SMART GOVERNANCE: PAYMENT TRANSACTION ELECTRONIFICATION ACCEPTANCE IN NORTH SUMATRA PROVINCE, INDONESIA

Dias Satria[1], Tiara Juniar Soewardi[2] and Joshi Maharani Wibowo[3]*

[1]*University of Brawijaya, Faculty of Economics and Business, Indonesia*
[2]*University of National Development "Veteran", Faculty of Economics and Business, Indonesia*
[3]*University of Surabaya, Faculty of Business and Economics, Indonesia*

The policy of the electronification of regional payment transactions (ERPT) is one of the innovations implemented by Indonesia due to the COVID-19 pandemic so as to increase the economic activity and revenue. This study is aimed at increasing the understanding of smart governance, the contactless economy, and regional income in North Sumatra Province, Indonesia, and globally the new normal and the post-COVID-19 eras. This research study was carried out using the primary data obtained through questionnaires in 2021 applying the purposive sampling method and processed using the Structural Equation Model-Partial Least Square (SEM-PLS) models. Based on the six hypotheses proposed in this study, the results show that performance expectancy, the social influence, and the facilitating condition have a positive and significant impact on the behavioral use of the noncash payment transactions of taxes and levies in North Sumatra Province. On the other hand, the effort expectancy has no significant impact on the cashless transaction of paying taxes and levies in the North Sumatra Province.

Keywords: contactless economy, smart governance, regional payment transaction electronification

INTRODUCTION

The COVID-19 pandemic has generated a new trend in people's behavior. It was initially the contact economy, where individuals had to be physically present, whereas now the economy has become contactless

* *Correspondence to:* J. M. Wibowo, University of Surabaya, Faculty of Business and Economics, Surabaya, Indonesia;
e-mail: joshiwibowo@staff.ubaya.ac.id

(Manimuthu, Dharshini, Zografopoulos, Priyan & Konstantinou, 2021). This behavior requires that relevant stakeholders should develop an appropriate technology, such as digital payments, which is necessary for the industrial era 4.0 (Brunkhorst, 2020; Trütsch, 2020; Faturohman, Farras Ar Rasyid, Rahadi, Darmansyah & Afgani 2021). Through technology, all trade transactions, public services, tourism and financial services are encouraged to be carried out without any face-to-face contact (Lee &

Lee, 2020; Baber & Tripati, 2021; Yamin, Darmawan & Rosyadi, 2021), which is possible to achieve if there are trailblazers encouraging the implementation of digitalization in every region and in every country.

As the regulators and providers of public services, governments have played a major role in ensuring people's welfare, and as the driving instrument of the country's progress (Liu & Qi, 2021). The same situation is also visible in Indonesia, where the Indonesian Government plays the major role in the population's wellbeing at both the regional and the national levels (Nartin & Musin, 2022).

Since 2019, the Indonesian Government has been using a technology-based strategic approach better known as "smart governance" so as to implement smart city programs in 100 Indonesian cities/districts (Anindra, Supangkat & Kosala, 2018; Yudono, Satria & Erlando, 2019; Firman, Sumatono, Muluk & Setyowati, 2022). In this sense, the COVID-19 pandemic is/was the momentum for the Indonesian and regional governments to digitize regions in order to implement the "smart governance" approach. The implementation of smart governance is to promote regional revenues and build a resilient region through price and inflation control; access to digital financial literacy; e-tourism-based tourism development; e-commerce-based micro-, small and medium-sized business development, and so forth (Yudono *et al*, 2019; Pareti, Flores, Gonzalez & Pareti, 2022). Smart governance in Indonesia plays the major role in the COVID-19 era and the new normal with the aim to overcome various social issues, especially so when the economy in urban areas is concerned (Firman *et al*, 2022).

North Sumatra Province is one of Indonesia's urban areas managed applying smart governance. Since 2020, the North Sumatra Provincial Government has taken advantage of the COVID-19 momentum to accelerate, implement and develop the policy of the electronification of regional payment transactions (ERPT) through the noncash payment of taxes and levies. This policy was implemented as a resilience strategy intended to increase the gross domestic product (GDP) optimization and encourage economic growth in North Sumatra Province. The implementation of the ERPT policy in North Sumatra Province in 2020-2021 had to face various obstacles in the field. One of them was the weak digital mindset of the community to make noncash payments of taxes and levies through the digital system. The related studies by J. Erjavec and A. Manfreda (2022) note that people are often afraid of adopting or reluctant to adopt a new system in their lives.

The research studies linking smart governance, the contactless economy, and regional income are very limited, especially in Indonesia. Over the last ten years, the largest portion of the research related to smart governance, the contactless economy, and regional income has been done separately. This study was carried out so as to fill the gap in the literature and to increase the understanding of smart governance, the contactless economy, and regional income in North Sumatra Province, Indonesia, and globally as well. Furthermore, the research for the largest part focuses on the cashless payment system of the consumer's preference and growth in the economy, whereas this research is focused on the impact of the contactless economy on regional income and the development of government revenue.

The research study was carried using the ERPT as the main subject so as to investigate and examine the acceptance of the noncash payments of taxes and levies policy implemented by smart governance in North Sumatra Province. The main data used in this study are the primary data collected through a survey in the form of an online questionnaire in the nine cities/districts with the implemented ERPT by Bank Indonesia, North Sumatra Province, in 2021. Then the data were processed and analyzed using the SEM-PLS (Structural Equation Model-Partial Least Square) models.

LITERATURE REVIEW

Regional financial transaction electronification

Financial transaction electronification is a response to the development of the digital world in the financial sector, which aims to create a technology-based effective and efficient payment system (Lee & Lee, 2020). The development of the digital payment system has attracted the attention of the government and other policymakers in that it made them review and develop the digital financial system that is safe, practical, efficient, and contactless for users/the public (Yue, Korkmaz, Yin & Zhou, 2022). T. Trütsch (2020) stated that, through the development and utilization of digital payment systems, people tended to increase consumption, which had a positive effect on the value of transactions made. It happens because noncash payments reduce the transaction costs that occur when cash payments are made (e.g. the costs of the time needed to make transactions) (Trütsch, 2020).

The development of financial transaction electronification in Indonesia has been carried out since 2014, marked by the implementation of the "*Gerakan Nasional Non Tunai*" or the "National Noncash Movement" (NNCM) in Indonesia. The NNCM is the noncash payment policy based on the automatic teller machine (ATM), debit, credit, and e-money cards to create the *Less Cash Society* (LSC) ecosystem in Indonesia (Kusumastuti & Tinangon, 2019). Initially, the noncash payments based on the NNCM policy were carried out utilizing inter- or intrabank transfers, which on its part resulted in the inefficiency of noncash transaction electronification due to a large number of ATMs and Electronic Data Capture (EDC) that had to be provided, as well as high interbank transaction fees. To overcome this issue, Bank Indonesia (BI) issued the National Payment Gateway (NPG) policy, the interbank network system in Indonesia initiated by Bank Indonesia, which had previously been concentrated on international payment products, such as Visa and Mastercard, to integrate and streamline cashless payment channels nationally (Kusumastuti & Tinangon, 2019).

In 2020, global digital financial transactions underwent a rapid reform and growth due to the economic shock caused by COVID-19 (Fu & Mishra, 2022). This growth was made possible because, during COVID-19, it was difficult for people to leave their homes and make economic transactions in cash. The same condition also occurred in Indonesia, marked by the implementation of safety measures so as to prevent the spread of the COVID-19 virus, such as Large-Scale Social Restrictions (*Pembatasan Sosial Berskala Besar*), health protocols in the new normal era, and many others (Wibowo & Hariadi, 2022). This condition certainly forces people to shift from cash payments to noncash payments.

Since then, the Indonesian government has perceived the cashless payments trend as the opportunity to reform and accelerate the electronification of the national financial transactions that enable inclusive and sustainable economic growth through the use and advancement of the existing financial-based technologies, such as e-commerce, Quick Response Code Indonesia Standard (QRIS), and Internet Banking. Policymakers believe that the acceleration of the implementation of the financial transaction electronification policy is vital in order to promote the digital economic ecosystem that may trigger consumption and facilitate the distribution of financial aid to the public and also minimize negative externalities in the COVID-19 recession era (Li, Kim, Lang, Kauffman & Naldi, 2020; Trütsch, 2020; Suryono, Budi & Purwandari, 2021; Fu & Mishra, 2022; Yue *et al*, 2022). Thus, the Presidential Decree of the Republic of Indonesia Number 3 of 2021 concerning the Task Force for the Acceleration and Expansion of Regional Digitization was issued so as to support the acceleration of the financial transaction electronification policy implementation in Indonesia. Thus, the Electronification of Regional Payment Transactions (ERPT) Policy is being implemented in 34 provinces of Indonesia.

ERPT is an integrated effort to replace cash payments with noncash payments in order to increase the accountability and transparency of the regional financial management. The ERPT regulation begins with the NNCM, which BI and the Government

initiated in 2014 in order to create the LSC. In line with the NNCM, the Presidential Instruction Number 10 of 2016 concerning the Prevention and Eradication of Corruption was issued in 2016 and 2017, one of them containing directions for the acceleration of the implementation of noncash transactions in all ministries/institutions (K/L) and the local governments. The issuance of the Government Regulation Number 12 of 2019 concerning Regional Financial Management implies the promotion of the acceleration of the ERPT program. Circular letters outline the local governments' obligation to implement an electronic-based government system in regional financial management.

The ERPT has a role to support various economic activities, including:

- PAD optimization,
- the improvement of the local government financial management,
- improved access to finance, and
- the systematic reinforcement of financial control.

In its implementation, the electronification of transactions within local government is mapped based on the four indices, namely the level of implementation, the realization of or a contribution to PAD, and strategic readiness and support, which is then measured using a 1-100 scale and divided into the four levels including initiation (0-10), developing (>10-40), advanced (>40-70), and digital (>70-100).

Smart governance

Smart governance is implemented by the government seeking to improve performance or overcome the existing problems in the region through innovation and the use of cutting-edge technology. A government can be called "smart" when it has a clear and equitable division of the roles in its governance process, when it is able to efficiently and effectively manage and use data, involving the community in making decisions on regional governance (Anindra *et al*, 2018; Liu & Qi, 2021; Tomor, Przeybilovicz & Leleux, 2021). In addition, smart governance is also defined as smart government management in order to streamline the economic, political, legal and regulatory sectors, simultaneously without eliminating the existing societal norms and values through the use of technology (Tomor *et al*, 2021). Through the use of technology and the community involvement in government, smart governance aims for data transparency, information, and government policies, as regulated in the Law Number 14 of 2008 on the Openness of Public Information (Mutiara, Yuniarti & Pratama, 2018).

Several studies stated that smart governance usually referred to smart countries or smart cities. In Barcelona, the implementation of technology and information into the governance activity will effectively increase urban growth and the policy impact (Bakici, Almirall & Wareham, 2013). A recent study conducted in Europe has also shown the relevance between a smart city and smart governance based on demographical and geographical uniqueness in the respective area (Tomor *et al*, 2021). The goal of smart governance was the same everywhere, which means it was aimed at efficiently increasing people's welfare through the diverse use of technology (Bakici *et al*, 2013; Mutiara *et al*, 2018; Tomor *et al*, 2021; Pareti *et al*, 2022).

Contactless economy

The contactless economy is an economic revolution in the form of social phenomenon that has led to a shifting trend between society and a market behavior because of safety and health measures in the COVID-19 period (Lee & Lee, 2020; Trütsch, 2020; Manimuthu *et al*, 2021). The contactless economy trend is one of the best momentums to accelerate the application of the equal digitization of the global economy. One of the contactless economy's innovations is the cashless payment method introduced so as to replace cash payments in any and all economic activities (Lee & Lee, 2020; Trütsch, 2020; Bae & Chang, 2021).

Many countries have started implementing the contactless economy in every possible aspect. In Thailand, China, and Nigeria, the governments have begun to implement the contactless economy through the mobile QR Code Payment system drives as a

cashless payment policy in order to support financial transactions for both the public and the private sectors in order for them to be more efficient, more transparent, safer, and at a lower cost. In the exchange activity, people also want a cashless economy system which is user-friendly and safe to use (Yakean, 2020; Manimuthu *et al*, 2021; Zhong & Moon, 2022).

In an earlier study related to smart governance and the contactless economy's qualitative methods, a secondary literacy study (Bakici *et al*, 2013; Yakean, 2020; Liu & Qi, 2021) or an in-depth interview (Tomor *et al*, 2021) were used. Z. Tomor *et al* (2021) pointed out the three factors that had an influence on the smart city:

- the intergovernmental state structure,
- local political power relations, and
- the urban governance model.

Smart governance is created by linking all the three factors.

HYPOTHESIS DEVELOPMENT

In this study, the Unified Theory Acceptance Use of Technology (UTAUT) model is implemented in formulating the hypothesis and in quantitative analysis (Figure 1). UTAUT is a model of the acceptance and use of the latest integrated technology developed by V. Venkatesh, M. G. Morris, G. B. Davis and F. D. Davis (2003). Several economic experts, such as C. M. Chao (2019) and R. A. Ericska, L. A. Maureen Nelloh and S. Pratama (2022) agree upon the fact that UTAUT is the most fitting model to the understanding of research in technological and economic phenomena research. Furthermore, UTAUT combines eight related models, including Theory Reasoned Action (TRA), the Technology Acceptance Model (TAM), the Motivational Model (MM), the Theory of Planned Behavior (TPB), Combined TAM and TPB (C-TAM-TPB), the Model of PC Utilization (MPCU), Innovation Diffusion Theory (IDT), and Social Cognitive Theory (SCT) in order to explain the acceptance and use of technology based on society or user behavior (Venkatesh *et al*, 2003).

A previous study carried out in China used the UTAUT model to investigate customer behavior when making contactless payments included the following variables: perceived ease of use (PEOU), perceived usefulness (PU), service security (SS), perceived value (PV), and post-adoption behavior (PAB). The result confirmed the fact that the perceived ease of use, perceived usefulness, and service security were the vital antecedents of the perceived value of and user satisfaction when making contactless payments (Zhong & Moon, 2022).
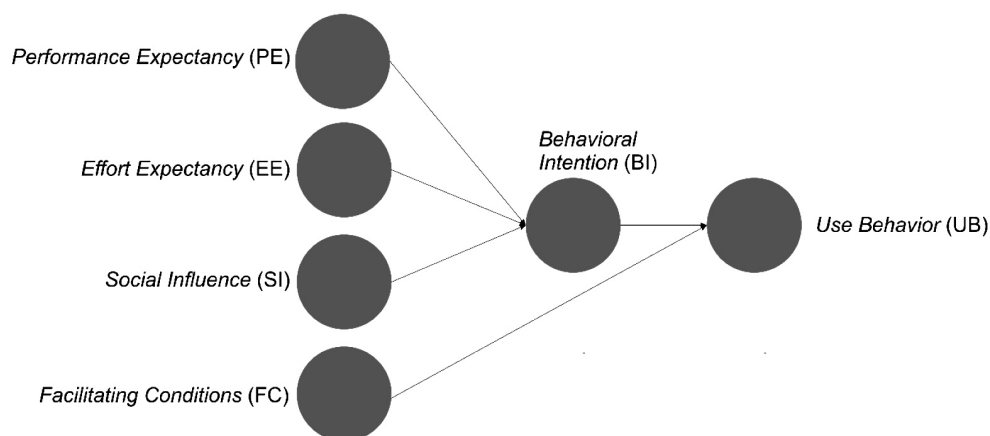
Figure 1 The UTAUT conceptual model

Source: Authors

In the study for Nigeria, Z. U. Mamudu and G. O. Gayovwi (2019) revealed that the positive relationship between ATM, Web/Internet Transfers Payment Value (WEBP) and National Electronic Funds Transfer Value (NEFT) was a result of the e-transaction usage through technology acceptance and the diffusion of the innovation of the cashless payment policy. The results also suggested that Cheques Cleared Value (CHEV), the Point-of-Sale Value (POSV) and Mobile Payment Value (MOBP) had an inverse and insignificant impact on the Gross Domestic Product in Nigeria.

The impact of performance expectancy (PE) on the behavioral intention (BI)

PE is a person's desire to use information technology in order to achieve something. V. Venkatesh *et al*, (2003) define the behavioral intention as a measure of a person's will to behave in a certain way. J. Erjavec and A. Manfreda (2022) state that society is more likely to accept and use digital technology if it is perceived as beneficial and if it offers certain advantages. Testing the PE effect on BI is done so as to determine an individual's feeling about PE concerning ERPT in the cashless payment of taxes and levies in North Sumatra. The hypothesis is formulated as follows:

H1: PE has a positive and significant impact on behavioral intention (BI).

The impact of effort expectancy (EE) on the behavioral intention (BI)

EE is the level of the ease of use associated with the use of the system. It is how easily users can use and learn a new technology or the level of the ease of the system use by the respondents (Venkatesh *et al*, 2003). The EE impact on BI research test variable is used in order to determine how easily users may utilize ERPT to pay for taxes and levies in North Sumatra, taking into consideration the fact that the use of the new technology is becoming a challenge for the elder (Erjavec & Manfreda, 2022). The hypothesis reads as follows:

H2: EE has a positive and significant impact on behavioral intention (BI).

The impact of the social influence (SI) on the behavioral intention (BI)

SI is a variable used so as to see how far an individual believes of the reviews made by the other people who have already used a new system or a new technology as an important consideration prior to trying to use the system themselves (Venkatesh *et al*, 2003). The more positive such reviews on the payment of taxes and levies in North Sumatra are, the more convinced an individual is in their intention to try to do the same thing (Erjavec & Manfreda, 2022). The hypothesis is set as follows:

H3: SI has a positive and significant impact on the behavioral intention (BI).

The impact of the facilitating condition (FC) on the behavioral intention (BI) and user behavior (UB)

FC is a variable used so as to see how far an individual believes the organization and technical infrastructure can support a particular system (Venkatesh *et al*, 2003). The compatibility of the conditions between the digital system supporting facilities and the perception of the public has positive impacts on the people's behavior and desire to use a digital system (Erjavec & Manfreda, 2022). FC was tested through BI and UB in order to determine the compatibility of FC in the ERPT system based on the frequency of payments and the people's desire to continue to use cashless payments to pay for taxes and levies in North Sumatra Province. The proposed hypotheses read as follows:

H4: FC has a positive and significant impact on the behavioral intention (BI).

H5: FC has a positive and significant impact on use behavior (UB).

The impact of the behavioral intention (BI) on user behavior (UB)

BI testing on UB is essential to identify whether the people of North Sumatra Province are interested in the cashless payment of taxes and levies based on the frequency of cashless payments made by the respondents. The more the respondents use the cashless system to pay for taxes and levies, the more interested people are in this system. The hypothesis is proposed to read as follows:

H6: BI has a positive and significant impact on user behavior (UB).

METHODOLOGY AND DATA

This study was carried out quantitatively and it was conducted in nine cities/districts with the assistance of Bank Indonesia, North Sumatra Province, which had already implemented the ERPT policy. The study was being conducted from January to December 2021. The primary data used in the study were collected through a survey in the form of an online questionnaire based on the motivation, perception, and consumer attitudes, i.e. "MAPID" perception, in the UTAUT model. The respondents taking part in this study were chosen using the purposive sampling method so as to determine the number of the samples. This method aims to take samples purposively following the sample requirements (Sugiyono, 2020). This study required a sample of people in the research area (namely the nine cities/regencies that had implemented ERPT in North Sumatra Province) or of those who had paid taxes and levies in the research area.

The data were analyzed using the Structural Equation Model-Partial Least Square (SEM-PLS) model. In addition, the questionnaire in this study also used a Likert scale from 1 (strongly disagree) to 5 (strongly agree). The questions in the questionnaire refer to the previous research related to UTAUT, namely performance expectancy, effort expectancy, the social influence, the facilitating condition, the behavioral intention, and user behavior (Venkatesh *et al*, 2003). Apart from the foregoing, there are also the demographic questions asked in order to obtain more information related to the respondents' gender, age, education, occupation, income, and place of origin.

Table 1 shows the demographic structure of the respondents included in the questionnaire in this research study. The respondents are mainly millennials of 26 to 35 years of age (39.66%) and 36 to 45 years of age (27.16%), especially men (56.82%) from the Pakpak Bharat Regency (17.03%). Moreover, the background education of the largest number of the respondents who had paid cashless taxes and levies implies a high-school diploma (44.54%) and entrepreneurs (42.55%) with an average income mostly ranging from 3 to 5 million rupiahs (43.75%).

RESEARCH RESULTS

This study analyzes the data through the validation and reliability process using outer loading analysis (item loading), average variance extracted (AVE), composite reliability, and discriminant validity (Maureen Nelloh, Santoso & Slamet, 2019).

First, outer loading analysis is applied in the study to each indicator, an indicator having good reliability if the outer loading value is greater than 0.7 (Ericska *et al*, 2022). Based on the results, the test items FC6, SI6, and SI7 have a value lesser than 0.7, namely 0.589, 0.678, and 0.683, respectively. Modifications were made by removing these three items so that data research reliability could be accepted at this stage.

Second, an internal consistency test based on the composite reliability value was done. The research indicator is reliable when the composite reliability value is greater than 0.7 (Amoah & Jibril, 2021). Based on Table 2, the composite reliability value of each indicator is greater than 0.7, which shows that the research indicators have good internal consistency.

Third, a convergent validity test is applied in the study so as to evaluate the value of the average variance extracted (AVE). An indicator is valid when

Table 1 The demographic structure of the respondents

Demographic Variable		Frequency	Percent (%)
Gender	Male	279	56.82
	Female	212	43.18
Age	<25 years old	98	21.12
	26-35 years old	184	39.66
	36-45 years old	126	27.16
	46-55 years old	39	8.41
	55-65 years old	17	3.66
Education	Middle School (SMP)	12	2.57
	High School (SMA)	208	44.54
	Diploma	36	7.71
	Undergraduate	192	41.11
	Post-graduate	19	4.07
Occupation	Entrepreneur	197	42.55
	Private Employee	173	37.37
	Civil Servant	63	13.61
	Military/Police	6	1.30
	Unemployed	24	5.18
Income	< 3 million rupiahs	159	34.27
	3-5 million rupiahs	203	43.75
	5-10 million rupiahs	83	17.89
	>10 million rupiahs	19	4.09
Place of Origin	Pakpak Bharat Regency	79	17.03
	Deli Serdang Regency	55	11.85
	Langkat Regency	52	11.21
	Tebing Tinggi City	48	10.34
	Karo Regency	50	10.78
	Medan City	47	10.13
	Binjai City	47	10.13
	Serdang Bedagai Regency	31	6.68
	Dairi Regency	24	5.17

Source: Authors

its AVE value is greater than 0.5 (Erjavec & Manfreda, 2022). Table 2 shows that all the research indicators of the AVE value are greater than 0.5, thus indicating that all the indicators have convergent validity.

The last step was conducting a discriminant validity test using the Fornell-Larcker criterion (Amoah & Jibril, 2021; Erjavec & Manfreda, 2022). Based on the Fornell-Larcker criterion test results, the facilitating condition and performance expectancy indicators

demonstrate a higher correlation value than the other indicators, being 0.836 and 0.903, respectively. Hence, the model modification was performed issuing the indicators with the smallest outer loading results, namely FC1 and PE1, so that the research indicators do have discriminant validity. Overall, the results of the model test can be seen in Table 2.

Table 3 shows the results of the hypothesis testing. The results are obtained by comparing the t-statistic

Table 2 The model test results

Construct	Item	Item Loading	Composite Reliability	AVE	Fornell-Larcker
Behavioral intention	BI1	0.880	0.8780	0.7080	0.841
	BI2	0.737			
	BI3	0.898			
Effort expectancy	EE1	0.913	0.9620	0.8090	0.899
	EE2	0.888			
	EE3	0.928			
	EE4	0.935			
	EE5	0.886			
	EE6	0.843			
Facilitating conditions	FC2	0.881	0.9450	0.6830	0.841
	FC3	0.820			
	FC4	0.881			
	FC5	0.850			
	FC7	0.828			
	FC8	0.771			
	FC9	0.854			
Performance expectancy	PE2	0.896	0.9710	0.8060	0.906
	PE3	0.902			
	PE4	0.885			
	PE5	0.900			
	PE6	0.912			
	PE7	0.929			
	PE8	0.916			
Social influence	SI1	0.792	0.9380	0.7520	0.867
	SI2	0.914			
	SI3	0.893			
	SI4	0.916			
	SI5	0.812			
User behavior	UB1	0.834	0.9130	0.7770	0.882
	UB2	0.916			
	UB3	0.892			

Source: Authors

value with the critical values. If a t-statistic is greater than the critical value, the hypothesis can be accepted, and *vice versa*. Apart from comparing t-statistics with a t-value, hypothesis testing can also be done by comparing a p-value and the 5% significance level. If the p-value is greater than 5% or 0.05, then the hypothesis is rejected, and *vice versa* (Amoah & Jibril, 2021; Ericska *et al*, 2022).

Based on Table 3, it is only Hypothesis 2 that is rejected. In other words, increasing the ease of noncash payments does not necessarily encourage the people of North Sumatra Province to pay taxes and levies using cashless payments. This result is contradictory with the UTAUT model developed by (Venkatesh *et al*, 2003), which states that effort expectancy has a positive and significant effect on the behavioral intention. However, this result is in line with B. Ndekwa, A. J. Ochumbo, A. G. Ndekwa and K. E. John (2018). B. Ndekwa *et al* (2018) found that users' perceptions of the ease of use of the open-source software did not play an important role in the behavioral intentions for the actual use.

Table 3 The statistical test results

Hypothesis		Original Sample	Standard Deviation	t-Statistic	p-value	Decision
H1	PE → BI	0.2200	0.0830	2.6360	0.0090	Supported
H2	EE → BI	-0.1310	0.1130	1.1520	0.2500	Not supported
H3	SI → BI	0.1400	0.0440	3.1590	0.0020	Supported
H4	FC → BI	0.7080	0.0700	10.0450	0.0000	Supported
H5	FC → UB	0.5430	0.1020	5.3440	0.0000	Supported
H6	BI → UB	0.3460	0.1080	3.2150	0.0010	Supported

Source: Authors

DISCUSSION

Based on the results of the hypothesis testing done in this study, the test results regarding the facilitating condition variable (the hypotheses 4 and 5) are indicative of the fact that the infrastructure has the biggest positive impact on the behavioral intention and user behavior. Furthermore, the supporting infrastructure has the biggest influence on the consumer behavior of taxpayers and levies through the cashless option, which is in line with the other studies (Akinnuwesi, Uzoka, Fashoto, Mbunge, Odumabo, Amusa, Okpeku & Owolabi, 2022; Erjavec & Manfreda, 2022) stating that the supporting infrastructure for technology and digitalization has the major role in the acceptance of new technologies in society.

Based on the research results it is evident that the largest number of the people who pay taxes and levies through the cashless system come from certain groups with the education level of at least a high-school diploma or an equivalent to undergraduate studies. Therefore, it is necessary that the digital environment and infrastructure for paying taxes and levies using the cashless system should be equalized by the local governments. This activity is also accordant with Indonesia's smart governance role to create the digital environment at the regional level that includes digital financial transactions, the development of technology, the information and communication (ICT) infrastructure, digitization, data transparency and government systems, as well as the development of transportation and digital education in Indonesia (Mutiara *et al*, 2018; Yudono *et al*, 2019).

As far as the results of the hypothesis 1 testing are concerned, a conclusion can be drawn that the community believes that ERPT in North Sumatra Province will provide relative benefits for users (the community and the local government) through the fulfilment of the performance expectations, namely through facilitating noncash transactions for the local government and the community spending, as well as the other benefits of the use of cashless payment systems such as a discount, a gift, and many more. Studies conducted by the African economic and psychological/behavioral schools of thoughts are commonly used to support tax performance (Olaniyi & Akinola, 2020). Thereby, users will be more confident to use the cashless payment system which they feel is easier, more effective, more efficient, faster, and safer to use than paying in cash. This positive experience will directly increase people's confidence to do the same thing repeatedly, simultaneously influencing others as well (Akinnuwesi *et al*, 2022).

In contrast to the results of the hypotheses 4 and 1 testing, the results of testing the hypothesis 2 actually reveal a discrepancy against the theory stating the effort expectancy of the users' perceptions of the level of the ease of use of technology. According to the results of the hypothesis 2, effort expectancy has a negative and insignificant impact on the behavioral intention, which indicates that increasing the ease of noncash payments does not necessarily encourage

the people of North Sumatra Province to pay for their taxes and regional levies making cashless payments. At present, the public perception of the cashless payment system of taxes and levies in North Sumatra Province is still low and many respondents perceive that paying taxes and levies in cash is still easier than making cashless payments.

The results of the hypothesis 3 testing show that the higher the level of the trust of individuals and/or groups of people (i.e. friends, family, colleagues, and society) in using a particular system, the greater the likelihood that they will recommend the system to others. This result is in line with V. Venkatesh *et al* (2003) who showed that, if others believed in the system, then it would influence other people to use it as well. Based on the survey results, the largest number of the people of North Sumatra perceive the use of cashless payment systems as the lifestyle of modern society, which then affects others to use the system, too. In contrast to that, the respondents also consider the cities/regencies other than the nine fostered districts/cities as underdeveloped areas for various reasons, such as insufficient technological facilities and the insufficient infrastructure to support cashless payments. L. A. Maureen Nelloh *et al* (2019) stated that that kind of the community view would exert a negative influence on and broaden regional economic inequality in the long run. Smart governance plays an important role in eliminating this perspective through the development of technology-based education (Bakici *et al*, 2013).

While previous study focused on the cashless payment system and its influence on the economy, this research study focuses on the impact of electronification on the government payment system. Overall, the study results show that the acceptance of the implementation of the cashless payment of taxes and levies in the North Sumatra Province as one of the regional smart governance policies in Indonesia would be more easily accepted if the public were aware of the positive impact of these cashless transactions and if it were used highly frequently and more intensely. Behaviorally speaking, the cashless payment system that is easier to use, more effective and more efficient than the cash payment system has

the potential to provide support to tax performance and users will also be more confident to utilize the cashless payment system if others believe in that system (Venkatesh *et al*, 2003; Olaniyi & Akinola, 2020; Akinnuwesi *et al*, 2022). If many users have a good experience with making cashless transactions, they will anticipate making cashless payments for taxes and levies in the long run and they will try to motivate others to do the same as well. Increasing the number of the people who take advantage of digital innovation by moving from cash payments to cashless payments is the one indicator of governance success in achieving these goals (Ndekwa *et al*, 2018; Yudono *et al*, 2019).

CONCLUSION

In this study, the UTAUT model is implemented in order to determine the public acceptance of the implementation of the smart governance policies on the cashless payment of taxes and levies in North Sumatra Province. The conclusions are based upon the six hypotheses proposed in this study reading that performance expectancy, the social influence, and the facilitating condition have a positive and significant impact on the behavioral use of noncash payment transactions of taxes and levies in North Sumatra Province. On the other hand, effort expectancy has no significant impact on the cashless transactions of tax and levy payments in the North Sumatra Province, which is because the respondents' perceptions of the cashless payment system for taxes and levies in North Sumatra Province are still negative.

Overall, the results of the hypotheses testing are positive and significant to be implemented as the policy development related to ERPT by smart governance. However, because effort expectancy is negative and insignificant with respect to the acceptance of cashless payments of taxes and levies, further research should reaffirm this relationship by expanding the research variables (e.g. using the UTAUT-2 model) or increasing the number of the respondents to be included in the research study.

The problems the authorities were faced with when the ERPT implementation in North Sumatra Province is concerned were the user's interest, the banking infrastructure, HR competence and regional government commitment, and the IT infrastructure. There is still a lack of information about and education in ERPT, particularly so for the payment of taxes and levies in a noncash regime. The public's trust in the capacity of the banking and IT infrastructures to support transactions for the cashless payment of taxes and levies is still lacking, and the imbalance in the quality of the network in each region is a limiting factor to the implementation of ERPT in North Sumatra Province.

In order to increase the public acceptance of noncash transactions, the Government needs to increase promotion, such as education in and socialization with respect to the payment of taxes and levies through digital channels by making educational videos or publications through social media. Education and technical guidance to improve the competence of the local government's human resources is needed so as to provide smoothness in the development of ERPT. In addition to said, the equitable availability of electricity and telecommunications networks and IT devices in all districts/cities, especially in rural/remote areas, improving the server quality and security using blockchain technology, developing a single database and the regional government financial dashboard and local tax applications play an important role in encouraging digitization in North Sumatra Province.

The scope of this study is limited to North Sumatra Province as one of Indonesia's urban areas managed by means of smart governance. However, this research accommodates at least 50 samples in each district, so the respondent can capture the implementation of cashless society and the electronification payment system in this area. This paper suggests that future research could include a larger number of populations, such as island populations or Indonesian, in order to capture electronification development and the government payment system to make a policy suitable for this purpose.

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Dias Satria is a lecturer in the Faculty of Economics and Business at the University of Brawijaya, Indonesia. His main research interests are digital economics, finance, tourism, and agriculture.

Tiara Juniar Soewardi is a lecturer in the Faculty of Economics and Business, at the University of National Development "Veteran" in Yogyakarta, Indonesia. The areas of her scientific interest are macroeconomics, public policy, fiscal decentralization, monetary economics, local government finance, and local economic growth and development.

Joshi Maharani Wibowo is a lecturer in the Faculty of Business and Economics at the University of Surabaya, Indonesia. Her main research interests are digital economics and tourism.