DETERMINANTS INFLUENCING THE SATISFACTION OF FIRMS TOWARDS ELECTRONIC TAX (ETAX) SERVICE IN AN EMERGING MARKET

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Abstract

Industrial Revolution profoundly impacted The Fourth the development of e-government in Vietnam, whose taxation system is rapidly developing leading to the invention of the electronic tax (eTax) system. However, the challenge for the authorities is to effectively and systematically apply technology to industry operations and gradually improve the quality of eTax services in Vietnam. The success of this system depends greatly on the satisfaction of the users (Rahman et al., 2020). The study was conducted to analyze the factors and their influence on the satisfaction of small and medium-sized enterprises (SMEs) using eTax services in Vietnam. Data was collected from 260 valid questionnaires of individuals representing over 200 businesses in Hanoi through Cronbach's alpha, exploratory factor analysis (EFA), and regression analysis by SPSS software. The research results indicate that 7 important elements are influencing the satisfaction of SMEs towards the quality of eTax service listed in descending order, including efficiency, ease of use, flexibility, reliability, website quality, security, and business support. According to these results, the paper proposes several suggestions to increase the satisfaction level of SMEs towards the service quality of the eTax system.

Keywords: Electronic Tax, Electronic Tax Declaration, Satisfaction of Electronic Tax Service

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1. INTRODUCTION

Tax is a crucial source of revenue and accounts for a high proportion of the budget revenue structure, also a mandatory contribution to meet the spending needs of the government (Chumsombat, 2014). At the same time, it is an important tool for the nation to comprehensively manage the economy, pay for social welfare services (Eshiotse et al., 2023) and invest in infrastructure to improve the quality of public (Aryani et al., 2023).

In the past few years, the fact that the explosion of science and technology in the Industry 4.0 era has changed all sectors of the economy, along with the COVID-19 pandemic recently has accelerated the digital transformation in countries across all sectors. Especially for the tax service, which has all the elements to take the lead in the process of national digital transformation (Ha, 2022). The challenge for tax authorities is to apply technology to tax agencies' professions and develop electronic tax (eTax) services to reduce administrative expenses and make cost savings for taxpayers, thereby controlling revenue sources better.

A variety of tax services provided including online tax filing and declaration are made simple,

which has brought practical effects to people, businesses, and tax authorities as simplifying streamlined procedures and saving time and costs for businesses. Also, enterprises can actively pay taxes without having to gather at the tax office to minimize the spread of disease during the complicated COVID-19 epidemic, etc., thereby ensuring maximum benefits for taxpayers. In addition, online tax filing and declaration is a solution to reduce overcrowding and pressure on tax authorities when it is time to file tax returns, reduce time and costs as well as search for information, ensure safety in managing and controlling tax payment status, reduce the handling of false information to the smallest level, etc.

It can be said that the eTax system in Vietnam has many advantages, including significant improvement. In terms of quantity, many tax services have been put into operation on technological platforms provided by tax authorities. Almost all types of tax declarations including firsttime declarations, additional declarations, tax finalization declarations, and financial statements are implemented through electronic applications (Le et al., 2021). Banking services for eTax are deployed synchronously with 55 large and small commercial banks, making tax payments more convenient.

However, the system also has disadvantages such as limited equipment, facilities, and infrastructure, which is not synchronized between urban and rural areas. Restrictions on the confidentiality of the information and the increase in intermediary costs become barriers to the application of eTax services. In addition, the quality of eTax services has not met the needs of taxpayers due to the smoothness of online tax payment and declaration services. Enterprises' and tax officials' technology capacity is not compatible with the current requirements of eTax operation (Al-Mawali et al., 2022).

The General Department of Taxation has officially deployed the eTax service to replace the supporting tax declarations via the internet (iHTKK) system and eTax paying has been provided to businesses in Hanoi since May 6, 2019. After a long time implementing eTax service, despite being an essential service, there have not been many surveys to evaluate and listen to the opinions of businesses, especially small and medium-sized enterprises (SMEs), which are an extremely large force, accounting for the majority in Hanoi (97% of the total number of registered enterprises)

In Vietnam, SMEs include micro-enterprises (MSMEs), small enterprises, and medium-sized enterprises, which are identified by the fields of agriculture, forestry, fishery, industry, and construction; trade and service and by criteria based on the number of employees participating in social insurance; total capital or total revenue of the preceding year (Decree No. 80/2021/ND-CP, 2021).

SMEs account for a very large proportion of the business community of our country. However, these enterprises have limited capital and a low level of science, technology, and innovation (Dam & Dang, 2022). Especially in the past two years, 2020 and 2021, the pandemic has had a great impact on businesses, especially those with low resilience and slow transition. However, this force plays a particularly important role for each country, not only in stabilizing the economy but also making a great contribution to the state's budget revenue, creating jobs for people, and at the same time considerably contributing to the gross domestic product (GDP) value of the nation. Therefore, the consultation of SMEs is significant for the overall development of the eTax service system (Le et al., 2021). Hence, the article aims to evaluate scientifically and objectively the factors affecting the level of satisfaction of the eTax declaration service, thereby providing solutions to help the Tax Department and sub-department in Hanoi improve the quality of business service and the efficiency of tax management activities in the area.

The structure of this paper is as follows. Section 2 reviews the relevant literature, displaying studies related to the factors affecting the level of satisfaction with eTax services. Section 3 outlines theoretical frameworks and describes the data sample collection and methodology employed in the research. Section 4 presents the results of Cronbach's alpha, exploratory factor analysis (EFA), regression analysis, and test from Statistical Package for the Social Sciences (SPSS) software, while Section 5 provides a discussion of the results. Section 6 shows some key conclusions and policy implications of the study practice and recommendations.

2. LITERATURE REVIEW

With the development of the electronic public service system in general and the eTax service in particular worldwide, there have been many studies conducted evaluating service quality concerning user satisfaction levels.

Yoo and Donthu (2001) developed the scale to measure the perceived quality of an internet shopping site (SITEQUAL) — an e-service quality scale that includes four elements: ease of use, aesthetic design, processing speed, and responsiveness.

Later, Wolfinbarger and Gilly (2003) developed COMQ — an e-service quality tool that subsequently evolved into eTailQ with aspects of reliability, security, and customer service. Loiacono et al. (2002) also developed an e-service quality tool called WebQual that includes 12 elements: information, interaction, trust, fulfillment time, website design, intuition, flow, innovation, integration, communication, business processes, and sustainability.

At the same time, when studying the satisfaction of the web service quality of the Alien Tax Department according to the E-S-QUAL model, which measures the satisfaction of the online service quality, Parasuraman et al. (2005) indicated seven factors: efficiency, fulfilment, system availability, security, responsiveness, compensation, contact.

In the US, when measuring the satisfaction of e-government service users, according to Horan and Abhichandani (2006), there are 5 influencing factors: reliability, flexibility, utility, efficiency, and options.

In Thailand, the study by Chumsombat (2014) on the factors affecting the satisfaction of SMEs in Bangkok and its vicinity with the eTax declaration service has shown that five factors: information quality, system quality in terms of functionality, system quality in terms of usefulness, service quality reliability have a positive and significant impact on user satisfaction. Results were collected from 415 subjects using the survey method. The relevant hypotheses were measured based on the structural equation modeling (SEM) by SPSS Amos 21.0 software. Next, according to Tjondro et al. (2019), the security risk of the system is the most important "privacy-security" factor. In addition, the factor "can be used anytime, anywhere" plays a significant role for taxpayers, especially for citizens in the Millennials and X generations. In addition, personal factors security, work performance, and convenience affect overall eTax service satisfaction. Research by Rahman et al. (2020) on the reasons people use the eTax system shows that user satisfaction, perceived usefulness, and attitudes directly impact the intention to continue using, while certainty, ease of use, and social influence have an indirect effect on the intention to use the eTax. The above study uses the partial least squares SEM (PLS-SEM) model to analyze data from customers using eTax services in Bangladesh. Al-Mawali et al. (2022) studied the factors influencing the usage of eTax declarations. The findings indicate that knowledge, subjective norms, and attitude play a vital role in taxpayers' usage of eTax declarations.

In Vietnam, due to the specificity of each economic region and the awareness of the authorities and people, as well as the investment in different tax services by localities, the factors affecting the level of people's satisfaction when using eTax service also vary by locality. Studies have had different views and results on the factors as well as their influence. The study by Ha and Le (2017) based on a survey of 423 taxpayers, identified 6 factors affecting the satisfaction of electronic taxpayers. They are ranked in descending order of importance as follows: ease of use, website quality, reliability, responsiveness, assurance, and effectiveness. Nguyen (2017) indicated the factors affecting the accepting behavior of taxpayers towards the eTax. The study investigated 29 observed variables and 6 influencing factors, after testing and regression has drawn the last 4 factors and ranked them in descending importance as follows: reliability, perceived ease of use, perceived usefulness, and physical condition. Nguyen (2018) surveyed 317 companies that are making online tax declarations at the district 10 Tax Department in Ho Chi Minh City and concluded that there are 5 elements arranged in descending order including ease of use, safety and security, website service content, system quality, and responsiveness. Nguyen (2021) proved that the satisfaction of enterprises using the eTax system ranked in ascending order: website quality, business support, transmission line, efficiency, and security. This shows that, in Dak Nong, what businesses are most interested in when using eTax service is the quality of the content and interface of the eTax service website. Le et al. (2021) explored factors influencing the eTax compliance of SMEs in Vietnam. The results indicate that four groups of factors have significant effects on eTax compliance among Vietnamese SMEs. These groups include taxpayer awareness, perceived ease of use, Vietnamese tax administration, and efficiency of Vietnamese tax policy. Dam and Dang (2022) put forward factors affecting the satisfaction of businesses when using eTax services at the Tax Department of Thai Nguyen province based on

4 aspects: information quality, support service quality, perceived ease of use, and information security. With 18 observed variables based on 148 enterprises representing different types of businesses, the results show that all these factors have a positive impact on the satisfaction of taxpayers. The quality of information and the support of businesses in the process of using eTax services are factors that directly affect the businesses' psychology and have a direct impact on the satisfaction of eTax service.

1. *Ease of use*. Innovative technology systems that are perceived to be easier to use and less complicated are more likely to be accepted and used by potential users (Davis, 1989). According to the technology acceptance model (TAM), ease of use is an important factor in assessing attitude when using a service (Davis, 1989). Because of the above arguments, the following hypothesis is put forward:

H1: Ease of use is directly proportional to the satisfaction of eTax service.

2. *Website quality.* Wen and Jiao (2008) said that the quality of a website is the quality of the service provided by that website system. A visually appealing website tends to make customers feel satisfied (Wolfinbarger & Gilly, 2003). At the same time, websites with quality information increase customer satisfaction (Nguyen & Nguyen, 2012). Based on the above arguments, the following hypothesis is proposed:

H2: Website is directly proportional to the satisfaction of eTax service.

3. *Safety and security*. Safety and security are significant factors in securing personal and business information. Zeithaml et al. (2002) argue that confidentiality is an important measure for online retail service. According to Maditinos and Theodoridis (2010), customers' perception of safety in terms of payment security and personal information affects the satisfaction level of e-service users. Due to the above arguments, the following hypothesis is put forward:

H3: Safety and security are directly proportional to the satisfaction of eTax service.

4. *Flexibility*. Flexibility is reflected in the fact that the website offers a variety of options to meet needs and convey information (Horan & Abhichandani, 2006). Flexibility is crucial to e-service, especially in the Industry 4.0 era, the ability to please customers through many methods regardless of time and space has a considerable influence on customer satisfaction. For the above arguments, the following hypothesis is put forward:

H4: Flexibility is directly proportional to the satisfaction of eTax service.

5. *Efficiency*. Efficiency is reflected in the fact that customers achieve their desired goals easily and save resources. Jun et al. (2009) argue that providing a well-structured, well-organized, and well-navigated online public service website can help users find the information they want without being overwhelmed, disoriented, or confused. Based on the above arguments, the following hypothesis is suggested:

H5: Efficiency is directly proportional to the satisfaction of eTax service.

6. *Business support*. According to Alanezi et al. (2011), timely feedback helps e-government service users make faster decisions, clear up their

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queries, and solve their problems. Therefore, supporting online service users will improve their satisfaction (Kim et al., 2006). Because of the above arguments, the following hypothesis is put forward:

H6: The level of enterprise support is directly proportional to the satisfaction of eTax service.

7. *Reliability.* In public service, reliability is reflected in people's trust when using online services from the government. Reliability is a key factor influencing citizens' decision to accept e-government websites (Wangpipatwong, 2005). According to Hu et al. (2009), the *reliability* attribute of eTax services affects whether they continue to use those services. Based on the above arguments, the following hypothesis is put forward:

H7: Reliability is directly proportional to the satisfaction of eTax service.

Thus, through the overview of the above studies, the observed variables can be summarized as follows in Table A.1 (see Appendix).

3. RESEARCH FRAMEWORK

Service quality is the extent to which a service lives up to customers' expectations (Wisniewski, 1996). In general, the quality of public service and eTax service can be understood as the level of people's perception of administrative formalities and how civil servants guide them through, approach, and handle the affairs.

Satisfaction is the response of the consumer when the desires are met. This definition implies that satisfaction is the satisfaction of the customer in consuming that product or service, meeting the expectations, including the level of satisfaction above and below the desired level, service expectations before buying, and feeling about the service after experiencing it.

According to Tse and Wilton (1988), customer satisfaction is a response to assess the perception of differences between expectations, expectancy, and service performance. In regard to public service, Bovaird and Loeffler (2012) argued that high-quality public governance not only increases customer satisfaction with public service but also builds integrity in public administration through transparency, accountability, and democratic dialogue. In eTax services, customers, the representatives of the taxpaying enterprises are the evaluators, and the tax authorities are the suppliers. The eTax payers' satisfaction is the perception of the results obtained from the eTax service provided by the tax authorities in comparison with their needs.

3.1. Theoretical models

Grönroos (1984) put forward three criteria to measure service quality: technical quality, functional quality, and image. In 1988, this model was named the SERVQUAL model, used to assess customers' perceptions of service quality and reduced from 10 down to 5 service quality characteristics (reliability, responsiveness, assurance, empathy, and tangibility).

Dabholkar et al. (2000) argued that service quality is considered the intersection between the service quality premise model and the customer satisfaction mediating model. The core factor of customer satisfaction is considered in relation to the antecedents of service quality through which customers express their behavioral intentions.

Vietnam customer satisfaction index (VCSI) model with 7 causal variables including brand image, expected quality, perceived quality, and perceived value, the central factor is customer satisfaction. And the resulting variable of the model will be customer complaints and loyalty. The difference between VCSI with other CSI models is how the different relationships between latent variables for each country, from socio-economic characteristics, determine the relationship between variables. And of course, the VCSI model will also have relationships between scores based on accumulating both the successful experiences of some previous typical models and the characteristics of the Vietnamese economy.

Developed by Horan and Abhichandani (2006), the model for satisfaction (EGOVSAT) aims to provide a scale to measure people's satisfaction with using web-based e-government services. The model consists of 5 factors: utility, reliability, efficiency, customization, and flexibility. These five factors all affect people's satisfaction through electronic transactions with the government.

Papadomichelaki and Mentzas (2012) argued that e-service quality is a multidimensional structure although the content of what constitutes e-service quality varies. The two authors developed the e-government service quality (e-GovQual) scale to measure the quality of e-government service that governments provided through their websites, resulting in 4 factors that affect people's satisfaction when transacting through e-government: reliability, trust, citizen support, and one more newly named variable efficiency.

3.2. Proposed research models

Based on the theoretical bases and previous research models, and also on the actual use of tax service by small and medium-sized enterprises in Hanoi, Vietnam, the Authors propose a model of factors affecting the satisfaction level of eTax service of SMEs in Hanoi including 7 elements: *ease of use (EU), website quality (WQ), safety and security (SS), flexibility (FL), efficiency (EF), business support (BS), and reliability (RL)* (Figure 1).

In particular, the factors of the research model are explained as follows:

$$SATISF = \alpha + \beta_1 EU + \beta_2 WQ + \beta_3 SS + \beta_4 FL + \beta_5 EF + \beta_6 BS + \beta_7 RL \tag{1}$$



Figure 1. Proposed model



Source: Author's elaboration.

3.3. Research methods

In this paper, the study chooses the quantitative research method. Based on data collection and preliminary data processing, the following steps:

• *Step 1.* The study uses Cronbach's alpha test to check the rigor and correlation between the observed variables, thereby removing the unsuitable variables and keeping the relevant ones in research mode. Variables with coefficients Cronbach's alpha > 0.6 and corrected item-total correlation > 0.3 will be used. Summary of observed variables in Table A.2 (see Appendix).

• *Step 2.* The study conducts EFA to reduce a set of interdependent measurement variables into a smaller set of factor variables so that they are more statistically significant but still contain most of the information content of the original set.

• *Step 3.* Finally, the study uses Pearson and multivariate regression analysis, aiming to estimate the value of the dependent variable based on the values of the given independent variables and test the research hypotheses.

4. RESULTS AND DISCUSSION

4.1. Cronbach's alpha test

The study used Cronbach's alpha reliability coefficient method to assess the reliability of the scale of factors affecting satisfaction when using eTax services of small and medium enterprises. The test was conducted on 7 scales with 35 observed variables, the standard to evaluate a scale that meets the standard is: in Cronbach's alpha analysis: $\alpha > 0.6$, the total variable correlation coefficient greater than 0.3 (Nunnally & Burnstein, 1994). Therefore, the scale has a Cronbach's alpha index: $\alpha \leq 0.6$ and the correlation of variables of the whole is less than 0.3 will be eliminated. The test results are presented in Table A.3 (see Appendix), as follows.

1. The scale's *ease of use* gives Cronbach's alpha coefficient at 0.901 > 0.6, which indicates that the scale is sufficiently reliable. Considering the correlation coefficient of the total variable, all 6 observed variables have coefficients greater

than 0.3, so keep 6 variables of this factor for further analysis.

2. The scale *web quality* returned data running with Cronbach's alpha coefficient at 0.873 > 0.6, indicating that the scale is sufficiently reliable. In addition, all 4 observed variables have a correlation coefficient of a total variable greater than 0.3, so it is necessary to retain 4 variables of this factor for further analysis.

3. The scale *safety* and *security* gives Cronbach's alpha coefficient at 0.856 > 0.6, proving that this scale is reliable enough. Considering the correlation coefficient of the total variable, the 5 observed variables all have coefficients greater than 0.3, so they retain the 5 variables of this factor for further analysis.

4. The scale *business support* gives Cronbach's alpha coefficient at 0.661 > 0.6, proving that this scale is reliable enough. Next, the correlation coefficient of the total variable of the 5 variables is greater than 0.3, so it retains the 5 variables of this factor for further analysis.

5. The scale *flexibility* gives Cronbach's alpha coefficient at 0.786 > 0.6, which indicates that the scale is sufficiently reliable. Considering the correlation coefficient of the total variable, the 4 observed variables all have coefficients greater than 0.3, so they retain the 4 variables of this factor for further analysis.

6. The scale *efficiency* for Cronbach's alpha coefficient results at 0.796 > 0.6, which indicates that this scale is sufficiently reliable. Considering the correlation coefficient of the total variable, the coefficients of the *EF4* and *EF6* variables are 0.098 and 0.091, respectively, which are all values less than 0.3, so the research team conducts type 2 above variables because the degree of correlation to the independent variable is too small. The remaining 4 variables *EF1*, *EF2*, *EF3*, and *EF5* all have a correlation coefficient of a total variable greater than 0.3, so they should be retained for further analysis.

7. The scale *reliability* for Cronbach's alpha coefficient at 0.707 > 0.6, shows that this scale is reliable enough. Taking into account the correlation coefficient of the total variable, 5 observed variables all have coefficients greater than 0.3, so it is

necessary to retain 5 variables of this factor for further analysis.

8. The results of the *reliability* analysis after removing the *EF4* variables: "The declaration and transaction website structure are clear and easy to follow" and *EF6* variable: "The search engine on the website is effective" (see Table A.2). The study continued to perform exploratory factor analysis with 33 observed variables.

4.2. Exploratory factor analysis

After studying the EFA exploratory factor analysis, 33 observed variables were tested for reliability by Cronbach analysis; receiving the results of the scale business support shows that the 5 measurement criteria BS1, BS2, BS3, BS4, BS5 have the observation variable BS4 and BS5, giving the result that the factor loading is less than 0.5, so we decide to type 2 of this observation variable, retaining the remaining 3 variables with the factor loading greater than 0.5. The safety and security scale includes 5 measurement criteria SS1, SS2, SS3, SS4, and SS5, showing that the results of the observed variables SS3, and SS5 are loaded into 2 factors, in which the effect of both factor loadings is less than 0.2, so it is necessary to reprocess and remove, the factors SS1, SS2, SS4 with a factor loading greater than 0.5 are retained. The scale reliability includes 5 measurement criteria RL1, RL2, RL3, RL4, RL5 for the results of the observation variable RL4 with a factor loading of less than 0.5. the observation variable *RL5* is loaded into 2 factors with an efficiency of less than 0.2, so it is necessary to reprocess and remove, the factors RL1, RL2, RL3 with a factor loading of greater than 0.5 are retained and analyzed. The second re-test for the final result in Table 1 is as follows.

 Table 1. Results of Kaiser-Meyer-Olkin (KMO) measure and Bartlett's tests

KMO measure of sampling a	0.764	
	Approx. chi-square	4671.485
Bartlett's test of sphericity	Df	528
	Sig.	0.000

The results in Table 1, show that the KMO coefficient is 0.764 greater than 0.5, showing that the factor analysis is appropriate. The test has a significance level of 5%, proving that the observed variables are correlated with each other in general. The factor loading of the factors is 0.5, indicating a close connection between the factors.

Results of the EFA analysis in Table A.4 (see Appendix) indicate that the factor loading of all variables meets the requirements (> 0.5), from which we draw the following conclusion:

• the results of the EFA analysis on *ease of use* show that 6 measurement criteria *EU1, EU2, EU3, EU4, EU5*, and *EU6* are loaded into the same factor with factor loadings from 0.733 to 0.85, respectively, proving that the original statements have a meaningful relationship with the factor;

• the results of the EFA analysis on *safety and security* show that the 3 criteria *SS1*, *SS2*, and *SS4*

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are loaded into the same factor with factor loadings ranging from 0.857 to 0.906, respectively, proving that the original statements have a meaningful relationship with the factor;

• the results of the EFA analysis on *efficiency* show that the 4 measurement criteria *EF1*, *EF2*, *EF3*, and *EF5* are loaded into the same factor with factor loadings ranging from 0.696 to 0.9, respectively, proving that the original statements have a meaningful relationship with the factor;

• the results of the EFA analysis on *flexibility* show that the 3 criteria *FL1, FL2, FL3*, and *FL4* are loaded into the same factor with factor loadings of 0.638 to 0.927, respectively, proving that the original statements have a meaningful relationship with the factor;

• the results of the EFA analysis of *website quality* show that the 4 criteria *WQ1*, *WQ2*, *WQ3*, and *WQ4* are loaded into the same factor with factor loadings from 0.673 to 0.841 respectively, proving that the original statements have a meaningful relationship with the factor;

• the results of the EFA analysis on *reliability* show that the two criteria *RL1*, *RL2*, and *RL3* are loaded into the same factor with factor loadings ranging from 0.702 to 0.859, respectively, proving that the original statements have a meaningful relationship with the factor;

• the results of the EFA analysis on *business support* show that the 3 criteria *BS1*, *BS2*, and *BS3* are loaded into the same factor with factor loadings ranging from 0.730 to 0.810, respectively, proving that the original statements have a meaningful relationship with the factor.

4.3. Regression analysis

After the EFA analysis, the researchers conducted a regression analysis. The regression results are shown in Tables 3 and 4 as follows.

Table 2. Model summary

	Model	R	R^2	Adj. R ²	sta. error of the estimate					
	1 0.716 0.513 0.499 0.38265									
Note: Dependent variable — Satisfaction (SATISF), Predictors:										
	Constant, EU, WQ, SS, BS, FL, EF, RL.									

Table 2 demonstrates that the given regression model is relatively consistent with the 95% confidence level. This shows that the more favorable factors are, the more satisfied businesses are when using eTax services. The study received the adjusted $R^2 = 0.499$ (test F, sig. ≤ 0.05) showing that the independent variables *EU*, *AT*, *EF*, *FL*, *WE*, *RL*, and *BS* explain 49.89% of the change of the *satisfaction* (*SATISF*) — dependent variable and are significant with 95% confidence. The remaining 50.1% is explained by variables outside the model and random error.

From the results obtained after running the linear regression model, the study draws the following equation.

Independent	Unstandardized coefficients		Standardized coefficients	t	Sig.	Multicollinearity	
variables	В	Std. error	β			Tolerance	VIF
Constant	-0.667	0.303		-2.200	0.29	-1.265	-0.070
EU	0.263	0.030	0.391	8.634	0.000	0.203	0.323
WQ	0.124	0.037	0.151	3.322	0.001	0.050	0.197
SS	0.266	0.029	0.427	9.276	0.000	0.210	0.323
BS	0.167	0.032	0.244	5.274	0.000	0.105	0.229
FL	0.129	0.034	0.175	3.745	0.000	0.061	0.197
EF	0.146	0.034	0.198	4.241	0.000	0.078	0.214
RL	0.086	0.040	0.96	2.164	0.031	0.008	0.165

Table 3. Coefficients

Note: VIF - Variance inflation factor.

Source: Author's elaboration.

SATISF = 0.667 + 0.266 * EF + 0.263 * EU + 0.167 * FL + 0.146 * RL + 0.129 * WQ + 0.124 * SS + 0.086 * BS(2)

The results showed that the variables had a positive impact on customer satisfaction when using eTax service, with the *EF* (β = 0.266) and *EU* $(\beta = 0.263)$ groups having the strongest and most positive impact on user satisfaction. The FL factor $(\beta = 0.167)$ and *RL* factor $(\beta = 0.146)$ also have a significant impact on user satisfaction. WQ and FL elements with β levels equal 0.129, 0.124 positive effects and have strength in descending order, respectively. Finally, the *BS* factor ($\beta = 0.086$) has the most positive impact but has the weakest value on customer satisfaction when using eTax service. The results of Table 3 also show that the model does not occur multicollinearity (VIF coefficients of even variables < 2), does not occur autocorrelation, and is completely consistent with the data. From the above analysis, it can be concluded that the theoretical model is consistent with the research data and accepts the research hypotheses H1, H2, H3, H4, H5, H6, H7.

5. DISCUSSION

Research results show that there are 7 important factors affecting the *satisfaction* of SMEs with the quality of eTax service in descending order including *efficiency*, *ease of use*, *flexibility*, *reliability*, *website quality*, *security*, and *business support*.

Efficiency in the process of using eTax service is the factor that has the most positive and strong impact on the satisfaction of SMEs. For users, being provided with a full range of tools customized to the right audience makes it easy and quick to do the job without spending too much money and time is always an important measure to evaluate satisfaction with a website. At the same time, the search engines and information on the web are optimized to help customers manipulate the work of declaring and paying taxes easily, improving the efficiency of their common work. In addition, the tools on the web are also customized to suit the users and the types of business to help businesses implement the best processes with the nature of the business, helping to improve their tax payment efficiency. Efficiency in the satisfaction of businesses when using tax services is inevitable because eTax service greatly supports businesses in declaring and paying taxes, not only quickly but also extremely conveniently, saving time and costs significantly. As a result, the eTax system has improved many disadvantages of traditional services before.

Ease of use has a second positive effect on *user satisfaction*. Because when switching to eTax service,

the support of enterprises of tax-paying agencies is no longer direct but switched to the form of online support or through the switchboard, so most businesses themselves learn and learn to properly implement the tax payment process. Therefore, the minimization of the process of using the service including information or data entry will help businesses confidently operate, saving time as well as effort of business staff. At the same time, the simplified process also helps businesses avoid making many mistakes in the process, which is also easy to find problems to solve.

Reliability is also a condition for business satisfaction when using eTax services and has the strength behind *flexibility*. This shows that businesses have confidence in electronic systems in many aspects including the *efficiency* of the process as well as trust in information security. This shows that the eTax system has supported businesses to make successful tax declaration and payment processes, users can rest assured when continuing to use the eTax system and believe that this system has improved compared to the traditional way. The reliability of the system is also reflected in the information and data of the business is stored accurately and transparently. The release of important data, especially for the purpose of tax declaration and payment, and businesses always need to be careful and concerned. Secure data is more accurate and transparent than traditional methods and will positively affect customer satisfaction when implementing the process of declaring and paying taxes.

Website quality also has a positive effect on the level of user satisfaction with eTax service. Due to the nature of being a public service site, the design of the site is focused on features and processes rather than the aesthetics of the site. So, the user just needs a website with an elegant design. clear colors, and simple fonts that are easy to see and can help highlight information and keys that need to be manipulated without investing much in eye-catching images. However, the experience of interaction and manipulation on the website will have a positive effect on the level of satisfaction when using the eTax service. The information on the website includes new notices, regulations, and forms that need to be presented, scientifically, and fully updated on time, especially the need to have links to other websites including the website of the General Department of Taxation to support the maximum of declaration and payment tax users. The satisfaction index of this factor is not high at

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present because the Tax Department has not yet invested in the design and continuous upgrade of the web site and has not fully exploited the advantages of the eTax system.

Safety and security of information and transactions are important conditions affecting the trust of businesses. In fact, the issue of information security is sensitive and important, especially for businesses when information about the financial economy and taxation affects many different subjects in society. Therefore, businesses are extremely concerned about safety and security when conducting online transactions in general and when paying taxes in particular. Especially in the context of Vietnam, although the application of online services through the network environment is becoming widespread, this is still a new phenomenon, so the infrastructure is still limited and needs further development. Cyber security, hackers, and data theft are always an issue of great discussion today, especially in the Industry 4.0 technology era, all transactions are digitized, leading to the rapid increase of cyber criminals. Therefore, tax authorities need to improve the quality of information security not only to protect businesses' data but also to protect the country's general network security, because tax data is transferred to the country's general data system.

The results also show that the business support factor has a positive impact but has the lowest value. However, research suggests that this is a very important factor in assessing business satisfaction. It can be seen that, because of the implementation of the electricity tax service in 2019, businesses are now able to grasp the eTax system, so the need for deep support as well as problems encountered by businesses is no longer as large and complex as it was at the beginning of the application. However, based on the fact that there are still many newly established businesses that are still quite confused and have many problems in the process of approaching and capturing this form of declaration, the system needs to be regularly improved and added new features. Therefore, the need to be consulted and supported with problems in the process of using the service or when errors occur, technical problems of enterprises are very large, especially for SMEs with scientific and technical qualifications, information technology qualifications as well as professional qualifications of employees are still limited. Based the frequency of contact with officials of the tax authorities is large and the problems businesses may encounter are very diverse, professionalism, professional knowledge, customer care attitude, and timely response of officials of the tax authorities will have a positive impact on the level of satisfaction of taxpayers.

6. CONCLUSION

The adoption of electronic tax services has brought a lot of benefits to citizens and enterprises as well as the management of the authorities. This paper has suggested a model of factors influencing the satisfaction of SMEs using eTax services in Hanoi. The results show that all 7 factors have positive effects on the satisfaction level of SMEs in Hanoi, including ease of use, website quality, safety and security, flexibility, efficiency, business support, and reliability. According to these results, this paper proposes several suggestions below to increase the satisfaction level of SMEs towards the service quality of the eTax system in Hanoi. The leadership of the Tax Department should take into account the Business Support Unit to enhance their professionalization. The General Department should coordinate with Internet service providers to upgrade the Internet speed in order to meet the requirements of enterprises while filling forms, avoiding network congestion that prevents them from sending forms or reports in the allotted time. The Tax Department should frequently upgrade the systems, and provide various utilities and up-to-date forms to help small and medium-sized enterprises actively make their declarations and file their taxes. The System Management Unit should also upgrade the internet speed to accommodate a great number of enterprises using the service.

The results of this paper aim to create a chance for the Hanoi Tax Department to learn more about feedback from SMEs and identify the factors influencing the satisfaction level of enterprises using eTax service in order to improve the service quality and satisfaction level, which strengthens the eTax system in Hanoi in particular and Vietnam in general. Small and medium-sized firms account for a large proportion of the total number of firms in the Vietnamese economy, with the important role of small and medium-sized firms in the economy along with the development of the Industry 4.0 era and the benefits of using eTax services brings about, this research is meaningful for the state and tax authorities to understand the elements influencing the satisfaction of small and medium-sized firms, thereby having policies and measures to improve the quality and usability of the eTax service system to achieve high efficiency to meet the needs of firms as well as create sustainable development for society. At the same time, good electronic tax services are good will help save time and energy for firms and state agencies, the money of society, and information on declarations will be updated quickly, promptly, openly, and transparently.

Despite the significant contributions this study provides to theory and practice, there are some limitations present in this study. Firstly, it is recognized that the sample size was limited to academics in some unresearched departments of tax in all provinces across the country. Secondly, the research only shows the level of satisfaction of small and medium firms due to the factors that are characteristics of electronic tax services, so it has not analyzed the impact of the difference among the firms surveyed on the type of business, the industry that the firm does business in. The number of survey samples needs to be increased and expanded for all types of businesses. Thirdly, the result that R² correction = 0.513 indicates that the model explains 51.3 % of the satisfaction level of the business. This shows that there are other factors besides the model influencing the level of satisfaction of businesses when using eTax services that the research has not mentioned.



REFERENCES

- 1. Alanezi, M. A., Mahmood, A. K., & Basri, S. (2011). Conceptual model for measuring e-government service quality. In *Proceedings of the 2011 IEEE Conference on Open Systems* (pp. 411–416). Institute of Electrical and Electronics Engineers. https://doi.org/10.1109/ICOS.2011.6079243
- 2. Al-Mawali, H., Al Natour, A. R., Zaidan, H., Shishan, F., & Rumman, G. A. (2022). Examining the factors influencing e-tax declaration usage among academics' taxpayers in Jordan. *Informatics*, *9*(4), Article 92. https://doi.org/10.3390/informatics9040092
- 3. Aryani, Y. A., Gantyowati, E., Nurrahmawati, A., Arifin, T., & Sutaryo, S. (2023). Determinants of local government public service quality: Evidence from the developing economy [Special issue]. *Journal of Governance & Regulation, 12*(1), 218–229. https://doi.org/10.22495/jgrv12i1siart2
- 4. Bovaird, T., & Loeffler, E. (2012). From engagement to co-production: How users and communities contribute to public service. *International Journal of Voluntary and Nonprofit Organizations*, *23*(4), 1119–1138. https://www.jstor.org/stable/41683097
- 5. Chumsombat, N. (2014). Factors influencing user satisfaction of e-tax filing: The study of small and medium enterprises (SMEs). In *Proceedings of the 2014 IEEE 11th International Conference on e-Business Engineering* (pp. 68–73). Institute of Electrical and Electronics Engineers. https://doi.org/10.1109/ICEBE.2014.23
- 6. Dabholkar, P. A., Shepherd, C. D., & 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. https://doi.org/10.1016/S0022-4359(00)00029-4
- 7. Dam, P. L., & Dang, T. D. (2022). Các nhân tố ảnh hưởng đến sự hài lòng của các doanh nghiệp sử dụng dịch vụ thuế điện tử tại Cục thuế tỉnh Thái Nguyên [Factors affecting the satisfaction of businesses using electronic tax services at the Tax Department of Thai Nguyen province]. *Journal of Economics & Business Administration, 22*, 92–99. https://sti.vista.gov.vn/tw/Pages/tai-lieu-khcn.aspx?ItemID=349225&Type_CSDL=TAILIEUKHCN&Keyword =&searchInFields=Title&datasearch=%5b%7B%22FieldSearch%22%22Keyword_Chuan%22,%22Keyword%22:%22C%E 1%BB%A5c%20thu%E1%BA%BF%22,%22Operator%22:%22AND%22%7D%5d&NamXuatBan=&LinhVuc_Ma=&ListNamXu atBan=&ListLinhVuc_Ma=
- 8. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, *13*(3), 319–340. https://doi.org/10.2307/249008
- 9. Decree No. 80/2021/ND-CP on elaboration of some articles of the law on provision of assistance for small and medium enterprises. https://faolex.fao.org/docs/pdf/vie206142.pdf
- Eshiotse, E., Wilson, N. U., Bukie, B. F., Undelikwo, V. A., Abang, P. O., Odinka, G. E., Uyang, F. A., Ofem, N. O., Bisong, B. D., Jeremiah, A., & Okpa, J. T. (2023). Exploring factors affecting government delivery of social welfare services using a multi-method approach. *Corporate Governance and Organizational Behavior Review*, 7(2), 26–37. https://doi.org/10.22495/cgobrv7i2p3
- 11. Grönroos, C. (1984). A service quality model and its marketing implications. *European Journal of Marketing*, *18*(4), 36-44. https://doi.org/10.1108/EUM000000004784
- 12. Ha, N. K. G., & Le, M. H. (2017). The satisfaction of e-service quality at tax office Ho Chi Minh city. *Industry and Trade Magazine*, *11*, 360–367. https://tapchicongthuong.vn/bai-viet/nghien-cuu-muc-do-hai-long-ve-chat-luong-giao-dich-thue-dien-tu-tai-cuc-thue-thanh-pho-ho-chi-minh-28253.htm
- 13. Ha, V. (2022, April 21). Thủ tướng yêu cầu ngành thuế phải đi đầu trong chuyển đổi số và thay đổi căn bản phương thức quản lý thuế [The Prime Minister asked the tax industry to take the lead in digital transformation and fundamentally change the method of tax administration]. *Government Electronic Newspaper*. https://baochinhphu.vn/thu-tuong-yeu-cau-nganh-thue-phai-di-dau-trong-chuyen-doi-so-va-thay-doi-can-ban-phuong-thuc-quan-ly-thue-102220421125035011.htm
- 14. Horan, T. A., & Abhichandani, T. (2006). Evaluating user satisfaction in an e-government initiative: Results of structural equation modeling and focus group discussions. *Journal of Information Technology Management*, *17*(4), 33-44. https://www.academia.edu/4607524/EVALUATING_USER_SATISFACTION_IN_AN_E_GOVERNMENT _INITIATIVE_RESULTS_OF_STRUCTURAL_EQUATION_MODELING_AND_FOCUS_GROUP_DISCUSSIONS
- 15. Hu, P. J.-H., Brown, S. A., Thong, J. Y. L., Chan, F. K. Y., & Tam, K. Y. (2009). Determinants of service quality and continuance intention of online service: The case of eTax. *Journal of the American Society for Information Science and Technology*, *60*(2), 292-306. https://doi.org/10.1002/asi.20956
- Jun, Z., Liangliang, C., & Fubin, L. (2009). E-S-QUAL: Its applicability in evaluating egovernment web sites service quality. In *Proceedings of the 2009 International Symposium on Information Engineering and Electronic Commerce* (pp. 515–518). Institute of Electrical and Electronics Engineers. https://doi.org/10.1109/IEEC.2009.114
- 17. Kim, M., Kim, J., & Lennon, S. (2006). Online service attributes available on apparel retail web sites: An E-S-QUAL approach. *Managing Service Quality: An International Journal, 16*(1), 51–77. https://doi.org/10.1108 /09604520610639964
- 18. Le, H. T. D., Bui, M. T., & Nguyen, G. T. C. (2021). Factors affecting electronic tax compliance of small and medium enterprises in Vietnam. *Journal of Asian Finance, Economics and Business, 8*(1), 823-832. https://doi.org/10.13106/jafeb.2021.vol8.no1.823
- 19. Loiacono, E. T., Watson, R. T., & Goodhue, D. L. (2002). WEBQUAL: A measure of website quality. 2002 AMA Winter Educators' Conference: Marketing Theory and Applications, 13, 432-437.
- 20. Maditinos, D. I., & Theodoridis, K. (2010). Satisfaction determinants in the Greek online shopping context. *Information Technology & People, 23*(4), 312–329. https://doi.org/10.1108/09593841011087789
- 21. Nunnally, J. C., & Bernstein, I. H. (1994). Psychometric theory (3rd ed.). McGraw-Hill.
- 22. Nguyen, M. H. (2018). Các yếu tố ảnh hưởng đến sự hài lòng của doanh nghiệp kê khai thuế qua mạng tại chi cục thuế Quận 10, Thành phố Hồ Chí Minh [Factors affecting the satisfaction of enterprises using e-tax service at District 10 Tax Department in Ho Chi Minh city] [Master's thesis, Ho Chi Minh City University of Foreign Languages and Information Technology]. https://www.slideshare.net/shareslide18/luan-van-cac-yeu-to-anh-huong -den-su-hai-long-cua-doanh-nghiep-ke-khai-thue-qua-mang-tai-cuc-thue-quan-10
- 23. Nguyen, T. A. T. (2021). Nâng cao sự hài lòng của khách hàng về dịch vụ kê khai thuế qua mạng tại Cục Thuế tỉnh Đắk Nông [Improve customer satisfaction about online tax declaration service at Tax Department of Dak Nong province] [Master's thesis, University of Economics Ho Chi Minh City]. UEH Smart Library. http://digital.lib .ueh.edu.vn/handle/UEH/63036

VIRTUS

- 24. Nguyen, T. B. (2017). Các yếu tố tác động đến hành vi chấp nhận của người nộp thuế đối với hệ thống nộp thuế điện tử tại Cục Thuế tỉnh Bà Rịa Vũng Tàu [Factors affecting taxpayers' acceptance behavior for the electronic tax payment system at the Tax Department of Ba Ria Vung Tau province] [Master's thesis, University of Economics Ho Chi Minh City]. http://digital.lib.ueh.edu.vn/handle/UEH/57512
- 25. Nguyen, T. M. T., & Nguyen, T. H. L. (2012). Cause and effect of attitude towards retail website. *Ho Chi Minh City Open University Journal Of Science*, *2*(25), 26–35.
- 26. Nguyen, T., D. (2012). Hoàn thiện thủ tục hành chính thuế về kê khai thuế cho doanh nghiệp trên địa bàn thành phố Hà Nội [Completing tax administrative procedures on tax declaration for businesses in Hanoi city]. *Journal of Economics and Development/Kinh te & Phat trien, 184,* 31–36. https://ktpt.neu.edu.vn/tap-chi/so-184 /nghien-cuu-trao-doi-409/hoan-thien-thu-tuc-hanh-chinh-thue-ve-ke-khai-thue-cho-doanh-nghiep-tren-dia-ban-thanh-pho-ha-noi.372694.aspx
- 27. Papadomichelaki, X., & Mentzas, G. (2012). e-GovQual: A multiple-item scale for assessing e-government service quality. *Government Information Quarterly*, *29*(1), 98–109. https://doi.org/10.1016/j.giq.2011.08.011
- Parasuraman, A., Zeithaml, V., & Malhotra, A. (2005). E-S-QUAL: A multiple-item scale for assessing electronic service quality. *Journal of Service Research*, 7(3), 213–233. https://doi.org/10.1177/1094670504271156
- 29. Rahman, M. F., Talukder, M. S., Lanrong, Y., & Khayer, A. (2020). Why do citizens use e-tax system? *International Journal of Research in Business and Social Science*, *9*(7), 177–189. https://doi.org/10.20525/ijrbs.v9i7.946
- 30. Tjondro, E., Prayogo, E. K., & Amanda, Y. (2019). The influence of e-tax user satisfaction on perception of service tax climate and overall satisfaction. *Journal of Accounting, Finance and Auditing Studies*, *5*(4), 15–34. http://doi.org/10.32602/jafas.2019.35
- 31. Tse, D. K., & Wilton, P. C. (1988). Models of consumer satisfaction formation: An extension. *Journal of Marketing Research*, 25(2), 204-212. https://doi.org/10.2307/3172652
- 32. Wangpipatwong, S., Chutimaskul, W., & Papasratorn, B. (2005). Factors influencing the adoption of Thai egovernment websites: Information quality and system quality approach. In *Proceedings of the Fourth International Conference on eBusiness* (pp. 14.1–14.7). https://citeseerx.ist.psu.edu/document?repid=rep1&type =pdf&doi=533960755e095102406554e0cafc2b727d7eadd5
- 33. Wen, L. Z, & Jiao, Y. A. (2008). The impact of website and offline quality on relationship quality: An empirical study on e-retailing. In *Proceedings of 4th International Conference on Wireless Communications, Networking and Mobile Computing Conference*. https://doi.org/10.1109/WiCom.2008.2011
- 34. Wisniewski, M. (1996). Measuring service quality in the public sector: The potential for SERVQUAL. *Total Quality Management, 7*(4), 357–366. https://doi.org/10.1080/09544129650034710
- 35. Wolfinbarger, M., & Gilly, M. C. (2003). eTailQ: Dimensionalizing, measuring and predicting etail quality. *Journal of Retailing*, *79*(3), 183–198. https://doi.org/10.1016/S0022-4359(03)00034-4
- 36. Yoo, B., & Donthu, N. (2001). Developing a scale to measure the perceived quality of an internet shopping site (SITEQUAL). *Quarterly Journal of Electronic Commerce, 2*(1), 31–45. https://sites.hofstra.edu/boonghee-yoo/wp-content/uploads/sites/32/2019/08/2001_QJEC_SITEQUAL.pdf
- 37. Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2002). Service quality delivery through web sites: A critical review of extant knowledge. Journal of the Academy of Marketing Science, 30(4), 362–375. https://doi.org/10.1177/009207002236911

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APPENDIX

Table A.1. Summarizing observed variables

Observed variables	Relevant rtudies	Impact			
Ease of use					
The website interface has a scientific and easy-to-understand layout.	Yoo and Donthu (2001),				
Easily identify the information that the enterprises need in the electronic tax system.	Ha and Le (2017),				
Easily find useful tools on the website to complete the task.	Nguyen (2017),				
Be able to learn quickly how to declare and pay taxes on the website.	Nguyen (2018),	+			
The simple and easy account login process.	Rahman et al. (2020),				
Businesses easily interact with the website.	Dam and Dang (2022)				
Website quality		1			
The website interface is made aesthetic, harmonious, and clear in terms of layout.					
Easy to link to other pages related to tax declaration, especially the website of	-				
the General Department of Taxation.	Ha and Le (2017),	+			
The website always updates useful information for users timely and regularly.					
The website provides sufficient information related to forms and declarations	- (8-) ()				
according to the new process.					
Safety and security					
Electronic tax service software has the feature of checking for arithmetic errors.					
Information on online tax returns is securely stored.	-				
Tax authorities do not misuse the personal information of taxpayers, only use it for	Wolfinbarger and Gilly (2003),				
tax declaration.	Nguyen (2018),				
Safety is assured when the email system automatically sends a confirmation	Tjondro et al. (2019),	+			
message when declaring tax online.	Dam and Dang (2022)				
Businesses that have paid taxes feel safe when logging in and submitting	Dum und Dung (2022)				
declarations with a digital signature.					
Business support					
Support enterprises to provide guidance documents and organize training courses					
for taxpayers.					
Support businesses to handle information errors, document errors, system errors.	-				
Timely and complete response by hotline phone number or email.	Nguyen (2021),				
Tax officers who support businesses have the professionalism and solid specialized	Dam and Dang (2022)	+			
knowledge.	Dam and Dang (2022)				
Tax officers who support businesses have a dedicated and polite attitude, creating	-				
a trust for taxpayers.					
Flexibility					
The system reports errors to the enterprise when a problem occurs.					
Enterprises receive the system's help quickly.	-				
Diversified banking network, enabling businesses to pay taxes through different	Horan and Abhichandani (2006)	+			
banking channels.					
Efficiency					
Online tax declaration helps taxpayers save time and printing and travel costs.	-				
Online tax declaration does not limit the space and time to file tax returns.					
The information displayed on the web is appropriate and detailed to help	Papadomichelaki and				
businesses complete and track the declaration process.	Mentzas (2012), Ha and	+			
The structure of the declaration and transaction page is clear and easy to follow.	Le (2017), Tjondro et al. (2019)				
The system is customizable for each specific object.	_				
Effective search engine on the website.					
Reliability		1			
Businesses feel that the electronic tax system is reliable.	Loiacono et al (2002),				
Electronic tax transactions are always done correctly.	Wolfinbarger and Gilly (2003),				
Information and data on tax declaration and payment of enterprises are complete,	Horan and Abhichandani (2006),				
accurate, and transparent.	Papadomichelaki and	+			
High level of security for business information.	Mentzas (2012),				
The site successfully performed the on-demand service from the very first time.	Chumsombat (2014),				
	Ha and Le (2017), Nguyen (2017)				

Source: Author's elaboration.

Table A.2. Summarize and	describe th	ie scale	coding	(Part 1)
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No.	Encryption	Variable name					
	Ease of use						
1	EU1	The website interface has a scientific layout, easy to understand.					
2	EU2	Easily identify the information your business needs in an eTax system.					
3	EU3	Easily find useful features on websites to complete tasks.					
4	EU4	Can teach themselves to declare and pay taxes on the website quickly.					
5	5 <i>EU5</i> The simple, easy account login process.						
6	<i>EU6</i> Businesses easily interact with the website.						
		Website quality					
7	WQ1	The website interface is aesthetic, harmonious, clear about the layout.					
8	WQ2	Easy to link to other pages related to tax declaration, especially the page of the General Department of Taxation.					
9	WQ3	Website content is always updated with timely, regular, and useful information for users.					
10	WQ4	The website provides full information related to forms and declarations under the new process.					

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15 SS5 Taxpayers feel safe signing declarations and sending declarations with digital signatures. Business support 16 BS1 Support businesses to provide guidance documents and organize training courses for taxpayers. 17 BS2 Support businesses to handle information discrepancies, document errors, system errors. 18 BS3 Timely and complete response of hotline phone number or email. 19 BS4 Tax officers support businesses with professionalism and solid professional knowledge. 20 BS5 Tax officers support businesses with a dedicated and courteous attitude, creating a trust for taxpayers. 21 FL1 You can file a tax return at any time. 22 FL2 The system reports errors to the firm when problems occur. 23 FL3 They get help from the system quickly. 24 FL4 The diverse network of banking links, helps businesses pay taxes to save tax time and printing and texpenses. 26 EF1 Online tax declaration is not limited in space, or time to submit a tax return. 27 EF3 Appropriate and detailed information displayed on the web helps businesses complete and the declaration process. 28 EF4 The declaration and transaction page structure is clear and easy to manipulate.	No.	Encryption	Variable name						
12 SS2 Information on online tax returns is stored securely. 13 SS3 Tax authorities do not abuse the personal information of tax-paying enterprises, only used it for tax declaration reasons. 14 SS4 It is safe for the email system to automatically send a confirmation message when filing a tax return online tax return online tax return online tax return online tax payers feel safe signing declarations and sending declarations with digital signatures. 16 BS1 Support businesses to provide guidance documents and organize training courses for taxpayers. 17 BS2 Support businesses to provide guidance document and organize training courses for taxpayers. 18 BS3 Timely and complete response of hotline phone number or email. 19 BS4 Tax officers support businesses with professionalism and solid professional knowledge. 20 BS5 Tax officers support businesses with a declacted and courteous attitude, creating a trust for taxpayers. 12 FL1 You can file a tax return at any time. 22 FL2 The system reports errors to the firm when problems occur. 23 FL3 They get help from the system quickly. 24 FL4 The diverse network of banking links, helps businesses pay taxes through different banking channels. 26 EF1 Online tax dec		Safety and security							
13SS3Tax authorities do not abuse the personal information of tax-paying enterprises, only used it for tax declaration reasons.14SS4It is safe for the email system to automatically send a confirmation message when filing a tax return onli 1515SS5Taxpayers feel safe signing declarations and sending declarations with digital signatures.16BS1Support businesses to provide guidance documents and organize training courses for taxpayers.17BS2Support businesses to provide guidance documents and organize training courses for taxpayers.18BS3Timely and complete response of hotline phone number or email.19BS4Tax officers support businesses with professionalism and solid professional knowledge.20BS5Tax officers support businesses with a dedicated and courteous attitude, creating a trust for taxpayers.21FL1You can file a tax return at any time.22FL2The system reports errors to the firm when problems occur.23FL4The diverse network of banking links, helps businesses pay taxes through different banking channels.25EF1Online tax declaration and payment help businesses pay taxes to save tax time and printing and the declaration process.26EF2Online tax declaration page structure is clear and easy to manipulate.25EF4The declaration and transaction page structure is clear and easy to manipulate.26EF5The system is customizable according to each specific object.30EF6Search engines on the site are effective.31RL1Businesses feel c	11	SS1	E-tax software that checks for arithmetic errors.						
13 353 declaration reasons. 14 SS4 It is safe for the email system to automatically send a confirmation message when filing a tax return onli 15 SS5 Taxpayers feel safe signing declarations and sending declarations with digital signatures. 16 BS1 Support businesses to provide guidance documents and organize training courses for taxpayers. 17 BS2 Support businesses to handle information discrepancies, document errors, system errors. 18 BS3 Timely and complete response of hotline phone number or email. 19 BS4 Tax officers support businesses with professionalism and solid professional knowledge. 20 BS5 Tax officers support businesses with a dedicated and courteous attitude, creating a trust for taxpayers. 21 FL1 You can file a tax return at any time. 22 FL2 The system reports errors to the firm when problems occur. 23 FL3 They get help from the system quickly. 24 FL4 The diverse network of banking links, helps businesses pay taxes through different banking channels. 25 EF1 Online tax declaration and payment help businesses pay taxes to save tax time and printing and texpenses. 26 EF2 Online tax declaration process. EF3	12	SS2	Information on online tax returns is stored securely.						
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32 <i>RL2</i> E-tax transactions are always carried out correctly.			Reliability						
	31	RL1	Businesses feel confident in the eTax system.						
		RL2	E-tax transactions are always carried out correctly.						
33 RL3 Information and data on tax declaration and payment of enterprises are complete, accurate, and transpar	33	RL3	Information and data on tax declaration and payment of enterprises are complete, accurate, and transparent.						
34 <i>RL4</i> High level of information security for business information.		RL4	High level of information security for business information.						
35 <i>RL5</i> The website successfully performs on-demand services for the first time.	35	RL5	The website successfully performs on-demand services for the first time.						

Table A.2. Summarize and describe the scale coding (Part 2)

Source: Author's elaboration.

Table A.3. Results of analysis to assess the reliability of the scale with Cronbach's alpha coefficient

Factor	Observed variables	Variable — total correlation	Cronbach's alpha coefficient if the variable type	Cronbach's alpha = 0.813
	EU1	0.712	0.886	0.901
	EU2	0.771	0.877	
Tana afaina	EU3	0.771	0.877	
Ease of use	EU4	0.624	0.898	
	EU5	0.770	0.877	
	EU6	0.734	0.882	
	WQ1	0.539	0.762	0.786
Walasita analita	WQ2	0.658	0.701	
Website quality	WQ3	0.486	0.783	
	WQ4	0.704	0.672	
	SS1	0.747	0.805	0.856
	SS2	0.770	0.800	
Safety and security	SS3	0.495	0.869	
., ,	SS4	0.796	0.792	
	SS5	0.560	0.853	
	BS1	0.532	0.563	0.661
	BS2	0.487	0.592	
Business support	BS3	0.472	0.592	
	BS4	0.317	0.683	
	BS5	0.387	0.626	
	FL1	0.442	0.932	0.873
D . I' . I. 'I''	FL2	0.874	0.782	
Reliability	FL3	0.894	0.775	
	FL4	0.78	0.828	
	EF1	0.55	0.57	0.664
	EF2	0.604	0.55	
T-ff: -:	EF3	0.564	0.559	
Efficiency	EF4	0.108	0.732	
	EF5	0.61	0.546	
	EF6	0.093	0.723	
	RL1	0.456	0.735	0.750
	RL2	0.734	0.611	
Reliability	RL3	0.634	0.659	
•	RL4	0.383	0.749	
	RL5	0.446	0.743	

Source: Author's elaboration.

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Table A.4. Results of EFA

Observed variables	Factor							
Observed variables	1	2	3	4	5	6	7	
EU5	0.850							
EU3	0.846							
EU2	0.842							
EU6	0.814							
EU1	0.791							
EU4	0.733							
SS4		0.906						
SS2		0.884						
SS1		0.857						
EF5			0.9					
EF2			0.872					
EF1			0.839					
EF3			0.696					
FL2				0.927				
FL3				0.925				
FL4				0.849				
FL1				0.638				
WQ4					0.841			
WQ2					0.821			
WQ1					0.695			
WQ3					0.673			
RL2						0.859		
RL3						0.834		
RL1						0.702		
BS3							0.771	
BS2							0.78	
BS1							0.73	

Source: Author's elaboration.

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