A STUDY ON CUSTOMER LOYALTY TO SERVICE QUALITY IN INDEPENDENT AUDITING FIRMS

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Auditing quality is the level of customer satisfaction with the objectivity and reliability of the audit service (Ministry of Finance, 2012). This study explores the relationship between service quality and the loyalty of customers in Vietnamese domestic independent auditing firms. This study was conducted in Hanoi, Vietnam, based on a sample of 250 general accountants and chief accountants who are working for customer firms with transactions at Vietnamese domestic independent auditing firms in Hanoi city. Based on the collected data, we run Cronbach’s alpha, exploratory factor analysis (EFA), Kaiser-Meyer-Olkin (KMO) test, Bartlett’s test, and regression using SPSS software. The results show that service quality positively affects the loyalty of customers (LOY), including reliability (REL), responsiveness (RES), assurance (ATT), empathy (EMP), and tangibility (TAN). Moreover, it recognizes the higher weight of customer loyalty in firms. The research determined that service quality can promote customer loyalty. Besides, the services of domestic independent auditing firms have many different characteristics compared to other industries. Therefore, there is a need for more studies on the relationship between service quality and customer loyalty in the audit field. From there, it contributes to perfecting the theoretical framework on customer loyalty and is a useful reference for domestic independent auditing firms, auditors, and audit researchers.

Keywords: Customer Loyalty, Service Quality, Auditing, Accounting, Domestic Independent Auditing Firms


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1. INTRODUCTION

Over the past time, Vietnam’s accounting and auditing service market has basically developed according to all criteria, both in terms of service quality and operational scale, thereby contributing to improving the quality, making it healthy, and enhancing the publicity and transparency of the economic and financial activities of all units and organizations in the economy. From there, it also contributes to improving customer loyalty.

Auditing service, following the words of audit specialists, is a process of testing, examining, verifying, evaluating, concluding, and identifying the completeness, integrity, and rationality of audit documents, data, and financial statements. It is provided by an audit firm that has been licensed to operate in the field of auditing. Regarding the role of audit services to firms and organizations, it deals with ensuring compliance with the laws, identifying audit flaws incurred, ensuring the best objectivity possible, supporting firms to predict economic forecasts as well as enhancing the quality and reliability of audited statements. The process of auditing a financial statement of independent auditing firms is built on the basis of compliance with the standards, independent auditing regulations, and current accounting regime of Vietnam, and at the same time, select and apply international common standards and practices in the professional field on the basis of suitability with business performance and economic management in Vietnam.

By December 2020, Vietnam had 204 auditing firms, 10 of which were businesses with foreign invested capital and the rest were run with 100% domestic capital (Le, 2022). Therefore, customers’ demands are on the rise, and they have more opportunities to choose among various services but fewer constraints on the auditing service providers. In addition, through the author’s observations, there is an increased number of customers switching to audit service providers, most of whom choose foreign-invested auditing firms, indicating that satisfaction with domestic auditing firms has fallen.

There have been many studies on the relationship between service quality and customer loyalty in different fields, such as banking (Nguyen & Pham, 2015; Ngo, 2022), ride-hailing app business (Nguyen, 2019), A-Mart convenience store chain, Nha Trang branch (Tran, 2020), Viettel phone service in Binh Thuan Province (Phan et al., 2020), and MMTV service in Nghe An Province (Thai & Nguyen, 2021). However, audit services have some distinctive features compared to the aforementioned services, such as independent auditing firms using the sample audit program to audit financial statements from the Vietnam Association of Certified Public Accountants (VACPA, 2019). The main contents of a sample audit program for auditing financial statements include 1) an audit plan; 2) synthesis, conclusion, and file reports; 3) an internal control system check; 4) a detailed property check; 5) a detailed payable check; 6) a detailed capital check; 7) a detailed income statement report check; 8) other compilation inspections (VACPA, 2019). In addition, customers of auditing firms are quite diverse in terms of scale, including large-, medium-, and small-scale, and sectors such as industrial production, commerce, service, hospitality, and construction.

Retaining current customers and attracting prospective ones are two ineluctable concerns of independent auditing firms that seek sustainable competition. Being aware of customers’ roles, auditing firms have been striving to bring satisfaction to them right in their territories and expose their service to new customers, thereby securing customer loyalty.

Customer loyalty is the commitment of customers to repurchase products or services consistently in the future despite being influenced by external factors or marketing efforts to create a conversion action (Kotler & Keller, 2006). Service quality is defined as the gap between customers’ expectations and their consciousness after using the service (Parasuraman et al., 1988). It is also a measure of how the demands and expectations of customers are met (Wisniewski, 1996).

This paper also aims to prove that service quality in the audit industry is just as important as paying attention to service quality in other industries. The paper also includes the purpose of proving to customers that independent auditing firms go through different processes and corrective actions to guarantee that the best results with the highest quality are offered to customers and to ensure that customers are beyond delighted in terms of what is offered to them from services.

Service quality in the accountant and audit industry hasn’t been given the same consideration and attention as in the bank industry, television industry, etc., as many small businesses have not used this service yet and think that it’s not as important. Furthermore, there are International Standards on Auditing (ISA) and Vietnamese Standards on Auditing (VSA). The researchers aim to apply a narrower scope regarding the importance of audit service quality in the audit industry around the globe in general and in Vietnam in particular.

It can be understood that there is a direct relationship between the quality of the services offered to customers in the audit industry and customers’ loyalty to what’s being offered. So, it is academically interesting to explore this connection between service quality and customer loyalty in Vietnam. For independent auditing firms, the connection between measured variables must be the same and different from prior published papers on the same topic.

The remainder of the paper is structured as follows: Section 2 reviews the relevant literature to explore the variables and their interrelationships. Section 3 presents the research methodology. The authors provide the attained results of the performed analysis using the regression equation in Section 4. Section 5 presents the discussion, and Section 6 represents the conclusion, the limitations and future research directions.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

The synthesis of research conducted with many different industries shows three contents, including: 1) customer loyalty, 2) service quality, and 3) audit service quality.
21. Customer loyalty

There are different views on customer loyalty, as shown by previous studies, such as loyalty is a deeply held commitment to rebuy or re-patronize a preferred product or service consistently in the future (Oliver, 1999). Customer loyalty is a customer's attitude toward a service provider (Dick & Basu, 1994; Pritchard et al., 1999). Loyalty is defined as a deep commitment to purchasing products of a particular brand rather than those of another in the future (Yoo et al., 2000).

According to Caruana (2002), loyal customers 1) frequently opt for one particular service provider, 2) extremely enjoy and highly evaluate the provider, and 3) have no thought of switching to another service provider. There are three approaches to studying customer loyalty: 1) behavior-based approach, 2) attitude-based approach, and 3) mixed approach (assess both behavior and attitude) (Nguyen & Pham, 2015).

Customer loyalty concerns the attitudinal and behavioral tendency to support one brand more than others as a result of habits and attachment to the brand (Keh & Lee, 2006). It encourages consumers to frequently purchase products or services, devote their money to them, and feel comfortable about shopping, leading them to familiar brands in a highly competitive market (Keh & Lee, 2006).

According to Jones and Taylor (2007), behavioral loyalty results from customers' repetition of either their intention or their behavioral chain of purchasing.

Loyalty, in other words, is customers’ long-term and absolute faith in the products and services of firms. It plays an important role in determining their success (Thai & Nguyen, 2021).

The concept of loyalty consists of two main components: behavioral loyalty in relation to repeated purchase behavior and behavioral loyalty demonstrating a degree of attachment and commitment to the brand (Harris & Goode, 2004). Services provided by domestic independent auditing firms are partially mandatory products and mostly put no constraints on consumer choice that, in most cases, can be put down to habits or context constraints (Lin & Ding, 2005). Therefore, this study focuses solely on the attitudinal aspect of measuring customer loyalty to domestic independent auditing firms that have provided audit services to them for a long period of time. In other words, the concept of loyalty in this study deals with one's continuity in using the services of a domestic independent auditing firm over time.

Customer loyalty and retention can increase when the total service quality technique is used in any business, but especially in the audit industry. When a customer has high-quality financial statements, attracting investors, this can lead to increased satisfaction and delight, which leads to an increased desire for the customer to repeat the experience, which means that existing customer retention will increase. Therefore, we based our decision on the results of these studies to determine the scales (attributes) of the customer's loyalty to the service quality of the independent auditing firms.

22. Service quality

Customers might see quality from a different perspective because they want their expectations to be met and exceeded without having to think about the work process; after all, the quality of the end product is what matters to them (Aladwan et al., 2022). And service quality has been of interest to many researchers.

Concepts of service quality are outcomes of research on consumer behavior and identified and unidentified models (Grönroos, 1984). Some came to signify that consumers evaluate quality by comparing product performance to their expectations (Grönroos, 1984; Lehtinen & Lehtinen, 1982). From the perspective of Oliver (1980), service quality is poorly evaluated if consumers' expectations are hardly met and highly evaluated if the performance goes beyond expectations.

One of the most representative service quality models is the model by Parasuraman et al. (1988), which has been used by many researchers to study the service quality of organizations and firms. They tested multiple times and concluded that components of service quality include: 1) reliability: ability to perform the service appropriately and punctually at the first time; 2) responsiveness: desire and willingness of the service staff to provide timely service to customers; 3) assurance: professional qualifications and polite and affectionate manner toward customers; 4) empathy: care for each customer; and 5) tangibility: appearance, attire of the service staff, and service equipment.

Parasuraman et al. (1988) built and verified a five-dimension service quality scale (SERVQUAL). The scale had been tested, adjusted multiple times, and assessed to fit all service types (Parasuraman et al., 1991). The final version of the model consists of 22 observable variables (Nguyen, 2007). Therefore, based on the research of Parasuraman et al. (1988), customer loyalty to service quality is influenced by responsiveness, reliability, assurance, empathy, and tangibility.

Vietnam has also proposed some research on service quality, besides those from other parts of the world, using SERVQUAL and SERVPERF models and properly adding observable variables, such as Nguyen et al. (2016), Pham and Le (2018), Ngo et al. (2019), Nguyen and Ngo (2019), Nguyen and Phan (2020), Nguyen (2020), Nguyen et al. (2022), Nguyen and Vu (2022), Hoang and Nguyen (2022), and Nguyen (2023). According to Nguyen (2023), air logistics service quality includes 1) transport volume, 2) infrastructure, 3) human resources, 4) organization and connectivity, and 5) service capabilities.

The topic of the caliber of accounting services has received only scant attention from researchers in the field of accounting, such as Mouhmmad et al. (2023). Thu and Binh (2023), Nguroho et al. (2022) and Azzari et al. (2021). Besides, Ali et al. (2023) reviewed relevant literature on the quality of accounting services provided by professional accountants (small medium practices, SMPs) to small and medium-sized enterprises (SMEs). They show that there are two types of accounting services provided, namely, traditional accounting services and business advisory services.
2.3. Audit service quality

In terms of service quality, auditing quality is the level of customer satisfaction with the objectivity and reliability of the audit service and the provision of recommendations with a view to enhancing the financial and accounting management of the audited company within a reasonable amount of time and cost (Ministry of Finance, 2012).

The experts interviewed agreed that the quality of audit services provided by independent auditors is reflected in the following aspects:

Reliability of audit services: Reliability is one of the criteria customers use to evaluate the reputation and quality of the service. When clients seek an audit service, they consider whether the service can meet their needs. In the market, there are hundreds of enterprises providing audit services with different costs and reputations. Moreover, independent audit firms are more trusted as the number of customers turning to independent auditing firms is increasing; clients highly appreciate the quality of audit services; independent auditing firms have more information about working addresses and professional working certificates; and independent auditing firms fully perform all commitments and work under the signed contract.

The capacity of independent auditing firms: A high-quality independent auditing firm usually has many qualified staff members with extensive professional knowledge who can handle simple to complex tasks, which ensures the work goes smoothly, accurately, and without any mistakes.

Understanding customers: Independent auditing firms with good service quality always have a professional demeanor when talking to customers. They often have many ways to pay special attention to customers and understand their needs. Independent auditing firms can find out the reasons why customers seek audit services, give specific and detailed advice, answer customers’ questions, or even give them free consultations.

Punctuality of audit reports: The quality of audit services is also reflected in whether the audit report is prepared and issued on time or not. Financial information, if provided in a timely manner, will have many effects, contributing to management’s decision-making and opening up business opportunities. The time allotted for preparing and issuing the audit report is also noted in the audit contract or the audit appointment letter.

Service commitment: An independent auditing firm with good quality audit services always ensures the completion of the contract, the accuracy of the signed tasks, takes responsibility and supports the client under all circumstances. Furthermore, independent auditing firms should also suggest solutions to improve and enhance the management system, helping their clients create new values.

By June 30, 2021, Vietnam had 208 auditing firms (an increase of 7.2% compared to 194 on August 31, 2020, due to a number of newly formed companies) and 2,311 practicing auditors (an increase of 2.7% compared to 2,250 on August 31, 2020); the number of customers in the whole industry was 61,079, tantamount to an increase of 4% compared to 56,362 on August 31, 2020 (Ministry of Finance, 2021). The services provided by auditing firms have been continuously expanded and diversified. Such services are: auditing financial statements, reviewing historical financial information, auditing completed project final settlement reports, and other assurance services; consulting; complying with financial information; computer services; asset valuation; staff recruitment; professional training; and information and data provision. The expansion of services has enabled auditing firms to progressively meet the diverse demands of customers and the process of restructuring and equitizing state-owned enterprises in recent years. However, audit services at some enterprises are still limited and have not met standards. Therefore, the results of the determinant (in this case study, service quality) analysis are expected.

2.4. Hypotheses development

Service quality directly influences customers’ intentions and loyalty (Cronin et al., 2000). Improved service quality can be conducive to an increase in usage intention and a decrease in complaints (Mandhachitara & Poolthong, 2011).

Curry and Sinclair (2002) predicate that providing fully satisfied services and meeting the expectations of customers can result in customer satisfaction, and vice versa. Wicks and Roethlein (2009) are of the opinion that enhancing customer satisfaction leads to better loyalty, thus an increase in repurchase intention and a decline in brand switching. In 2006, Nguyen (2006), after collecting and studying data from 318 customers of 4 chains of supermarkets based in Ho Chi Minh City, came to the conclusion that 1) service quality is an important catalyst for customer satisfaction and fosters customer loyalty to the services provided by the supermarkets; 2) service quality is one of the prerequisites for customer loyalty, attracting new customers, improving the operation efficiency of firms, reducing costs, and bolstering the firms’ images.

Kuusik (2007) affirms that there are four factors influencing customer loyalty, including: 1) trustworthiness; 2) importance of relationships; 3) satisfaction; and 4) image. Among them, 1) trustworthiness and 2) the importance of relationships are the strongest. Mavri and Ioannou (2008) find that the quality of services and products provided by banks has a positive influence on customer loyalty.

The theory of Parasuraman et al. (1988) focuses on assessing service quality from the customer’s viewpoint and features superior diagnostic capability when applied to a particular service domain, with deficiencies in service quality being comprehensively assessed for that service. Moreover, according to the regulations on mandatory auditing specified by Vietnam in many articles, such as Article 37 of the Independent Audit Law dated March 29, 2011 (National Assembly, 2011) and Article 15 of Decree No. 17/2012/ND-CP dated February 13, 2012 (Government of Vietnam, 2012) on audit subjects, audit services are one of the partially mandatory products. Thus, auditing firms providing partially mandatory audit services need to evaluate based on the comparison between the perception and expectations of customers to retain customers. So, this study applies the model by
Parasuraman et al. (1988) to devise a model for studying the influences of service quality on customer loyalty.

Aladwan et al. (2022) are one of the typical studies on customer loyalty to service quality and the influence of service quality on customer loyalty.

Besides, the services of independent auditing firms have many different characteristics compared to other industries, such as:

1. Auditing services provided by independent auditing firms include auditing statutory financial reporting; audit reports on finalization of investment capital of completed projects; operational audit; compliance audit; internal audit; reviewing information on financial statements; checking financial information on the basis of pre-agreed procedures; reviewing according to business requirements to serve the process of restructuring, consolidation, separation, merger, and dissolution.

2. Financial statement audit service objective: To express an opinion on the truthfulness and reasonableness of the financial statements on the basis of the following basic principles: compliance with the law; adhering to the principles of professional ethics; compliance with auditing standards. The process of auditing financial statements by independent auditing firms will always be associated with information and consulting support to contribute to perfecting the internal control system and the accounting organization. accounting and financial management of enterprises (customers).

3. The process of independent auditing services: Most independent auditing firms operate on the principles of independence, objectivity, integrity, and protecting the interests and business secrets of their clients, such as themselves, on the basis of compliance with the law. The principles of professional ethics, the quality of services provided, and the reputation of the independent auditing firm are the top standards that every employee of the firm always adheres to. Therefore, there is a need for more studies on the relationship between service quality and customer loyalty in the audit field. From there, it contributes to perfecting the theoretical framework on customer loyalty and is a useful reference for domestic independent auditing firms, auditors, and audit researchers.

Since this study aims to examine the influence of determinants (in this case, service quality) on customer loyalty, the research hypotheses to be discussed include:

**H1:** Audit service quality: reliability (REL) has a positive influence on customer loyalty for domestic independent auditing firms.

**H2:** Audit service quality: responsiveness (RES) has a positive influence on customer loyalty of domestic independent auditing firms.

**H3:** Audit service quality: assurance (ATT) has a positive influence on the customer loyalty of domestic independent auditing firms.

**H4:** Audit service quality: empathy (EMP) has a positive influence on the customer loyalty of domestic independent auditing firms.

**H5:** Audit service quality: tangibility (TAN) has a positive influence on the customer loyalty of domestic independent auditing firms.

### 3. METHODOLOGY

#### 3.1. Sample selection

Data collection for this study is conducted using convenience sampling and survey forms sent to corporate customers, with chief and general accountants being representatives of domestic independent auditing firms in Hanoi.

This study selected Hanoi as the study area because the city is known as having the most significant economic growth in Vietnam and having the most firms. The number of firms using the service of domestic independent auditing firms is as expected. The research results from Hanoi may become typical for emerging economic regions in the region.

For the purpose of testing a number of hypotheses that are generated from previous theories to prove the relationship between particular variables, this research is collecting quantitative data to test the hypotheses.

After finishing the online and offline survey processes, there were 300 responses collected, but only 250 were counted as valid observations to be examined further in this research (see Table 1). 50 respondents did not completely reply to the survey’s questions, for example, by not thoroughly evaluating the scales or by selecting the same level (level 2 or 3 for all scales).

As the demographic information is collected in the first part of the questionnaire, it is analyzed in general statistical form to see the breakdown of frequency and percentage of each control variable. Descriptive analysis is applied to aggregate the overall respondents’ profiles. Table 1 gives the results of the descriptive analysis.

**Table 1. Demographic characteristics of respondents**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>161</td>
<td>64.4</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>99</td>
<td>35.6</td>
</tr>
<tr>
<td>Job position</td>
<td>General accounting</td>
<td>103</td>
<td>41.2</td>
</tr>
<tr>
<td></td>
<td>Chief accountant</td>
<td>147</td>
<td>58.8</td>
</tr>
<tr>
<td>Work experience</td>
<td>Less than 5 years</td>
<td>39</td>
<td>15.6</td>
</tr>
<tr>
<td></td>
<td>From 5 to 10 years</td>
<td>46</td>
<td>18.4</td>
</tr>
<tr>
<td></td>
<td>Over 10 years</td>
<td>165</td>
<td>66.0</td>
</tr>
</tbody>
</table>

From the descriptive analysis, we can see that:

**Genders:** The results showed that 89 male and 161 female participants responded to the questionnaire. The number of women is higher (64.4% and 35.6%). The gender gap in this survey is consistent with the statistics of the accountants in the whole firm’s country.

**Job position:** The results showed that 103 general accounting and 147 chief accounting participants responded to the questionnaire. The number of chief accountants is higher (58.8% and 41.2%).

**Work experience:** According to the analysis results, the number of surveyed people with work experience over 10 years accounts for the largest proportion. The second is from 5 to 10 years, and the last is less than 5 years. The work experience...
structure of the surveyed subjects is similar to that of working accountants.

The main purpose of the control variable is to compare the results of the survey subjects’ assessments of the service quality of independent auditing firms.

3.2. Research design and variable measurement

Both quantitative and qualitative methodologies were used in the investigation. The authors were able to develop a theoretical framework for quantifying variables and factors by starting the study process with a thorough examination of pertinent literature. The writers then conducted surveys and interviews.

The questionnaire was designed based on the theories and literature review. It includes 28 observation variables with a 5-point Likert scale (for the dependent variable: from 1 “not totally agree” to 5 “fully agree”; the degree of influence of independent variables is determined by the 5-point Likert scale: from 1 “not influenced” to 5 “very influenced”). All the items used in each part are based on validated scales from previous studies by results of previous studies.

3.3. Research model

Based on the literature review and the theories, and inheriting the research results of previous studies, the conceptual model research framework of this study is depicted in Figure 1.

The research model is designed to examine the relationship between determinants (in this case, service quality) and customer loyalty. The collected data will be analyzed by the SPSS statistical analysis software.

4. RESEARCH RESULTS

By using SPSS software, the results of this research are shown in detail below.

4.1. Cronbach’s alpha: Reliability

In order to conduct the reliability test, Cronbach’s alpha is used as the most popular and effective tool in SPSS analysis (Hair et al., 2010). In this research, Cronbach’s alpha test is applied to one dependent variable and five independent variables. Table 2 demonstrates the result of Cronbach’s alpha test. Hair et al. (2010) also note that Cronbach’s alpha result should be equal to or higher than 0.7 (≥ 0.7) to be reliable enough for research. The Cronbach’s alpha results in Table 2 all meet these standard requirements, which means that every item in the questionnaire has a good level of reliability and can be accepted for use in this research.

4.2. Factor analysis

George and Mallery (2016) emphasize that one of the most crucial steps when analyzing data with SPSS is exploratory factor analysis (EFA), which identifies the correlation among observed variables and examines the validity of the set of items.

In this research, the Kaiser-Meyer-Olkin (KMO) test and Barlett’s Test for independent variables are conducted, as illustrated in Table 3. As shown, the KMO value is 0.924 (0.5 < 0.924 < 1) and the sig. value is 0.000, which is smaller than 0.05 (< 0.05), which means these values satisfied the conditions in the study (Hair et al., 2010). In addition, after implementing the rotation matrix, we got the following: every determinant with factor load > 0.5, has eigenvalues of 1.160 > 1, and the variance explained is 72.056%. It demonstrates that the factor analysis of the research data is appropriate.

<table>
<thead>
<tr>
<th>Variables and coding</th>
<th>Cronbach's alpha</th>
<th>Item total correlation</th>
<th>No. of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability (REL)</td>
<td>0.913</td>
<td>0.758</td>
<td>5</td>
</tr>
<tr>
<td>Responsiveness (RES)</td>
<td>0.914</td>
<td>0.754</td>
<td>4</td>
</tr>
<tr>
<td>Assurance (ATT)</td>
<td>0.855</td>
<td>0.667</td>
<td>4</td>
</tr>
<tr>
<td>Empathy (EMP)</td>
<td>0.883</td>
<td>0.735</td>
<td>4</td>
</tr>
<tr>
<td>Tangibility (TAN)</td>
<td>0.833</td>
<td>0.540</td>
<td>5</td>
</tr>
<tr>
<td>Customer loyalty (LOY)</td>
<td>0.907</td>
<td>0.685</td>
<td>6</td>
</tr>
</tbody>
</table>

KMO measure of sampling adequacy | 0.924

Barlett’s test of sphericity

<table>
<thead>
<tr>
<th>Approx. Chi-square</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,554.759</td>
<td>0.000</td>
</tr>
</tbody>
</table>
Regression model analysis

In this study, there are five independent variables and one dependent variable, and multiple regression analysis is conducted to determine the outcome. In this research, the regression step will be performed with one variable, customer loyalty.

To test hypotheses H1, H2, H3, H4, and H5 on the influence of service quality on customer loyalty, research and implement the model regression (see Figure 1). Table 4 illustrates the validity of the model as well as the relationships between the five independent variables (predictor) and the dependent variable, customer loyalty. In this model, the R-square value is 0.662, which means that 66.2% of the variance of customer loyalty can be explained by five variables (Hair et al., 2010; Hoang & Chu, 2008). The p-value (sig. value) in the analysis of variance (ANOVA) test with a 95% confidence interval is 0.000 and satisfies the condition of being lower than 0.05 (Table 5). That is to say, the ANOVA analysis proves that the linear model is meaningful (Hair et al., 2010; Hoang & Chu, 2008).

Table 4. Model summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R-square</th>
<th>Adjusted R-square</th>
<th>Std. error of the estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.813*</td>
<td>0.662</td>
<td>0.653</td>
<td>0.36132832</td>
<td>1.870</td>
</tr>
</tbody>
</table>

Note: Dependent variable: LOY. * Predictors (Constant): ATT, TAN, RES, REL, EMP.

Table 5. ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of squares</th>
<th>Df</th>
<th>Mean square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>150.359</td>
<td>5</td>
<td>30.072</td>
<td>93.371</td>
<td>0.000*</td>
</tr>
<tr>
<td>Residual</td>
<td>76.937</td>
<td>244</td>
<td>0.315</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>227.295</td>
<td>249</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Dependent variable: LOY. * Predictors (Constant): ATT, TAN, RES, REL, EMP.

Table 6. Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized coefficients</th>
<th>Standardized coefficients</th>
<th>T</th>
<th>Sig.</th>
<th>Collinearity statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>2.766E-16</td>
<td>0.036</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATT</td>
<td>0.148</td>
<td>0.054</td>
<td>0.148</td>
<td>0.000</td>
<td>0.662</td>
</tr>
<tr>
<td>TAN</td>
<td>0.249</td>
<td>0.055</td>
<td>0.251</td>
<td>0.000</td>
<td>0.475</td>
</tr>
<tr>
<td>RES</td>
<td>0.184</td>
<td>0.052</td>
<td>0.180</td>
<td>0.000</td>
<td>0.544</td>
</tr>
<tr>
<td>EMP</td>
<td>0.193</td>
<td>0.060</td>
<td>0.191</td>
<td>0.000</td>
<td>0.386</td>
</tr>
<tr>
<td>ATT</td>
<td>0.211</td>
<td>0.064</td>
<td>0.207</td>
<td>0.000</td>
<td>0.632</td>
</tr>
</tbody>
</table>

Note: Dependent variable: LOY. VIF — variance inflation factor.

In the coefficients result shown in Table 6, all of the p-values (sig. values) are less than 0.05, meaning the independent variables are the significant predictors for the dependent variable. Further, the VIF values on both predictors are lower than 2, meaning there is no multicollinearity (Hair et al., 2010; Hoang & Chu, 2008).

The output supports the correlation test as all of the variables have positive relationships with customer loyalty. Thence, five hypotheses (H1, H2, H3, H4, and H5) are accepted.

Based on the result, the regression equation can be established as below:

\[ \text{LOY} = 0.148\text{REL} + 0.251\text{RES} + 0.180\text{TAN} + 0.191\text{EMP} + 0.207\text{ATT} \]

Residual analysis result

Figures 2 and 3 show that the mean value of the residuals is mean = -2.00E-16. Therefore, the residuals are normally distributed (residuals without autocorrelation), the model fits the data, and the estimation results are reliable (Hair et al., 2010; Hoang & Chu, 2008).

![Figure 2. Regression standardized residual](image)
5. DISCUSSION

5.1. Audit service quality: Responsiveness

Audit service quality: responsiveness consists of 4 scales in direct proportion to customer loyalty, with a correlation coefficient of 0.251. This has the greatest influence among the five factors on customer loyalty.

According to the management agency’s assessment, some auditing firms have not developed or implemented well the policies and procedures to supervise the quality of audit services, which resulted in the quality of audit services falling short of the standards (Ministry of Finance, 2021). Therefore, domestic audit firms must maintain and strengthen their commitments with clients. In addition, they also need to provide the best conditions for clients to fully and properly access the information sources of the enterprise. Various communication channels can be used to assist clients in acquiring the most accurate information, including commercial channels: information on the website of the audit firm, the staff of the audit firm, personal relationships: friends and families of audit firm employees, and public channels: the mass media.

The responsiveness of the independent audit firm is crucial for the quality of audit services. Therefore, independent auditing firms should focus on ensuring their sustainable ability to provide more consistent, high-quality services to their clients.

Employees’ responsiveness is a significant factor in providing customer-oriented service quality, which is also one of the most valuable assets of each audit firm. Employees’ responsiveness greatly influences how well services are delivered. Therefore, domestic independent auditing firms must improve the quality of their human resources through recruitment, training, appropriate resource allocation, and the creation of a good working environment for staff to dedicate themselves professionally to their careers and clients.

5.2. Audit service quality: Assurance

Audit service quality: assurance consists of 4 scales in direct proportion to customer loyalty, with a correlation coefficient of 0.207. This features the second influence among the five factors on customer loyalty.

Independent auditing firms need to develop, perfect, and implement policies and procedures to control the quality of audit services. In addition, the auditor should work for an independent auditing firm in order to minimize negative impacts on service quality.

Customer-centered firms can estimate and evaluate the working capacity of independent auditing firms based on: 1) the approach to customers of independent auditing firms by auditing service providers; 2) the attitude of the auditors of independent auditing firms toward customers; and 3) the accuracy of the content that the independent auditing firms have consulted. Therefore, independent auditing firms need to improve the quality of audit services by recruiting a team of capable staff with profound professional knowledge and the ability to face all issues, from the simplest to the most difficult.

The working environment of practicing auditors gives rise to many situations that may affect the interests of many stakeholders, such as shareholders, loan providers, state management agencies, and sales partners, as well as the interests of auditors and auditing firms. The introduction of specific regulations in the legal documents and practice standards to handle all situations is impossible due to differences in the nature of each contract and the assigned work, so the risks arising will also be different and require different solutions. Therefore, it is appropriate to develop and issue ethical standards with basic ethical principles that the auditor must comply with.

5.3. Audit service quality: Empathy

Audit service quality: empathy consists of 4 scales in direct proportion to customer loyalty, with a correlation coefficient of 0.191. This is the third influence among the five factors on customer loyalty.

Empathy is paying attention to the needs of customers in the best way possible. The greater the service provider’s interest in the customer, the more sympathy will increase (Parasuraman et al., 1988).
For customers of auditing firms: independent auditing firms verify and provide information to customers; perform consulting tasks for enterprises; contribute to the timely detection of errors; and propose remedies.

Building people’s trust is one of the prominent roles of independent auditing firms. Independent auditing contributes to clarifying and verifying information in financial statements. Therefore, entities such as state agencies, banks providing loan services to firms, and shareholders investing in firms always have faith in independent audits.

Employees, based on clear financial statements and the quality that independent audits provide, can consider and choose for themselves the right business to work with.

In order to improve the quality of audit services, independent auditing firms should:

1) require professional staff to provide an explanation of their independence to customers, assigning competent persons to check the independence of employees; take timely measures to detect and prevent beneficial relationships that violate the objective independence of auditing activities; 2) regularly consider and evaluate the serving ability of the auditing company and the integrity of the manager of the client company. Once an auditing company has a full range of professional staff who are really knowledgeable about the business of the customer, it is allowed to conduct an audit on that customer. If doubts regarding the integrity of the manager are severe, the auditing firm may refuse to audit.

5.4. Audit service quality: Tangibility

Audit service quality: tangibility consists of 5 scales in direct proportion to customer loyalty, with a correlation coefficient of 0.180. This features the four influences among the five factors on customer loyalty.

Independent auditing firms use audit software and sample audit programs to perform their jobs.

For audit software: Most independent auditing firms could design their own audit software. Designed auditing software is mainly Excel files. Auditing software will help auditors further improve the quality and efficiency of the audit.

For the sample financial statements audit program, independent auditing firms use the sample audit program issued by the VACP A (2019). The 2019 sample financial statement audit program has officially taken effect as of January 1, 2020. The application of this program will help auditors as well as auditing firms address limitations in implementing the risk-based approach to a financial statement audit. Accordingly, this program 1) strengthens risk assessment and conducts control tests, and 2) focuses on significant audit procedures. This program has also changed significantly compared to previous versions towards a relatively complete approach, in line with international practices. In order to effectively promote the application of the new financial statement model audit program, VACP A has been developing training materials to boost dissemination and support to help to apply objects fully and accurately understand the requirements of the 2019 financial statement sample audit program, thereby flexibly and appropriately applying it to each audit (Ha, 2020).

5.5. Audit service quality: Reliability

Audit service quality: reliability consists of 5 scales in direct proportion to customer loyalty, with a correlation coefficient of 0.148. This features the final influence among the five factors on customer loyalty.

Reliability, one of the important components of service quality, is one of the factors that customers base their decisions on to determine whether the service is reputable, quality, and accurate or not. In addition, customers can also evaluate and consider the level of service response to their needs.

Reliability is expressed through the number of customers coming to the auditing firm, an assessment of the quality of services that the firm publishes on its website, and sufficiency in information such as the working address and practice certificates. If the auditing firm provides a false public address on the website, then it is not reliable enough. A manifestation of reliability can also be found in the contract between the client and the auditing firm, which contains all commitments, work, and terms. Any party that violates the law will be liable in accordance with the law.

For the improvement of service quality, independent auditing firms should: 1) regularly evaluate the quality of customers' feelings through surveying and collecting information from current customers; from there, independent auditors will find and understand the areas that need improvement and prioritize them for service quality improvement; 2) continue to create trust with customers by accurately implementing transactions, keeping promises, and ensuring transparency of information. Build a modern service delivery environment, upgrade and increase the technology content for the service to facilitate customer transactions that can be carried out at all times, and also be found in the contract between the client and the auditing firm, which contains all commitments, work, and terms. Any party that violates the law will be liable in accordance with the law.

6. CONCLUSION

Regression analysis results show that the service quality factor is statistically significant and has a positive correlation with customer loyalty to domestic independent auditing enterprises.

Five independent variables of this factor also have a large beta, showing a large scale of influence on the dependent variable, loyalty. The study model explained 66.2% of the change in loyalty. Thus, in order to maintain, promote, and strengthen customer loyalty to independent auditing firms, managers of independent auditing firms need to focus on promoting the improvement of factors related to service quality.

Loyal customers not only increase revenue for the business but can also make the cost of attracting new customers lower than in other banks. Therefore, businesses must be fully aware of the role and important benefits that loyal customers bring to build, maintain, and strengthen customer loyalty by understanding the quality service factors affecting customer loyalty.
In addition to economic values, the quality of the relationship between customers and the organization can be a deep source of their loyalty, as the research of Lin and Ding (2005) has shown.

Not only can the study model be applied to auditing firms, but it can also be tested in other types of services, such as tourism and healthcare, in order to confirm its generality. In addition, in the field of service research in general, typical prefixes such as service quality (Zeithaml, 1988) have not been included in this article. These indicate next-generation learning opportunities that can better explain customer loyalty. Furthermore, the sample size is quite small, and the scope of the study is limited in Hanoi. Therefore, it is suggested that follow-up studies can increase the sample size and expand the scope of research in many other provinces and cities.

REFERENCES