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A Study on Youth Perception towards Digital Wallets in Post COVID-19 Pandemic in Kathmandu Valley

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Abstract

This study examines the youth perception towards digital wallets in post COVID-19 Pandemic that are located inside Kathmandu valley. Youth perception of digital wallet is selected as the dependent variable. Similarly, intention to use, perceived usefulness, perceived ease of use, trustworthiness, IT skills and Internet access are selected as independent variables. The study is based on primary data with 125 observations. To achieve the purpose of the study, structured questionnaire is prepared. The correlation coefficients and regression models are estimated to test the significance and importance of different factors influencing impact on youth perception of digital wallet in post COVID-19 Pandemic in Kathmandu valley.

The study showed that intention to use has a positive impact on youth perception of digital wallet. It means that an increase in intention to use leads to an increase in youth perception of digital wallets. Similarly, the perceived usefulness has a positive impact on youth perception of digital wallets. It indicates that an increase in perceived usefulness leads to an increase in youth perception of digital wallets. Likewise, perceived ease of use has a positive impact on youth perception of digital wallets. It means that an increase in perceived ease leads to an increase in youth perception of digital wallets. Similarly, trustworthiness has a positive impact on youth perception of digital wallets. It shows that an increase in trustworthiness leads to an increase in youth perception of digital wallets. Likewise, IT skills has a positive impact on youth perception of digital wallets. It shows that better in IT skills leads to better in youth perception of digital wallets. Similarly, the Internet access has a positive impact on youth perception of digital wallets. It shows that the increase in internet access leads to an increase in effective youth perception of digital wallets.

Keywords: youth perception of digital wallets, are intention to use, perceived usefulness, perceived ease of use, trustworthiness, IT skills, Internet access.

1. Introduction

Mobile wallets are a form of payment that allows users to make electronic transactions using a mobile device instead of a physical wallet, allowing

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payment transactions to be done at a merchant's place (Shin, 2009). Digital payment can be defined as a platform which is used for making monetary transactions for various goods or services purchased over the internet (Roy and Sinha, 2014). Furthermore, Premchand and Choudhry (2015) stated that digital payment system engages many digital or e- payment system which many financial institutions are able to provide easy services to their customers such as debit cards, credit cards, net banking, etc. Likewise, Digital wallets provide a method for making payments electronically, enabling users to transfer funds between transactions accounts, either traditional banking accounts or electronic money deposit accounts and to use other payment instruments (Leon, 2021). Digital payments are payments which are done for e-commerce purposes where money is exchanged through digital mode (Kaur and Pathak, 2015). Likewise, Bećirović (2014) stated that due to technological advancement digital forms of payment have become more and more common. Similarly, Sardana and Singhania (2018) stated that adopting digitalization in banks is known as digital banking.

E-payment is any transfer of an electronic value of payment from a payer to payee through an e-payment channel that allows customers to remotely access and manage their bank accounts and transactions electronically (Teoh *et al.*, 2013). Similarly, factors like technical and transactions procedure, access to security guidelines and perceived trust in EPS are deemed to be important to provide customers with the confidence to switch to an online payment system (Singh *et al.*, 2002). Likewise, Sumanjeet (2009) stated that payment represents both cash and non-cash financial transactions, which take place between two or more parties but in a strict sense of the word payment represents only non-financial transactions.

Scholnick *et al.* (2008) revealed that the digital payment infrastructure consists of an interconnected network of related entities, which are designed to accelerate the speed of data exchange between the concerned systems, and to initiate, sanction, and expedite cash transfer between different parties. The popularity of e-payment systems is enhanced with widespread use of internet-based shopping and banking (Bizina, 2012). Gao & Waechter (2017) showed that ease of use, privacy, trust, security, and convertibility influence directly and indirectly the intention to adopt e-payment systems. Similarly, Ozkan *et al.* (2010) showed that the security, advantage, web assurance seals, perceived risk, trust and usability have a statistically significant impact on customer intentions to adopt an e-payment system.

Mallat (2004) examined the consumer adoption of mobile payments in Finland. The study found that mobile payment is dynamic, and its adoption depends on lack of other payments methods and certain situational factors. Furthermore, Rathore (2016) found that major factor in adoption of digital wallet is convenience in buying products online without physically going from one location to another location. Likewise, Roy and Sinha (2014) found that innovation, incentive, customer convenience and legal framework are the four factors which contribute to strengthening the E- payment system. Similarly, Sardar (2016) found that mobile wallets usage crosses the boundaries of big cities and as it gains popularity the electronic payment system will generate huge volumes of data on the spending behavior of persons in these areas.

Azmi *et al.* (2016) explored trust and justice in the adoption of a welfare e-payment system. This study showed the adoption of online payment is still difficult in rural areas. Moreover, Masihuddin *et al.* (2017) stated that an increasing awareness about various concepts related to electronic payment systems, identified as a positive step towards the economic development of a nation. Similarly, Singh and Chen (2008) found that consumers are more likely to adopt m-payment if they believe that it is easy to use. The study observed that e-payment devices must be well designed so that the payment procedure is straightforward and easy to execute.

Hayashi & Klee (2003) investigated technology adoption and consumer payments. This study showed that consumers who use the new technology or computers are more likely to use electronic forms of payments such as debit cards and electronic bill payments. In addition, Dehbini *et al.* (2015) showed that ease of use, satisfaction, compulsion, network externality and norms have a significant impact on the citizens' payments. Likewise, Teoh *et al.* (2013) found that the most favorable factors affecting e-payments were ease of use and self-efficacy. Furthermore, Kumar *et al.* (2017) found that the process of digitization is happening very slowly, and people are adopting it, as there is no other choice. Similarly, Nath (2008) found that higher transaction speed, transaction convenience, and compatibility perceptions would lead to high propensity to adopt e-payment. The study also found that among all the constructs, compatibility has the highest correlation with intention to adopt.

Hussian *et al.* (2019) investigated the e-payment adoption for bottom of pyramid segment. The study found that perceived benefits, lifestyle compatibility, system information and habit of use of online payment have relatively stronger effects on m-payment adoption. Similarly, Shivathanu

(2019) stated that hedonic motivation (HM) and price value (PV) are two non-significant predictors of m-system adoption. Further, Kim *et al.* (2010) stated that electronic payment system has been widely accepted over a certain period and have been implemented by the companies around the world. Likewise, Balasubramanian *et al.* (2002) revealed that recent advancement in mobile and wireless technologies has freed consumers from the spatial and temporal constraints of traditional commerce. Similarly, Dewan and Chen (2005) concluded that consumers are less likely to adopt M-Payment if they are uneasy about its ability to ensure secure transactions and protect privacy.

Lin and Nguyen (2011) investigated the e-payment adoption in Vietnam and Taiwan. The study indicated that perceived ease of use, perceived usefulness (from technology acceptance model), perceived risk and information have a positive impact on e-payment use. Similarly, Alghamdi *et al.* (2012) examined the factors influencing e-commerce adoption by Retailers in Saudi Arabia. The study showed that lack of online payment options and lack of clear legislation have direct effect on e-commerce in Saudi Arabia. Likewise, Holloway *et al.* (2009) found that both perceived ease of use and privacy policy have significant impact on users' adoption of online banking. Furthermore, Liu *et al.* (2020) concluded that COVID-19 suppresses Chinese household consumption significantly and urban households suffer more declines; rural households are, however, less affected by the pandemic.

In the context of Nepal, Mastran (2021) stated that with the advancement in information and communication technology, the banking sector is subjected to this technological change and is adopting new technology-based service options to remain competitive. Likewise, Regmi (2015) stated that mobile banking can be kept under the subset of E banking itself. Similarly, Adhikari (2019), e-banking includes the systems that enable financial institution customers, individuals or businesses, to access accounts, transact business, or obtain information on financial products and services through a public or private network, including the internet or mobile phone. Tamang *et al.* (2021) argued that a detailed study is needed to assess the motivational factor for signing up for digital payment services. The study showed that digital payment remains saturated, mostly in Nepal's urban areas, as cities have the greatest number of digital payment users. Giri *et al.* (2020) indicated that digital transaction service provider needs to play a leading role in influencing the perception, and there by the attitude and behavior of current and potential digital transaction users. Similarly, Mastran (2021) indicated that technologies adopted in internet banking, customers can perform financial transactions

electronically at a convenient time and from convenient places. Tamrakar *et al.* (2019) revealed that Nepal's first digital wallet entered into the Nepalese digital payment system industry in 2009. Likewise, Khatri *et al.* (2013) found that the majority of the account holders use the internet, have some knowledge about the internet banking provided by the bank, but they have not developed the habit of utilizing this facility.

The above discussion shows that the empirical evidence varies greatly across the studies on the youth perception of digital wallets. Though there are above mentioned empirical evidence in the context of other countries and in Nepal, no such findings using more recent data exist in the context of Nepal. Therefore, in order to support one view or the other, this study has been conducted.

The main purpose of the study is to analyze the impact on youth perception of digital wallets of Kathmandu valley. Specifically, it examines the impact of intention to use, perceived usefulness, perceived ease of use, trustworthiness, IT skills and Internet access in Kathmandu valley.

The remainder of this study is organized as follows. Section two describes the sample, data and methodology. Section three presents the empirical results, and the final section draws the conclusion.

2. Methodological aspects

The study is based on the primary data. The data were gathered from 125 respondents through a questionnaire. The respondent's views were collected regarding youth perception of digital wallets based on intention to use, perceived usefulness, perceived ease of use, trustworthiness, IT skills, Internet access. The study used descriptive and causal comparative research design.

The model

The model estimated in this study assumes that the youth perception towards digital wallets depends on different factors. The dependent variables selected for the study are youth perception of digital wallets. Similarly, the selected independent variables are intention to use, perceived usefulness, perceived ease of use, trustworthiness, IT skills and Internet access are selected as independent. Therefore, the model takes the following form.

$$YPDW = \beta_0 + \beta_1 ITU + \beta_2 PU + \beta_3 PEU + \beta_4 T + \beta_5 ITS + \beta_6 IA + e$$

Where;

YPDW= Youth perception of digital wallets

ITU= Intention to use

PU= Perceived usefulness

PEU= Perceived ease of use

T= Trustworthiness

ITS= IT skills

IA= Internet Access

Youth perception of digital wallets was measured using a 5-point Likert scale where the respondents were asked to indicate the response using 1 for strongly agree and 5 for strongly disagree. There are 5 items and sample items include “My usage of digital wallet apps has increased after the COVID pandemic,” “I will continue to use the digital wallet apps in the future even after the COVID pandemic” and so on. The reliability of the items was measured by computing the Cronbach’s alpha ($\alpha=0.869$).

Intention to use was measured using a 5-point Likert scale where the respondents were asked to indicate the response using 1 for strongly agree and 5 for strongly disagree. There are 5 items and sample items include “I believe that I will continue to use digital wallets in the futures,” “I believe that I will continue to use digital I wallets in the future” and so on. The reliability of the items was measured by computing the Cronbach’s alpha ($\alpha=0.855$).

Perceived usefulness was measured using a 5-point Likert scale where the respondents were asked to indicate the response using 1 for strongly agree and 5 for strongly disagree. There are 5 items and sample items include “Digital wallet enables me to conduct transactions 24 hours 7 days a week,” “Digital wallet saves more time” and so on. The reliability of the items was measured by computing the Cronbach’s alpha ($\alpha=0.856$).

Perceived ease of use was measured using a 5-point Likert scale where the respondents were asked to indicate the response using 1 for strongly agree and 5 for strongly disagree. There are 5 items and sample items include “My interaction with digital wallet is clear and understandable,” “Interaction with digital wallet does not require a lot of mental effort” and so on. The reliability of the items was measured by computing the Cronbach’s alpha ($\alpha=0.861$).

Trustworthiness was measured using a 5-point Likert scale where the respondents were asked to indicate the response using 1 for strongly agree and 5 for strongly disagree. There are 5 items and sample items include “Digital wallet apps are trustworthy,” “The information offered by digital wallet apps are valid” and so on. The reliability of the items was measured by computing the Cronbach’s alpha ($\alpha=0.860$).

IT skills was measured using a 5-point Likert scale where the respondents were asked to indicate the response using 1 for strongly agree and 5 for strongly disagree. There are 5 items and sample items include “Digital wallet systems are rigid and inflexible,” “I feel like user-friendliness of digital wallet apps are required” and so on. The reliability of the items was measured by computing the Cronbach’s alpha ($\alpha=0.838$).

Internet access was measured using a 5-point Likert scale where the respondents were asked to indicate the response using 1 for strongly agree and 5 for strongly disagree. There are 4 items and sample items include “I have constant access to the internet,” “Having cheap mobile data services would increase my digital wallet usage” and so on. The reliability of the items was measured by computing the Cronbach’s alpha ($\alpha=0.721$).

The following section describes the independent variable used in the study along with hypothesis formulation.

Intention to use

An individual’s intention to adopt an innovation is determined by attitude and subjective norms, which are formed by behavioral and normative beliefs of an individual (Yang *et al.*, 2012) Moreover, Fusilier and Durlabhji (2005) revealed that there are two items to measure intention to statement of use, the first assumption is having access to mobile banking, and the second is after having access to mobile banking, customers are expected to use it. In addition, Junadi (2015) found that the intention to transact on e-payment increased efficiency, thereby reducing cost. Similarly, Mendoza *et al.* (2018) found that the favorable intention among mobile users towards mobile technology is a result of their positive beliefs. Likewise, Venkatesh *et al.* (2012) found that there is a positive correlation between system intention to use and system actual use. Based on it, the study develops the following hypothesis:

H₁: There is a positive relationship between the intention to use and youth perception of digital wallets.

Perceived usefulness

The perceived usefulness and ease of use by an individual are the factors that determine the attitude towards the adoption of a specific technology, and consequently determine the intention to use resulting in the adoption of the technology (Davis, 1989). Likewise, Davis (1993) found that perceived usefulness is the subjective probability that technology can improve the way a consumer completes his goal. Similarly, Adam *et al.* (1992) revealed that perceived usefulness has a constant influence on the intention to use a system or technology. Venkatesh *et al.* (2008) found that a person has confidence in embracing the latest technologies that will enhance their work performance, which is beneficial to professional growth. Likewise, in electronic payment systems, the study found that the use of e-payment has financial benefit (Eastin, 2002). Based on it, the study develops the following hypothesis:

H₂: There is a positive relationship between perceived usefulness and youth perception of digital wallets.

Perceived ease of use

The ease of use refers to the individual's perception that using a particular system will be effortless or, simply, easy to handle (Davis, 1989). Likewise, Moore *et al.* (1991) found that features such as performing a financial transaction through a mobile application might be a difficult task for a new user. Similarly, Childers *et al.* (2001) revealed that any technology which can be learned and managed easily will satisfy an individual which in turn increases the intention to use the system. Furthermore, Chin and Ahmad (2015) found that perceived ease of use is important to determine perceived usefulness and consumers' intention to use the single platform e-payment system. Likewise, Lin (2007) concluded that perceived ease of use can be used as intermediary of perceived enjoyment as perceived ease of use is a significant factor in a consumer's intention to shop online. Based on it, the study develops the following hypothesis:

H₃: There is a positive relationship between perceived ease of use and youth perception of digital wallets.

Trustworthiness

Trust as the belief of the trustor that the trustee will fulfill the trustor's expectations without taking advantage of the trustor's vulnerabilities (Mayer *et al.*, 1995). Moreover, Mcknight *et al.* (2002) found that in the

online transaction scenario, conceptualize trust as the belief which allows consumers to willingly become vulnerable to online vendors for an expected service after duly considering the vendor characteristics. Similarly, Gao and Waechter (2017) found that the existence of expressions of low levels of trust is the main reason for not adopting online payments offered by financial institutions. Likewise, Pavlou *et al.* (2006) found that trust is critical in the development and acceptance of any system or technology, as it creates a positive attitude between citizens. Furthermore, Bunduchi (2005) found that trust is an important factor in the success of interorganizational systems or internet-based electronic markets. Based on it, the study develops the following hypothesis:

H₄: There is a positive relationship between trustworthiness and youth perception of digital wallets.

IT skills

Knowledge was needed to achieve low level curriculum goals and high-level curriculum goals (Lin *et al.*, 2020). Likewise, Kim *et al.* (2010) revealed that knowledge about individual IT services is crested through experience and learning. Furthermore, Black *et al.* (2001) found that mobile banking requires the use of mobile devices such as a Personal Digital Assistant (PDA) or 3G mobile phones, which are usually purchased by young consumers with more disposable income. Similarly, Barnard *et al.* (2013) found that individuals with experience with ICT systems are more likely to be satisfied with the usability of a system and in contrast, individuals with relatively little computer experience may find the same system as having low usability. Likewise, Hanafizadesh *et al.* (2014) concluded that the user of the system has to perceive the operation of the e-payment system is consistent with their existing technical knowledge and skills. Based on it, the study develops the following hypothesis:

H₅: There is a positive relationship between IT skills and youth perception of digital wallets.

Internet access

Businesses have increasingly offered consumers online or mobile transactions options, two fundamental barriers may keep consumers from adopting these digital options (Toh and Tran, 2020). Moreover, West (2015) found that there are a number of factors that make it difficult for people

to obtain access to the internet they are: Poverty; high device, data, and telecommunication charges; infrastructure barriers; digital literacy challenges; and policy and operational barriers. Likewise, Deloitte (2014) found that income levels are a key barrier to internet access, and internet penetration is often the lowest in countries with the lowest GDP per capita. Similarly, Bonfadelli (2002) found that people from more advantaged societal positions are more likely to use the internet for diverse purposes, especially the types of activities from which they may benefit. Likewise, Bucur *et al.* (1998) found that older individuals tend not to use the more advanced tools that younger people use and only engage in a subset of activities compared to their younger counterparts. Based on it, the study develops the following hypothesis:

H₆: There is a positive relationship between internet access and youth perception of digital wallets.

3. Results and discussion

Correlation analysis

On analysis of data, correlation analysis has been undertaken first and for this purpose Kendall's Tau correlation coefficients along with means and standard deviations have been computed, and the results are presented in Table 1.

Table 1

Kendall's Tau correlation coefficients matrix

This table presents Kendall's Tau coefficients between dependent and independent variables. The correlation coefficients are based on 123 observations. The dependent variable is ADP (adoption of digital payments). The independent variables are ITU (intention to use), PU (perceived usefulness), PEU (perceived ease of use), T (Trustworthiness), ITS (IT skills) and IA (Internet access).

Variables	Mean	S.D.	ADP	ITU	PU	PEU	T	ITS	IA
YPDW	4.203	0.747	1						
ITU	4.164	0.730	0.598**	1					
PU	4.153	0.697	0.678**	0.647**	1				
PEU	4.166	0.730	0.685**	0.606**	0.724**	1			
T	4.102	0.742	0.622**	0.605**	0.653**	0.653**	1		
ITS	4.976	0.733	0.536**	0.565**	0.604**	0.628**	0.651**	1	
IA	3.336	0.258	0.128	0.113	0.185*	0.118	0.138	0.133	1

Note: The asterisk signs (**) and (*) indicate that the results are significant at one percent and five percent levels respectively.

Table 1 shows the Kendall's Tau correlation coefficients of dependent and independent variables for customer relations. The study indicate that intention to use is positively correlated to adoption of digital wallet. It indicates that higher the intention to use by the people, higher would be the interest to adopt digital wallet. The result also shows that perceived usefulness is positively correlated to adoption of digital wallet. It indicates that the greater perceived usefulness stimulates people towards adoption of digital wallet. Likewise, the result shows that perceived ease of use is positively correlated to adoption of digital wallet. It indicates that ease of use perceived by the people motivates them to adopt digital wallet. Similarly, the study reveals that trustworthiness is positively correlated to adoption of digital wallet. It indicates that the more trust the people have towards the digital wallet apps, the more like they are to adopt digital wallet. Likewise, IT skills are positively correlated to adoption of digital wallet. It indicates that the more IT skills the people are, the more comfortable using digital wallet apps and are thus more likely to adopt digital wallet. The result also shows that internet access is positively correlated with adoption of digital wallet. It means that higher the access of the internet, the more likely it is for people to adopt digital wallet.

Regression analysis

Having indicated the Kendall's Tau correlation coefficients, the regression analysis has been carried out and the results are presented in Table 2. More specifically, it presents the regression results of intention to use, perceived usefulness, perceived ease of use, trustworthiness, IT skills, Internet access and youth perception of digital wallets.

Table 2

Estimated regression result of intention to use, perceived usefulness, perceived ease of use, trustworthiness, IT skills and internet skills on adoption of digital payment

The results are based on 123 observations using linear regression model. The model is $ADP = \beta_0 + \beta_1 ITU + \beta_2 PU + \beta_3 PEU + \beta_4 T + \beta_5 ITS + \beta_6 IA + e$ where the dependent variable is ADP (youth perception of digital payments). The independent variables are ITU (intention to use), PU (perceived usefulness), PEU (perceived ease of use), T (Trustworthiness), ITS (IT skills), and IA (Internet access).

Model	Intercept	Regression coefficients of						Adj. R_bar ²	SEE	F-value
		ITU	PU	PEU	T	ITS	IA			
1	0.560 (2.760) *	0.875 (18.239) **						0.728	0.38992	332.671
2	0.203 (1.142)		0.963 (22.806) **					0.807	0.32821	520.116
3	0.369 (2.169) *			0.920 (22.850) **				0.808	0.32770	522.119
4	0.708 (3.521) **				0.852 (17.663) **			0.715	0.39909	311.966
5	0.899 (3.849) **					0.806 (14.369) **		0.624	0.45855	206.480
6	2.442 (2.793) *						0.519 (2.021) *	0.024	0.73834	4.084
7	0.107 (0.623)	0.284 (3.472) **	0.701 (8.198) **					0.823	0.31439	289.460
8	0.156 (0.955)	0.335 (4.784) **		0.637 (9.117) **				0.837	0.30194	289.460
9	0.290 (1.579)	0.499 (6.677) **			0.447 (6.084) **			0.790	0.34293	233.544
10	0.346 (1.731) *	0.633 (8.224) **				0.298 (3.888) **		0.756	0.36930	192.989
11	0.114 (0.708)		0.501 (5.260) **	0.482 (0.471)				0.842	0.29708	331.491

Notes:

- i. Figures in parenthesis are t-values.
- ii. The asterisk signs (**) and (*) indicate that the results are significant at one percent and five percent level respectively.
- iii. Youth perception of digital wallet is dependent variable.

Table 2 shows that the beta coefficients for intention to use are positive with youth perception of digital wallet. It indicates that intention to use of the respondents has a positive effect on their willingness to adopt of digital wallet. This finding is consistent to the findings of Yang *et.al.* (1960) who revealed that intention to use has a positive impact on youth perception of digital wallet. Similarly, the beta coefficients for perceived usefulness are positive with youth perception of digital wallet of the respondents. It indicates that the perceived usefulness of the respondents has a positive impact on youth perception of digital wallet. This finding is consistent with the findings Adam *et al.* (1992). The beta coefficients for perceived ease of use are positive with youth perception of digital wallet of the respondents. It indicates that the ease of use perceived by the respondents has positive impact on youth perception of digital wallet. This finding is consistent to the findings of Lin (2007). Likewise, the beta coefficients for trustworthiness have a positive impact on youth perception of digital wallets of the respondents. It indicates that the trustworthiness of the respondents has a positive impact on youth perception of digital wallet. This finding is consistent with the findings Mayer *et al.* (1995). Similarly, the beta coefficients for IT skills have positive

impact on youth perception of digital wallet of the respondents. This finding is consistent to the findings of Lin (2020). Likewise, the beta coefficients for internet access have a positive impact on youth perception of digital wallet of the respondents. It indicates that the access of the internet has positive impact on youth perception of digital wallet. This finding is consistent to the findings of West (2015).

4. Summary and conclusion

Digital wallet can be defined as platform which is used for making monetary transaction for various goods or services purchased over the internet. The wallet system in the world had to shift its method of payment to align with the current or latest payment technology for individuals, organizations, businesses, government, etc. The digitization has forced to change the payment system around the world from paper, coins, people started to shift towards the digital payment system as it was very fast, convenient, and beneficial for individuals, organization.

This study attempts to examine the youth perception towards digital wallets in post COVID-19 Pandemic in Kathmandu valley. The study is based on the primary data of 125 observation.

The study also showed that intention to use, perceived usefulness, perceived ease of use, trustworthiness, IT skills, Internet access have a positive relationship with youth perception of digital wallets. The study concluded that intention to use, perceived usefulness, perceived ease of use, trustworthiness, IT skills, Internet access have significant role in increasing youth perception of digital wallets. The study also concluded that the most influencing factor is intention to use followed by perceived usefulness, perceived ease of use, trustworthiness, IT skills and Internet access that explains the youth perception of digital wallets.

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