



The Influence of E-Tax User Satisfaction on Perception of Service Tax Climate and Overall Satisfaction

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Abstract

Purpose: The purpose of our study is to explain that satisfaction in some features of e-tax system can increase the perception of service tax climate toward tax institution. In the era of modern technology, taxpayers assess tax institution services through the e-tax system, rather than face-to-face services. The e-tax system represents Director General of Taxes (DGT) services to taxpayers in the digital era.

Design/methodology/approach: The method of data collection uses a survey in 2019 with a total sample of 94 taxpayers from the cities of Surabaya, Jakarta, Denpasar, and Semarang who have used the e-tax system at least three times. The analysis technique used SEM with WarpPLS software. The results showed that e-tax system satisfaction related to privacy-security and convenience of life affected the perception of service tax climate.

Findings: We found that the system's security risk was the most important indicator of privacy-security, according to the taxpayers. We also found that indicator of "can be used anytime and anywhere" was significant to the taxpayers, especially to the respondent of Millennials and X generation in our study. We also found that privacy-security, job productivity, and convenience of life affect overall e-tax satisfaction.

Practical implications: The research offers insights to the tax institution who should focus to enhance more rapid response in e-tax system so that the problems of taxpayers could be resolved effectively and efficiently.

Originality/value: This is the first study that examines the influence of e-tax satisfaction, in terms of privacy-security, job productivity, and convenience of life, to the perception of service tax climate toward the tax institution.

1. Introduction

The e-tax system represents tax institution services to taxpayers in the digital era. In the era of modern technology, taxpayers evaluate the services of the Director General of Taxes (DGT) through the e-tax system used by taxpayers, instead by face-to-face services. DGT concentrates on improving the quality of the e-tax system to increase the satisfaction of taxpayers (Alghamdi & Rahim, 2016). Taxpayer satisfaction is an essential factor for the success of quality and e-tax use (Saha et al., 2010). By providing good quality of e-tax services, this reflects that the DGT cares about the needs of taxpayers (Chen, 2010). Along with the development of technology, DGT continues to strive for digital transformation, both to improve service quality and improve the effectiveness of the supervision of taxpayer compliance. Taxpayers evaluate the DGT services are excellent and service-orientation through e-tax services, whether e-tax can keep taxpayers data, websites can be accessed quickly, and little effort is needed to complete the tax obligations with the system.

The purpose of our study is to explain that satisfaction in some features of e-tax system can increase the perception of service tax climate toward DGT services. We believe that increasing of e-tax satisfaction will also increase the assessment of service climate towards DGT as a tax institution. The service climate is based on trust, and the relationship between tax officers and taxpayers described as "service and clients" means that they work together based on applicable rules and standards (Gangl et al., 2012). Gangl et al. (2012) stated that the tax authority views taxpayers as clients and has the right to receive professional, fair, and comprehensive services. The work of tax officers is more customer-oriented that help and support taxpayers to fulfill their obligations (Muehlbacher et al., 2011). On the other hand, taxpayers will not try to avoid but will carry out their obligations (Gangl et al., 2012).

There are three features of e-tax system in this study, which are privacy-security, job productivity, and convenience of life, that affect the perception of service tax climate. First, in the e-tax system, privacy-security is the most essential thing because taxpayers are concerned that their personal information is seen, taken, and even misused by third parties (Berdykhanova et al. 2010; Yildiz & Topal, 2017). Taxpayer confidence in online systems positively influences perceptions of information systems and the quality of the system (Chen et al., 2015). If the e-tax system perceived to be trusted, the satisfaction level of the taxpayer would be higher. Also, the level of involvement of the taxpayer will be higher hence allowing cooperative behavior towards the tax authority (Berdykhanova, 2010). Second, the e-tax system makes it easy for taxpayers. The taxpayers are more productive in their lives. Internet use has a direct impact on productivity (Pinho et al., 2011). A system is considered useful if it can perform the expected tasks, and it will give benefit to users by increasing work productivity (Chen et al., 2015). The e-tax system effectively provides public services to citizens and increases productivity (Bhuasiri et al., 2016).

Job productivity is also an important factor in determining community satisfaction using e-tax in Turkey (Lee et al., 2008). Third, increase in comfort is evidence that shows how beneficial the e-tax system is (Chen et al., 2015). Convenience can affect user satisfaction through the services provided (Alghamdi & Rahim, 2016). Pinho et al. (2011) also argue that convenience plays a vital role in online-based technology because taxation services are provided and accessed in real-time from any location. According to Chan et al. (2010), if the e-tax is comfortable to use, then the user will feel satisfied. The primary purpose of the application of e-government platform is to improve the delivery service provided by the government at the amenities of citizens (Alibraheem & Abdul-Jabbar, 2016).

The contribution of this study is the first study that examines the influence of e-tax satisfaction, in terms of privacy-security, job productivity, and convenience of life, to the perception of service tax climate toward DGT tax institution. In the e-tax service, the taxpayer will not face tax officers directly. However, the quality of e-tax services can change the behavior of taxpayers (Yildiz & Topal, 2017). High satisfaction with e-tax service quality affects trust directly (Islam et al., 2012). In an e-tax system evaluation interview in Indonesia in 2017, respondents said that they needed a more rapid response so that problems could be resolved effectively and efficiently rather than the friendliness of tax officers in face-to-face interaction using conventional methods.

Besides, this study also examined the effect of privacy-security, job productivity, and convenience of life on overall e-tax satisfaction. Santhanamery & Ramayah (2018) found a strong relationship between privacy-security and user satisfaction. Privacy and security of personal information are essential in the e-tax system (Alghamdi & Rahim, 2016). There is a positive relationship between productivity and user satisfaction because the internet is considered a useful technological tool (Isaac et al., 2018). Chan et al. (2010) found a significant influence between e-government users' convenience and satisfaction.

2. Literature review

2.1 Technology Acceptance Model (TAM)

According to TAM, the use of technology is influenced by the user's motive, which is affected by usage behaviors (Seyal et al., 2002). TAM is developed for predicting individual adoption and new Information Technology (IT) use and declaring that individual behavioral intentions to use a technology is determined by two believes: perceived usefulness and ease of use (Venkatesh & Bala, 2008). Ease of use is defined as someone's belief to use the new system as free of effort. While perceived usefulness is defined as someone's belief to use a new system that will increase its user's job performance (Ozgen & Turan, 2007). In Hammouri & Abu-Shanab's (2017) research, they use TAM's two main constructs to assess the users' satisfaction of the e-tax system. TAM's main hypothesis is that the actual use of Information Technology (IT) is a function of the behavioral intention, which is dependent according to the individual user's behavior (Bojuwon et

al., 2017). TAM's effectiveness can be used to predict the user's behavior (Isaac et al., 2018). Positive user's behavior causes the user feels satisfied. This is supported by Isaac et al. (2018), which found TAM can predict its user's satisfaction. Because the focus of this research is e-tax, which is considered as an innovative technology so that the provided system has a vital role in determining the e-tax admission system (Wu & Chen, 2005). This means that convenience of life and job productivity is the basic measurement to measure e-tax satisfaction according to TAM theory.

2.2 Slippery Slope Framework

One of modern society's characteristics is having high voluntary cooperation rate to tax regulations (Van Dijke & Verboon, 2010). Efforts to increase voluntary cooperation have become an interesting research topic for many fields of knowledge such as economy, psychology, and sociology for the last 50 years (Kirchler et al. 2008). There is one theory that is often used as a framework for research about tax compliance i.e., slippery slope framework (Kastlunger et al., 2013; Prinz et al., 2014). Kirchler et al. (2008) try to integrate economic and psychological factors into the slippery slope framework. Graphically, there are three dimensions in the slippery slope framework, namely tax authority power, tax authority trust, and taxpayer compliance (Kirchler et al., 2008). The dimension of tax authority power aggregates economic deciding factors and is determined by taxpayers' perception about the tax authority's ability to detect and penalize tax evaders (Gangl et al., 2015). The trust dimension to tax authority includes a psychological basis of taxpayers' compliance and the result of the taxpayers' general opinion that tax law is clear and easy to follow, and that tax authority works fairly and friendly for the public interest (Gangl et al., 2015). Tax authority trust is the basis of service tax climate and is marked with relationships such as "service and clients" which means that tax authority and taxpayers cooperate according to applicable rules (Gangl et al., 2015). Kirchler et al., (2008) explain that if taxpayers' trust level to the tax authority is low and the power of tax authority is weak, the taxpaying rate will be low and thus increasing tax evasion. On the other hand, if the taxpayers' trust level to the tax authority is increasing, the taxpaying rate will also be increased (Wahl et al., 2010). Voluntary taxpaying originated from trust given from taxpayer and taxpayer's duty because they are committed to the law (Wahl et al., 2010).

2.3 Indonesia Government Policies on E-tax Systems

One of DGT e-tax services that shows digital transformation and is widely used by taxpayers is DGT Online. DGT Online is a digital service that can be accessed through the internet in real-time. At the beginning of the Regulation of the Director General of Taxes of Indonesia Number PER-05/PJ/2015, it is said that in order to enforce provisions of article 26 of Minister of Finances Regulations Number 243/PMK.03/2014 about Tax Return and adjust with the IT development as well as improve the service and give convenience to the taxpayers in delivering tax returns, it is

necessary to enact a rule about Electronic Tax Return Provider. Furthermore, in the Regulation of the Director General of Taxes of Indonesia Number PER-04/PJ/2019 states in order to achieve the level of effectiveness and efficiency in the implementation of public service standards and improve services for taxpayers deemed necessary to provide convenience in implementing tax rights and obligations, it is necessary to enact a rule about Integrated Tax Service Agency (ITSA).

Table 1: Government Policies on Online Tax Systems

| | | |
|---|---|--|
| The obligation of electronic tax return provider to pay attention to every taxpayer's privacy-security. | Electronic tax return provider should guarantee electronic tax return data privacy; guarantee service availability; guarantee that owned system apply a standard that includes authentication confidentiality, integrity, and non-repudiation, do reparation for technical problems or interruption that causes failure in electronic tax return delivery. | Article 6 number 4 of Regulation of the Director General of Taxes of Indonesia Number PER-05/PJ/2015 |
| The facilities that the DGT gives to taxpayers through certain tax services at ITSA. | Tax service activities through ITSA include tax identification number registration via online, reprinting tax identification number cards for individual taxpayer, e-FIN activation, making billing codes, assistance with checking taxpayer status online, tax consultations through “kring pajak”, and assistance to taxpayers in fulfilling their tax rights and obligations online. | Article 3 number 1 of Regulation of the Director General of Taxes of Indonesia Number PER-04/PJ/2019 |

Sources: Republic of Indonesia (2015), (2019).

2.4 Perception of Service Tax Climate

Service tax climate is signified by positive environments between tax authorities and taxpayers from existing mutual respect and cooperation (Gangl et al., 2013). Perception of service tax climate is a perception from taxpayers that consider tax authority reliable, supportive, and competent so that it leads to service and client relationship (Lozza & Castiglioni, 2018). Tax authority sees taxpayers as clients and expects to get a service that is professional, just, and supportive so that taxpayers tend to voluntarily cooperate (Gangl et al., 2015). According to Hofmann et al., (2014), the higher the taxpayers' trust, the higher the voluntary cooperation increases. With the existence of voluntary cooperation, service tax climate will be formed (Gangl et al., 2015). With the existence of service tax climate, taxpayers will feel that there is a just taxpaying system and taxpayers' trust that they are treated justly (Lozza & Castiglioni, 2018).

2.5 Hypothesis Development

Alghamdi & Rahim (2016) define privacy-security as user's perception that their private information is protected and not disclosed to third party as well as free from risk and doubt during the service process. Connolly et al. (2010) define privacy-security as an extent of site security and an extent to which the site can protect the taxpayers' information. According to Hu et al. (2009), security means citizens' perception of how far private information will be guarded and protected from third parties. To Rehman & Esichaikul (2012), security means ensuring that citizens' private information is kept secret and enable them to do an online transaction safely.

Privacy-security represents e-tax characteristics in data protection by not disclosing the users' data. Privacy and personal information security are important things in the e-tax system (Alghamdi & Rahim, 2016). Santhanamery & Ramayah (2018) finds that there is a strong relationship between privacy-security and the users' satisfaction. The users also rate the privacy-security attribute, which is the most important attribute compared to other attributes (Santhanamery & Ramayah, 2018). Generally, taxpayers are worried about the security of their private information (Rehman & Esichaikul, 2012). The users' concern to the e-tax system is due to the risk that their private information might be exposed to other parties (Yıldız & Topal, 2017). According to Pinho et al. (2011), taxpayers want a privacy policy, and security must be clear on the website by stating that they are entering a safe website. Lack of privacy and security tends to affect the satisfaction of e-tax users and taxpayers' trust (Alanezi, 2011). If the e-tax system can be trusted, then the taxpayers' satisfaction will increase, and the taxpayers' cooperative behavior will also increase (Berdykhanova, 2010); therefore, taxpayers' service tax climate perception to the tax authority also increases. According to Gangl et al., (2015), taxpayers' cooperative behavior are related to the increasing of perception of service tax climate to the tax authority.

H1: E-tax satisfaction in privacy-security (PS) affects to service tax climate perception (SC)

H2: E-tax satisfaction in privacy-security (PS) affects to the overall e-tax satisfaction (US)

Job productivity is increasing productivity after using e-tax system (Lee et al., 2008). According to Alibraheem & Abdul-Jabbar (2016), job productivity means using the e-tax system to achieve better performance. Productivity can also be seen from how far a system would improve its performance and efficiency as well as give benefits (Algamdi & Rahim, 2016). According to Hammouri & Abu-Shanab (2017), job productivity is the users' trust that the e-tax system will be useful to their job, save time, and increase performance.

Generally, users are aware of the risk of the e-tax system. Nonetheless, the benefits gained to reduce the risk perception and increase trust rates (Hung et al., 2013). In Bhuasiri et al. (2016)'s research, it is found that the e-tax system can make a report and tax payment are more useful compared to a conventional way. Job productivity is an important factor in determining people's satisfaction in Turkey on e-tax usage (Lee et al., 2008). There is a positive relationship between

productivity towards users' satisfaction because the internet is considered as a useful instrument of technology (Isaac et al., 2018). Chen et al. (2015) have a different opinion that the more useful a system is, the more satisfied the users are. To increase the users' satisfaction, system provider has to improve the benefits (Isaac et al., 2018). If e-tax system increases the users' effectiveness, it will increase the trust towards e-tax system provider (Yildiz & Topal, 2017); therefore, service tax climate perception towards tax authority as e-tax system provider will also increase. The trust towards the tax authority is the basis for service tax climate. It is marked by relationships such as "service and clients," which means that the tax authority and taxpayers are working together according to the applicable rules (Gangl et al., 2015).

H3: E-tax satisfaction in job productivity (JP) affects to service tax climate perception (SC)

H4: E-tax satisfaction in job productivity (JP) affects to the overall e-tax satisfaction (US)

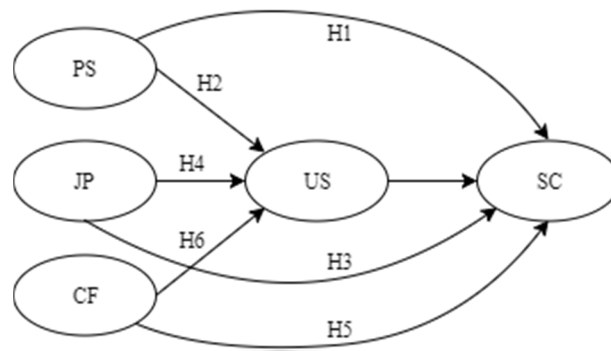
Lee et al. (2008) define convenience of life as a system that makes life easier. Chen et al., (2010) argues that convenience means an ability to operate the e-tax system with low difficulty level and taxpayers' perception about time and effort that are needed for using e-tax technology. Convenience is considered as a simplification process through IT (Alghamadi & Rahim, 2016). Rehman & Esichaikul (2012) define how far someone believes that using specific systems can be free from mental and physical efforts. Convenience also means how far the users free from efforts (Ramayah et al., 2009). With the existence of convenience, users can find needed information without difficulties (Rahman et al., 2017).

Along with era development, convenience is a thing that is always wanted. Chan et al. (2010) found a significant influence between convenience and satisfaction among technology users. In their research, Lee et al., (2008) found that convenience is a feature that affects mandatory satisfaction of taxpayers in using the e-tax system and is an important thing because they want to find information quickly and in an adequate manner. The users' view that the easiness of e-tax system will make the users feel satisfied (Zaidi et al., 2017); and the easier the system is used, the higher the users' satisfaction (Isaac et al., 2018). The users who believe that the system provider can give an amenity to the website will cause the users' perception toward the system quality (Chen et al., 2015). The good service quality system and the treatment toward the taxpayers as clients are strategies to improve the tax compliance (Gangl et al., 2013). Slippery slope framework combines psychological and sociological factors to investigate tax compliance that will determine the tax behavior and tax climate of a state or country. Therefore, it can be concluded that the service tax climate will be realized by the e-tax satisfaction system.

H5: E-tax satisfaction in convenience of life (CF) affects to service tax climate perception (SC).

H6: E-tax satisfaction in convenience of life (CF) affects to the overall e-tax satisfaction (US).

Figure 1: Research Analysis Model



3. Research Method

3.1 Population and Criteria Sample

The population of this research is divided into three groups: taxpayers that have retail/production business, service/profession occupations, and employees who are domiciled in Jakarta, Surabaya, Semarang, and Denpasar who have already used e-tax (e-registration, e-filing, e-billing, and e-tax return). The sample of this research is 94 respondents consist of 55% of Millennials, 39% of X generation, and the other is Baby Boomers. The sampling technique used is quota sampling with criteria: 1) the total of male and female respondents are equal; 2) the respondents represent the recording method and bookkeeping method; 3) the respondents understand the prevailing Indonesian e-tax system which is seen from having used e-tax for at least 3 times; 4) the respondents represent Jakarta, Surabaya, Semarang, and Denpasar; 5) the respondents represent the businesses mentioned above.

3.2 Variable and Measurements

The measurement scale used for privacy-security, job productivity, convenience of life, e-tax satisfaction, and service tax climate in this research is 7-point scale ranging from "strongly disagree" up to "strongly agree." The privacy-security indicators are the data protection (Bojuwon et al., 2017), benefit and risk comparison (Rahman & Esichaikul, 2012), and trust towards website (Chen et al., 2015; Gupta et al., 2016). The indicators for job productivity are early settlement (Bojuwon et al., 2017), launch web speed (Connolly et al., 2010), a system that does not crash (Connolly et al., 2010), and web loading speed (Connolly et al., 2010). The indicators for convenience of life are business mobilization (Chen et al., 2015), anytime and anywhere (Alghamdi & Rahim, 2016), languages used in the web (Zaidi et al., 2017), and compatibility with any browser (Lee et al., 2008). The indicators for service tax climate are treatments as clients (Gangl et al., 2015) and service orientation (Gangl et al., 2015). The indicators for overall e-tax satisfaction are measured by using level of satisfaction (Zaidi et al., 2017) and a satisfying feeling (Zaidi et al., 2017) in using e-tax.

3.3 Instrument and Questionnaire

The privacy-security questionnaire is modified from Bojuwon et al. (2017) to measure data protection and trust towards the website as well as modifying questions from Rehman & Esichaikul (2012) research to measure benefit and risk comparison. Questionnaire related to job productivity to measure faster solution is a combination of the researches of Bojuwon et al. (2017) and Rehman & Esichaikul (2012); while the web launch speed, systems that do not crash, and the loading speed are adopted from the research of Connolly et al., (2010). The questionnaire related to convenience of life is used to measure the business mobilization which is modified from Chen's et al. (2015) research while indicators of any time and anywhere is adopted from Alghamdi & Rahim (2016) research, web language is adopted from Zaidi's et al. (2017), and compatibility with any browser is adopted from Lee's at al. (2008) research. The questionnaire related to service tax climate is adopted from Gangl's et al., (2015). The questions related to overall e-tax satisfaction are modified from (Zaidi et al., 2017). The research questionnaire can be viewed on table 2.

Table 2. The Survey Questions

| | |
|-----|---|
| PS1 | The e-tax system protects transaction data. |
| PS2 | The benefits outweigh the risks when using e-tax system services. |
| PS3 | Hackers cannot intrude the e-tax system and steal my personal information stored on the e-tax system. |
| PS4 | I believe in the security of the e-tax site (DGT Online). |
| PS5 | I believe in the security of the e-tax ASP (Application Service Provider) site of DGT partners, such as OnlinePajak, BRI, Pajakku, and Sarana Prima Telematika. |
| JP1 | Using e-tax allows me to complete filling out taxes and payments quickly. |
| JP2 | The e-tax site's launch speed is fast. |
| JP3 | The e-tax site does not crash when I use it. |
| JP4 | E-tax services can save my time, compared to manual methods. |
| JP5 | E-tax sites load web pages quickly. |
| CF1 | I do not need to spend too much effort to complete e-tax filling. |
| CF2 | I can use the e-tax system whenever and wherever I am. |
| CF3 | The language on the e-tax site to me is clear and easy to understand. |
| CF4 | The e-tax site function properly with a variety of web browsers. |
| US1 | Using e-tax is a pleasant experience for me. |
| US2 | I am satisfied with my overall e-tax experience. |
| SC1 | Tax Officers treat Taxpayers as clients. |
| SC2 | Relations between tax officers and taxpayers, such as companies and clients. |
| SC3 | The relationship between tax officers and taxpayers is service-oriented. |

3.4 Method of Analysis

This research is using Partial Least Square (PLS) which is a part of Structural Equation Modeling (SEM) that is to do a track analysis with latent variable and have higher flexibility to researchers to connect between theories and data (Ghozali, 2014). To measure research instrument reliability, composite reliability score > 0.70 and Cronbach's alpha > 0.60 (Kock & Lynn, 2012). The value of square roots of AVE is declared meeting the standard if it is higher than other variable values (Kock, 2017).

4. Result and Discussion

4.1 Demographic Data Respondents

The questionnaire is distributed online in the form of google form. Total of the questionnaire received is from 147 respondents. From the total, 53 respondents cannot be analyzed because have not used e-tax minimum three times and their origin is not from the four cities, which are the sample of this research. Therefore, the analysis includes 94 respondents.

Table 3: Demographic Summary of Survey Respondents (n = 94)

| Character | Category | Frequency | Percentage |
|---------------------------------|---|-----------|------------|
| Gender | Male | 61 | 64.89 |
| | Female | 33 | 35.11 |
| Business Type | Services/Profession | 31 | 32.98 |
| | Retails/Productions | 41 | 43.62 |
| | Employee | 22 | 23.40 |
| Gross Income Calculation Method | Recording (Gross Income < 4.8 Billion Rupiah) | 79 | 84.04 |
| | Bookkeeping (Gross Income ≥ 4.8 Billion Rupiah) | 15 | 15.96 |
| Age | 19 – 39 years old (Millennials) | 52 | 55.32 |
| | 40 – 54 years old (X) | 37 | 39.36 |
| | 55 – 74 years old (Baby Boomers) | 5 | 5.32 |
| Business Location (City) | Surabaya | 84 | 89.36 |
| | Jakarta | 7 | 7.45 |
| | Denpasar | 2 | 2.13 |
| | Semarang | 1 | 1.06 |

4.2 Descriptive Statistics and Measurement Model

All the indicators in table 4 are valid and have fulfilled the cross-loading because all the loading factor score is above 0.6; thus, it can be said that the indicators used have good convergent validity (Ghozali, 2014). P-value must be smaller than 0.05 to be stated significantly. Therefore, the total mean from table 4 is an average gained from the total of the respondents' responses.

Table 4. Score Loading, Cross Loading, and Descriptive Statistics

| | PS | JP | CF | US | SC | P-value | Total Mean | Std. Deviation |
|-----|---------|---------|---------|---------|---------|---------|------------|----------------|
| PS1 | (0.847) | 0.049 | 0.114 | 0.112 | -0.181 | <0,001 | 5.35 | 1.224 |
| PS2 | (0.795) | 0.004 | 0.391 | 0.023 | -0.132 | <0,001 | 5.43 | 1.178 |
| PS3 | (0.873) | -0.174 | -0.048 | -0.141 | 0.077 | <0,001 | 4.73 | 1.423 |
| PS4 | (0.919) | 0.074 | -0.201 | 0.070 | 0.144 | <0,001 | 5.05 | 1.462 |
| PS5 | (0.870) | 0.045 | -0.208 | -0.062 | 0.068 | <0,001 | 4.95 | 1.498 |
| JP1 | 0.266 | (0.743) | 0.427 | -0.168 | -0.253 | <0,001 | 5.70 | 1.217 |
| JP2 | 0.012 | (0.871) | -0.359 | 0.471 | 0.057 | <0,001 | 5.05 | 1.402 |
| JP3 | -0.012 | (0.813) | -0.640 | 0.147 | 0.325 | <0,001 | 4.77 | 1.506 |
| JP4 | -0.114 | (0.742) | 1.017 | -0.358 | -0.300 | <0,001 | 5.85 | 1.182 |
| JP5 | -0.136 | (0.830) | -0.288 | -0.168 | 0.118 | <0,001 | 4.93 | 1.338 |
| CF1 | -0.239 | 0.362 | (0.833) | 0.375 | -0.316 | <0,001 | 5.34 | 1.340 |
| CF2 | 0.109 | 0.014 | (0.849) | -0.128 | -0.077 | <0,001 | 5.66 | 1.291 |
| CF3 | -0.026 | -0.320 | (0.893) | 0.020 | 0.114 | <0,001 | 5.45 | 1.284 |
| CF4 | 0.150 | -0.032 | (0.871) | -0.254 | 0.260 | <0,001 | 5.24 | 1.389 |
| US1 | 0.122 | -0.083 | -0.016 | (0.966) | -0.049 | <0,001 | 5.27 | 1.353 |
| US2 | -0.122 | 0.083 | 0.016 | (0.966) | 0.049 | <0,001 | 5.33 | 1.290 |
| SC1 | 0.073 | -0.046 | -0.126 | 0.052 | (0.950) | <0,001 | 5.17 | 1.549 |
| SC2 | 0.042 | -0.008 | 0.038 | -0.091 | (0.959) | <0,001 | 5.02 | 1.510 |
| SC3 | -0.117 | 0.055 | 0.089 | 0.041 | (0.936) | <0,001 | 5.12 | 1.523 |

Table 5 shows that the effect size of this research has a medium effect for PS against US, medium for JP against US, large for CF against US, medium for PS against SC, and medium for CF against SC.

Table 5: Effect size

| | US | SC |
|----|-------|-------|
| PS | 0.191 | 0.293 |
| JP | 0.157 | 0.025 |
| CF | 0.422 | 0.217 |
| US | | 0.008 |

Note: 0.15 (medium), 0.02 (small), 0.35 (large)

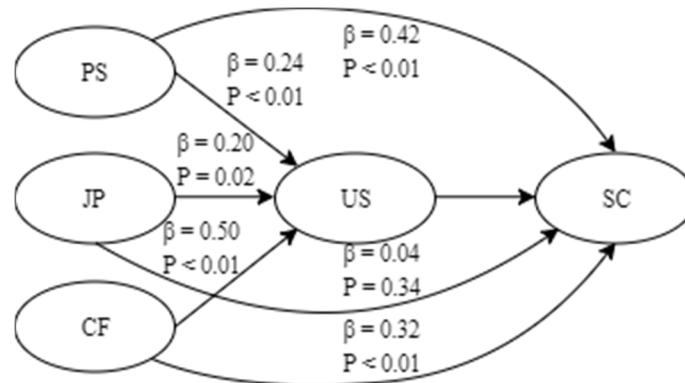
In table 6, it is known that each variable value of the AVE square root is higher than the correlation value between variables. Thus it can be said that the variables used have higher validity level. Good reliability level is also shown by composite reliability value, and Cronbach's Alpha are above 0.70 and AVE is above 0.50.

Table 6: Correlation among latent variable with sqrt of AVEs, Composite Reliability, and Cronbach's Alpha

| | PS | JP | CF | US | SC | Composite Reliability | Cronbach's Alpha |
|----|---------|---------|---------|---------|---------|-----------------------|------------------|
| PS | (0.862) | 0.773 | 0.774 | 0.779 | 0.701 | 0.935 | 0.913 |
| JP | 0.773 | (0.801) | 0.799 | 0.785 | 0.632 | 0.899 | 0.860 |
| CF | 0.774 | 0.799 | (0.862) | 0.842 | 0.677 | 0.920 | 0.884 |
| US | 0.779 | 0.785 | 0.842 | (0.966) | 0.623 | 0.966 | 0.929 |
| SC | 0.701 | 0.632 | 0.677 | 0.623 | (0.948) | 0.964 | 0.944 |

4.3 Hypothesis Testing

Figure 2: PLS Results Testing Research Model



The analysis model explains that R2 value of user’s satisfaction is 0.76, showing that 76% of the variants in the regression model is explained by three independent variables and R2 value of service tax climate is 0.51, showing that 51% of the variants in the regression is explained by three independent variables and one mediation variable.

According to the coefficient of regression, all the independent variable influence significantly to user satisfaction, which are privacy-security ($\beta = 0.24$, $P < 0.01$), job productivity ($\beta = 0.20$, $P = 0.02$), and convenience of life ($\beta = 0.50$, $P < 0.01$). Hence, H2, H4, and H6 are acceptable. On the other hand, two of three independent variables influence significantly towards service tax climate, which are privacy-security ($\beta = 0.42$, $P < 0.01$) and convenience of life ($\beta = 0.32$, $P < 0.01$). Thus, H1 and H5 are acceptable. Whereas H3 is unacceptable due to the job productivity ($\beta = 0.04$, $P = 0.34$) does not influence significantly towards service tax climate.

Table 7 explains both direct and indirect effect from PS, JP, and CF towards US, with US that mediating the relationship between PS, JP, and CF towards SC. All the indirect effects from PS, JP, and CF towards SC through US are not significantly influencing because P value > 0.05 .

Table 7: Inner Model Results

| | Direct Effect | Indirect Effect | Total Effect |
|----------|------------------|------------------------------------|------------------|
| PS -> US | 0.24 (P = 0.006) | | 0.24 (P = 0.006) |
| PS -> SC | 0.42 (P < 0.001) | PS → US → SC -0.003 (P = 0.483) | 0.42 (P < 0.001) |
| JP -> US | 0.20 (P = 0.021) | | 0.20 (P = 0.021) |
| JP -> SC | 0.04 (P = 0.341) | JP → US → SC -0.003 (P = 0.486) | 0.04 (P = 0.350) |
| CF -> US | 0.50 (P < 0.001) | | 0.50 (P < 0.001) |
| CF -> SC | 0.32 (P < 0.001) | CF → US → SC -0.006 (P = 0.465) | 0.32 (P < 0.001) |

4.4 Discussion

This research is the first research showing that the satisfaction of the e-tax system contributes to explaining service tax climate perceptions. We find that privacy security and convenience of life affect significantly towards service tax climate perceptions. However, β values between PS and TR are larger than CF and SC, meaning that privacy-security has a more significant influence to service tax climate perceptions compared to the influence of the convenience of life towards service tax climate perceptions. This result can be seen in Table 8. This research is unable to prove that the satisfaction of the e-tax system in job productivity affects service tax climate perceptions.

Table 8: Comparison of β value on service tax climate

| Direct Effect | β | P-value |
|---------------|---------|-----------------|
| PS → SC | 0.42 | Significant |
| CF → SC | 0.32 | Significant |
| JP → SC | 0.04 | Not Significant |

According to Table 9, the indicator of PS2 has the highest average among other indicators with the value 5.43 of 7. Taxpayers feel more significant benefit compared to the risk when using the e-tax system. Besides considering the benefits when using the e-tax system, the system's security is the most wanted by taxpayers. Internet risk in e-tax makes the taxpayers feel uncomfortable with their private information, which may be accessed by the third party (Yildiz & Topal, 2017). PS1 indicator is the second highest indicator with an average of 5.35 of 7. This shows that data protection is something that is sought by taxpayers. The e-tax system must provide security for user information (Alghamdi & Rahim, 2016). The respondents of this study, 15.96% have a turnover of ≥ 4.8 billion, which means that taxpayers in Indonesia are obliged to collect Value Added Tax (VAT) from customers thus reporting the customer data through e-tax system. So that the customer data must be kept confidential. To trust e-tax, taxpayer trust in the tax authority must be built (Chen et al., 2015). If the e-tax can be trusted, the taxpayer's satisfaction will be higher, and the taxpayer's cooperative behavior will increase (Berdykhanova, 2010) so that the perception of tax service climate taxpayers to the tax authorities also increases.

Table 9: Mean of each indicator of privacy & security

| Indicator | PS1 | PS2 | PS3 | PS4 | PS5 |
|-----------|------|------|------|------|------|
| Mean | 5.35 | 5.43 | 4.73 | 5.05 | 4.95 |

Based on Table 10, researchers found that CF2 indicators have the highest average value compared to other indicators. This shows that taxpayers agree that the e-tax system can be used anytime and anywhere. 55.32% of the respondents in this study were dominated by ages 19-39, who are the Millennial (Jurney, Rupert, & Wartick, 2017). The characteristics of the Millennial generation are having several types of businesses and not only being tied to one job (Tjondro,

Setiabudi, & Joyo, 2019). Solid mobility increasingly makes them choose the ones that are all online and not troublesome. With the e-tax, they can carry out their tax compliances wherever and whenever using their smartphone. The second highest result is the CF3 indicator with a value of 5.45 of 7. This indicates that the language used in the e-tax system is easily understood by the user. A language that is easy to understand is a convenience that DGT is given to users to be able to increase user satisfaction and increase user trust, so users prefer to use the DGT website rather than application service providers (Alanezi et al., 2011). This is also supported by the research of Tjondro, Santosa, & Prayitno (2019) which states that if the services provided are considered complex, the Millennial will not hesitate not to comply with the tax.

Table 10: Mean of each indicator of convenience of life

| Indicator | CF1 | CF2 | CF3 | CF4 |
|-----------|------|------|------|------|
| Mean | 5.34 | 5.66 | 5.45 | 5.24 |

This study also examines the effect of privacy-security, job productivity, and convenience of life on overall e-tax satisfaction. According to table 11, the writer finds that privacy-security, job productivity, and convenience of life have a significant influence on user satisfaction in e-tax. Convenience of life has the strongest influence with β of 0.5 while the influence of privacy-security and job productivity on user satisfaction is almost the same, which has β value of 0.24 and 0.20.

Table 11: Comparison of β value on user satisfaction

| Direct Effect | β | P-value |
|---------------|---------|-------------|
| CF → US | 0.50 | Significant |
| PS → US | 0.24 | Significant |
| JP → US | 0.20 | Significant |

Supplemental Analysis

Based on the survey we conducted on the e-tax help service system, few taxpayers have used e-tax and credit services (telephone, Twitter, and live chat). Of the total questionnaires received as many as 147 responses, only 52 respondents had ever used one of the tax and email services (telephone, Twitter and live chat) of the DGT. Based on the analysis of 52 questionnaires, it was found that taxpayers felt that communication with tax officers was easier and more convenient with the existence of e-mail and credit services (telephone, Twitter and live chat). However, there are still many taxpayers in Indonesia who do not yet know and use the DGT tax and email services. Therefore, DGT needs to disseminate information about these services. This means that DGT's efforts to improve services through e-mail and credit services are the right step to improve service tax climate in Indonesia.

5. Conclusion, Limitation, and Implications

Based on the findings, we conclude that the satisfaction of the system of e-tax in terms of privacy-security and convenience of life significantly influences the perception of service tax climate

toward tax institution in Indonesia. In the era of modern technology, taxpayers assess tax institution services through the e-tax system used by taxpayers, rather than face-to-face services. The e-tax system represents Director General of Taxes (DGT) services to taxpayers in the digital era. If the e-tax system is considered excellent and professional by the taxpayers, their assessment toward service tax climate of DGT also will increase, thus they will cooperate with the DGT voluntarily. Taxpayers feel the benefits are more significant compared to the risk of using the e-tax system. With e-tax, they can do their tax responsibility anywhere and anytime on a smartphone. Nonetheless, the internet could make the tax-payer uncomfortable because a third party could get taxpayers' privacy. The e-tax system should provide safety to the users' privacy. If e-tax is trusted, the satisfaction level of the taxpayer will be higher and more cooperative. Therefore, the perception of the taxpayer to service tax climate also becomes better. Besides, a simple language from DGT could raise the satisfaction and trust of the users. Thus, the users tend to choose using a website from DGT than using other application service provider. The writer also finds that privacy-security, job productivity, and convenience of life influence the overall satisfaction of e-tax ultimately.

This research is limited because the sampling technique used in this study is non-probability sampling. This technique produces unrepresentative results that cannot be generalized to the population.

Bibliography:

- Alanezi, M. A., Mahmood, A. K., & Basri, S. (2011). Conceptual model for measuring e-government service quality. In *2011 IEEE Conference on Open Systems, ICOS 2011* (pp. 417–422). <https://doi.org/10.1109/ICOS.2011.6079243>
- Alghamdi, A., & Rahim, M. (2017). Development of a measurement scale for user satisfaction with e-tax systems in Australia. In A. Hameurlain, J. Küng, R. Wagner, A. Anjomshoa, P. C. K.Hung, D. Kalisch, & S. Sobolevsky (Eds.), *Transactions on Large-Scale Data- and Knowledge-Centered Systems XXXIII* (Vol. 9860 LCNS, pp. 64–83). Berlin: Springer. <https://doi.org/10.1007/978-3-662-55696-2>
- Alibraheem, M. H., & Abdul-jabbar, H. (2016). Electronic tax filing adoption and its impact on tax employees performance in Jordan: A proposed framework. *World Applied Sciences Journal*, 34(3), 393–399. <https://doi.org/10.5829/idosi.wasj.2016.34.3.15671>
- Berdykhanova, D., Dehghantanha, A., & Hariraj, K. (2010). Trust challenges and issues of e-government: E-tax prospective. In *Proceedings 2010 IEEE Conference on*

- Engineering Technology, ITSim'10* (Vol. 2, pp. 1015–1019).
<https://doi.org/10.1109/ITSIM.2010.5561596>
- Bhuasiri, W., Zo, H., Lee, H., & Ciganek, A. P. (2016). User acceptance of e-government services: Examining an e-tax filing and payment system in Thailand. *Information Technology for Development*, 22(4), 672–695.
<https://doi.org/10.1080/02681102.2016.1173001>
- Bojuwon, M., Abidoye, M., & Agbaje, A.-G. A. (2017). The application of structural equation modeling on the usage of online tax system among self-employed taxpayers in Nigeria. *Osogbo Journal of Management*, 2(2), 18–36. Retrieved from <http://www.osogbojournalofmanagement.com/index.php/ojm/article/view/51>
- Pinho, C. J., Martins, M. de L., & Macedo, I. (2011). The effect of online service quality factors on internet usage: The web delivery system of the taxation department. *International Journal of Quality & Reliability Management*, 28(7), 706–722.
<https://doi.org/10.1108/02656711111150805>
- Chan, F. K. Y., Thong, J. Y. L., Venkatesh, V., Brown, S. A., Hu, P. J.-H., & Tam, K. Y. (2010). Modeling citizen satisfaction with mandatory adoption of an e-government technology. *Journal of the Association for Information*, 11(10), 519–549.
<https://doi.org/WOS:000286314200001>
- Chen, C. W. (2010). Impact of quality antecedents on taxpayer satisfaction with online tax-filing systems-An empirical study. *Information and Management*, 47(5–6), 308–315. <https://doi.org/10.1016/j.im.2010.06.005>
- Chen, J. V., Jubilado, R. J. M., Capistrano, E. P. S., & Yen, D. C. (2015). Factors affecting online tax filing - An application of the IS success model and trust theory. *Computers in Human Behavior*, 43, 251–262. <https://doi.org/10.1016/j.chb.2014.11.017>
- Connolly, R., Bannister, F., & Kearney, A. (2010). Government website service quality: A study of the Irish revenue online service. *European Journal of Information Systems*, 19(6), 649–667. <https://doi.org/10.1057/ejis.2010.45>
- Gangl, K., Hofmann, E. B., Pollai, M., & Kirchler, E. (2012). The dynamics of power and trust in the “slippery slope framework” and its impact on the tax climate. *SSRN Electronic Journal*, 1–27. <https://doi.org/10.2139/ssrn.2024946>
- Gangl, K., Hofmann, E., & Kirchler, E. (2015). Tax authorities’ interaction with taxpayers: A conception of compliance in social dilemmas by power and trust. *New Ideas in Psychology*, 37, 13–23. <https://doi.org/10.1016/j.newideapsych.2014.12.001>

- Gangl, K., Muehlbacher, S., de Groot, M., Goslinga, S., Hofmann, E. B., Kogler, C. & Kirchler, E. (2013). "How Can I Help You?" Perceived Service Orientation of Tax Authorities and Tax Compliance". *FinanzArchiv: Public Finance Analysis*, Vol. 69, No. 4, pp. 487-510.
- Ghozali, I., & Latan, H. (2014). *Partial least square: Konsep, metode dan aplikasi menggunakan program WarpPLS 4.0*. Semarang: Badan Penerbit Universitas Diponegoro.
- Gupta, K. P., Singh, S., & Bhaskar, P. (2016). Citizen adoption of e-government: a literature review and conceptual framework. *Electronic Government, an International Journal*, 12(2), 160. <https://doi.org/10.1504/eg.2016.076134>
- Hammouri, Q., & Abu Shanab, E. (2017). Exploring the factors influencing employees' satisfaction toward e-tax systems. *International Journal of Public Sector Performance Management*, 3(2), 169. <https://doi.org/10.1504/ijpspm.2017.10005371>
- Hofmann, E., Gangl, K., Kirchler, E., & Stark, J. (2014). Enhancing tax compliance through coercive and legitimate power of tax authorities by concurrently diminishing or facilitating trust in tax authorities. *Law & Policy*, 36(3), 290-313.
- 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 services: The case of e-tax. *Journal of the American Society for Information Science and Technology*, 60(2), 292–306. <https://doi.org/10.1002/asi.20956>
- Hung, S. Y., Chang, C. M., & Kuo, S. R. (2013). User acceptance of mobile e-government services: An empirical study. *Government Information Quarterly*, 30(1), 33-44. <https://doi.org/10.1016/j.giq.2012.07.008>
- Isaac, O., Abdullah, Z., Ramayah, T., Mutahar, A. M., & Alrajawy, I. (2018). Integrating user satisfaction and performance impact with technology acceptance model (TAM) to examine the internet usage within organizations in Yemen. *Asian Journal of Information Technology*, 17(1), 60–78. <https://doi.org/10.3923/ajit.2018.60.78>
- Islam, M. A., Yusuf, D. H. M., Yusoff, W. S., & Johari, A. N. B. (2012). Factors affecting user satisfaction in the Malaysian income tax e-filing system. *African Journal of Business Management*, 6(21), 6447–6455. <https://doi.org/10.5897/ajbm11.1689>

- Jurney, S., Rupert, T., & Wartick, M. (2017). Generational differences in perceptions of tax fairness and attitudes towards compliance. *Advances in Taxation*, 24, 163–197. <https://doi.org/10.1108/S1058-749720170000024004>
- Kastlunger, B., Lozza, E., Kirchler, E., & Schabmann, A. (2013). Powerful authorities and trusting citizens: The slippery slope framework and tax compliance in Italy. *Journal of Economic Psychology*, 34, 36–45. <https://doi.org/10.1016/j.joep.2012.11.007>
- Kirchler, E., Hoelzl, E., & Wahl, I. (2008). Enforced versus voluntary tax compliance: The “slippery slope” framework. *Journal of Economic Psychology*, 29(2), 210–225. <https://doi.org/10.1016/j.joep.2007.05.004>
- Kock, N., Lynn, G. S. (2012). Lateral collinearity and misleading results in variance-based SEM: An illustration and recommendations. *Journal of the Association for Information Systems*, 13(7), 546-580. <https://doi.org/10.17705/1jais.00302>
- Kock, N. (2017). Common Method Bias: A Full Collinearity Assessment Method for PLS-SEM. In *Partial Least Squares Path Modeling*, pp. 245-257. Springer, Cham.
- Lee, K. C., Kirlidog, M., Lee, S., & Lim, G. G. (2008). User evaluations of tax filing web sites: A comparative study of South Korea and Turkey. *Online Information Review*, 32(6), 842–859. <https://doi.org/10.1108/14684520810923962>
- Lozza, E., & Castiglioni, C. (2018). Tax climate in the national press: A new tool in tax behaviour research. *Journal of Social and Political Psychology*, 6(2), 401–419. <https://doi.org/10.5964/jspp.v6i2.937>
- Muehlbacher, S., Kirchler, E., & Schwarzenberger, H. (2011). Voluntary versus enforced tax compliance: Empirical evidence for the “slippery slope” framework. *European Journal of Law and Economics*, 32(1), 89–97. <https://doi.org/10.1007/s10657-011-9236-9>
- Ozgen, F. B., & Turan, A. H. (2007). Usage and adoption of online tax filing and payment system in tax management. In *9th International Scientific Conference* (pp. 1–18).
- Prinz, A., Muehlbacher, S., & Kirchler, E. (2014). The slippery slope framework on tax compliance: An attempt to formalization. *Journal of Economic Psychology*, 40, 20–34. <https://doi.org/10.1016/j.joep.2013.04.004>
- Rahman, M. K. B. A., Othman, A. K., & Amrin, N. (2017). The effects of e-service quality on users’ satisfaction: A case of e-filing at LHDN. In *Proceedings of the 2nd Advances in Business Research International Conference* (pp. 87–98). Singapore: Springer. https://doi.org/10.1007/978-981-10-6053-3_9

- Ramayah, T., Rouibah, K., Gopi, M., & Rangel, G. J. (2009). A decomposed theory of reasoned action to explain intention to use internet stock trading among Malaysian investors. *Computers in Human Behavior*, 25(6), 1222–1230. <https://doi.org/10.1016/j.chb.2009.06.007>
- Rehman, M., Esichaikul, V., & Kamal, M. (2012). Factors influencing e-government adoption in Pakistan. *Transforming Government: People, Process and Policy*, 6(3), 258–282. <https://doi.org/10.1108/17506161211251263>
- Republic of Indonesia Directorate General of Taxation (2015, February). Regulation of the Director General of Taxes No PER-05/PJ/2015 concerning Electronic Tax Return Service Providers. Retrieved from <https://peraturanpajak.com/2017/01/19/per-05pj2015>
- Republic of Indonesia Directorate General of Taxation (2019, March). Regulation of the Director General of Taxes No PER-04/PJ/2019 concerning Integrated Tax Service Agency. Retrieved from <https://www.pajak.go.id/id/peraturan-direktur-jenderal-pajak-nomor-04pj2019>
- Saha, P., Nath, A., & Salehi-Sangari, E. (2010). Success of government e-service delivery: Does satisfaction matter? In M. A. Wimmer, J.-L. Chappelet, M. Janssen, & H. J. Scholl (Eds.), *Electronic Government. EGOV 2010. Lecture Notes in Computer Science* (Vol. 6228 LNCS, pp. 204–215). https://doi.org/10.1007/978-3-642-14799-9_18
- Santhanamery, T., & Ramayah, T. (2018). Trust in the System: The Mediating Effect of Perceived Usefulness of the E-Filing System. In S. Saeed, T. Ramayah, & Z. Mahmood (Eds.), *User Centric E-Government* (pp. 89–103). Cham: Springer. <https://doi.org/10.1145/2910019.2910102>
- Seyal, A. H., Abd. Rahman, M. N., & Mahburur Rahim, M. (2002). Determinants of academic use of the internet: A structural equation model. *Behaviour and Information Technology*, 21(1), 71–86. <https://doi.org/10.1080/01449290210123354>
- Tjondro, E., Santosa, K. G., & Prayitno, N. (2019). Perceptions of service-orientation and trust of tax officers between millennials, x, and baby boomers. *MIX: Jurnal Ilmiah Manajemen*, 9(1), 1–18.
- Tjondro, E., Setiabudi, J., & Joyo, A. C. (2019). Intergenerational perceptions of coercive and legitimate power. *Jurnal Economia*, 15(1), 96–113. <https://doi.org/10.21831/economia.v15i1.23998>

- Van Dijke, M., & Verboon, P. (2010). Trust in authorities as a boundary condition to procedural fairness effects on tax compliance. *Journal of Economic Psychology*, 31(1), 80–91. <https://doi.org/10.1016/j.joep.2009.10.005>
- Venkatesh, V., & Bala, H. (2008). Technology acceptance model 3 and a research agenda on interventions. *Decision Sciences*, 39(2), 273–315.
- Wahl, I., Kastlunger, B., & Kirchler, E. (2010). Trust in authorities and power to enforce tax compliance: An empirical analysis of the “slippery slope framework.” *Law and Policy*, 32(4), 383–406. <https://doi.org/10.1016/j.joep.2007.05.004>
- Wu, I. L., & Chen, J. L. (2005). An extension of trust and TAM model with TPB in the initial adoption of on-line tax: An empirical study. *International Journal of Human Computer Studies*, 62(6), 784–808. <https://doi.org/10.1016/j.ijhcs.2005.03.003>
- Yildiz, S., & Topal, M. H. (2017). Increasing e-trust in e-government services: A case study on the users of internet tax office. *The Journal of International Scientific Researches*, 2(5), 9–23. <https://doi.org/10.23834/isrjournal.308617>
- Zaidi, S. K. R., Henderson, C. D., & Gupta, G. (2016). The moderating effect of culture on e-filing taxes: evidence from India. *Journal of Accounting in Emerging Economies*, 7(1), 134–152.