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Acceptance model for predicting adoption of Zakat, Infaq, and Sodaqoh (ZIS) digital payments in Generation Z

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Acceptance model for predicting adoption of Zakat, Infaq, and Sodaqoh (ZIS) digital payments in Generation Z

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Abstract

Purpose – This study aims to explore the factors that can encourage Generation Z to continue using Zakat, Infaq and Sodaqoh (ZIS) digital payments. The factors used to determine the behavioral intention (BI) of Generation Z are adoption readiness (AR), perceived risk (PR), trust (TR) and personal innovativeness (PI).

Design/methodology/approach – AR (reflected by facilitating condition, social influence, ease of use and usefulness), PR (security risk and privacy risk), PI, TR and BI were tested using structural equation model (with smart PLS analysis tool).

Findings – AR and BI are influenced by PI. In addition, BI is also influenced by TR, where TR will increase if risk can be minimized. This study was not able to prove the role of risk on BI.

Research limitations/implications – This result focuses on Generation Z, so future research can compare results between generations. In addition, regulations between countries can affect the results of similar research, and factors that have not been used in this study can be used for future research.

Practical implications – The results show that several reflective models of AR and PR. By adding the TR factor, this study can be used to understand the attributes of the acceptance of the ZIS digital payment model. On the other hand, this research has practical implications for the success of cashless ZIS payment transactions.

Originality/value – The model in this study develops an existing acceptance model and uses this model in the ZIS digital payment for Generation Z.

Keywords Technology acceptance model, ZIS payment, Adoption readiness, Perceived risk, Trust

Paper type Research paper

Introduction

The Amil Zakat Organization is an organization that is engaged in collecting and distributing Zakat, Infaq and Sodaqoh (ZIS) funds. Within the organization, the theme that became a big issue was the collection of ZIS funds. With the collection of ZIS funds, it can reduce the difference in people's wealth and create an even distribution of wealth. Therefore, the existence of the Amil Zakat Institution is an important key to solving the problems of unemployment and poverty. The Amil Zakat Institution must-have innovations that can increase the amount of ZIS funds collected.

In general, the method of collecting ZIS funds still uses advertising, opening a zakat receipt counter, door-to-door and collaboration with certain communities. The ZIS payment

method still tends to be cash, whereas consumptive payments have started to become familiar with cashless payments (digital payments). Digital payment is one of the innovations to make transactions easier. With this method, the potential for increasing the collected ZIS funds can be realized. Indonesia is a country where the majority of the population is Muslim, but the realization of ZIS collection by the National Zakat Amil Agency (BAZNAS) is still not optimal. The use of digital payment technology is available on various platforms. The banking sector has launched mobile banking, and on the other hand, startup companies have created many digital wallets to make transactions easier. However, the impact is not so significant on ZIS fundraising in Indonesia.

The total potential for zakat in Indonesia in 2020 is recorded at Rp233.84tn, with the largest portion of income zakat, which is Rp139.07tn [1]. If you look at BAZNAS 2020 Financial Report data, the receipt of Zakat Funds, Infaq/Shodaqah and Amil Funds are Rp 408.49bn. Based on these data, the achievement of ZIS fund collection is still not optimal. One of these innovations is by using digital payment technology. The use of digital payment technology is certainly not a difficult matter for users who have been accustomed to living with technology since childhood. Generation Z is a generation that is very thick with technology (Oktavendi, 2020), so they are even more technologically advanced than the other generation (Jaleniauskiene and Juceviciene, 2015; Subawa *et al.*, 2020). For them, technology is everyday food.

Based on that explanation, the researcher tries to predict the factors that influence Z Generation to adopt ZIS digital payment. Shabrina *et al.* (2019) examine the Zakat mobile smartphone application using the single ease question. The results of his research came to the conclusion that zakat mobile smartphone applications have a low usage rating and need to be redesigned. The research is only from the point of view of the design of the Zakat mobile smartphone application. On the other hand, Aristiana (2019) found that trust (TR) and education played an important role in increasing the level of interest in using the digital platform. The study took all respondents aged 21 years and over.

In contrast to Oktavendi and Mua'ammal (2021) research, which focuses on Generation Z, and uses several other factors that are not used by Aristiana (2019). The results of his research show that risk, ease of use, usefulness and social influence (SI) have an important role in increasing the level of TR of Generation Z in using ZIS Online Payment. The TR then has an impact on interest in using ZIS online payment in a sustainable manner. Thakur and Srivastava (2014) developed an adoption readiness (AR) model, which shows that AR is reflected by usefulness, ease of use, facilitating conditions (FC) and SI. This model is different from the model offered by Oktavendi and Mua'ammal (2021). In the model used by Oktavendi and Mua'ammal (2021), both risk and AR do not have a reflective construct. However, both Aristiana (2019) and Oktavendi and Mua'ammal (2021) have included the TR factor, which is not used by Thakur and Srivastava (2014). Therefore, this study used the Thakur and Srivastava (2014) model and added the TR factor. Yusuf and Derus (2013) suggest using the technology acceptance model (TAM), innovation diffusion theory (IDT) and TR to explain technology acceptance in Malaysia.

Karmanto *et al.* (2021) discover the TAM and TR theory on ZIS distribution using a crowdfunding platform. Previous research models did not use personal innovativeness (PI) and used perceived usefulness, perceived ease of use, FC and SI variables as indicators of AR. Many previous studies have used TAM without changing the model, as we know that Generation Z has a unique behavior. So, the benefit of my research is the creation of a model of ZIS digital payment adoption that fits the behavior of Generation Z to assist in policymaking at the Amil Zakat Institution.

Generation gap

Lancaster and Stillman (2002) divide human characteristics into three groups of generations. These groups are Baby Boomers, Generation X and Generation Y. Today, there is one more group; namely, Generation Z. The attitude is shown by each group is certainly very different (Lancaster and Stillman, 2002). Baby Boomers are a group born in 1946–1960 and are symbolized by Optimism. On the other hand, Generation Xers (born 1960–1980) are a generation of sceptics and live during the development of personal computers (PCs), cable TV and even the internet. In contrast to Generation Y or millennials who were born during the internet boom. Millennials tend to have an open-minded attitude because they have become addicts to social media, such as Facebook and Twitter (Putra, 2017). In addition to being open-minded, the millennial generation is also labeled as motivated, innovative, ambitious, energetic and social (Ordun, 2015). This shows that the millennial generation has become an open figure, especially in digital media, compared with the previous generation.

Generation Z has a character similar to the millennial generation. Generation Z was born in 1995 and above, which means living in the smartphone booming era. Generation Z coexists with smartphones as if the world is in their hands. Such circumstances make Generation Z a group that tends to be able to multitask (Putra, 2017). Putra (2017) gives an example, namely, Generation Z is able to browse with a computer play social media on a smartphone while listening to music. This makes Generation Z a group that has a tendency to easily adapt to new technologies compared with the previous generation. Psychologically, Al-Lawati (2019) said that the gap between the younger generation and the previous generation (their parents) occurred in terms of information technology, lifestyle, personality characteristics and work values. According to Toronto (2009) and Turner (2015), Generation Z's motive for using technology frequently is to escape their struggle-prone offline world.

Technology acceptance model and innovation diffusion theory

TAM is used in various studies that focus on the use of new technologies, intention to use and individuals' beliefs. Pioneered by Davis (1989), TAM has key factors, namely, perceived usefulness and perceived ease of use, in influencing intention to use. Perceived usefulness has the meaning as a level where a person believes that the use of a particular system will be able to improve that person's work performance. On the other hand, perceived ease of use is defined as a level where a person believes that the use of a particular system can reduce a person's effort in doing something. Basically, TAM, which is a development of the theory of reasoned action (TRA), has the aim of studying why users accept or reject new technologies (Silva, 2015). Not only that, but also how to improve the level of user acceptance of the new technology (Silva, 2015).

In line with TAM, IDT focuses on the accepted model by adopting several variables, namely, relative advantage, compatibility, complexity, trialability and observability (Rodgers, 1995). First, the relative advantage is defined as the extent to which the user's perception can accept the advantages offered by the new technology compared with the previous one. Second, compatibility is considered as the perception of the suitability of the new technology with experience, values, needs and beliefs. Third, complexity, in this case, is a risk that arises in the use of new technology. Fourth, the trialability is the ease with which new technology can be tested. Fifth, observability is the perception of the extent to which the innovation results are similar. The link between IDT and this research lies in the risks that arise from the adoption of ZIS mobile payment technology.

Unified theory of acceptance and use of technology (UTAUT)

Unified theory of acceptance and use of technology (UTAUT) is a theory developed by Venkatesh et al. (2003), which combines several theories. Technology acceptance model,

TRA, social cognitive theory, motivational model, theory of planned behavior, Combined TAM and TPB, IDT and model of PC utilization are part of UTAUT. UTAUT proved to be more successful than the other eight theories in explaining up to 70% of user variance. Venkatesh *et al.* (2003) found constructs that are determinants of intention to use. These constructs were found when evaluating the models of the eight theories. Venkatesh *et al.* (2003) found the main constructs that play an important role as a direct determinant of behavioral intention (BI) and user behavior, namely, performance expectancy, effort expectancy, SI and FC. Several empirical results show the suitability of the UTAUT model in studying acceptance of course management (Marchewka and Kostiwa, 2007), mobile banking (Yu, 2012), E-healthcare (Arfi *et al.*, 2021). In Venkatesh *et al.* (2012), UTAUT developed into UTAUT 2. UTAUT 2 added the construct of hedonic motivation, price value and experience habits. However, UTAUT 2 still needs to be applied to various countries, ages and other technologies (Venkatesh *et al.*, 2012).

Hypotheses development
Perceived risk and trust
The IDT proposed by Rogers (1995) shows that there are risks that arise in the use of new technology. Perceived risk (PR) as measured by indicator PV and SC, is one of the factors that can reduce the level of sustainable use of technology (Cheung and Lee, 2002; Flavián and Guinaliu, 2006; Black *et al.*, 2002; Kuisma *et al.*, 2007; Laukkanen and Lauronen, 2005). This indicates that PV and SC have an impact on TR in using new technology. Risk factors have been shown to play an important role in the case of consumer behavior (Dowling and Staelin, 1994; Mitchell, 1999; Stone and Grønhaug, 1993). Bauer (1960) has found two important components of risk, namely, uncertainty and consequences. Risk is described by the uncertainty and logical consequences experienced by users in using new technology. On the other side, Havlena and DeSarbo (1991), Jacoby and Kaplan (1972) and Murray and Schlacter (1990) have divided risks into several types, such as financial, performance, time, physical, psychological and social risks. Financial risk is the risk of losing some material value due to the use of new technology. Performance risk is described as a risk that hinders user performance when using new technology. Time risk is the amount of time wasted when using technology. Physical risk is the risk inherent in physical activity, whereas psychological is related to the user's psychological condition. Social risk is defined by the risk to the user's social relationships. The point is that the dimensions of risk are very product-specific and can be independent of each other (Laroche *et al.*, 2004). In other words, each product has its own risk specification dimensions.

Based on financial adoption research, PR in this study consists of security risk and privacy risk. Security risk is defined as the risk of security or data loss when using new technology, whereas privacy risk is the risk of their privacy being published and the loss of privacy space. Shih (2004), Cheng *et al.* (2006), Püschel *et al.* (2010) and Thakur and Srivastava (2014) have found that security risk is one of the key factors that have an impact on the use of new technology. More specifically, Oktavendi and Mua'ammal (2021) prove that security and privacy risk have a negative influence on the use of ZIS digital payments. Tlemsani and Matthews (2020) explained that TR is an expectation that arises as a result of cooperation and honesty. The PR perceived by the user will have an impact on the level of user TR (indicator by Zarmpou *et al.* (2012)) in using the new technology. Research that has been done, such as Al-Sharafi *et al.* (2016) and Oktavendi and Mua'ammal (2021), proves that PR has a direct impact on TR in the use of mobile payment:

H1. PR affects TR

Personal innovativeness and adoption readiness

According to Thakur and Srivastava (2014), perceptions of SI, usefulness, FC and ease of use are able to explain AR. Davis (1989) created an intensive (TAM) model for using new technology. In the TAM model, it is concluded that to use technology, of course, look at how useful (PU) and Ease to use (PEOU) – indicator by Davis (1989), Thompson *et al.* (1991) and Moore and Benbasat (1991) – the technology is. The development of TAM to become UTAUT has created a new construct that plays an important role in the adoption of new technologies, namely, SI and FC. SI [indicator by Ajzen (1991) and Thompson *et al.* (1991)] is defined as the extent to which an individual feels how important it is that others believe that he or she should use the new system (Thakur and Srivastava, 2014). That is, a person's belief will arise because of the beliefs held by those closest to him in the use of new technology. On the other hand, FC – indicator by Taylor and Todd (1995) and Ajzen (1991) – is defined as the degree to which an individual believes that technical resources and infrastructure exist to support the use of the system (Venkatesh *et al.*, 2003), which influences the end-use behavior of users. Thakur and Srivastava (2013), Thakur and Srivastava (2014), Behl and Pal (2016) and Elango *et al.* (2018) prove that AR is explained by PU, PEOU, FC and SI.

The research by Lu *et al.* (2005), which focused on wireless internet via mobile technology, found that PI had an effect on PU and PEOU. On the other hand, Lu (2014) found that PI only affects PEOU in the case of mobile commerce use. This is different from research by Thakur and Srivastava (2014), Lwoga and Lwoga (2017), Shankar and Datta (2018) and Leong *et al.* (2020), which show that PI has an effect on PU and PEOU for M-payments users. Based on the results of their research, it can be concluded that the lower the PI in the user, the higher the PU and PEOU tendencies perceived by the user will be:

H3 PI affects AR.

Behavioral intention

AR in this study consists of four dimensions, namely, PE, PEOU, SI and FC. These four dimensions have a key role in BI – indicators by Davis (1989). AR will affect users in using new technology. In this case, BI is influenced by AR (Flavián and Guinalíu, 2006; Islam *et al.*, 2020; Thakur and Srivastava, 2013, 2014).

IDT suggests that the adoption of new technologies will lead to perceptions of risk (Rogers, 1995). PR has a role in the technology acceptance model, which can affect BI (Bashir and Madhavaiah, 2015; Rind *et al.*, 2017; Susanto *et al.*, 2020). The risks faced by the user will reduce the level of BI. In other words, the higher the risk faced by the user in using new technology, the more reluctant the user will be to use the new technology a second time.

PI – indicators by Agarwal and Prasad (1998) – is the willingness of a person to try out any new information technology (Agarwal and Prasad, 1998; Lee *et al.*, 2007). In the technology acceptance model, PI provides motivation for users to adopt new technologies (Lee, 2019; Massoro and Adewale, 2019; Sair and Danish, 2018).

TR is consumer confidence in the quality and reliability of the goods or services offered so that it becomes an important factor in growing loyalty in online purchases (Garbarino and Johnson, 1999). TR is surely an expectation; even so, TR also leads to an action (Tlemsani and Matthews, 2020). This shows that TR is an action that can influence the attitude of others.

TR can have an influence on BI in the use of new technology (Bashir and Madhavaiah, 2015; Hashim *et al.*, 2020; Nzaramyimana and Susanto, 2019; Tarmedi *et al.*, 2018). Based on

the results of previous research, high TR will provide a stimulus to the user to continue using M-payment technology:

H4. AR affects BI.

H5. PR affects BI.

H6. PI affects BI.

H7. TR affects BI.

Methodology

TAM and IDT are used in this study because the research model is very compatible with the theory. Acceptance model described by TAM. On the other hand, IDT explains the risks that will be faced when adopting new technology. This study uses quantitative methods with primary data from the results of a questionnaire survey. Questionnaires via *googleform* were distributed through *whatsapp* groups and social media. Respondent criteria are; aged 15–25 years old when the questionnaire was distributed and have used digital payments for ZIS or know about ZIS payments through digital payments. This study uses Generation Z respondents because this generation will dominate various sectors in the future. Therefore, this study tries to predict the determinants of the adoption of ZIS digital payment technology to face the dominance of Generation Z in the future. The prepared questionnaire can be seen in the Appendix. The questionnaire data will be analyzed using smart PLS, starting from the inner model test to the outer model test (Figure 1).

Figure 1.
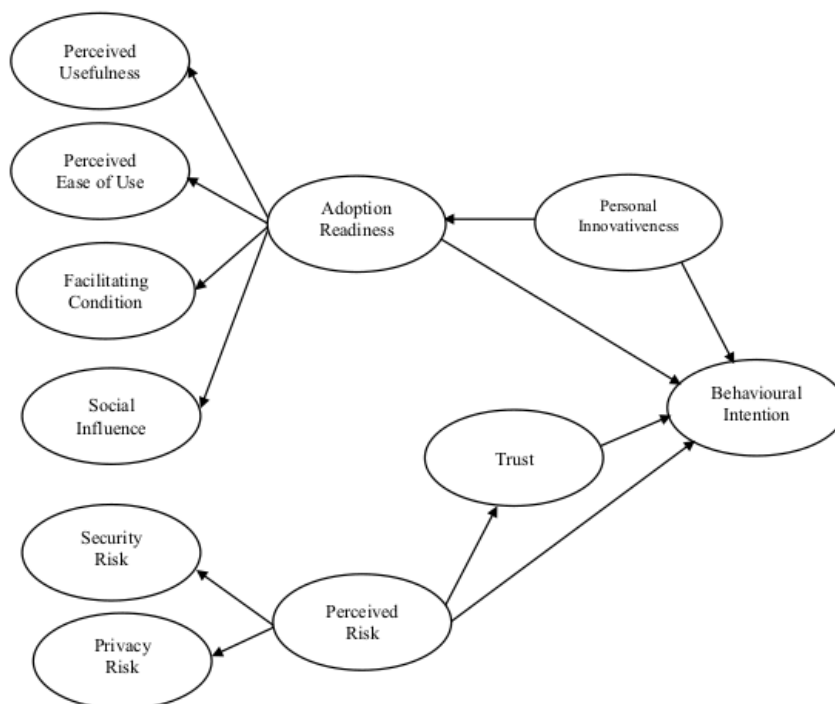Research framework

Findings

Respondent description

The questionnaire distributed via *googleform* was filled out by 323 respondents, but only 314 respondents can be used and in accordance with the criteria in this study. All respondents are undergraduate students. The respondents of this study are described in Table 1.

Outer model: first-order analysis

To evaluate the outer model, this study uses a two-phase, namely, first-order and second-order analysis. In the first order, the outer loading value for each indicator shows a value above 0.7; then the results meet the minimum limit for convergence validity.

In addition, the convergence validity can be seen from the Cronbach's alpha (CA) value and the composite reliability (CR) value, where the criteria that must be met are the CA value >0.6 and the composite reliability value >0.7. Based on Table 2, for each construct, the CA value >0.6 and the CR value >0.7. These results indicate that all latent variables have high consistency. Not only loading values, CA and CR. The criteria of convergent validity that must be met are AVE values above 0.5. In Table 2, all criteria for AVE above 0.5 are met.

Discriminant validity can be seen from the comparison between the root value of the AVE with all the latent correlation values with other latents. If the root value of AVE (can be seen in Table 3 – bold and italic values) is greater than the value below it, then the discriminant validity is declared feasible. In Table 3, all AVE root values are greater than the correlation value.

n = 314 Characteristics	Description	(%)
Gender	Male	75
	Female	25
Age	15–20 year old	48
	21–25 year old	52
Province	Banten	0.32
	DKI Jakarta	1.59
	Jawa Barat	1.59
	Jawa Tengah	0.64
	Jawa Timur	65.92
	Kalimantan Tengah	0.64
	Kalimantan Timur	16.88
	Kalimantan Utara	1.91
	Kepulauan Riau	0.96
	Lampung	0.64
	Maluku	0.64
	Maluku Utara	0.32
	Nusa Tenggara Barat	2.23
	Nusa Tenggara Timur	0.64
	Papua	0.32
	Papua Barat	1.27
	Provinsi Kalimantan Selatan	1.27
	Provinsi Sulawesi Selatan	0.32
	Sulawesi Utara	0.96
	Sumatera Barat	0.32
	Sumatera Selatan	0.64

Table 1.
Respondent characteristics

Variables	Indicators	Loading	CA	CR	AVE
Behavioral intention	BI1	0.918	0.908	0.942	0.844
	BI2	0.928			
	BI3	0.910			
Facilitating condition	FC1	0.862	0.814	0.890	0.729
	FC2	0.835			
	FC3	0.863			
Perceived ease of use	PEOU1	0.842	0.869	0.911	0.718
	PEOU2	0.849			
	PEOU3	0.884			
	PEOU4	0.813			
Perceived usefulness	PU1	0.799	0.862	0.906	0.708
	PU2	0.857			
	PU3	0.838			
	PU4	0.870			
Personal innovative	PI1	0.856	0.846	0.906	0.763
	PI3	0.886			
	PI4	0.878			
Privacy risk	PV1	0.863	0.817	0.891	0.733
	PV3	0.905			
	PV4	0.797			
Security risk	SC1	0.830	0.778	0.871	0.693
	SC3	0.804			
	SC4	0.862			
Social influence	SI3	0.898	0.776	0.899	0.817
	SI4	0.909			
Trust	TR1	0.918	0.908	0.935	0.784
	TR2	0.878			
	TR3	0.865			
	TR4	0.879			

Table 2.
Outer loading, Cronbach's alpha (CA), composite reliability (CR) and average variance extracted (AVE): first order

	BI	FC	PEOU	PU	PI	PV	SC	SI	TR
BI	0.919								
FC	0.608	0.854							
PEOU	0.574	0.562	0.848						
PU	−0.046	0.073	−0.057	0.841					
PI	0.537	0.539	0.750	0.438	0.873				
PV	0.500	0.437	0.513	−0.110	−0.006	0.856			
SC	−0.023	0.039	−0.091	0.052	0.012	0.490	0.832		
SI	−0.058	0.088	−0.004	0.569	0.485	−0.067	−0.067	0.904	
TR	0.586	0.558	0.680	0.505	0.425	−0.250	−0.113	0.510	0.885

Table 3.
Discriminant validity

Outer model: second-order analysis
In the second-order analysis, it is used to test the validity for AR and PR with the indicators. The results of the validity test can be seen in Table 4, which shows that all the conditions for validity are met.

Inner model
Evaluation of the inner model (structural model) is carried out through testing the measurement index, namely, Adjusted R^2. Based on Table 5 shows that the factors in the

model can affect BI by 56.9%, whereas the remaining 43.1% is influenced by factors outside the model. Likewise, PI affects AR by 30.4%, and the remaining 69.6% is influenced by factors outside the model. On the other hand, TR is influenced by PR with a magnitude of 4.3%. The magnitude of the influence can also be seen in Figure 2.

The next evaluation of the inner model (structural) is by looking at the results of hypothesis testing. The evaluation used a t-test with a significant level of 0.05 (t-statistic > t table). The t-test was used for hypothesis testing, which was carried out through the bootstrapping procedure in the smart PLS program. The significance level used is 95% (α = 0.05) with a t-table of 1.96. If the t-statistic value is less than 1.96, then the hypothesis is not supported.

Hypotheses testing results can be seen in Table 6. These results show that all t statistical values (except PR $\geq$ BI) are greater than 1.96 (t table). Therefore, all hypotheses are supported, except for $H5$, which is the effect of PR to BI. All of the hypotheses that are supported show a positive effect, but the effect of PR on TR has a negative value, which means that the higher the risk, the lower the TR.

BI. In the case of ZIS digital payment, especially in Generation Z, AR, Risk, TR and PI have an important role in shaping BI. AR, as measured by usefulness, ease of use, facilitation condition and social influence, has a significant impact on the BI to use ZIS digital payment. These results are relevant to several findings from several studies on mobile payments (Ghalandari, 2012; Islam *et al.*, 2020; Thakur and Srivastava, 2013, 2014; Yang *et al.*, 2021). Generation Z's readiness to adopt ZIS digital payments can be seen from the ease of use, usefulness, FC and SI factors. According to Generation Z, the ease and usability of a digital application reflect that the application is worth using. Generation Z's readiness to adopt digital applications is also reflected in the conditions of supporting facilities and the influence of their trusted people. This readiness then encourages Generation Z to continue using ZIS digital payments. Based on the results of the analysis, the risk does not affect BI, but has an impact on TR. In IDT theory, when viewed from the point of view of complexity, that risk will arise in line with the adoption of new technologies (Rogers, 1995). This risk will have an impact on TR, which will then affect interest in adopting new technology.

BI of Generation Z is also influenced by PI and TR. Generation Z's response to an innovative technology to be adopted affects their BI (Lee, 2019; Massoro and Adewale, 2019;

Table 4.
Outer loading, Cronbach's alpha (CA), composite reliability (CR) and average variance extracted (AVE): second order

Variables	Indicators	Loading	CA	CR	AVE
Adoption readiness	FC	0.762	0.925	0.936	0.529
	PEOU	0.914			
	PU	0.879			
	SC	0.794			
Perceived risk	PV	0.876	0.821	0.871	0.531
	SC	0.850			

Table 5.
R squared

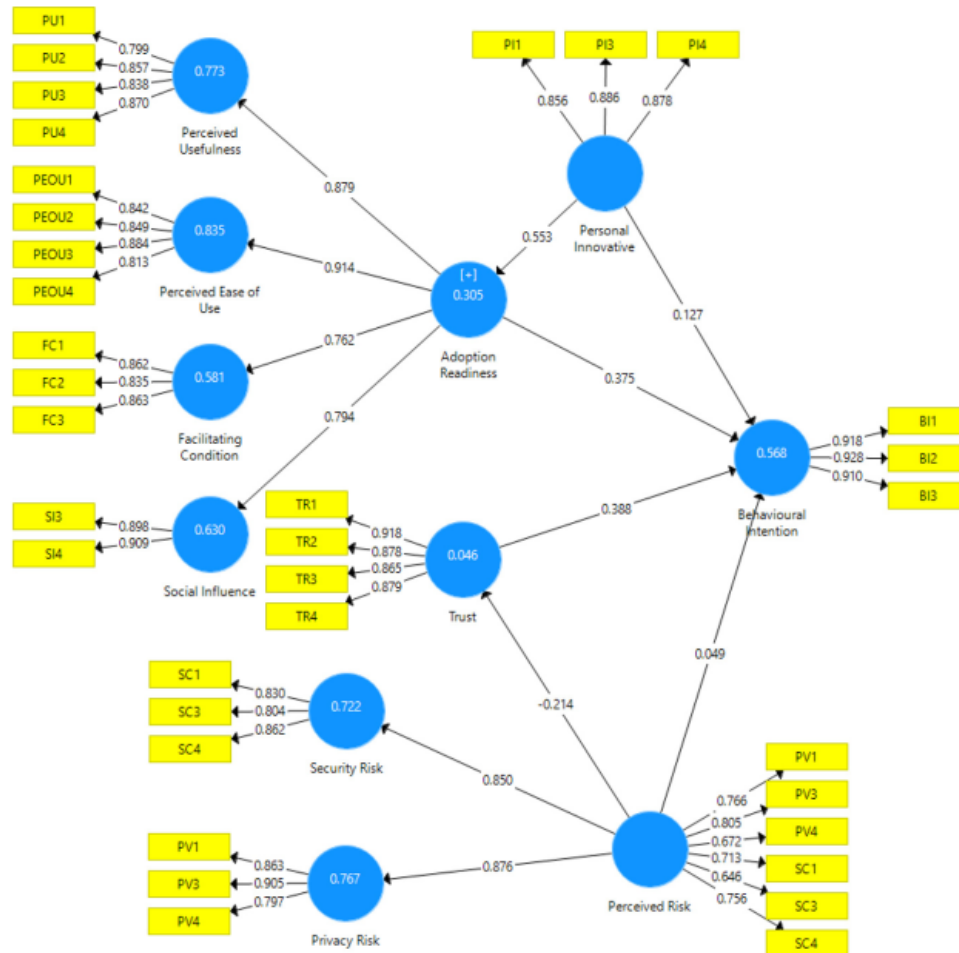|	R square	R square adjusted	Kategori
AR	0.306	0.304	Weak
BI	0.574	0.569	Moderate
TR	0.046	0.043	Weak

Figure 2.
Path analysis

Path	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T Statistics (|O/STDEV|)	p- values	Decision
AR ≥ BI	0.375	0.375	0.053	7.114	*0.000*	*Supported*
PR ≥ BI	0.049	0.051	0.038	1.268	*0.206*	*Not Supported*
PR ≥ TR	−0.214	−0.208	0.064	3.359	*0.001*	*Supported*
PI ≥ AR	0.553	0.553	0.043	12.787	*0.000*	*Supported*
PI ≥ BI	0.127	0.127	0.046	2.762	*0.006*	*Supported*
TR ≥ BI	0.388	0.390	0.058	6.700	*0.000*	*Supported*

Table 6.
Hypotheses testing
results

Sair and Danish, 2018). Not only that, the TR owned by Generation Z on innovation technology (digital payment ZIS) provides an impetus to continue using this innovation technology (Lee, 2019; Massoro and Adewale, 2019; Sair and Danish, 2018).

TR. The results of this study were not able to prove the effect of risk on BI. In line with Al-Sharafi *et al.* (2016) and Oktavendi and Mua'ammal (2021), the small risk in ZIS digital payments increases the sense of TR in Generation Z toward the technology. This risk consists of security and privacy risk. Generation Z takes care of their data security and privacy. Therefore, in the context of ZIS digital payment, Generation Z will see how safe the technology is to continue to be used in their activities.

AR. Generation Z, in terms of "adoption readiness" is influenced by PI. Generation Z's innovative sense of early-adopting ZIS digital payments not only plays a role in shaping their BIs but also their AR. The higher the sense of innovation in Generation Z, the stronger their readiness to adopt ZIS digital payment. These results were supported by Thakur and Srivastava (2014), Lwoga and Lwoga (2017), Shankar and Datta (2018) and Leong *et al.* (2020).

Conclusion

Generation Z as a "gadget literate" generation, has an important role in the future era. In terms of ZIS digital payments, Generation Z has several motivating factors to continue using this technology. Starting from the innovative sense, security and privacy risks, as well as a reflection factor of AR (ease of use, usefulness, FC and SI) to use ZIS digital payments. It is important to focus on these factors to successfully implement digital payments in ZIS payments. In terms of digital payment methods, it must have very high ease and usability. In addition, the mitigation of security and privacy risks also needs to be carried out optimally. The specifications of the digital payment method must also be adjusted to the general conditions of Generation Z so that they feel that the surrounding facilities are suitable for using this payment method.

The theoretical implications of the results of this study are for the development of a new technology adoption model. The results show that several reflective models of AR and PR support the model offered by Thakur and Srivastava (2014). The model in this study develops the model offered by Thakur and Srivastava (2014) by adding the TR factor. As a result, TR has a role in increasing BI. Therefore, this study can be used to understand the attributes of the acceptance of the ZIS digital payment model.

On the other hand, this research has practical implications for the success of cashless ZIS payment transactions. In the case of ZIS payments through digital payments, the Amil Zakat Institution must pay attention to the legality of the digital payment service provider. This aims to reduce the risk of hacking. In addition, the Amil Zakat Institution has to start introducing ZIS payment technology through digital payments by showing various conveniences and uses. If the adoption of ZIS payment technology through digital payments is successful, it will have an impact on many things, from transaction speed to the speed of financial information that is useful in making management decisions.

This study has several limitations. First, the respondents are only Generation Z, so there may be different results for other Generations. Second, respondents are not only users but also those who only know about ZIS payments through digital payments. This will lead to less than optimal research results because there may be different perceptions between those who have used it and those who only know about it but have never used it. Further research can use the mixed method to strengthen the results of the study. In addition, further researchers can consider the results of the analysis between users and nonusers.

Note

1. https://finansial.bisnis.com/read/20210301/231/1362228/potensi-zakat-rp2338-triliun-muhammadiyah-apresiasi-survei-lazismu

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Appendix

Factors	Indicators	Source
Perceived usefulness	PU1: I expect ZIS Online Payment services will be useful in my life	Davis (1989) Davis *et al.* (1989)
	PU2: Using ZIS Online Payment services will enable me to accomplish transactions more quickly	Moore and Benbasat (1991)
	PU3: Using ZIS Online Payment services will increase my productivity	Moore and Benbasat (1991)
	PU4: Using ZIS Online Payment services will enhance my effectiveness	Davis (1989) Davis *et al.* (1989)
Perceived ease of use	PEOU1: I expect that my interactions with the ZIS Online Payment services would be clear and understandable	Davis (1989) Davis *et al.* (1989)
	PEOU2: I expect it would be easy for me to become skilful at ZIS Online Payment services	Davis (1989) Davis *et al.* (1989)
	PEOU3: Learning to operate ZIS Online Payment services will be easy for me	Moore and Benbasat (1991)
	PEOU4: Learning to operate ZIS Online Payment services is easy for me	Thompson *et al.* (1991)
Social influence	SI1: People who influence my behavior think that I should use ZIS Online Payment services	Ajzen (1991)
	SI2: People who are important to me think that I should use ZIS Online Payment services	Ajzen (1991)
	SI3: The service providers have been helpful in the use of ZIS Online Payment services	Thompson *et al.* (1991)
	SI4: In general, the service provider has supported the use of the system	Thompson *et al.* (1991)
Security risk	SC1: I fear that while I am paying a ZIS by mobile phone, I might make mistakes since the correctness of the inputted information is difficult to check from the screen	Kuisma *et al.* (2007) Laukkanen and Lauronen (2005)
	SC2: I fear that while I am using ZIS Online Payment services, the battery of the mobile phone will run out or the connection will otherwise be lost	Black *et al.* (2002) Kuisma *et al.* (2007)
	SC3: I fear that while I am using a ZIS Online Payment service, I might tap out the information of the ZIS wrongly	Laukkanen and Lauronen (2005) Kuisma *et al.* (2007)
	SC4: I fear that the list of PIN codes may be lost and end up in the wrong hands	Kuisma *et al.* (2007)
Privacy risk	PV1: I think ZIS Online Payment service providers could provide my personal information to other companies without my consent	Cheung and Lee (2002)
	PV2: I think subscribing to ZIS Online Payment services increases the likelihood of receiving spam/ spam SMS	Flavián and Guinalíu (2006)
	PV3: I think ZIS Online Payment service providers endanger my privacy by using my personal information without my permission	Flavián and Guinalíu (2006)
	PV4: I think ZIS Online Payment service providers will send SMS advertisement without user's concent	Flavián and Guinalíu (2006)
Trust	TR1: I don't trust the security system when using ZIS Online Payment	Zarmpou *et al.* (2012)
	TR2: I do not believe that my Personal Data will be safe when using ZIS Online Payment	Zarmpou *et al.* (2012)

(continued)

Table A1.

Factors	Indicators	Source
	TR3: In my opinion, the terms of use are strictly adhered to	Zarmpou *et al.* (2012)
	TR4: In my opinion, using ZIS Online Payment can be trusted	Zarmpou *et al.* (2012)
Personal innovativeness	PI1: I heard about a new information technology, I would look for ways to experiment with it	Agarwal and Prasad (1998)
	PI2: Among my pears, I am the first one to try out new information technologies	Agarwal and Prasad (1998)
	PI3: In general, I am not hesitant to try out new information technologies	Agarwal and Prasad (1998)
	PI4: I like to experiment with new technologies	Agarwal and Prasad (1998)
Facilitating condition	FC1: I have the resources necessary to use mobile payment services	Ajzen (1991) and Taylor and Todd (1995)
	FC2: I have the knowledge necessary to use mobile payment services	Ajzen (1991) and Taylor and Todd (1995)
	FC3: Mobile payment services are compatible with other systems I use	Ajzen (1991) and Taylor and Todd (1995)
	FC4: A specific person (or group) is available for assistance with system difficulties	Thompson *et al.* (1991)
Behavioral intention to use the system	BI1: I will use/continue using ZIS Online Payment services in the future	Davis (1989) Davis *et al.* (1989)
	BI2: Given the chance, I predict I will use/continue using ZIS Online Payment services in the future	Davis (1989) Davis *et al.* (1989)
	BI3 It is likely that I will use/continue using ZIS Online Payment services in the future	Davis (1989) Davis *et al.* (1989)

Table A1.

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Acceptance model for predicting adoption of Zakat, Infaq, and Sodaqoh (ZIS) digital payments in Generation Z