Factors Influencing The Behavioral Intention To Adopt The Mobile Phone E-Wallet Services – A Post Covid Fintech And Financial Inclusion Study

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Abstract

Improvements in wireless technologies and improved advancement in smartphones have led to an increasing trend in mobile banking activities on a global scale. The Covid-19 outbreak has shifted the focus of people to adopt the E-Wallet services due to various reasons. This empirical study sought to investigate the usage of mobile e-wallet services via determining factors that influence the velocity of using E-wallet services in Pakistan. A survey questionnaire was conducted over 210 sample sizes from different students of Universities of Pakistan. Results were subsequently analyzed by the SPSS package and SEM-PLS. The findings indicate that Perceived risk is mediated by the perceived usefulness and government support to adopt the E-Wallet services (Usage Intention) even after the Covid-19 ends. This study uses the Technology Acceptance Model (TAM) by incorporating external factors that have never been used in this manner all at once, including Perceived risk, perceived usefulness, and government support. The results may provide further understandings to E-wallet tech and digital banking companies to develop strategies and engineers to design and implement mobile wallet services to produce higher consumer loyalty more improved services contextualizing the given contribution and findings.

Introduction

The mobile wallet (M-Wallet) or an electronic wallet (E-Wallet) term is derived from a concept of 'Digital Wallet'. The E-Wallet Technologies has replaced the physical leather wallets in which we used to put cash, debit, and credit cards that are mostly carried for making payments from the virtual wallets. (Singh et al., 2020). Payment's systems in terms of Digital e-wallets has rapidly increasingly and becomes very exciting to study, considering the facts on the ground that this new tech-electronic wallet like the Easy Paisa, Jazz Cash users in Pakistan are growing rapidly from year to year. According to (Arner et al., 2015) Fintech evolutions has changed the perspectives as Fintech in now more focused towards regulations as initially it was more inclined towards the Support at backend organizations of financial and banking institutions however for now it has shifted the focus being highly consumer centric.

So now it may describe as the best combination of the IT – (Information Technology) and financial services. Since it is now considered as the internet era, we see an internet and application based services being offered by tech companies. The market penetration and expansion of smart-phones having the less expensive 3G and 4G connections are the few biggest factors that introduced the Electronic Wallet system in Pakistan. (Singh et al., 2020) The recent shift in globalization has made a great shift in tech innovation from last couple of decades we see the technology has outperformed in almost every sector overpassing the traditional technologies (Alwi & Education, 2021) . A natural outbreak caused by a severe disease called Corona Virus got viral in the end of 2019 and spread across the globe in short span of time, followed by global impact limiting people at homes and restricting thousands of people movements. Mobile phone E-Wallet services which basically became very prevalent during and after the Pandemic that lasted for years. (Shane et al., 2022)

Amid the Pandemic, the rise of cashless society may be a designation that refers to consumers who basically don't utilize physical cash in exchanges, but through digital means of transfer. And similarly, In their every day to day transactions, people don't actually utilize the hard cash, but the digital cash. (Odoom et al., 2020) . Past studies taken place to examine the users intention of electronic -wallets in terms of mobile payments systems. Previously paper done in the capacity of risk suggest that there are several kind of risks related with web or online exchange

including product execution risks, financial risks, ,psychological risks time risk and convenience risk (Fan et al., 2018). In some of the studies of empirical findings, the Government Support (GS- Hereafter) has remained a noteworthy consequence on companies performance and consumers to adopt the E-Wallets (Appiah et al., 2019). According to (Rambocas et al., 2012) On an person basis we see, the GS - Government support was found to altogether influencing customers' usage intent to adopt virtual e- payment within the setting of internet and smartphones they use.

This paper examines the factors influencing and correlate with the behavioral intentions of continuing and adopting the E-Wallet by public even after the Covid-19 ends. It seeks to explore the elements that impact mobile handset users' behavioral intention and attitudes and intentions to adopt the e-wallet services, after COVID-19 pandemic. So that e-tech wallet companies, mobile phone developers, and some governing agencies that can develop the necessary strategic framework to boost acceptance. (Alwi & Education, 2021) . The Technologies Acceptance Model (TAM), which is based on consumer sentiments, is intended to gauge the acceptance of new technology. Theoretically this paper seek to study aims at filling in the research gap related to applying the TAM model in analyzing behavioral intentions the key influencing. (DO & DO, 2020) We see that as such studies, conducted on the data representative for Pakistani society, yet have not been carried out in this capacity here so far.

Additionally, another motive behind the study and favors of performing research in this area is the rate of change being observed in the conditions for the payment transfers and cash holding systems, caused by the effects of the Covid-19 pandemic. Therefore, for this reason, the study we take intends to utilize and consider the factor related with the results of this pandemic, which has not been included in the source literature yet, and that is also a key element that is affecting the perceived risk as variable. It has now became significant to learn and have a clear image of the influencing forces that may stimulate consumers behavioral and usage intention of adopting the mobile fund transfer or payment (e-wallet) adoption (Chwah et al., 2018). As Also (Kaur, 2020) found that the government ought to empower its nation with resources quipped with e-wallets payment systems to operate as It is supportive to "flatten the curve".

This study is designed and organized into four sections. The research problem is stated in the first section. The study's proposed framework

and hypothesis are detailed in the second section. The third section discusses the research methods used, as well as a discussion and the study's ramifications. Finally, a conclusion is reached, limits are identified, and recommendations for further research are offered. The results and findings of this study can be helpful and may provide set of information on user acceptance their intentions and the market forecasts of electronic-wallet payment system in Pakistan today. Which will be useful for the E-Wallet companies to alter their corporate business strategy to increase user intentions to use and ultimately to reduce the turnover rate (Rehman, Aslam, et al., 2021). Further Companies can those who are in production phase of the E-Wallet Services may adhere to this paper and use it as the basic reference of information for their product planning stage. (Shamshad et al., 2020). In addition to it this research could be useful for the Government relevant agencies of Pakistan to execute the strategies and new initiatives for the betterment of nation towards advancement and to shift to a Cash less society.

Literature Review:

As we go into the current era of technology, the e-wallet may be regarded a prominent means of payment that is being utilized by people all over the world. The reports suggested that Covid-19 has severely affected businesses and individuals especially those in entertainment industries suffered double-digit losses in revenues.(Centre, 2020) We see different newspaper and televisions reported people started panic buying and selling across the globe. Some of them are taking advantage of the situation by hoarding supplies, however, some people were buying because they don't wanted hoarders to gets profit. E-commerce has risen in popularity due to these factors. (Tusyanah et al., 2021)We see Customers are to be now able to meet their wants by shopping online. As conducted by (Farag et al., 2007) Compared to older users, young consumers have a more favorable opinion about the internet and online purchasing. Because they are more tech and internet knowledgeable (Aslam et al., 2020).

During the COVID-19 shutdown, the use of electronic transactions quickly rose in order to reduce the number of people visiting local bank branches(Saha, 2021). We see there is comprehensive literature available in the past about different pandemics and the evolution of financial technologies. We see that people got confide and limited to their places, homes due to wave of separation to avoid physical contact. Especially consumers started avoiding public interactions, shopping at

supermarkets and shopping malls. And this resulted in the evolution and demand of Financial Technology integration where various companies (Eloksari, 2020). Such as certain tech companies like Easy Paisa and Jazz Cash emerged at the surface of Pakistan helping people to send and receive funds, money to meet their needs of everyday life. This largely brought a demand for the E-Wallet services.

The COVID-19 epidemic demonstrates the development of digital payments from this. (Auer et al., 2020) Throughout the years, Pakistan has experienced a transformation in how money is transferred and received. However, many still prefer traditional means for transferring and receiving payments to new online methods. Despite this, the notion is constantly growing and getting momentum in the Pakistani Universities, which has seen a spike in e-commerce businesses.(Sabir et al., 2014) Even still, the cash approach continues to be the most popular. This study considers three independent variables as the stimulus to check the impact on post covid intention to use e-wallet – to adopt and continue to use the E-Wallet services as mentioned some of the leading brands of Pakistan.(BLOG, 2022). However, branchless banking clients in Western countries have shown a larger reliance on Internet- and mobile-based access to their banking accounts and to value-added services including investments, advisory services, loans, and mortgages. Consumers. On the other hand, non-Western or developing countries have begun to accept and use the mobile device to carry out standard retail transactions like utility purchases and bill-paying cash transfers. In actuality, mobile money has profoundly altered the socioeconomic environment. (Karjaluoto et al., 2021)

Government Support (GS) with Perceived Risk (PR)

Perceived Risk (PR) is considered as the perception of risk while purchasing, a kind of loss.(A, 1960). Perceived risk, according to the research, is a multi-dimensional entity. According to (Soe, 2022) Adoption of an e-Wallet during the COVID-19 pandemic can be seen as a preventative measure for consumers' general health as COVID-19 is seen as a threat to that health. It has been identified that it has numerous extents based on category of services or products. Generally the risk which is perceived has several dimensions especially in terms of online businesses, such as convenience, time, performance, psychological and financial risks (Forsythe & Shi, 2003). PR-Perceived risk is stated as the condition where people are worried for the presence of viral virus known as COVID-19 especially on physical exchange of money or currency. (Oh et al., 2015) Therefore, the

government, through the Ministry of Health, has a "fully sovereign" responsibility to manage the health concerns of public. So, this paper examines the possible COVID-19 threats and danger connected with tangible hard money influences the state's support especially for Electronic Wallet services. So, the first hypothesis follows as,

H-1: Government Support (GS) negatively influence the Perceived risk (PR) for the adoption of E-Wallet (adoption intention).

Government Support (GS), Perceived Usefulness' (PU) and Perceived risk (PR)

People are in advance have become aware of the CASH base transactions; yet, after analyzing the number of benefits been drawn from the use of Mobile E-Wallet Services so then they accept it as a mode of transaction.(Riquelme & Rios, 2010). Some studies suggest that the Perceived Risk (PR) is considered to include in TAM model. This also has an influence on perceived usefulness. We see at large external forces like government's states sponsorship may positively adhere and impact the overall perceived utility of using the E-wallet technology in general. (Aji, Berakon, & Md Husin, 2020). The establishment of an effective and strong regulatory support structure is critical in promoting consumer trust and ensuring the smooth operation of the whole electronic wallet tech-environment. So the official set of bodies who basically regulate the overall system especially the government institutions like the govt. agencies, unions of labor and legal counsel authorities who jointly work to bring the valid and legal frameworks and which alternately affects the behavior and managerial skills of people and corporations through creating series of normative standards that predominate in a community (Bajwa et al., 2015; Zhu, 2009). This study seeks to explain the states or Govt.'s participation in making famous the Electronic Wallet and making aware the general public regarding the technology of the E-Wallet related tech especially during the pandemic times of COVID-19 that has a useful impact on consumers' perceptions of their utility. So, we finalized with a hypothesis that,

H-2: Perceived Usefulness (PU) negatively influence the Perceived Risk (PR) for the adoption of E-Wallet (adoption intention).

H-3: Perceived Usefulness (PU) positively influence the Government support (GU) for the adoption of E-Wallet (adoption intention).

The "Perceived Risk - (PR)".

Concern regarding the transaction security while using mobile payments is referred to as perceived risk (Zhao et al., 2019). According to the (Bailey et al., 2017) Consumers' perceptions of the potential harm carried on using new technology are referred to as perceived risk. An e-wallet can be used to conduct simple, small-scale transactions (Punwatkar et al., 2018). Looking at the potential risk present in the market such as social, financial or business product or service related risk that normally a client or a client feels when engaging in an online transaction is referred to as PR (Rehman, Mata, et al., 2021; Wu et al., 2011). Literature suggests (Hasan et al., 2017) that the probability of people to get imposed of diseases caused by pandemics as Anthrax, MARS, AIDS, SARS, and others is known as disease risk. The perceived disadvantage that users would experience if their personal information is revealed and they suffer financial loss is reflected in perceived risk(Shao et al., 2019). So, as a consequence, the applications of an E-Wallet is considered as the ideal approach to leverage safety and sabotage the harmful risk associated with transmission sensitive information. Analysis and studies taken by other scholars in the similar capacity has found that “Perceived Risk – PR” had found to have a negative influence on behavioral intentions of consumers while adopting the any technology related product. (Marafon et al., 2018).

However, some study on the above perceived risk claims that behavioral intentions to use the e-wallet payment method are not significantly impacted by perceived risk (Phonthanukitithaworn et al., 2015). Further we see study reveals that, the intensity remains on top as higher and healthier the behavioral intention to operate electronic-wallets for the transactions and their payment can be shown as being lessor in terms of the associated risk of the COVID-19 virus which can be attracted if the hard tangible currency mode is used at first place. So they key take away can also be the people’s individual assessment and judgments regarding they should start utilizing the application system which is basically influenced by its apparent value at large.(Venkatesh & Davis, 2000) So thus the extent where people's perception regarding electronic-wallets' utility would stimulate them to use while considering the parallel risk of COVID-19. As a result, the authors propose the hypothesis,

H-4a: **Perceived Risk (PR) Positively Influence for the adoption of E-Wallet (adoption intention).**

H-4b: **Perceived Usefulness (PU) mediates the effect of Perceived Risk (PR) for the adoption of E-Wallet (adoption intention).**

The "Government Support-GS":

Government assistance for e-wallets might take many forms such as the policies in bundles, the speed in terms of access and especially the assurance of security mostly in online transactions. (Hoque et al., 2020) asserted that COVID-19 had had a substantial impact on both the national and global economies. Which became the reason Government of different countries started taking initiatives to support the growing fintech innovation for the safety of people and economy at large. A report published by WHO-World Health Organization suggest and recommends to general community to embrace non cash embedded transaction in order to escape the interactions between people to "flatten the curve"(Brown, 2020) . Governments in many nations have backed this innovation in e-wallets, particularly during the epidemic, and this may have an impact on people's decisions to use them. The WHO recommends that the government encourage its citizens to use e-wallets for payment (Huang et al., 2020). Individual aspirations to utilize digital mode of banking is been mostly affected by the support Govt institutions provide to adopt the services provided online (Khaliq Ur Rehman Cheema, 2012; Rambocas, 2012).

By increasing public awareness of the use of technology in financial innovation and investing in infrastructure with government assistance, the credibility and reliability of goods and services may be improved (Hu et al., 2019) such as the creation of communication networks, public awareness campaigns, and sponsorship. According to (Forsythe & Shi, 2003) perceived utility is a critical aspect in deciding whether to adopt technological systems or apps. To bolster trust in cash and guarantee universal acceptance, several central banks have actively communicated that risks are low, and taken further action (Auer et al., 2020) The governments' support for electronic based transactions using digital handsets from distant locations is way useful then the traditional cash-based system to fight against the pandemic of SARS-Cov2 (Anggraeni et al., 2021). As a result, the customers perceive and seek government assistance, they are more likely to utilize an e-wallet. This implies that citizens feel safer when the government takes effective action. Due of this, GS has been incorporated into TAM in order to determine how effective it is at encouraging the adoption of consumer technologies.

H-5a: The Govt Support (GS) Positively Influence for the adoption of E-Wallet (adoption intention).

H5b: Perceived Usefulness (PU) mediates the effect of Govt Support (GS) for the adoption of E-Wallet (adoption intention).

The "Perceived Usefulness-PU" :

The degree to which someone thinks using a certain system will be easy is known as PU. (Hendrickson et al., 1993) In other words, it refers to the degree to which users of a system believe that using the system would increase their productivity and effectiveness at work (Fikri et al., 2020). After Even when Covid Pandemic ends here we see the Electronic Mobile Wallets are been considered as the most useful mode of transactions in a variety of purposes especially at times of quarantine and covid pandemic peak periods. (Shane et al., 2022) Moreover, Electronic Wallets are used as best substitute for the traditional modes to help state's matters in lowering the casual of COVID-19 spreading (Shane et al., 2022) .A wide literature is available that basically suggest that the "Perceived Utility" is a substantial interpreter of virtual money being used and the core underlying intention (Aji, Berakon, & Md Husin, 2020) . A mobile phone has turned into a need over time. Worldwide, the data set provides projections that, people are less in quantity who bank accounts however the people who use smartphone exceeds the number at first place. The increasing problems of customers and clients' expectations, the rising expense of engaging consumers through a step-by-step process of traditional approaches and the necessity for consumers oriented creative business results have forced organizations to seek technology oriented solutions an adopt the Electronic Wallet which are basically fasts and mobile in nature meeting all the required goals and objectives. Further (Davis et al., 1989) found that, more often the people think adding such technology like (E-Wallet) would increase their overall productivity and hence they perspective set of benefits and usefulness and communicate the same ahead usefulness.

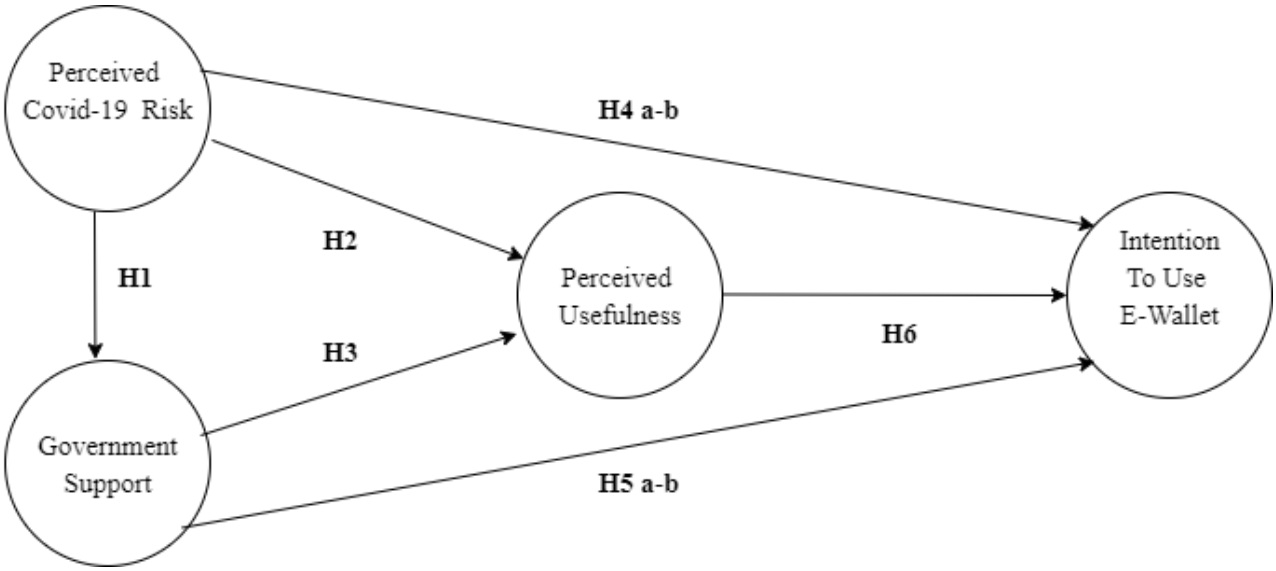
H-6: Perceived Usefulness (PU) Positively Influence for the adoption of E-Wallet (adoption intention).

Research Model:

The literature has employed a number of theories to describe the adoption and usage of technology, including TAM, TAM2, TAM3, DOI, UTAUT, UTAUT2, and theory of planned behavior (Senali et al., 2022). But here, The conceptual framework was established using the technology acceptance model (TAM) as suggested and used by(Singh & Ghatak, 2021) and (Latupeirissa et al., 2020) in similar studies and

capacities. By examining the mediating effects of perceived usefulness and government support to usage intention of E-Wallet, the study expands the TAM in the context of e-wallets by assessing the implications of product-related elements such perceived risk, usefulness , government support in the post covid-19 period for the adoption of E-Wallet services.

Fig1.1 Research Model



3. Research Methodology

3.1 Sampling Technique and Data Collection

This paper entails a quantitative study taken through distributing the online questionnaire to University students through online and offline platforms in 7 universities of Pakistan. The Country and Cites are chosen through convenient sampling method. We see that Mobile Wallet in this study are considered are mostly non-bank e-wallet services. There are two main reasons for why we selected university students as for population and thereafter sampling; firstly, based on conducted by (Farag et al., 2007) Compared to older customers, young consumers have a more favorable attitude about the internet and online purchasing. It is quite unlikely that these young customers become irritated easily and come across as disappointed while using the mobile wallet because they are more online and technology knowledgeable. Secondly, University students frequently utilize mobile smartphones,

one of the technical products available on the market (Burns et al., 2014) .

Therefore, we have collected the data from University students across the 7 leading universities of Pakistan. Before distributing the online survey, the first stage in data gathering is to ask and receive consent from the potential respondents. The survey was given out to the respondents who had consented once authorization had been granted. Beginning in early May and lasting until the third quarter of May 2022, data gathering began. Around 250 Sample size has been taken into consideration where around 110 responses were collected online through distributing the survey link across distant university students where Google forms will be used by respondents who have consented to participate in this online survey to submit their answers. All target respondents were given access to the online survey until enough sample units were gathered. The respondents to this study are also ensured of their secrecy. And 100 responses were collected in hard copy through in print survey. The data is collected from the users of e-wallet across 7 universities in 5 cities namely, Sukkur, Khairpur, Karachi, Lahore and Rawalpindi.

Table 1. Target Population: Cities/Universities

SR#	University	City	Province
1	Dow University of Health Sciences	Karachi	Sindh
2	Iqra University	Karachi	Sindh
3	Liaquat National Hospital & Medical College	Karachi	Sindh
4	NED University of Engineering & Technology	Karachi	Sindh
5	Habib University	Karachi	Sindh
6	Institute of Business Administration (IBA)	Karachi	Sindh
7	Shah Abdul Latif University	Khairpur	Sindh
8	Sukkur IBA Univeristy	Sukkur	Sindh
9	Foundation University Islamabad (FUI)	Islamabad	Punjab
10	Lahore University of Management Sciences (LUMS)	Lahore	Punjab
11	University of Agriculture Faisalabad (UAF)	Faisalabad	Punjab

3.2 Item Measurement Scale

All the items that are used in this study are previously validated instruments. We have used two section questionaries that is based on Section A about demographic questions such as Age, gender, income Ranges etc. and the Section B based on 16 items , variables wise as It is measured by four items adapted from (Olya & Al-ansi, 2018) Intention to use e-wallet is defined as users' intention to use e-money during COVID-19 pandemic, measured by three items adapted from (Aji, Berakon, & Riza, 2020). Lastly, government support is operationally

defined as the perceived support from the government in relation with promoting and improving e-wallets use and infrastructure during COVID-19 pandemic. It is measured by four self-administered questionnaires.

Detailed Item wise questionnaire can be seen in Annexure - 1, given the one independent variable Perceived Risk (PR) and two mediating variables Perceived Usefulness (PU), and Government Support (GS) and one dependent variables as the Intention to Use E-Wallet (IUE).

4. Results & Tools

As recommended by the (Anderson & Gerbing, 1988) a hybrid approach was used to analyze the data. Firstly the IBM SPSS 22.0 was used to collected the demographic analysis and descriptive. Secondly The validity and reliability of the measuring scales employed in the present investigation were used as investigated using confirmatory factor analysis (CFA). And By using the structural equation modeling (SEM) SEM-PLS 3.0, where the structural route of the suggested conceptual model and framework was evaluated across variables and their respective loadings.

4.1 Descriptive Analysis

A total set of 210 respondent's data was collected from both public and private universities in Pakistan. The data was run over the IBM SPSS 22 version as used by (Effendy et al., 2021) for descriptive analysis part to have a demographic study. As shown in Table-2 we see that among 210 respondents their students with 144(68.6%) are dominating the employed and unemployed people in terms of the usage of e-wallet services. The study also shows that male have high usage intention then female counter parts with a 134 (63.8%) keeping females at 76(36.2%) responses. In terms of the marital status, we have non-married or singles by 187(89%) responses has high usage

intentions as compared to the married 23(11%) responses. In Pakistan the respondents have income range from 10000-15000 has been dominating with 110 (52.40%) as compared to 16000-20000 with 23(11%) and 21000-25000 with 15(7.10%) and 26000 and above has 62(29.50%) this shows people who have less income has more usage of e-wallet services.

Table 1. Respondent characteristics

Demographics variables		Frequency	Percent
Occupation	Student	144	68.60%
	Employed	54	25.70%
	Un Employed	12	5.70%
	Total	**210**	**100.00%**
Gender	Male	134	63.80%
	Female	76	36.20%
	Total	**210**	**100.00%**
Marital Status	Single	187	89.00%
	Married	23	11.00%
	Total	**210**	**100.00%**
Income Range	10000-15000	110	52.40%
	16000-20000	23	11.00%
	21000-25000	15	7.10%
	26000 and Above	62	29.50%
	Total	**210**	**100.00%**

4.2 Measurement & Data Analysis

When it comes to examining the cause-and-effect relationships between latent components, structural equation modeling (SEM) has almost become a standard in business and management research. (Hair et al., 2011) So due to this huge importance we have used the PLS Version 3 to analyze the data and run the test. As suggested by (Gudergan et al., 2008), recent years have seen the development of a range of improvements in PLS-SEM, such as: (1) confirmatory tetrad analysis for PLS-SEM to experimentally evaluate a construct's measurement mode. Since both direct and indirect effects can be evaluated, it is quite successful.(Cheung et al., 2008).

Cronbach's Alpha (CA :

As refer in the Table 3 we see the model shows a relatively high validity. To test the validity significance was conducted via comparing and analyzing the results values with the standard given and suggested by (Ab Hamid et al., 2017) as We have Cronbach's Alpha values ranging

from 0.70 minimum in perceived usefulness to 0.85 maximum in government support is higher than the threshold CA>0.7.

Composite Reliability (CR):

Reliability is consider as the key indicator for showing the convergent validity (Hair Jr et al., 2014) and hence Considering and examining the composite reliability, results shows all items have higher loadings as of 0.9 Government Support, 0.87 IUE , 0.81 PU and 0.89 PR way higher than the benchmark of CR>0.6 (Fornell & Larcker, 1981). These findings suggested that there is no convergent validity problem with the items. Additionally, the CR score is >0.6 & 0.70, suggesting that all the constructions are reliable or consistent.

Average Variance Extracted (AVE):

Further the Table 3 shows the correlations of the constructs are below the diagonals, whereas estimations of the AVE's square roots are on the diagonals. As suggested by (Fornell & Larcker, 1981) AVE should be greater than 0.5 and we have all variables having satisfying the criteria except the Perceived usefulness.

Table 4. Variance Inflation Factor

Government System		**Intent. To Use E-Wallet**		**Perceived Risk**		**Perceived Usefulness**	
Item	VIF	Item	VIF	Item	VIF	Item	VIF
GS1	1.909	IUE1	1.513	PR1	2.275	PU1	1.519
GS2	2.453	IUE2	2.241	PR2	1.414	PU2	1.846
GS3	2.146	IUE3	1.729	PR3	2.279	PU3	1.716
GS4	1.728			PR4	2.291	PU4	1.056
						PU5	1.36

Given Table 4 we have variance inflation factor showing that all the loadings have As suggested by (Talwar et al., 2020) and (Hair Jr et al., 2017) the minimum threshold to accept is 5.0 and we have all the constructs are below 5.0 and hence model shows that there is no collinearity problem.

R- Square

R-Square is showing the goodness of fit of the model and it is considered as the co-efficient of determination which determine and explain the proportion of variance in the dependent variable that can be explained by the independent variable. As suggested and found by (Ozili, 2022) R-

Square threshold is Minimum 10% On the condition that some or most of the predictors or explanatory variables are statistically significant, a low R-square of at least 0.1 (or 10%) is acceptable. The low R-square model cannot be approved if this requirement is not satisfied. If the model does not contain false causation and the explanatory variables do not exhibit multi-collinearity, a high R-squared model is equally acceptable. As shown in Table-5 the R square values range greater than the 10% which shows the goodness of fit is followed in the model.

Table 5. R-Square Analysis

Variable	R Square	R Square Adjusted
Government Support	0.108	0.103
Intention to Use E-Wallet	0.416	0.408
PU	0.241	0.233

4.3 Structural Model Test & Hypotheses Testing

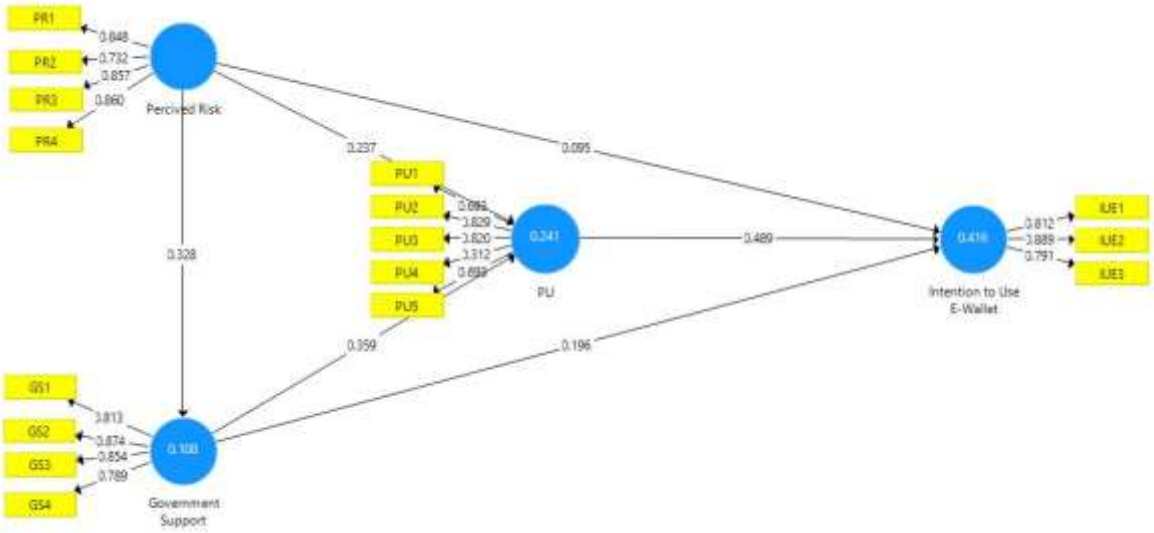
To study the direct and indirect effect bootstrapping (Streukens & Leroi-Werelds, 2016) were used to check the loadings and for hypothesis testing. We employed the non-parametric bootstrapping approach with 500 replications to evaluate the structural model(Hair et al., 2019). Our finding and test yield the following results.

Table 6 . Hypothesis Testing & Path Coefficients :

Predictor Variable & Hypothesis		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Decision	Alpha
H1	**Government Support -> Intention to Use E-Wallet**	0.196	0.192	0.064	3.057	0.002	Accepted	1%
H2	**Government Support -> PU**	0.359	0.365	0.084	4.265	0.000	Accepted	1%
H3	**PU -> Intention to Use E-Wallet**	0.489	0.494	0.063	7.759	0.000	Accepted	1%
H4	**Perceived Risk -> Government Support**	0.328	0.334	0.058	5.68	0.000	Accepted	1%
H5	**Perceived Risk -> Intention to Use E-Wallet**	0.095	0.095	0.056	1.712	0.088	Accepted	**10%**
H6	**Perceived Risk -> PU**	0.237	0.239	0.06	3.966	0.000	Accepted	1%

The hypothesis testing using the PLS – Bootstrapping was used to determine the preferences of e-wallet users for various e-wallet service providers and their motivations for utilizing e-wallets even after the Covid-19 ends. Table-6 compiles the findings and displays them. The mean loadings range between the 0.19 in hypothesis 1 to 0.239 in hypothesis 6. And the standard deviation ranges minimum 5.58% in H4 (Perceived Risk -> Intention to Use E-Wallet) to 8.4% highest in the H2 (Government Support -> PU) . We have found that all the Hypothesis are accepted at 1% significance level since all the P values from H1 to H4 and H6 has less then 1% P value. except the H5 (Perceived Risk -> Intention to Use E-Wallet) which is accepted at 10% alpha. The construct of purposed hypothesis and PLS -Regression shows that there is high correlation between the independent variable "Perceived risk and the Mediating variables perceived usefulness and government support and dependent variable the intention to use e-wallet services. The analysis shows that, H1, H2, H3, H4 and H6 are significant and supported the hypothesis. Except H5 Perceived Risk -> Intention to Use E-Wallet which is acceptable at 10% significance level otherwise deemed rejected. The significant influence on perceived usefulness and government support to use mobile e-wallet services may be caused by Pakistan's high smartphone penetration rate and Pakistanis' familiarity with smartphones. Our research model under the PLS test can be shown in fig1.2

Fig. 1.2 PLS – Model test



Discussion & Conclusion

The study shows a set of significant results. The association between perceived usefulness and perceived risk was supported as found by (Altin Gumussoy et al., 2018). The results shows that H1, Government Support (GS) negatively influence the Perceived risk (PR) for the adoption of E-Wallet (adoption intention). (Hoque et al., 2020) also Similarly H2, Perceived Usefulness (PU) negatively influence the Perceived Risk (PR) however as found by (Shane et al., 2022) our findings confirm H3, Perceived Usefulness (PU) positively influence the Government support (GU) for the adoption of E-Wallet. H4-a, the Perceived Risk (PR) Positively Influence for the adoption of E-Wallet services directly. Our H4-b support and confirm that Perceived Usefulness (PU) mediates the effect of Perceived Risk (PR) for the adoption of E-Wallet. However, the Govt Support (GS) has positive correlation for the adoption of E-Wallet. Another relationship between Perceived Usefulness (PU) found supported and successfully mediated by the effect of Govt Support (GS) for the adoption of E-Wallet. According to (Hair et al., 2011) the study's findings , the TAM construct did a remarkable job of highlighting the adoption of e-wallet technology. However, in practice, the acceptability of e-wallet technology depends heavily on those external factors.

To conclude we can see that despite the fact that there have been numerous prior studies on mobile banking, as evidenced by the performed source literature review, from a theoretical standpoint, our work clearly contributed to the existing of literature devoted to these pandemic issues and post adoption intention. The Perceived risk alone has not significant effect on usage intention however if mediated by the Government Support and Perceived Usefulness it has positive effect on the adoption of the E-Wallet services even after the Covid-19 ends.

Theoretical & Practical implications

The study makes a variety of contributions to the e-wallet literature. By include contextual considerations, the study expands the TAM in the context of e-wallets. The implications of our study for the Tam model framework as a tool to understand technology adoption has multiple theoretical contributions like it could be able to increase the intensity and number of people participating in the global economy by giving them access to banking services using E-Wallets constitute an extremely significant theoretical contribution. The causes and factors of the will and intention to adopt and to utilize technology have mostly been

viewed as orthogonal entities from a theoretical standpoint. To put it another way, each antecedent and variable has traditionally been seen as a crucial element in completely comprehending the adoption of new technologies even after a pandemic period ends. How Governments can play a crucial role in mediating the other variables such as perceived risk and perceived usefulness. The findings demonstrated that PR has a significant effect on the adoption of E-wallet if the Government and PU mediates.

As per the current literature contribution and review we found that this study is one of the first to explore and investigate the mediating effect of government support and perceived usefulness This paper also gives guidance regarding how companies can increase electronic wallet adoption rates, which have lagged in Pakistan and certain other developing countries. These recommendations include specific techniques for tailoring messages and emphasizing features and benefits for the E-Wallet and Growing Digital Banking and tech companies to bring improvement in the business and ultimately through sales enjoy the large market share. The findings have implications for e-wallet service providers, marketers, and policymakers in addition to their theoretical significance. The findings will make it easier for service providers and governments to pinpoint the causes of IU e-wallets. In light of the findings By creating rules that promote the security of transactions made using e-wallets, governments may also play a role in promoting the use of e-wallets. Additionally, in the functional kind of marketing, marketers can stress the advantages of utilizing e-wallets, the simplicity of using these platforms, and their security.

Limitations and Future Work

This study has few limitations that should be kept into consideration while making any analysis , firstly this study was conducted in the Pakistan only 2 provinces were considered as per the convenient sampling so the data can be improved by adding more samples from two other provinces. So future study can be made in other developing countries to test the further significance of the model. Secondly, The study made use of primary data gathered from 210 respondents to an online survey and in print questionnaire. Therefore, selection bias may be present in the sample. Additionally, the respondents considered for this study belonged to various demographic groups in a disproportionate number, which might have an impact on the study's findings. Further, this study is has only 1 independent variable which

can be improved by adding other variables such as Security, Speed of transaction, Trust, and etc.

The ecosystem's stakeholders engaged, determine whether the mobile wallet market succeeds or fails. Consumers are simply one important component of this market; other players, including merchants, technology providers, financial institutions, and government, have an equal role to play in boosting adoption of E-wallets services.

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