Individual Taxpayers' Perception on E-Tax Continuance Intention: The Mediating Role of Trust in E-Tax

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Abstract. The sustainability of e-tax system depends on various factors, including the taxpayers' decision to keep using the system. If users are unwilling to use e-tax anymore, the system may be shut down eventually. This research aims to examine the mediating role of trust in e-tax on the impact of perceived usefulness, trust in government, and mass media influence on e-tax continuance intention. Convenience sampling was employed to collect data via an online survey from February until March 2022. A total of 162 respondents from several institutions were further analyzed by utilizing SMART PLS 3.3.7. The results reveal that trust in e-tax improves the effect of perceived usefulness, trust in government, and mass media influence on taxpayers' continuance intention to use e-tax. Our findings suggest that when taxpayers perceive the e-tax is reliable and trustworthy, they are more willing to continue to use it in the future.

Keywords: E-Tax Continuance Intention, Trust in E-Tax, Perceived Usefulness, Trust in Government, Mass Media Influence

1 Introduction

Technological advances have been proven to provide many benefits to e-government systems in Indonesia, including in taxation. Since 2004, Indonesia has developed electronic filing systems [1]. Unfortunately, only a few taxpayers utilized it due to the lack of socialization from the government. The 2008 data showed that only 680,644 taxpayers used e-SPT and 15,474 taxpayers used e-Filing [2]. This urges the government to improve these electronic systems in 2014. As a result, the use of e-tax has increased gradually, as shown in Table 1.

	2014	2015	2016	2017	2018	2019	2020
Taxpayers report Annual SPT using E-Tax(a)	1,487	3,062	8,022	9,180	10,191	11,847	12,503
Taxpayers report Annual SPT(b)	10,855	10,973	12,25	12,048	12,551	13,394	14,755
(a/b)	13.7%	27.9%	65.4%	76.2%	81.1%	88.4%	84.7%

Table 1. The Number of Taxpayers that Apply E-Tax to Report SPT (in thousand) [3], [4]

Although the number of taxpayers who report SPT using e-tax has increased, its proportion compared to total taxpayers who report SPT using the manual system tends to be stagnant from 2019 until 2020. This may indicate that many taxpayers still want to report their taxes manually. As shown by many studies about e-systems, for example, mobile payment, e-learning, and e-government, the existence of the systems depends on the users' intention to keep using them [5]–[8]. When the users perceive that the e-system has a potential for cybercrime or they have had a bad experience in using the system, they are likely to decide not to use it anymore [9], [10]. This situation could be applied to the e-tax system since e-tax reporting is voluntary. If the users decide not to use the e-tax system anymore, the sustainability of the e-tax system will be vulnerable. This raises the issue of what factors may encourage taxpayers to keep using e-tax regardless of the socialization done by the government.

Prior research have identified several determinants of intention to use e-tax, for example, perceived usefulness [7], [10], [11], trust in government [12]–[14], mass media influence [15]–[17], and trust in e-tax [12], [15]. However, those prior studies have at least two limitations. First, prior studies mainly focused on initial adoption [9]–[11], while e-tax post-adoption has been discussed infrequently. They also tend to focus on other types of e-government systems [7], [15], [18] and mobile payment [6], [19], [20].

Second, prior studies about e-tax do not focus on the mediating effect of trust in the e-system on the relationship between perceived usefulness, trust in government, mass media influence, and e-system continuance intention. They only examined the direct effect of the above factors. Studies about e-government, apart from e-tax, and purchase intention have suggested that perceived usefulness, trust in government, and social influence,

including mass media, affect the degree of trust in the system [12], [21]–[27]. The trust itself also has been known to affect people's intentions to use a system [6], [12], [15], [28]. This implies that trust in e-tax may have a mediating role that affects the taxpayers' intention to keep using the e-tax system.

Thus, this study aims to analyze the mediating effect of trust in e-tax on the impact of perceived usefulness, mass media influence, and trust in government towards e-tax continuity intention. By examining the mediating effect of trust in e-tax, our study is expected to provide more insight into the importance of trust to the sustainability of e-tax. Instead of only focusing on the initial adoption of e-tax, the government needs to improve the quality of e-tax as a requirement to maintain the e-tax users' trust in the system, so they will keep using e-tax regularly. The subsequent sections explain the literature review, hypotheses development, methods, results and discussion, and conclusion.

2 Literature Review

2.1 Perceived Usefulness and E-Tax Continuance Intention

According to the Technology Acceptance Model (TAM), perceived usefulness is the personal belief extent to which a system implementation would result in better performance [29]. TAM theory suggests a person's decision to use a system is influenced by the system's usefulness [29]. An online system that can accelerate people's performance and provide convenience over the conventional system will attract people's intentions to adopt a system [7], [18], [20], such as e-tax [10], [11], e-government [7], [18], and m-banking [20], [30].

Performance, productivity, effectiveness, and efficiency are four enhancement aspects of perceived usefulness [7]. The e-tax system is expected to increase taxpayers' performance through its accurate calculations and data completeness validations [31]. Taxpayers' effectiveness and efficiency are likely to be increased when they use the system since it provides flexibility in terms of place and time [10]. With the electronic system, taxpayers could save their time in complying with their duties; thus, their productivity is likely to be increased.

Perceived usefulness also has a significant effect on continuation context as it is related to users' prior experience and expectations [32]. Users tend to evaluate the system's performance after having used it. If users find that the system is beneficial to them, they will continue to use it. For example, Tsui [7], Arpaci [33], and Daneji et al. [34] find that people tend to keep using e-government systems when they believe using the system will enhance their performance. In terms of e-tax, a study in Malaysia [35] shows that taxpayers are most likely to be motivated to continue using e-Filing when they perceive the system is useful. Therefore, this study suggests the following hypothesis:

H1: Perceived usefulness positively affects individual taxpayers' continuance intention in using e-tax.

2.2 Trust in Government and E-Tax Continuance Intention

Based on the five major antecedents of trust, trust in government is classified as an institution-based trust [36]. Institution-based trust is formed by social interaction between individuals and institutions. Carter et al. [13] pointed out that if citizens perceive the government possesses the managerial and technical resources to maintain the system, they will be more willing to trust the system as well as receive and provide the information to the system. Individuals and institutions' interactions will develop the level of trust in society towards the institution's performance, capability, and policy.

Trust in government plays a substantial role in stimulating taxpayers to use e-tax sustainably since the etax system is under the government's authority. Prior research in e-government [12], [14] and e-voting [37] reveal that people's intention to use e-systems is encouraged by the degree of trust they put in the government. Instead of forcing citizens to use the e-tax, the trust could be used as a preferred alternative to promote the use of the system among taxpayers [38]. If the government forces the use of e-tax without establishing trust with taxpayers, it may lead to uncertainty and reliability concerns. Mostly, the reliability concern is due to personal information being prone to be hacked, manipulated, or stolen [9]. Hence, it is important for the government to build the citizens' faith in the government's capability to provide a useful and safe system, so the citizens will be more open to following the government's recommendations. Thus, this study proposes the following hypothesis:

H2: Trust in government positively affects individual taxpayers' continuance intention in using e-tax.

2.3 Mass Media Influence and E-Tax Continuance Intention

Zahid and Din [15] argue that society has considered the mass media as the ultimate source of information. Prominently discussed issues in the mass media are often seen as essential by society. Mass media can influence not only individuals but also public opinion because of its ability to disseminate information rapidly to large audiences [39].

Dependency Model Theory states that the more people depend on the mass media, the more crucial the role of the media in people's lives, and therefore, the more substantial the influence the media has [40]. The close dependency between people and the mass media will construct positive reinforcement that shapes individuals' preferences in deciding which values, behaviors, skills, and attitudes are appropriate for them [41]. The degree of

dependency on the media may depend on various factors, including media capacity, individual needs, and so forth [40].

Mass media's power to influence people also plays a role in driving the intention to use a system. Mass media encouragement has a positive influence on promoting people's intention to use m-banking [15]. People are more convinced to use the electronic system when the mass media uplifts them to do so [16], [17]. This phenomenon might occur since mass media has multiple types of persuasive aspects, such as an appeal to emotion, logic or reason, and credibility or ethics [15]. Based on the above arguments, the following hypothesis is formulated:

H3: Mass media influence positively affects individual taxpayers' continuance intention in using e-tax.

2.4 The Mediating Effect of Trust in E-Tax

Trust is a significant factor in the e-system, including e-tax. Various confidential personal information is disclosed, such as identity, income, and total assets. Cybercrime threats such as hacking and information theft may cause taxpayers to be reluctant to use e-tax services [9], [10]. Ensuring the system's performance and security is a must for the government and DGT as the service provider to retain the taxpayers' use of e-tax.

Unfortunately, instead of analyzing the impact of trust, prior studies tend to examine the impact of perceived risk and security on e-tax usage [10], [42]. They also tend to examine trust as a sole indicator or a separate determinant of e-tax. For example, Santhanamery and Ramayah [35] break down trust in the system into several variables, including security and correctness. They then evaluate the impact of each variable on the e-tax continuance intention. The studies about the mediating effect of trust in e-tax usage still need further analysis.

Numerous research have empirically demonstrated the importance of trust in the system in influencing the intention to use the system [6], [12], [15], [28]. For example, in mobile payment research, Shao et al. [6] state that mobile payment providers keep competing with each other to build customers' trust. The research finding shows that mobile payment users are more willing to stay loyal to one provider if they can trust the system provided. Similarly, in Indonesia, the e-tax system will be more appealing when the system can show its trustworthiness [28].

Trust itself is also affected by perceived usefulness, trust in government, and mass media influence. First, when people perceive the system is beneficial and enhances their performance, their trust in the system will be intensified [21]. Accordingly, their level of trust eventually becomes a consideration in continuing the use of the system. Research in e-commerce shows that people will likely trust the system when it can offer advantages that can improve their shopping experience, for example, online reviews and product-detailed information [22], [23]. Similarly, Amin et al. [43] find that the more mobile websites are perceived as useful and make users' work and lives easier, the higher the level of trust develops in the website.

Second, trust in government plays a significant part in cultivating trust in the system, for example, in egovernment systems [12], [24], [25]. It happens because of the presence of transference-based trust. The concept of transference-based trust is that trust can be transferred from the entity that individuals are familiar with to a new, unfamiliar entity based on a strong correlation between those entities [44]. When individuals have no sufficient information and experience in using e-tax, they will rely on the information given by the government and conventional system experience to predict how the online system will work. Thus, when people initially trust the government's performance, it will be easier for them to trust the e-tax system as part of the government program.

Third, the trustworthiness of a system depends on how the mass media transmit social experience [45]. From a psychological perspective, mass media is a means of social learning as it portrays real-life situations. The Social Learning Theory suggests that people acquire new knowledge from their social surroundings [46]. When their surroundings cannot provide the knowledge needed, the information delivered by mass media is expected to have considerable potential to influence opinions and decision-making. Mass media that actively encourages people to use a system and promotes the system's trustworthiness will influence the way people see the system and help people develop trust in the system. Research findings from Mendoza-Tello et al. [47], Kamalrudin et al. [45], and Yannopoulou et al. [27] suggest that the intensity of mass media exposure influences the degree of trust. Thus, this study puts forward the following hypotheses:

H4: Trust in e-tax mediates the effect of perceived usefulness on taxpayers' continuance intention in using e-tax. **H5**: Trust in e-tax mediates the effect of trust in government on taxpayers' continuance intention in using e-tax.

H6: Trust in e-tax mediates the effect of mass media influence on taxpayers' continuance intention in using e-tax. The theoretical framework of this study is portrayed in Figure 1 below:



Fig. 1. Theoretical Framework.

3 Method

The criteria of participants in this study are employees who own a Tax Identification Number and have used the e-tax system, for example, to report their taxes and so forth. The samples were collected from seven private companies in Jakarta, West Java, and Bali. The employees must meet the above criteria. However, there is no publicly available information about the total number of employees that meet the criteria in those companies. Therefore, this research applies the convenience sampling method to collect data. As a nonprobability sampling method, the convenience sampling method can accommodate the data collection process quickly and cost-effectively based on the most easily accessible research subject that can be reached since it is impractical to get a sample from a widely scattered population [48]. A total of 173 responses were collected. However, 11 responses were incomplete, and thus, only 162 responses could be analyzed further.

The data was collected through an online questionnaire from February until March 2022. The benefit of the online questionnaire is that it can be utilized to reach the respondents in different areas quickly and at less cost [48]. This is especially beneficial during the COVID-19 pandemic situation. The questionnaire consists of two sections. The first section asks about the respondents' demographics. The second section measures five variables, as shown in figure 1. All variables employ a 5-Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree). Table 2 below explains the measurement instrument of variables.

Variable	Operational Definition	Indicators	Scale
Perceived Usefulness (PU)	The extent to which individuals believe that the use of electronic systems will enhance their performance.	Four measurement items adapted from Tsui [5] and Bhattacherjee [30].	5-Likert scale
Trust in Government (TG)	Trust developed by citizens in the government's performance, service, and capability.	Three measurement items adapted from Abu- Shanab [8].	5-Likert scale
Mass media influence (MM)	The ability of mass media to shape an individual's perspective, behavior, action, and decision-making.	Four measurement items adapted from Zahid and Din [11].	5-Likert scale
Trust in E-Tax (TE)	Trust developed in the reliability and trustworthiness of e-tax system.	Five measurement items adapted from Tsui [5] and Zahid and Din [11].	5-Likert scale
E-Tax Continuance Intention (EC)	Individuals' determination to continue using e-tax as an impact of their post-adoption impression and consideration towards e-tax system.	Four measurement items adapted from Tsui [5] and Bhattacherjee [30].	5-Likert scale

Table 2. Measurement Instrument of the Variables

4 Result and Discussion

4.1 Respondents' Profiles

The total number of respondents in this study is 173. However, only 162 (93.6%) responses could be used as the remaining were incomplete and failed to meet the required criteria. The proportion of male and female respondents is relatively balanced. The respondents work in the private sector, with experience of mostly five years or less. Most of them have used e-tax for less than five years (76.5%). They also tend to use e-tax only once per year (74.7%). Table 3 shows more detailed information about respondents' demographics.

	Ν	%		Ν	%
Total Participants	162	100%	Occupation Type		
Gender			Private employee	162	100%
Male	80	49.4%			
Female	82	50.6%			
Age			Education Level		
< 22 years old	1	0.6%	Senior High School	25	15.4%
22 - 30 years old	107	66.1%	Associate Degree	10	6.2%
31 - 40 years old	38	23.5%	Bachelor's Degree	100	61.7%
41 - 50 years old	14	8.6%	Master's Degree	21	13.0%
> 50 years old	2	1.2%	Doctoral Degree	6	3.7%
Annual Income			Work Experience		
Rp 0 - 60 million	57	35.2%	0-5 Years	122	75.3%
> Rp 60 - 250 million	95	58.6%	6-10 Years	36	22.2%
> RP 250 - 500 million	10	6.2%	11-15 Years	3	1.9%
			>15 Years	1	0.6%
E-Tax Usage Period			E-Tax Frequency Usa	ge	
1-4 Years	124	76.6%	< 1x a year	15	9.3%
5-8 Years	36	22.2%	1x a year	121	74.7%
9-12 Years	1	0.6%	2-3x a year	6	3.7%
>12 Years	1	0.6%	>3x a year	20	12.3%

Table 3. Respondent Demographic

4.2 Validity and Reliability Test of the Measurement Model

This study applies SMART PLS 3.3.7, which is a non-parametric statistical tool to analyze complex models and a relatively small sample size without any distributional data assumptions [48]. To examine the convergent validity, we used factor loading and average variance extracted (AVE). The result shows that all indicators have factor loadings above 0.7. This implies that there is a strong correlation between each indicator and its respective variable. Furthermore, every variable has an AVE value greater than 0.5, which means each latent variable can explain more than half of the variance of the respective indicators [48].

The next step is to examine the discriminant validity of each variable. Discriminant validity is a test conducted to measure the indicator's uniqueness compared with other indicators [49], [50]. Discriminant validity, through a cross-loading test, shows an excellent result when the indicator shares more common variances with its respective variable than other variables [48]. The cross-loading test, as shown in Table 4, reveals that all indicators have the highest coefficient correlation with their association variables, which indicates they appropriately explain their association variables compared to other variables.

Item	Perceived Usefulness	Trust in Government	Mass Media Influence	Trust in E- Tax	E-Tax Continuance Intention
PU1	0.926				
PU2	0.894				
PU3	0.912				
PU4	0.888				
TG1		0.918			
TG2		0.912			
TG3		0.915			
MM1			0.899		
MM2			0.944		
MM3			0.896		
MM4			0.951		
TE1				0.878	
TE2				0.901	
TE3				0.911	
TE4				0.838	
TE5				0.835	
EC1					0.868
EC2					0.942
EC3					0.946
EC4					0.883

Table 4. Cross Loading

The reliability test is conducted by examining composite reliability and Cronbach's Alpha. Both tests apply a threshold of 0.70 for the construct to be considered reliable. As shown in Table 5, all variables are reliable since their values are above 0.7.

Variable	Composite Reliability	Cronbach's Alpha
Perceived Usefulness	0.948	0.927
Trust in Government	0.939	0.902
Mass Media Influence	0.958	0.942
Trust in E-Tax	0.941	0.922
E-Tax Continuance Intention	0.951	0.931

Table 5. Reliability Indicator

4.3 Hypotheses Testing

Figures 2 and 3 depict seven direct paths and three indirect paths formed. The direct path occurs between perceived usefulness and trust in e-tax (PU \rightarrow TE), perceived usefulness and e-tax continuance intention (PU \rightarrow EC), trust in government and trust in e-tax (TG \rightarrow TE), trust in government and e-tax continuance intention (TG \rightarrow EC), mass media influence and trust in e-tax (MM \rightarrow TE), mass media influence and e-tax continuance intention (MM \rightarrow EC), and trust in e-tax and e-tax continuance intention (TE \rightarrow EC). Meanwhile, the indirect paths are perceived usefulness, trust in e-tax, and e-tax continuance intention (PU \rightarrow TE \rightarrow EC); trust in government, trust in e-tax, and e-tax continuance intention (TG \rightarrow TE \rightarrow EC); and mass media influence, trust in e-tax, and e-tax continuance intention (TG \rightarrow TE \rightarrow EC); and mass media influence, trust in e-tax, and e-tax continuance intention (MM \rightarrow TE \rightarrow EC); and mass media influence, trust in e-tax, and e-tax continuance intention (MM \rightarrow TE \rightarrow EC); and mass media influence, trust in e-tax, and e-tax continuance intention (MM \rightarrow TE \rightarrow EC);

The adjusted R-square displayed in Figure 2 shows that perceived usefulness, trust in government, and mass media influence, along with trust in e-tax, can explain 56.9% of the variation in e-tax continuance intention value. Meanwhile, perceived usefulness, trust in government, and mass media influence contribute to explaining trust in e-tax for 70.1%.



Fig. 2. Coefficient Correlation and R Square Results.



Fig. 3. Significant Path (T-Statistics).

As shown in Table 6, the hypotheses proposed in this study are partially accepted. The hypothesis testing shows that perceived usefulness has a significant direct and positive effect on taxpayers' intention to keep using e-tax (PU \rightarrow EC; $\beta = 0.377$; p = 0.000). The result also indicates that trust in e-tax mediates the effect of perceived usefulness on e-tax continuance intention (PU \rightarrow TE; $\beta = 0.440$; p = 0.000 and TE \rightarrow EC; $\beta = 0.334$; p = 0.005). Therefore, the first and fourth hypotheses are accepted.

Trust in government does not directly affect e-tax continuance intention (TG \rightarrow EC; $\beta = 0.068$; p = 0.387). Trust in government could only affect e-tax continuance intention through trust in e-tax (TG \rightarrow TE; $\beta = 0.495$; p = 0.000 and TE \rightarrow EC; $\beta = 0.334$; p = 0.005). This suggests that the second hypothesis is rejected, while the fifth hypothesis is accepted.

Similarly, mass media influence on e-tax continuance intention is insignificant (MM \rightarrow EC; $\beta = 0.139$; p = 0.062). Mass media only indirectly affects the e-tax continuance intention through trust in e-tax (MM \rightarrow TE; $\beta = 0.137$; p = 0.015 and TE \rightarrow EC; $\beta = 0.334$; p = 0.005). In other words, trust in e-tax mediates the effect of mass media influence on e-tax continuance intention. This implies that the third hypothesis is rejected, while the sixth hypothesis is accepted.

Path	Standardized β	Non -Standardized β	t-Statistics	p-Values
Perceived Usefulness \rightarrow E- Tax Continuance Intention	0.377	0.376	4.199	0.000*
Perceived Usefulness \rightarrow Trust in E-Tax	0.440	0.443	8.376	0.000*
Trust in Government \rightarrow E- Tax Continuance Intention	0.068	0.069	0.866	0.387
Trust in Government \rightarrow Trust in E-Tax	0.495	0.493	7.795	0.000*
Mass Media Influence \rightarrow E- Tax Continuance Intention	0.139	0.137	1.872	0.062
Mass Media Influence → Trust in E-Tax	0.137	0.138	2.434	0.015*
Trust in E-Tax \rightarrow E-Tax Continuance Intention	0.334	0.336	2.818	0.005*

Table 6. Structural Equation Modeling Result

Table 7 provides further evidence about the mediating effect of trust in e-tax. For example, the total effect of perceived usefulness to e-tax continuance intention is 0.525, which consists of direct effect (PU \rightarrow EC; $\beta = 0.378$) and indirect effect (PU \rightarrow TE \rightarrow EC; $\beta = 0.147$). Similarly, the total effect of trust in government on e-tax continuance intention is 0.233, which consists of direct effect (TG \rightarrow EC; $\beta = 0.067$) and indirect effect (TG \rightarrow TE \rightarrow EC; $\beta = 0.166$).

Table	7.	Path	Analysis	Result
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Path	Total Effect	Direct Effect	Indirect Effect
Perceived Usefulness \rightarrow Trust in E-Tax	0.440	0.440	
Perceived Usefulness \rightarrow E-Tax Continuance Intention	0.525	0.378	0.147
Trust in Government \rightarrow Trust in E-Tax	0.495	0.495	
Trust in Government \rightarrow E-Tax Continuance Intention	0.233	0.067	0.166
Mass Media Influence \rightarrow Trust in E-Tax	0.137	0.137	
Mass Media Influence \rightarrow E-Tax Continuance Intention	0.184	0.138	0.046
Trust in E-Tax \rightarrow E-Tax Continuance Intention	0.334	0.334	

4.4 Discussion

The path analysis results show that trust in e-tax plays a significant part in enhancing the effect of perceived usefulness, trust in government, and mass media influence on taxpayers' continuance intention of e-tax. Trust in e-tax becomes the determinant of continuance intention because when taxpayers perceive that the e-tax system is reliable, trustworthy, and will not harm them in its operation, it is likely for them to retain the use of the e-tax system. Also, with increased trust in the system, taxpayers will be more comfortable disclosing their personal information and conducting online activities; as a result, the desire to reuse the system will be increased.

In terms of the relationship between perceived usefulness and e-tax continuance intention, our findings demonstrate that perceived usefulness has both direct and indirect influence on e-tax continuance intention. When people perceive that using the system will enhance their performance, productivity, and effectiveness, they are

more likely to continue using e-tax rather than reverting to the manual system. On the other hand, taxpayers choose to retain the use of e-tax because the system offers usefulness and benefits over the manual system, and they put trust in the system. Trust in e-tax seems to increase the influence of perceived usefulness on e-tax continuance intention. This might not be a surprising result, given that most Indonesians tend to show their loyalty when they trust the system [51], [52].

Another finding indicates that trust in government does not directly affect the e-tax continuance intention. A higher level of taxpayers' trust in government does not necessarily mean that taxpayers will automatically keep using e-tax. Trust in government could only affect e-tax continuance intention indirectly through trust in e-tax. One of the possible reasons is that when taxpayers have faith in the government as the e-tax service provider, their trust in the system grows as they believe the government has put forth its best effort to provide a useful system for assisting the citizens, and eventually, they will be more motivated to keep using the system. In Indonesia's context, the taxpayers seem to perceive that the government, specifically the Directorate General of Taxation, has provided quality services. With quality services, taxpayers are likely to have more satisfaction with DGT [4] and trust in e-tax technology. Thus, taxpayers will keep using the e-tax system.

Similarly, mass media influence itself does not make people continue to utilize e-tax. Even though the mass media actively encourage people to use e-tax, it could not convey to taxpayers to keep using e-tax directly. Instead, the mass media significantly affect the trust of taxpayers in the e-system. Trust in the system is also affected by how the mass media transmit social experiences [45]. When taxpayers are consistently exposed to e-tax system promotion, their doubts and concerns regarding the performance of the system will be reduced as the media demonstrate the system's benefits and security. Accordingly, taxpayers will trust the system. The trust developed will encourage taxpayers' desire to continue using e-tax.

5 Conclusion

This study is intended to examine the magnitude of trust in e-tax in mediating the effect of perceived usefulness, trust in government, and mass media influence on individual taxpayers' continuance intention of e-tax. The results show that trust in e-tax plays a crucial role in mediating perceived usefulness, trust in government, and mass media influence to increase taxpayers' intention to keep using e-tax. The presence of trust in the e-tax system enhances the positive effect of perceived usefulness on e-tax continuance intention. When the system has outstanding performance, taxpayers are likely to favor the e-tax system over the time-consuming manual system. Without taxpayers' trust in the system, their intention to continue using the system will be easily swayed by their worries and doubts about the system's risk.

Trust in e-tax demonstrates its capability as a mediator in elevating the effect of trust in government and mass media influence, which initially shows an insignificant direct effect on e-tax continuance intention. The result indicates that the public's trust in the government or intensive recommendation by mass media to use e-tax alone is insufficient to escalate taxpayers' intention to keep using e-tax. It may happen since post-adoption intention relies more on direct experience with the system than external influence. Thus, trust in e-tax is needed to boost trust in government and the mass media's effect on the continuance intention.

This study extends the e-tax continuance literature, which is still limited in Indonesia. This study underlines the importance of trust in e-tax in improving taxpayers' continuance intention of e-tax. This study's findings can also be used as evaluation material by DGT and the tax office to improve e-tax continuity. The government needs to take steps to maintain and improve taxpayers' trust in the e-tax system, for example, by improving the quality of the e-tax system. Once trust is improved, it will be easier for the government to promote the use of e-tax via mass media.

This study has several limitations. First, the samples in this study may be homogeneous as they are taken from several private companies. Applying more samples to a wider scope, such as in MSME communities, entrepreneurs, or public employees, may result in more heterogeneous respondents' fields of work. Second, this study only covered four variables that affect e-tax continuance intention. Future research can improve this research by examining other variables, particularly computer risk propensity, personal information loss, and so forth.

References

- [1] A. P. Utami and M. S. Osesoga, "Analisa Faktor-faktor yang Mempengaruhi Penggunaan E-Filing Wajib Pajak Orang Pribadi," J. Ultim. Account., vol. 9, no. 2, pp. 15–32, 2017, doi: 10.31937/akuntansi.v9i2.727.
- [2] Direktorat Jenderal Pajak, "Laporan Tahunan DJP Tahun 2009," Jakarta, 2009. [Online]. Available: http://pajak.go.id/sites/default/files/2019-03/Annual Report DJP 2009 INA.pdf.
- [3] Direktorat Jenderal Pajak, "Laporan Tahunan 2018 Direktorat Jenderal Pajak: Sinergi Menuju Kemandirian Ekonomi Nasional," Jakarta, 2019. [Online]. Available: https://www.pajak.go.id/sites/default/files/2019-11/Laporan Tahunan DJP 2018 - bahasa Indonesia.pdf.
- [4] Direktorat Jenderal Pajak, "Konsisten Mengoptimalkan Peluang di Masa Menantang: Laporan Tahunan 2020,"

Jakarta, 2021. [Online]. Available: http://www.pajak.go.id/sites/default/files/2021-10/Laporan Tahunan DJP 2020 - Bahasa.pdf.

- [5] M. A. Nugroho, D. Setyorini, and B. T. Novitasari, "The Role of Satisfaction on Perceived Value and E-Learning Usage Continuity Relationship," *Procedia Comput. Sci.*, vol. 161, pp. 82–89, 2019, doi: 10.1016/j.procs.2019.11.102.
- [6] Z. Shao, L. Zhang, X. Li, and Y. Guo, "Antecedents of Trust and Continuance Intention in Mobile Payment Platforms: The Moderating Effect of Gender," *Electron. Commer. Res. Appl.*, vol. 33, 2019, doi: 10.1016/j.elerap.2018.100823.
- [7] H. D. Tsui, "Trust, Perceived Useful, Attitude and Continuance Intention to Use E-Government Service: An Empirical Study in Taiwan," *IEICE Trans. Inf. Syst.*, vol. E102D, no. 12, pp. 2524–2534, 2019, doi: 10.1587/transinf.2019EDP7055.
- [8] L. Yu, X. Cao, Z. Liu, M. Gong, and L. Adee, "Understanding Mobile Payment Users' Continuance Intention : A Trust Transfer Perspective," *Internet Res.*, vol. 28, no. 2, pp. 456–476, 2018, doi: https://doi.org/10.1108/IntR-11-2016-0359.
- [9] A. Rifat, N. Nisha, and M. Iqbal, "Predicting E-Tax Service Adoption: Integrating Perceived risk, Service Quality and TAM," *J. Electron. Commer. Organ.*, vol. 17, no. 3, pp. 71–100, 2019, doi: 10.4018/JECO.2019070105.
- [10] A. Tahar, H. A. Riyadh, H. Sofyani, and W. E. Purnomo, "Perceived Ease of Use, Perceived Usefulness, Perceived Security and Intention to Use E-Filing: The Role of Technology Readiness," J. Asian Financ. Econ. Bus., vol. 7, no. 9, pp. 537–547, 2020, doi: 10.13106/JAFEB.2020.VOL7.NO9.537.
- [11] J. J. Sondakh, "Behavioral Intention to Use E-Tax Service System: An Application of Technology Acceptance Model," *Eur. Res. Stud. J.*, vol. 20, no. 2A, pp. 48–64, 2017.
- [12] E. Abu-Shanab, "Antecedents of Trust in E-government Services: An Empirical Test in Jordan," *Transform. Gov. People, Process Policy*, vol. 8, no. 4, pp. 480–499, 2014, doi: 10.1108/TG-08-2013-0027.
- [13] L. Carter, V. Weerakkody, B. Phillips, and Y. K. Dwivedi, "Citizen Adoption of E-Government Services: Exploring Citizen Perceptions of Online Services in the United States and United Kingdom," *Inf. Syst. Manag.*, vol. 33, no. 2, pp. 124–140, 2016, doi: 10.1080/10580530.2016.1155948.
- [14] I. K. Mensah, C. Luo, and E. Abu-Shanab, "Citizen use of E-Government Services Websites: A proposed E-Government Adoption Recommendation Model (EGARM)," *Int. J. Electron. Gov. Res.*, vol. 17, no. 2, pp. 19–42, 2021, doi: 10.4018/IJEGR.2021040102.
- [15] H. Zahid and B. H. Din, "Determinants of Intention to Adopt E-Government Services in Pakistan: An Imperative for Sustainable Development," *Resources*, vol. 8, no. 3, 2019, doi: 10.3390/resources8030128.
- [16] U. Zaman, H. Zahid, M. S. Habibullah, and B. H. Din, "Adoption of Big Data Analytics (BDA) Technologies in Disaster Management: A Decomposed Theory of Planned Behavior (DTPB) Approach," *Cogent Bus. Manag.*, vol. 8, no. 1, 2021, doi: 10.1080/23311975.2021.1880253.
- [17] M. K. Gharaibeh and M. R. Mohd Arshad, "Determinants of Intention to Use Mobile Banking in the North of Jordan: Extending UTAUT2 with Mass Media and Trust," J. Eng. Appl. Sci., vol. 13, no. 8, pp. 2023–2033, 2018, doi: 10.3923/jeasci.2018.2023.2033.
- [18] L. Chen and A. K. Aklikokou, "Determinants of E-government Adoption: Testing the Mediating Effects of Perceived Usefulness and Perceived Ease of Use," *Int. J. Public Adm.*, vol. 43, no. 10, pp. 850–865, 2020, doi: 10.1080/01900692.2019.1660989.
- [19] A. K. Wardana, "Analisis Faktor Berpengaruh terhadap Minat Wajib Pajak Pengguna E-Filing pada Kantor Pelayanan Pajak Pratama Makassar Selatan," J. Apl. Manajemen, Ekon. dan Bisnis, vol. 3, no. 2, pp. 13–21, 2019, [Online]. Available: https://jameb.stimlasharanjaya.ac.id/JAMEB/article/view/75.
- [20] K. Safari, A. Bisimwa, and M. Buzera Armel, "Attitudes and Intentions Toward Internet Banking in an Under Developed Financial Sector," *PSU Res. Rev.*, vol. 6, no. 1, pp. 39–58, 2022, doi: 10.1108/prr-03-2020-0009.
- [21] N. Wilson, K. Keni, and P. H. P. Tan, "The Role of Perceived Usefulness and Perceived Ease-of-Use Toward Satisfaction and Trust which Influence Computer Consumers' Loyalty in China," *Gadjah Mada Int. J. Bus.*, vol. 23, no. 3, pp. 262–294, 2021, doi: 10.22146/gamaijb.32106.
- [22] M. Harrigan, K. Feddema, S. Wang, P. Harrigan, and E. Diot, "How Trust Leads to Online Purchase Intention Founded in Perceived Usefulness and Peer Communication," *J. Consum. Behav.*, vol. 20, no. 5, pp. 1297–1312, 2021, doi: 10.1002/cb.1936.
- [23] I. Ventre and D. Kolbe, "The Impact of Perceived Usefulness of Online Reviews, Trust and Perceived Risk on Online Purchase Intention in Emerging Markets: A Mexican Perspective," J. Int. Consum. Mark., vol. 32, no. 4, pp. 287–299, 2020, doi: 10.1080/08961530.2020.1712293.
- [24] W. Li and L. Xue, "Analyzing the Critical Factors Influencing Post-use Trust and Its Impact on Citizens' Continuous-Use Intention of E-Government: Evidence from Chinese Municipalities," *Sustain.*, vol. 13, 2021, doi: 10.3390/su13147698.
- [25] A. A. Pinem, I. M. Immanuella, A. N. Hidayanto, K. Phusavat, and Meyliana, "Trust and Its Impact Towards Continuance of Use in Government-to-business Online Service," *Transform. Gov. People, Process Policy*, vol. 12, no. 3/4, pp. 265–285, 2018, doi: 10.1108/TG-02-2018-0008.
- [26] W. Chaouali, I. Ben Yahia, and N. Souiden, "The Interplay of Counter-conformity Motivation, Social Influence, and Trust in Customers' Intention to Adopt Internet Banking Services: The Case of an Emerging Country," J. Retail. Consum. Serv., vol. 28, pp. 209–218, 2016, doi: 10.1016/j.jretconser.2015.10.007.
- [27] N. Yannopoulou, E. Koronis, and R. Elliott, "Media Amplification of a Brand Crisis and its Affect on Brand Trust," J. Mark. Manag., vol. 27, no. 5–6, pp. 530–546, 2011, doi: 10.1080/0267257X.2010.498141.
- [28] A. C. Azmi and N. F. Aziz, "Trust, Justice and the Continued Use of E-Filing," *Electron. Gov.*, vol. 11, no. 3, pp.

207-222, 2015, doi: 10.1504/EG.2015.070132.

- [29] F. D. Davis, "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology," MIS Q., vol. 13, no. 3, pp. 319–340, 1989, doi: https://doi.org/10.2307/249008.
- [30] F. Muñoz-Leiva, S. Climent-Climent, and F. Liébana-Cabanillas, "Determinants of Intention to Use the Mobile Banking Apps: An Extension of the Classic TAM Model," *Spanish J. Mark. - ESIC*, vol. 21, no. 1, pp. 25–38, 2017, doi: 10.1016/j.sjme.2016.12.001.
- [31] O. Okunogbe and V. Pouliquen, "Technology, Taxation, and Corruption: Evidence from the Introduction of Electronic Tax Filing," *Am. Econ. J. Econ. Policy*, vol. 14, no. 1, pp. 341–372, 2022, doi: 10.1257/pol.20200123.
- [32] A. Bhattacherjee, "Understanding Information Systems Continuance: An Expectation Confirmation Model," MIS Q., vol. 25, no. 3, pp. 351–370, 2001, doi: 10.2307/3250921.
- [33] I. Arpaci, "Antecedents and Consequences of Cloud Computing Adoption in Education to Achieve Knowledge Management," *Comput. Human Behav.*, vol. 70, pp. 382–390, 2017, doi: 10.1016/j.chb.2017.01.024.
- [34] A. A. Daneji, A. F. M. Ayub, and M. N. M. Khambari, "The Effects of Perceived Usefulness, Confirmation and Satisfaction on Continuance Intention in Using Massive Open Online Course (MOOC)," *Knowl. Manag. E-Learning*, vol. 11, no. 2, pp. 201–214, 2019, doi: 10.34105/j.kmel.2019.11.010.
- [35] T. Santhanamery and T. Ramayah, "Trust in the System: The Mediating Effect of Perceived Usefulness of the E-Filing System," in User Centric E-Government Challenges and Opportunities, 39th ed., R. Sharda and S. VoB, Eds. Cham: Springer International Publishing, 2018, pp. 89–103.
- [36] L. Alzahrani, W. Al-Karaghouli, and V. Weerakkody, "Analysing the Critical Factors Influencing Trust in E-Government Adoption from Citizens' Perspective: A Systematic Review and a Conceptual Framework," *Int. Bus. Rev.*, vol. 26, no. 1, pp. 164–175, 2017, doi: 10.1016/j.ibusrev.2016.06.004.
- [37] M. K. Alomari, "E-voting Adoption in a Developing Country," *Transform. Gov. People, Process Policy*, vol. 10, no. 4, pp. 526–547, 2016, doi: 10.1108/TG-11-2015-0046.
- [38] M. Warkentin, D. Gefen, P. A. Pavlou, and G. M. Rose, "Encouraging Citizen Adoption of E-Government by Building Trust," *Electron. Mark.*, vol. 12, no. 3, pp. 157–162, 2002, doi: 10.1080/101967802320245929.
- [39] M. R. Jalilvand, "Word-of-Mouth VS. Mass Media: Their Contributions to Destination Image Formation," Anatolia, vol. 28, no. 2, pp. 151–162, 2016, doi: 10.1080/13032917.2016.1270840.
- [40] S. Ball-Rokeach and M. L. DeFleur, "A Dependency Model of Mass-Media Effects," *Communic. Res.*, vol. 3, no. 1, pp. 3–21, 1976, doi: https://doi.org/10.1177%2F009365027600300101.
- [41] A. J. Bush, R. Smith, and C. Martin, "The Influence of Consumer Socialization Variables on Attitude Toward Advertising: A Comparison of African-Americans and Caucasians," J. Advert., vol. 28, no. 3, pp. 13–24, 1999, doi: 10.1080/00913367.1999.10673586.
- [42] N. Veeramootoo, R. Nunkoo, and Y. K. Dwivedi, "What Determines Success of an E-Government Service? Validation of an Integrative Model of E-Filing Continuance Usage," *Gov. Inf. Q.*, vol. 35, no. 2, pp. 161–174, 2018, doi: 10.1016/j.giq.2018.03.004.
- [43] M. Amin, S. Rezaei, and M. Abolghasemi, "User Satisfaction with Mobile Websites: The Impact of Perceived Usefulness (PU), Perceived Ease of Use (PEOU) and Trust," *Nankai Bus. Rev. Int.*, vol. 5, no. 3, pp. 258–274, 2014, doi: 10.1108/NBRI-01-2014-0005.
- [44] R. Bachmann, N. Gillespie, and R. Priem, "Repairing Trust in Organizations and Institutions: Toward a Conceptual Framework," Organ. Stud., vol. 36, no. 9, pp. 1123–1142, 2015, doi: 10.1177/0170840615599334.
- [45] M. Kamalrudin, N. A. S. Winarsih, and S. Sidek, "Trust Requirements in E-Health System: A Conceptual Framework," J. Telecommun. Electron. Comput. Eng., vol. 10, no. 2–2, pp. 29–33, 2018.
- [46] M. L. DeFleur, *Mass Communication Theories: Explaining Origins, Processes, and Effects*. New York: Routledge Taylor & Francis Group, 2016.
- [47] J. C. Mendoza-Tello, H. Mora, F. A. Pujol-López, and M. D. Lytras, "Social Commerce as a Driver to Enhance Trust and Intention to Use Cryptocurrencies for Electronic Payments," *IEEE Access*, vol. 6, pp. 50737–50751, 2018, doi: 10.1109/ACCESS.2018.2869359.
- [48] J. F. Hair, M. Page, and N. Brunsveld, *Essentials of Business Research Methods*, 4th ed. New York: Routledge Taylor & Francis Group, 2020.
- [49] X. A. Koufteros, "Testing a Model of Pull Production: A Paradigm for Manufacturing Research Using Structural Equation Modeling," *J. Oper. Manag.*, vol. 17, no. 4, pp. 467–488, 1999, doi: 10.1016/S0272-6963(99)00002-9.
- [50] D. F. Fornell, C., & Larcker, "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error," J. Mark. Res., vol. 18, no. 1, pp. 39–50, 1981, doi: 10.2307/3151312.
- [51] N. W. Pramesti and A. Suyanto, "Analisis Pengaruh Kepercayaan dan Kepuasan Pelanggan Terhadap Loyalitas Pelanggan (Studi Kasus pada Pelanggan E-commerce di Indonesia Tahun 2018)," *e-Proceeding Manag.*, vol. 6, no. 1, pp. 182–188, 2019.
- [52] M. A. Mukminin and F. N. Latifah, "Pengaruh Citra Merek dan Kepercayaan Terdahap Loyalitas Nasabah Bank Syariah di Sidoarjo (The Influence of Brand Image and Trust on Sharia Bank Customer Loyalty in Sidoarjo)," *Perisai Islam. Bank. Financ. J.*, vol. 4, no. 1, pp. 54–72, 2020, doi: 10.21070/perisai.v4i1.525.