



Research Journal of  
**Business  
Management**

ISSN 1819-1932



Academic  
Journals Inc.

[www.academicjournals.com](http://www.academicjournals.com)

## **The Effects of Perceived Service Quality of Audit Firms on Satisfaction and Behavioural Intentions: A Research on the Istanbul Stock Exchange Listed Companies**

Zeynep Türk and Mutlu Yüksel Avcılar

Department of Business Administration, University of Niğde, 51200, Niğde, Turkey

---

**Abstract:** The aim of this research is to analyze possible effects of service quality of audit firms on customer satisfaction and behavioural intentions. The population of this research consists of Istanbul Stock Exchange (ISE) listed companies. Perceived service quality of audit firms was measured by using modified 22 items SERVQUAL scale. In order to test the research hypotheses, structural equation modelling technique was used. Empirical findings of the research show that perceived service quality of audit firms affects customer satisfaction directly and positively, while perceived service quality does not have a positive direct effect on behavioural intentions, customer satisfaction affects behavioural intentions directly and positively. Consequently, it can be said that perceived service quality leads to satisfaction and satisfaction leads to behavioural intentions.

**Key words:** Measurement of service quality, SERVQUAL, audit quality, non audit quality, satisfaction, behavioural intentions

---

### **INTRODUCTION**

Service sector has produced approximately two-thirds of worldwide GNP for the twenty first century (Kara *et al.*, 2005). In the service sector, the quality of service is a key strategic value (Lewis *et al.*, 1994) and has become a strategic instrument for firms since 1990s (Donnelly *et al.*, 1995). Because, service quality has close relationship with customer satisfaction, customer retention, positive word of mouth (Buttle, 1996), repurchasing behaviour and extended market share (Siu and Cheung, 2001). In this situation, firms must assess their service quality in order to achieve strategic advantages. This makes that service and service quality are very important research subjects.

Service is not a physical product, but it is a process or performance (Lovelock, 1991). Services are also intangible, heterogeneous, perishable and inseparable of production and consumption and entailing simultaneity (Jain and Gupta, 2004; Zeithaml *et al.*, 1985; Sureshchandar *et al.*, 2001). All these aspects differentiate both services from product and service quality from product quality. Because of elusive and abstract nature of quality and services, there is no objective measure to assess service quality. In the absence of an objective measure, the customers' perception of quality has been used as a measure to assess service quality (Aldhizer *et al.*, 2002; Bamert and Wehrli, 2005).

Parasuraman *et al.* (1988) have emphasized perceived quality for defining service quality. They defined service quality as a customers' judgment about firm's excellence or superiority. According to Lloa *et al.* (1998) service quality is a kind of attitude which is the result of expectations and perceived performance. Customer assesses the service quality by comparing the service that is actually experienced with the expected one (Donnelly *et al.*, 1995). To put it in different words, customer rates the quality of services by the gap between perceived and expected service.

Some researchers (Cronin and Taylor, 1992) argue that there is one underlying dimension of service quality, while others (Parasuraman *et al.*, 1985) argue that there are multi dimensions (Benington and Cummanel, 1998). Parasuraman *et al.* (1985) revealed 10 dimensions of service quality in the original model of service quality. These dimensions are reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding and tangibles. In the later study, Parasuraman *et al.* (1988), these ten dimensions fall into five dimensions as reliability, assurance, tangibles, empathy and responsiveness. The dimensions of reliability, tangibles and responsiveness were not changed. However, assurance contains communication, credibility, security, competence and empathy contains understanding and access (Carman, 1990). In the model;

- Reliability is the ability to perform promised service dependably and accurately
- Assurance refers to employees' knowledge and courtesy
- Tangibles refer to personnel's appearance, physical facilities and equipment
- Empathy refers to care and individual attention given to customers
- Responsiveness refers to help customers and provide service willingness

This multi dimensional structure of service quality makes to measure service quality possible by using performance and expectations gap with SERVQUAL scale (Angur *et al.*, 1999). By using five dimensions, Parasuraman *et al.* (1988) developed 22 items scale in order to measure service quality.

In the empirical literature, there are many alternative service quality models and instruments developed for measuring service quality. One of the most widely used models is SERVQUAL (Zhao *et al.*, 2002). SERVQUAL is developed by Parasuraman *et al.* (1985, 1988, 1991, 1993). SERVQUAL instrument contains 22 items scale in order to measure the gap between perceived and expected service. In the model, Parasuraman *et al.* (1985) have defined service quality as a gap between customer perception of performed service and expected service. This model defines service quality as a function of five gaps that relates customer expectation to customer perception of actually performed service (Brown and Bond, 1995). The gaps in the model are the service quality gap (gap 5), the understanding gap (gap 1), the design gap (gap 2), the delivery gap (gap 3) and communication gap (gap 4) (Donnelly *et al.*, 1995).

The validity, reliability and dimensions of SERVQUAL have been discussed in the literature by Carman (1990), Cronin and Taylor (1992, 1994) and Jain and Gupta (2004). SERVQUAL increasingly used for measuring service quality (Cui *et al.*, 2003) because of its practical implication and its diagnostic nature for improving service quality (Zhou, 2004; Sureshchandar *et al.*, 2001). However, there are some critics for SERVQUAL. For example, five dimensions of model are criticized for not being universals and for the high degree of intercorrelations between them (Buttle, 1996). The other critic is that performance only scale (SERVPERF) is enough for measuring service quality (Cronin and Taylor, 1992). According to Cronin and Taylor (1992), service quality judgment and satisfaction stem from the evolution of actually performed service.

Most of the studies about quality in the accounting and auditing literature have focused on audit quality (DeAngelo, 1981; Frantz, 1999; Hansen *et al.*, 2006). Since 1981, researchers have studied on definitions, dimensions and measurement of audit quality (Wooten, 2003). Most empirical studies about audit quality have focused on the relationship amongst audit quality, client risk, agency (Arrunada, 2000) and audit quality components (Barbadillo *et al.*, 2004) that are auditor technical competence and auditor independence. Technical competence relates to expertise to discover all major errors and omissions present in financial statements (Moizer, 1991). Independence requires both independence in mind and independence in appearance (Houghton and Jubb, 2003).

Audit firm is a firm that performs auditing and non auditing services. These non auditing services are accountancy, taxation, share registration, management consultancy, financial consultancy,

investigations, liquidations, receivership and trusts (Woolf, 1979). For the past decade, auditing firms' consulting service revenue has increased very sharply while audit service has increased slowly (Turner *et al.*, 1999). This means that auditing firms need to understand the non audit service quality as well as the audit quality in order to obtain and maintain high revenue.

Unlike the audit quality, the non audit service quality has no objective instrument to be measured. In this case customer judgment about service quality has been used to measure both the audit and the non audit service quality. In this study, SERVQUAL scale was used to measure customer judgment about service quality of audit firms.

According to the marketing literature, service quality and satisfaction is related subject (Cronin and Taylor, 1992). Satisfaction is the emotional evaluation of perceived discrepancy between expectations and performance of product or service (Oliver, 1980). In the literature some of the researchers like Bolton and Drew (1991) argue that satisfaction is antecedent factor to service quality. But according to other researchers like Cronin and Taylor (1992), service quality is antecedent factor to satisfaction. According to the second relationship model, high service quality may lead to satisfaction and then satisfaction may lead to favourable customer behavioural intentions (Olorunniwo *et al.*, 2006; Yuan and Jang, 2008). A behavioural intention is the customer decision about future activity and service provider (Hume *et al.*, 2007). And it can be obtained by measures such as repurchase intentions, word of mouth, loyalty, complaining behaviour and price sensitivity (Olorunniwo *et al.*, 2006).

Both service quality and satisfaction play an important role in the forming of customer behavioural intentions (Cronin *et al.*, 2000). Not only does service quality affect satisfaction in forming customer behavioural intentions but it can also affect customer intentions directly (Oh, 1999; Cronin *et al.*, 2000).

In accordance with the literature, the developed research model is shown in Fig. 1. In the research model, the perceived service quality of audit firms was measured by using five dimensional SERVQUAL. In addition, the perceived service quality was hypothesized to have a direct effect on behavioural intentions and an indirect effect, through satisfaction, on behavioural intentions. Satisfaction was also hypothesized to have a direct effect on behavioural intentions.

In order to test causal relationship between perceived service quality, satisfaction and behavioural intentions, four hypotheses were tested in this study. These were:

- **Hypothesis 1:** The SERVQUAL consists of the five-factor construct is suitable for measuring the perceived service quality of audit firms
- **Hypothesis 2:** Perceived service quality of audit firms has a positive effect on customer satisfaction

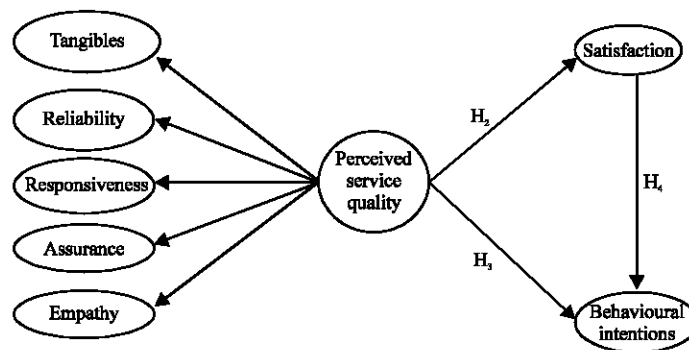


Fig. 1: Research model

- **Hypothesis 3:** Customer satisfaction with the audit firms has a positive effect on customer behavioural intentions
- **Hypothesis 4:** Perceived service quality of audit firms has a positive effect on customer behavioural intentions

## **MATERIALS AND METHODS**

### **Study Population**

The population of this research consists of Istanbul Stock Exchange (here after ISE) listed companies. These companies should have to receive audit service from independent audit firms in Turkey. There were 326 publicly held companies in the list published from the ISE web site for the year 2007. List of companies was taken from the ISE web site, 326 companies were selected from the sampling frame and questionnaires were sent to companies' accounting manager.

In this study, data was gathered using self-administered direct mail survey. Self-administered mail surveys are generally criticized as having a low response rate and slow (Hair *et al.*, 2000). In order to increase response rate and decrease the likelihood of non-response bias, the questionnaires were sent with separate cover letters. The respondents were informed about the purpose and importance of the study. In addition to encourage respondent's willingness to fill out questionnaire and return it, a self-addressed stamped return envelope was included in each mailing. A second mailing and e-mailing were employed four weeks after the first mailing and it was followed up with a telephone call after two weeks when no response was returned.

The non-response bias was assessed with an analysis of variance between the early and late respondent groups (Armstrong and Overton, 1977). There were no statistical differences between the early and late respondents' survey responses, indicating lack of non-response bias. The 207 usable questionnaires were received with a response rate of 63%.

### **Measurement and Analysis**

In order to measure perceived service quality of audit firms, modified 22 items SERVQUAL scale developed by Parasuraman *et al.* (1985, 1988, 1991) was used. Survey instrument for this research was comprised of three sections. Section one contained items on demographics details of the respondent. Section two contained the modified SERVQUAL items to measure perceived audit service quality (perception and expectation items). Finally, section three contained the two items to measure customer satisfaction were adopted from Oliver (1980) and Taylor and Baker (1994) and two items to measure repurchase intention were adopted from Cronin *et al.* (2000). To measure audit service quality, satisfaction and behavioural intentions we used the five point Likert response format ranging from strongly disagree = 1 to strongly agree = 5.

In order to test internal consistency of the SERVQUAL five dimensions Cronbach's coefficient  $\alpha$  scores for each dimension were computed. To test the validity of the five-factor structure in service quality exploratory factor analysis was performed. The research model was tested with structural equation modelling (SEM) by using AMOS program. The maximum likelihood (ML) method of estimation and two-stage testing process were followed in the SEM process (Anderson and Gerbing, 1988). Firstly, confirmatory factor analysis (CFA) was conducted and measurement model fit was evaluated and then the structural model and research hypotheses were tested.

## **RESULTS**

### **Profile of the Respondents**

As the data indicates, the large group of respondents (34.8%) was between 36 and 45 years old. Overall, the respondents were highly educated with 69.6% having graduate education and 29.5% having

Table 1: Profile of respondents

Variables	Frequency	Percentage	Variables	Frequency	Percentage
<b>Age</b>			<b>Industry</b>		
18 to 25	1	0.5	Agriculture	15	7.2
26 to 35	58	28.0	Mining	9	4.3
36 to 45	72	34.8	Manufacturing	74	35.7
46 to 55	72	34.8	Construction	25	12.0
56 to 65	4	1.9	Wholesale/Retail	9	4.8
<b>Educational level</b>			Telecommunication	7	3.4
High school	2	1.0	Financial institution	53	5.6
Bachelors degree	144	69.6	Technology	5	2.4
Masters degree	61	29.5	Education	10	4.6
<b>Years of service experience</b>					
Less than 1 year	21	10.1			
1 to 3 years	73	35.3			
4 to 7 years	69	33.3			
More than 8 years	44	21.3			

master degree (Table 1). The average length of service experience with their auditor was 3 years, ranging from less than 1 year to more than 8 years. Respondents' company industry sectors ranged from manufacturing (35.7%) to technology (2.4%).

### Reliability of the Scales and Exploratory Factor Analysis

In order to test the reliability of the SERVQUAL scale and internal consistency of the five dimensions, Cronbach's coefficient  $\alpha$  scores were computed for each dimension using data on the differences between the perceptions and expectations scores. The reliability coefficients for the five dimensions are shown in the last column of Table 2. The results in Table 2 show that the five dimensions have internal consistency measures higher than 0.70. The overall reliability of the gap scores (0.90) were quite high. The high alpha values indicate satisfactory levels of internal consistency. Thus, the SERVQUAL scale is reasonably satisfactory to measure perceived service quality of audit firms.

To test the validity of the five-factor structure in service quality, exploratory factor analysis was performed on the perception minus expectation gap scores for the Audit firms' customers. A principal axis factor analysis with oblique rotation was performed on the 22 SERVQUAL items. We used the same methods as by Parasuraman *et al.* (1988) to find the same factor structure. The results of the exploratory factor analysis are shown in Table 2.

The statistical test results (KMO = 0.865, Bartlett Test of Sphericity = 2338.636, Significance = 0.000, factor load = >0.50) indicate that the data was appropriate for the factor analysis. Five factors with Eigen values greater than 1.0 were extracted, which accounted for 66.5% of the variance in the set of the items. The exploratory factor analysis results in Table 2 indicate that the 22 items SERVQUAL scale matched the five-factor structure as described by Parasuraman *et al.* (1988).

### Measurement Model

As mentioned previously, confirmatory factor analysis was employed firstly to ensure that five dimensions of the SERVQUAL are reliable and valid. Confirmatory factor analysis statistically tests whether the sample data confirm the theoretical model (Bollen, 1989). The SEM allows a statistical test of the goodness of fit for the proposed confirmatory factor solution, which is particularly useful in validating scales for the measurement of specific constructs (Hair *et al.*, 1998). The results of the confirmatory factor analysis for the SERVQUAL items are shown in Table 3 and 4.

The results of the confirmatory factor analysis in Table 3 indicate that the measurement model overall goodness-of-fit indicators were  $X^2 = 197.35$ ,  $df = 179$ ,  $p = 0.17$ ,  $GFI = 0.97$ ,  $AGFI = 0.90$ ,  $CFI = 0.99$ ,  $TLI = 0.99$  and  $RMSEA = 0.02$ .

Table 2: Exploratory factor analysis results

Service quality dimensions	Factor loading	Eigen value	Variance explained	Reliability Cronbach's $\alpha$ coefficient
Assurance		7.060	33.911	0.828
Q15	0.818			
Q16	0.803			
Q14	0.739			
Q17	0.636			
Reliability		1.945	10.710	0.892
Q8	0.844			
Q5	0.831			
Q7	0.820			
Q6	0.746			
Q9	0.728			
Responsiveness		1.383	7.960	0.815
Q11	0.928			
Q13	0.842			
Q12	0.627			
Q10	0.519			
Empathy		1.225	7.504	0.790
Q20	0.717			
Q21	0.694			
Q19	0.661			
Q18	0.641			
Q22	0.559			
Tangibles		1.026	6.644	0.842
Q2	0.807			
Q4	0.778			
Q3	0.743			
Q1	0.701			
Total			66.528	0.900
Kaiser-Meyer-olkin measure of sampling adequacy				0.865
Bartlett's test of sphericity				
Chi-square				2338.636
df				231
Sig.				0.000
Factor loading				>0.50

Extraction method: Principal axis factoring, Rotation method: Oblimin with kaiser normalization

A non-significant  $X^2$  value with 179 degrees of freedom ( $p > 0.05$ ) indicates the measurement model statistically fit the data (Bollen, 1989). The GFI value was higher than the cut-off value 0.90. The AGFI value was found as a value of 0.90. This value is more than the suggested cut-off value of 0.80. The RMSEA value was less than the cut-off value of 0.05. The absolute fit measures indicated an acceptable level of fit for the measurement model (Hair *et al.*, 1998).

The incremental fit measures exceed the critical value of 0.95, further supporting the measurement model. The TLI value, IFI value, CFI value, NFI and RFI value indicated excellent fit and were higher than the cut-off value of 0.95. The incremental fit measures indicated an acceptable level of fit for the measurement model (Schumacker and Lomax, 2004).

The parsimonious fit measure also indicated an acceptable level of measurement model parsimony. The Normed  $X^2$  value was 1.10 and was below the upper cut-off value of 5 (Schumacker and Lomax, 2004). All of the fit measures (absolute fit measures, incremental fit measures and parsimonious fit measures) indicated that five dimensions of the 22 items SERVQUAL gap score statistically fit the data well.

After establishing that hypothesized five dimensional SERVQUAL construct fitted data well; parameter estimates, reliability, convergent validity and discriminant validity of the measurement model were assessed.

In order to evaluate the internal consistency of the scale, composite reliability estimates were computed with confirmatory factor analysis results (Fornell and Larcker, 1981). As shown in Table 3, these were 0.81 for assurance, 0.84 for reliability, 0.84 for responsiveness, 0.85 for empathy and 0.83 for tangibles. All of the composite reliability estimates exceeded the 0.70 threshold recommended by Fornell and Larcker (1981).

Table 3: Confirmatory factor analysis results for the measurement model

Service quality dimensions	Standardized estimate	t-statistic	$\rho$	Construct reliability	Average variance extracted
Assurance				0.808	0.514
Q17	0.731	...	...		
Q16	0.839	10.791	0.000		
Q15	0.756	9.892	0.000		
Q14	0.675	8.074	0.000		
Reliability				0.840	0.513
Q9	0.691	...	...		
Q8	0.860	11.046	0.000		
Q7	0.772	11.908	0.000		
Q6	0.783	10.189	0.000		
Q5	0.796	10.555	0.000		
Responsiveness				0.839	0.580
Q13	0.814	...	...		
Q11	0.971	15.880	0.000		
Q12	0.632	9.964	0.000		
Q10	0.584	7.190	0.000		
Empathy				0.847	0.529
Q22	0.573	...	...		
Q21	0.761	7.072	0.000		
Q20	0.695	7.120	0.000		
Q19	0.577	6.120	0.000		
Q18	0.543	5.843	0.000		
Tangibles				0.825	0.542
Q4	0.824	...	...		
Q3	0.751	10.844	0.000		
Q2	0.764	11.277	0.000		
Q1	0.731	9.876	0.000		
<b>Measurement model fit statistics</b>					
Chi-square ( $X^2$ ):	197.35				
df	179.00				
Significant (P):	0.17			TLI	0.99
Normed chi-square ( $X^2$ )/(df):	1.10			IFI	0.99
GFI	0.97			CFI	0.99
AGFI	0.90			NFI	0.99
RMSEA	0.02			RFI	0.99

Construct reliability = (Sum of standardized loadings)<sup>2</sup> / (Sum of standardized loadings)<sup>2</sup> + (Sum of indicator measurement error). Average variance extracted = (Sum of squared standardized loadings) / (Sum of squared standardized loadings) + (Sum of indicator measurement error)

Convergent validity can be assessed from the measurement model by determining whether each item's estimated loading on its assigned construct factor is significant (Anderson and Gerbin, 1988). As shown in Table 3, all the standardized loadings for each factor were significant ( $p < 0.001$ ) and high, which satisfies the criteria for convergent validity. In addition, average variance extracted of all five dimensions exceeded the 0.50 threshold (Table 3) convergent validity was assured.

Discriminant validity can be examined by comparing the intercorrelations of the construct to the square root of the average variance extracted (Fornell and Larcker, 1981). Table 4 reveals that the square root of the average variance for each of the factors is greater than any of the intercorrelations of the constructs. This finding supported that the five-factors of SERVQUAL have discriminant validity.

On the basis of the confirmatory factor analysis results, it can be concluded that the data reasonably fit to the five dimensions (tangibles, reliability, responsiveness, assurance and empathy) of SERVQUAL, as proposed by Parasuraman *et al.* (1988). The measurement model showed evidence for convergent and discriminant validity, as well as reliability. Therefore, it can be said that these results have supported hypothesis 1.



Table 4: Intercorrelations among dimensions

Parameters	Assurance	Reliability	Responsiveness	Empathy	Tangibles
Assurance	<b>0.72</b>				
Reliability	0.53	<b>0.72</b>			
Responsiveness	0.43	0.42	<b>0.76</b>		
Empathy	0.51	0.34	0.49	<b>0.73</b>	
Tangibles	0.59	0.49	0.46	0.48	<b>0.74</b>

The bold diagonal elements are the square root of the variance shared between the constructs and their measures. Off-diagonal elements are the correlations between constructs. For discriminant validity, the diagonal elements should be larger than any other row or column

Table 5: Standardized parameter estimates and goodness-of-fit index for the structural model

Parameters	Path	Standardized estimate	t- statistic	$\rho$	Hypotheses
Satisfaction	- Perceived service quality	0.727	6.036	0.000	H <sub>2</sub> (supported)
Behavioural intentions	- Perceived service quality	0.042	0.813	0.416	H <sub>3</sub> (not supported)
Behavioural intentions	- Satisfaction	0.834	14.012	0.000	H <sub>4</sub> (supported)
Assurance	- Service quality	0.781	5.790	0.000	
Reliability	- Service quality	0.743	5.020	0.000	
Responsiveness	- Service quality	0.712	4.860	0.000	
Empathy	- Service quality	0.684	....	....	
Tangibles	- Service quality	0.631	5.620	0.000	
<b>Structural model fit statistics</b>					
Chi-square (X <sup>2</sup> )					269.878
df					245.000
Significant (P)					0.132
Normed chi-square (X <sup>2</sup> / (df)					1.102
Goodness-of-fit (GFI)					0.911
Adjusted goodness-of-fit (AGFI)					0.892
Root-mean-square error of approximation (RMSEA)					0.022
Tucker-lewis-index (TLI)					0.989
Incremental-fit-index (IFI)					0.991
Comparative-fit-index (CFI)					0.991
Normed-fit-index (NFI)					0.914
Relative-fit-index (RFI)					0.895

### Structural Model

The proposed research model (Fig. 1) and hypotheses were tested by using structural equation modelling (SEM). The structural model-fit statistics are shown in Table 5, reveal that the structural model reasonably fits the data well (X<sup>2</sup> = 269.88, df = 245, p = 0.132, GFI = 0.91, AGFI = 0.892, CFI = 0.991, TLI = 0.989 and RMSEA = 0.022).

A non-significant X<sup>2</sup> value with 245 degrees of freedom (p>0.05) indicates the structural model statistically fit the data (Bollen, 1989). The GFI value was higher than the cut-off value of 0.90. The AGFI was found as a value of 0.89. This value is more than the suggested cut-off value of 0.80. The RMSEA value was 0.022 less than the cut-off value of 0.05. The absolute fit measures indicated an acceptable level of fit for the structural model (Hair *et al.*, 1998).

The incremental fit measures exceed the critical value of 0.95, further supporting the structural model. The TLI value, IFI value, CFI value, NFI and RFI value indicated excellent fit and were higher than the cut-off value of 0.95. The incremental fit measures indicated an acceptable level of fit for the structural model (Schumacker and Lomax, 2004).

The parsimonious fit measure also indicated an acceptable level of structural model parsimony. The Normed X<sup>2</sup> value was 1.102 and was below the upper cut-off value of 5 (Schumacker and Lomax, 2004). All of the fit measures (absolute fit measures, incremental fit measures and parsimonious fit measures) indicated that structural model statistically fit the data well.

After establishing the structural research model fitted data well, standardized parameter estimates and hypotheses test results are shown in Table 5. Perceived service quality has a positive direct effect

on customer satisfaction (standardized estimate = 0.727, t-value = 6.04 and  $p < 0.001$ ). This result has empirically supported hypothesis 1. Therefore, 53% of the variance in customer satisfaction is explained by service quality.

Perceived service quality has not a positive direct effect on behavioural intentions (standardized estimate = 0.042, t-value = 0.813 and  $p > 0.05$ ). This result has not empirically supported hypothesis 2. Customer satisfaction has a positive direct effect on behavioural intentions (standardized estimate = 0.834, t-value = 14.01 and  $p < 0.001$ ). This result has empirically supported hypothesis 3. Therefore, 71% of the variance in behavioural intentions is explained by customer satisfaction and service quality. According to these results, the predicting customer behavioural intentions (repurchase audit service and positive word of mouth about service) perceived service quality is mediated by satisfaction.

Finally, examination of standardized estimates, it can be said that assurance is the most important dimensions of audit firms service quality (standardized estimate = 0.781, t-value = 5.79 and  $p < 0.001$ ), followed by reliability (standardized estimate = 0.743, t-value = 5.02 and  $p < 0.001$ ), responsiveness (standardized estimate = 0.712, t-value = 5.02 and  $p < 0.001$ ), empathy (standardized estimate = 0.684,  $p < 0.001$ ) and tangibles (standardized estimate = 0.631, t-value = 5.62 and  $p < 0.001$ ).

## **CONCLUSION**

The aim of this research is to analyze the effects of perceived service quality of audit firms on customer satisfaction and behavioural intentions by using data obtained from ISE listed companies' accounting managers in Turkey. The exploratory factor analysis result indicates that 22 items SERVQUAL scale matched the five-factor structure. In addition, confirmatory factor analysis results also show that the data fit to the five dimensions (assurance, reliability, responsiveness, empathy and tangibles) of SERVQUAL scale. The SERVQUAL scale is a reliable and valid tool for measuring service quality of audit firms. These findings indicate that the SERVQUAL scale consisting of five dimensions is reasonably satisfactory to measure perceived service quality of audit firms.

According to the analysis result, it can be said that assurance is the most important dimensions service quality of audit firms, followed by reliability, responsiveness, empathy and tangibles. These findings indicate that customers are more concerned with assurance, reliability and responsiveness dimensions to assess service quality of audit firms. Audit firm managers in Turkey should strategically focus on employees' knowledge and courtesy, ability to perform promised service dependably and accurately and ability to help customers and provide service willingness in order to improve the service quality.

The analysis results show that perceived service quality from the audit firms has a significantly positive direct effect on customer satisfaction. And also according to analysis results, customer satisfaction has a significantly positive direct effect on behavioural intention. But perceived service quality has not a significantly positive direct effect on behavioural intentions.

This study reveals that perceived service quality is the antecedent of customer satisfaction in predicting behavioural intentions. While perceived service quality from audit firms has not a direct effect on behavioural intentions, perceived service quality has an indirect effect, through satisfaction, on behavioural intentions. These finding indicates that audit firms' manager, in order to increase favourable customer behavioural intentions (repurchase and positive word of mouth), they must offer superior service quality and satisfy their customer needs and expectations.

## **REFERENCES**

Aldhizer, G.R., L.D. Turner and M.D. Shank, 2002. Determinants of service quality for accounting and nonaccounting service providers. *J. Inform. Syst.*, 16: 61-74.

- Anderson, J.C. and D.W. Gerbing, 1988. Structural equation modeling in practice: A review and recommended two-step approach. *Psychol. Bull.*, 103: 411-423.
- Angur, M.G., R. Natarajan and J.S. Jehera, 1999. Service quality in the banking industry: An assessment in developing economy. *Int. J. Bank Market.*, 17: 116-125.
- Armstrong, J.S. and T.S. Overton, 1977. Estimating Nonresponse bias in mail surveys. *J. Mark. Res.*, 14: 396-402.
- Arrunada, B., 2000. Audit quality: Attributes, Private, Safeguard and the rule of regulation. *Eur. Account. Rev.*, 9: 205-224.
- Bamert, T. and P.P. Wehrli, 2005. Service quality as an important dimension of brand equity in Swiss services industries. *Manage. Service Qual.*, 2: 132-141.
- Barbadillo, E.R., N.G. Aguilar, C.F.B.M. Antoni and C. Benau, 2004. Audit quality and the going concern decision-making process: Spanish evidence. *Eur. Account. Rev.*, 13: 597-620.
- Bennington, L. and J. Cummanel, 1998. Measuring service quality: A hybrid methodology. *Total Qual. Manage.*, 9: 395-405.
- Bollen, K.A., 1989. *Structural Equations with Latent Variables*. John Wiley and Sons, New York, ISBN: 0- 471-01171-1.
- Bolton, N.R. and J.H. Drew, 1991. A longitudinal analysis of the impact of service changes on customer attitudes. *J. Market.*, 55: 1-9.
- Brown, S.W. and E.U. Bond, 1995. The internal market/external market framework and service quality: Toward theory in service marketing. *J. Market. Manage.*, 11: 25-39.
- Buttle, F., 1996. Servqual: Review, Critique, research agenda. *Eur. J. Market.*, 30: 8-32.
- Carman, J.M., 1990. Consumer perceptions of service quality: An assessment of the SERVQUAL dimensions. *J. Retailing*, 66: 33-55.
- Cronin, J.J. and S.A. Taylor, 1992. Measuring service quality: A reexamination and extension. *J. Market.*, 56: 55-68.
- Cronin, J.J. and S.A. Taylor, 1994. Servperf versus Servqual: Reconciling performance-based and perceptions minus expectations measurement of service quality. *J. Market.*, 58: 125-131.
- Cronin, J.J., M.K. Brady and G.T.M. Hult, 2000. Assessing the effects of quality, Value and customer satisfaction on consumer behavioral intentions in service environments. *J. Retailing*, 76: 193-218.
- Cui, C.C., B.R. Lewis and W. Park, 2003. Service Quality measurement in the banking sector in South Korea. *Int. J. Bank Market.*, 21: 191-201.
- DeAngelo, L.E., 1981. Auditor size and audit quality. *J. Account. Econ.*, 3: 183-199.
- Donnelly, M., M. Wisniewski, J.F. Dalrymple and A.C. Curry, 1995. Measuring service quality in local government: The Servqual approach. *Int. J. Pub. Sec. Manage.*, 8: 15-20.
- Fornell, C. and D.F. Larcker, 1981. Evaluating structural equation models with unobservable variables and measurement error. *J. Mar. Res.*, 18: 39-50.
- Frantz, P., 1999. Does an Auditor's Skill Matter? Responses to and preferences amongst auditing standards. *Int. J. Audit.*, 3: 59-80.
- Hair, J.F. Jr., R.E. Anderson, R.L. Tatham and W.C. Black, 1998. *Multivariate Data Analysis*. 5th Edn., Prentice Hall International, Englewood Cliffs, New Jersey, ISBN: 0-13-930587-4.
- Hair, J.F., R.P. Bush and D.J. Ortinau, 2000. *Marketing Research: A Practical Approach for the New Millennium*. McGraw-Hill, New York.
- Hansen, S., K.R. Kumar and M.W. Sullivan, 2006. Auditor Capacity Stress and Audit Quality: Market-Based Evidence from Andersen's Indictment. The George Washington University, American Accounting Associations, Washington.
- Houghton, K.A. and C.A. Jubb, 2003. The market for financial report audits: Regulation of and competition for auditor independence. *Law Policy*, 25: 299-321.

- Hume, M., G.S. Mort and H. Winzer, 2007. Exploring repurchase intention in a performing arts context: Who Comes? And why do they come back. *Int. J. Nonprofit Vol. Sec. Market.*, 12: 135-148.
- Jain, S.K. and G. Gupta, 2004. Measuring services quality: Servqual vs. Servperf Scale. *Vikalpa*, 29: 25-37.
- Kara, A., S. Lonial, M. Tarým and S. Zaim, 2005. A paradox of service quality in turkey the seemingly contradictory relative importance of tangible and intangible determinants of service quality. *Eur. Business Rev.*, 17: 5-20.
- Lewis, B.R., J. Orledgi and V.W. Mitchell, 1994. Service quality: Students' assessment of banks and building societies. *Int. J. Bank Market.*, 12: 3-12.
- Llosa, S., J.L. Chandon and C. Orsingher, 1998. An empirical study of SERVQUAL's dimensionality. *Service Indust. J.*, 18: 16-44.
- Lovelock, C.H., 1991. *Service Marketing*. 2nd Edn., Prentice Hall International, New Jersey.
- Moizer, P., 1991. *Independence*. 2nd Edn., Paul Chapman Publishing Ltd., London.
- Oh, H., 1999. Service quality, Customer satisfaction and customer value: A holistic perspective. *Int. J. Hospital Manage.*, 18: 67-82.
- Oliver, R.L., 1980. A cognitive model of the antecedents and consequences of satisfaction decisions. *J. Market. Res.*, 17: 460-469.
- Olorunniwo, F.M., K. Hsu and G.J. Udo, 2006. Service quality, customer satisfaction and behavioral intentions in the service factory. *J. Service Market.*, 20: 59-72.
- Parasuraman, A., V.A. Zeithaml and L.L. Berry, 1985. A conceptual model of service quality and its implications for future research. *J. Market.*, 49: 41-50.
- Parasuraman, A., V.A. Zeithaml and L.L. Berry, 1988. SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *J. Retailing*, 64: 12-40.
- Parasuraman, A., L.L. Berry and V.A. Zeithaml, 1991. Refinement and reassessment of the SERVQUAL scale. *J. Retailing*, 67: 420-450.
- Parasuraman, A., L.L. Berry and V.A. Zeithaml, 1993. More on improving service quality measurement. *J. Retailing*, 69: 140-147.
- Schumacker, R.E. and R.G. Lomax, 2004. *A Beginner's Guide to Structural Equation Modeling*. 2nd Edn., Lawrence Erlbaum Associates, New Jersey, ISBN: 0-8058-4017-6.
- Siu, N.Y.M. and J.T. Cheung, 2001. A measure of retail service quality. *Market. Intell. Plann.*, 19: 88-96.
- Sureshchandar, G.S., C. Rajendran and T.J. Kamalanabhan, 2001. Consumer perception of service quality: A critique. *Total Qual. Manage.*, 12: 111-124.
- Taylor, S.A. and T.L. Baker, 1994. An assessment of the relationships between service quality and customer satisfaction in the formation of consumers' purchase intentions. *J. Retailing*, 70: 163-178.
- Turner, L.D., G.R. Aldhizer and M. Shank, 1999. Client perception of MAS quality as measurement by a marketing-based service quality model. *Account. Horizons*, 13: 17-36.
- Woolf, E., 1979. *Auditing Today*. 2nd Edn., Prentice-Hall International, London, ISBN:0-13-052159-0.
- Wooten, T.C., 2003. Research about audit quality. *CPA J.*, 73: 48-64.
- Yuan, J. and S. Jang, 2008. The effects of quality and satisfaction on awareness and behavioral intentions: Exploring the role of a wine festival. *J. Travel Res.*, 46: 279-288.
- Zeithaml, V.A., A. Parasuraman and L.L. Berry, 1985. Problems and strategies in services marketing. *J. Market.*, 49: 33-46.
- Zhao, X., C. Bai and Y.U. Huý, 2002. An empirical assessment and application of SERVQUAL in a Mainland Chinese department store. *Total Qual. Manage.*, 13: 241-254.
- Zhou, L., 2004. A dimension-specific analysis of performance-only measurement of service quality and satisfaction in China's retail banking. *J. Service Market.*, 18: 534-546.