A Proposal For CFFRSERV", *Advances in Hospitality and Tourism Research,* 2(1), 30-53.

Teas, R. K. (1993). "Expectations, Performance Evaluation and Consumers' Perceptions of Quality", Jo*urnal of Marketing,* 57(4), 18–34.

TOBB. (2020), Statistics of Opened and Closed Companies, https:// www.tobb.org.tr/BilgiErisimMudurlugu/Sayfalar/KurulanKapananSirketistatistikleri.php.Verma, A.K. and Prakash, S. (2020), "Impact Of Covid-19 on Environment and Society", *Journal of Global Biosciences,* 9(5), 7352-7363.

Uslu, A. and Eren, R. (2020), "Critical Review of Service Quality Scales with a Focus on Customer Satisfaction and Loyalty in Restaurants*", The Central European Journal of Regional Development and Tourism,* 12(1), 64.

Voyvoda, E. ve Yeldan, E. A. (2020), "Covid-19 Salgınının Türkiye Ekonomisi Üzerine Etkileri ve Politika Alternatiflerinin Makroekonomik Genel Denge Analizi", available at: https://yeldane.files.wordpress.com/2020/05/covid_voyvodayeldan_v2_31mayis.pdf.

Yurdabakan, İ. and Tüm, S. (2017), "Scale Development in Behavioral Sciences", *Turkish Journal of Family Medicine and Primary Care,* 11(2), No. 2, 119.

Zeithaml, V. A. (1988), "Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence", *Journal of Marketing,* 52 (3), 2-22.

Zhou, L. (2004), "A Dimension-Specific Analysis of Performance-Only Measurement of Service Quality and Satisfaction in China's Retail Banking", *The Journal of Services Marketing,* 18 (6/7), 534-46.

Hakem Değerlendirmesi: Dış bağımsız.	**Bilgilendirilmiş Onam Formu:** Tüm taraflar kendi rızaları ile çalışmaya dâhil olmuşlardır.
Teşekkür: Katkılarından dolayı hakemlere teşekkür ederiz.	**Araştırmacıların Katkı Oranı:** Yazarlar çalışmaya eşit oranda katkı sağlamıştır.
Destek Bilgisi: Herhangi bir kurum ve/veya kuruluştan destek alınmamıştır.	**Etik Kurul Onayı:** Ankara Hacı Bayram Veli Üniversitesi, 20.01.2022 tarih **71486 no.lu kararı**
Çıkar Çatışması: Yazarlar arasında çıkar çatışması yoktur.	

Appendix 1: Restaurant Servıce Qualıty Scale (RESQUAL)

	RESQUAL	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	The dining room is clean.					
2	The service sets are clean.					
3	The restrooms and hand washing areas are clean.					
4	The personnel are clean and well-groomed.					
5	Hygiene rules are observed while serving food and beverages.					
6	The restaurant has been arranged by social distance rule, including its open areas.					
7	The products offered are fresh.					
8	The food served is properly cooked.					
9	Food and beverages are served at the appropriate temperature.					
10	The food served is delicious.					
11	The personnel are careful about orders.					
12	The personnel behave according to the rules of courtesy.					
13	The personnel are knowledgeable about the food and drinks offered.					
14	The personnel offer prompt service.					
15	The restaurant has an attractive exterior design.					
16	The restaurant has an attractive interior decor.					
17	The restaurant has an air conditioning system.					
18	The restaurant has different menu options (Diet menü, vegan menu…etc).					
19	The menus are visually appealing.					
20	The menu includes food options consisting of natural ingredients.					