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The Advent of E-wallets in the Retail Industry Today:

A Fintech Evolution

Julie Anne A. Ishihara, Daniel Joshua T. Go, and Arven P. Eusebio De La Salle University-Manila

Abstract

Technological advancements and ever-changing business environments have radically transformed the consumer buying experience. People may now experience hassle-free shopping in the palm of their hands with only a few taps and swipes. Alongside evolving customer expectations, businesses of all shapes and sizes have integrated online payment services like ewallets that offer ease in transactions, payment security, and other promotions to entice consumers. This study aims to determine the pivotal factors influencing customers' e-wallet use for online purchases, particularly clothing items. This study explored perceived usefulness, perceived ease of use, perceived risk, social influence, government support, behavioral intention, and the adoption of an e-wallet among adults by applying the technology acceptance model. The researchers adopted the study by Bee and Ying (2021); however, the conceptual framework was extended by including behavioral intention as a mediator variable and linking it with adoption. This quantitative research evaluated the causality of the variables identified by distributing questionnaires online with as many as 30 questions to 100 users of e-wallets in Metro Manila using Google Forms. The data was analyzed using Jamovi and SmartPLS. Of the six proposed hypotheses, two were declared insignificant and rejected. The data obtained from this study can

assist retailers in the Philippines improve marketing plans and strategies that fit the e-wallet adoption of Filipinos.

Keywords: e-wallets in the Philippines, FinTech, retail industry, mobile wallets

The Advent of E-wallets in the Retail Industry Today: A Fintech Evolution

In the era of thriving financial technology and the proliferation of the digital economy worldwide, electronic wallets, more commonly known as "e-wallets," have seen an upward surge in the country in recent years. Simply put, an e-wallet is a software-based system that facilitates users to make online payment transactions via a mobile device or a smartphone instead of cash (Intarot & Beokhaimook, 2018). With 152.4 million mobile connections reported in January 2021 (We Are Social & Hootsuite, 2021), smartphones remain the key technological device in the country with an ever-increasing penetration rate, and the Filipino customer journey is placed in a continuum of ever-changing experiences. Likewise, consumer preferences toward digital payments through e-wallets have progressed rapidly, particularly among the young, urban Filipinos. Everything has become embedded in technology, and the financial sector is no exception.

According to a Better than Cash Alliance report, the Philippines was one of the first to pioneer digital payments nearly two decades ago. The Bangko Sentral ng Pilipinas ("BSP") recognized the opportunity to foster advanced access to financial inclusion. As part of its National Strategy for Inclusion in 2015, the BSP pushed for a cash-lite society with a "20 percent by 2020" objective (Ching, 2017). The potential for e-wallets to drive transaction volume and break down financial barriers is advancing as the private sector continues to cultivate an enabling environment for the integration of cashless solutions (Nair, 2016). Only 42% of Filipinos have

formal bank accounts, so they are adopting e-wallets more than credit cards, and e-wallets are easily accessible through smartphones (Raon et al., 2021); this provided the necessary push for the continuous adoption of e-wallets. This improvement is further evidenced in a report by Statista, stating that there are currently 24.6M mobile wallet users in the country, and it is forecasted to grow to 75.5M in 2025. In 2020, online wallets were most consumers' second most preferred payment method, with 15% of the respondents, followed by online cards at 13%, and cash ranked number one at 53%. Even though paying in cash remains commonplace in the Philippines, mobile wallets have become essential in the everyday lives of Filipinos with the health crisis; this has become a key in driving behind businesses, particularly the e-commerce industry. The country recently saw a digital shift with the pandemic as they transitioned to embracing FinTech tools as more people have realized the convenience it brings (Villanueva, 2022).

Customer-centric measures integrating physical and digital strategies (i.e., personalized promotions and discounts, loyalty programs, and the like) enable retailers to generate insights, improve stakeholder efficiency, streamline operations, and enhance analytics capabilities (Kumar et al., 2018). Due to their value-creation potential, e-wallets have undoubtedly disrupted the retail payments market, as private consumption contributes to 72 percent of the economic output in the country (Marasigan, 2020). As the pandemic continues to unfold, the apparent strategy for businesses is to pivot their activities online as it promises both tangible and intangible benefits. However, the economic uncertainty has pushed Filipino consumers to prioritize essential purchases and caused delays in many non-essential purchases. According to Marasigan, a recent survey revealed that when Filipinos are able, clothing ranks number one as a priority at 19%, home appliances at 18%, home furniture and accessories at 15%, and electronics at 15%.

Review of Related Literature

While existing studies discuss the complexities of the e-wallet ecosystem, this research aims to uncover the emergence of e-wallet penetration in the country and identify specific factors that affect the adoption of Filipino consumers to use e-wallets, similar to the previous study by Bee and Ying (2021). In addition to the foundational study, this research will focus on the retail market, specifically the clothing or apparel industry. It will also examine the intention and continued usage of Filipinos of e-wallets.

Perceived Ease of Use (PEU)

Bee and Ying (2021) stated that perceived ease of use is an essential factor influencing users' adoption of information systems, especially in the technology industry. Saeed and Al-Emran (2018, as cited in Ulfy, 2020) conducted a study on undergraduate students who perceive web service technology as straightforward and user-friendly; thus, it positively influences perceived usefulness and behavioral intention. A study by Effendy et al. (2020) concludes that there was a significant variable effect of perceived usefulness and perceived ease of use on an intention to use an e-wallet. Thus, the researchers formulated the following hypothesis:

H1: There is a significant positive relationship between perceived ease of use and the users' intention to use e-wallets.

Perceived Usefulness (PU)

Perceived usefulness, defined by Davis (1989), is the subjective perception of individuals who believe using a particular information system will enhance their job performance. In ewallet usage, prior studies have found a positive relationship between PU and people's intentions (Nag and Gitiwala, 2019, as cited by Bee & Ying, 2021). According to the theoretical model and the empirical evidence pointed out, the relevant hypothesis is proposed: **H2:** There is a significant positive relationship between perceived usefulness and the users' intention to use e-wallets.

Perceived Risk (PR)

Perceived Risks affect a consumer's decision to identify, change, relegate or discontinue the intention to pursue a purchase action (Kotler, 2016). Li et al. (2009) elaborate on a relationship between the perceived risk of a new mode or purchasing channel and the intention to purchase using that channel. Moreover, purchase decisions done outside of a store setting tend to have a higher level of perceived risk associated with them. This claim is agreed on by Kesharwani et al. (2012), proving perceived risk's negative and significant impact on behavioral intention towards using internet banking technologies. Given the statements mentioned above, the researchers believe the following hypothesis:

H3: There is a significant negative relationship between perceived risk and the users' intention to use e-wallets.

Social Influence (SI)

According to the study by Bee and Ying (2021), high levels of e-wallet adoption move a country toward a cashless society, resulting in better economic growth and the environment. SI is the pressure an individual perceives on their decision to engage in a particular event. It is the degree to which one believes that "important others" think they should adopt a particular technology. In analyzing the relationship between people's intentions, SI has been conducted predominantly within the Theory of Reasoned Action (Ajzen & Fishbein, 1975), and the concept of the subjective norm represents it. Megadewandanu et al. (2016) found that SI positively influences consumer behavior on mobile wallet enforcement. Based on these findings, the hypothesis is as follows:

H4: There is a significant positive relationship between social influence and the users' intention to use e-wallets.

Government Support (GS)

Since e-wallets hold viable information and act as virtual storage of money, the government must provide support or legislation that will reduce or eliminate consumers' perceived risks. According to Aji et al. (2020), as the regulator, the government has a primary obligation to prevent any potential adverse outcomes addressed to its people. The government, acting as the regulator, has a crucial responsibility to mitigate any possible undesirable outcomes encountered by its people (Bee & Ying, 2021). Soon et al. (2020) concluded that government support is strong enough to induce people to adopt e-wallets directly. According to Kiwanuka (2015, as cited in Bee & Ying, 2021), government support positively affects technological adoption and continuous-use intention. Given the above statements, the researchers formulated the following hypothesis:

H5: There is a significant positive relationship between government support and the users' intention to use.

Behavioral Intention (BI)

According to Fishbein and Ajzen (1975), behavioral intent is the best factor in predicting correct behavior. In the context of e-wallets, usage measures the degree of one's intention to purchase a particular product. Accordingly, BI is expressed in one's readiness of the user to use a particular product or service (Venkatesh et al., 2003). As with the previous study of Nikou and Economides, who investigated cognitive feedback and user interface to predict the relationship between behavioral intention and the actual use of e-wallets, there is a positive effect of behavioral intention on adopting an e-wallet revealed in their research. It means that the higher

the intention the consumer is likely to have, the higher the actual behavior and vice versa, so the proposed hypothesis is as follows:

H6: There is a significant positive relationship between behavioral intention and the consumers' adoption of e-wallets.

Adoption of E-Wallets (AEW)

The influence of e-wallets goes beyond the behavior and expectations of consumers, but it also drastically challenges traditional business models. It is said to improve shopping efficiency by reducing transaction frictions (Agarwal & Zhang, 2020), as payments done using an e-wallet are more convenient and safer than conventional banking systems (Blockchains, 2018). However, previous studies reveal that factors such as the lack of awareness, trust, security, usability, perceived advantage, and perceived risk are some of the consumers' primary considerations to switching to fully utilizing online payments confidently. Such factors are also the barriers to their complete acceptance and customer participation (Agarwal & Zhang, 2020, Ozkan et al., 2009). Therefore, it was vital for the researchers to investigate customer perceptions to understand their behavioral determinants thoroughly fully.

Theoretical Framework

To explore the prevalence of e-wallet use in the Philippines, the Technology Acceptance Model, first introduced by Davis et al. (1989), was employed as the theoretical framework. Adopted from the Theory of Reasoned Action by Ajzen and Fishbein (1980 & 1975), TAM is widely used in social psychology studies to understand an individual's willingness to adopt new technology or media in information system management. It has been broadly applied to explain consumers' use of technology in apparel shopping in recent studies (e.g., Cho & Wang, 2010; Kim et al., 2009; Kim and Forsythe, 2008). On the other hand, the antecedents of a person's

attitudes are behavioral beliefs and outcome evaluation in TRA. However, Davis et al. (1989) emphasize that behavioral beliefs and outcome evaluation could not accurately measure one's acceptance of new technologies as external factors influence them.

Figure 1.



Conceptual Model

Note. Source: Bee & Ying (2021)

The technology acceptance model is a good lens for researchers to adopt technology with or without modifications. It has been successfully applied to a wide range of empirical studies to forecast and explore the acceptance and adoption of a variety of technologies, including electronic banking (e.g., Al-Smadi, 2012), mobile education (e.g., Tan et al., 2012), and social networks (e.g., Pinho & Soares, 2011; Shin & Kim, 2008), as well as understanding consumer markets for technological products and services such as online shopping (e.g., Vijayasarathy, 2004) and mobile shopping (e.g., Kim et al. 2009). However, the researchers deemed it necessary to extend Bee and Ying's (2021) conceptual framework and include an additional mediator

variable, "Behavioral Intention To Use," to further examine the Philippine market. The findings of this research will be compared with the results reported in the base article to see whether they are compatible with the results applied in the Philippine environment.

Figure 2.

Extended Conceptual Model



Research Methodology

Survey Research Design

The study evaluated different factors that might significantly impact the sample's behavioral intention to use e-wallets and further the adoption of an e-wallet as a payment method for retail purchases. To this effect, the researchers used the survey research design, descriptive research that uses oral or written communication to elicit data from a representative sample of respondents from a set population (Mathiyazhagan & Nandan, 2010). As further supported by Parten (1950), the survey research's social scientific nature is measured by the variables, classified as behavioral opinions and attitudes.

Participants

The researchers used purposive sampling to identify the participants for the study. The sample size that was determined to represent the population was composed of 100 respondents. Respondents were screened according to the following characteristics:

- 1. The respondent must have experienced using e-wallets in their clothing purchases.
- 2. The respondent must be adept at making online purchases/e-commerce.
- 3. The respondent must be a part of the millennial age group from 26 to 41.
- 4. The respondent must be residing in Metro Manila only.

Data Collection

The researchers administered the online survey questionnaire via Google Forms. The researchers identified the sample based on their profiles and disseminated the questionnaire via social media and messenger.

Instrument

In order to test the variables in the study, the researchers utilized a survey questionnaire with 30 questions as the primary instrument. The survey questionnaire was an adaptation of the instrument used by Bee and Ying (2021) in their study on 'The Factors that Affecting the Adoption of E-Wallet in Malaysia.'

Data Analysis

The questionnaire's validity was analyzed through Jamovi, while the data collected was analyzed using SMART PLS 3.0. The latter enabled the researchers to calculate the effect of the constructed variables in the conceptual framework. After collecting data, Structural Equation Modeling (SEM) was used to test the applicability of the Technology Acceptance Model to determine factors that impact the adoption of e-wallets among Filipino users. The researchers

generated descriptive statistics and reliability coefficients by evaluating internal consistency and validity in a framework. The study outcomes were evaluated via Bootstrapping procedure to measure the path coefficient to evaluate the inner structural model, observe the framework's predictive relevancy, and observe the relationships between the variables constructed in the framework.

Discussion of Results

The data explores Filipino consumers' factors in the intention and continued utilization of e-wallets that affect their retail purchasing behavior. The data gathered were analyzed using SMART PLS 3.0 to test the hypotheses stated in the study anchored on Technology Acceptance Model.

Of 100, most of those who answered the survey were males (52%) aged 26-30 (52%). Regarding employment and income, 76% of the respondents were private employees, and 42% were within the P43,828.00-P76,669.00 monthly income bracket.

As discussed in the Research Methodology section, the questionnaire used was in the form of a 4-point Likert Scale. Based on the results of the descriptive analysis, as shown in Table 2, it can be seen that almost all questions had a mean of more than three except for perceived risk and behavioral intention, which indicates the respondents' concerns about the risks of using ewallet and the intention to use it continuously. The perceived risk and behavioral intention had the highest standard deviation, meaning the gathered data are spread out from their mean.

Table 1

Descriptive Analysis

				Standard
Questions	Mean	Median	Mode	Deviatio
				n
Perceived Ease of Use				
The use of an e-wallet is clear and	3.54	4	4	0.50
understandable				
Using an e-wallet is not mentally challenging	3.46	4	4	0.70
It is easy to learn how to use an e-wallet	3.63	4	4	0.53
It is easy for me to remember the steps to use	3.56	4	4	0.52
an e-wallet				
The operation interface of an e-wallet is	3.47	3	3	0.54
friendly and understandable				
Perceived Usefulness				
Using e-wallets makes me save time	3.51	4	4	0.54
Using an e-wallet makes it easier for me to	3.61	4	4	0.57
conduct transactions				

E-wallet is a useful payment method	3.69	4	4	0.53
Overall, I find e-wallets useful in my life	3.58	4	4	0.55
Perceived Risk				
E-wallets ensure protection against the risk of	2.73	3	3	0.69
fraud or financial loss.				
I am not worried that information transferred	2.64	3	3	0.94
by using e-wallets may be intercepted by other				
people.				
The risk of abuse of usage information (e.g.,	2.66	3	3	0.91
names of business partners, payment amount)				
is low when using an e-wallet				
I think privacy is guaranteed when using an e-	2.63	3	3	0.81
wallet				
I am not afraid that the confidentiality of my	2.57	3	3	0.83
financial transactions might get lost when				
using an e-wallet				
Social Influence				
I will use an e-wallet if the service is widely	3.41	3	3	0.62
used by people in my community				

I will use an e-wallet if people who are	3.35	3	3	0.67
important to me are likely to recommend me to				
use an e-wallet				
I will use an e-wallet if people who are	3.25	3	3	0.76
important to me expect me to use an e-wallet				
I will use an e-wallet if people who influence	3.13	3	3	0.80
my behavior think that I should use an e-wallet				
Government Support				
I believe the government has introduced	3.32	3	3	0.70
favorable legislation and regulation for e-				
wallet services				
I believe the government is active in setting up	3.54	4	4	0.56
all kinds of infrastructure, such as the				
infrastructure of telecom networks, which has				
a positive role in promoting e-wallet services				
I believe the government supports and	3.42	3	3	0.59
improves the use of e-wallet services				
I will use e-wallets if the government ensures	3.51	4	4	0.61
e-wallet server facilities				

Behavioral Intention

My previous experience using e-wallets has	2.73	3	2	0.90
changed my habits for buying clothes online				
Using e-wallets in the past encourages me to	2.78	3	2	0.92
continuously use e-wallets in the future				
I intend to continue using e-wallets for my	2.78	3	2	0.86
clothing purchases in the next six months				
I intend to continue using e-wallets for my	3.32	3	4	0.76
clothing purchases in the next 12 months or so				
Adoption				
I will adopt e-wallets if it is a proven	3.44	3	4	0.59
alternative to using other payment methods in				
online purchasing payments				
I would adopt e-wallets if using them gives me	3.53	4	4	0.63
a positive image as a technology adopter				
I would adopt e-wallets for my online	3.63	4	4	0.63
purchases if I could use it on multiple				
platforms				

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I would adopt e-wallets for my online	3.32	4	4	0.64			
purchases if I could gain additional benefits							
from them.							

Evaluation of the Structural Model

As shown in Table 1, the respondents showed positive levels of constructs ($\mu = 2.65$ to 3.53), and each of the Cronbach's Alpha indicated that the constructs are suitable to measure the concepts adopted in this study as it falls under the subscale range of 0.746 to 0.866, which shows relatively sound levels of reliability.

Table 2

	No		Cronbac
Variables	NO.	Mean	h Alpha
	Items		α
Perceived Ease of Use	5	3.53	0.746
Perceived Usefulness	4	3.6	0.820
Perceived Risk	5	2.65	0.866
Social Influence	4	3.29	0.830
Government Support	4	2.9	0.846

Cronbach's Alpha Reliability Statistics

Behavioral Intention	4	3.45	0.824
Adoption of E-Wallets	4	3.53	0.865

The minimum Cronbach's Alpha set was 0.7, and any results lower than the minimum could mean that some items are not correlated. All results yielded more than 0.7, which was the minimum value set, thus validating the consistency of the data. Additionally, there was no value of over 0.95, which means that redundancy is not present in the data. According to Zaiontz (2022), very high reliability (0.95 or higher) is not necessarily desirable, as this indicates that the items may be entirely redundant.

Path Coefficients and P-Values

The data from the validated questionnaire was analyzed using the bootstrapping procedure through SMART PLS 3.0 to calculate the causality among the variables in the conceptual model provided. Path coefficient analysis measured the direct effects of independent variables on the dependent variables, and, in so doing, the researchers were able to validate whether the hypotheses were accepted or rejected. The P-value is used to evaluate the changes in the bootstrapping technique when 5000 subsamples are used. The pathways recorded no signs of change after the method confirms the significance of a hypothesis derived from the conceptual model.

Table 3

Path Coefficients

Hypoth esis	Proposed Relationshi p	Origina l Sample	Mean	Standar d Deviati on	T- Statistic s	Path Coeffici ent	P-Value	Result
Factors a	affecting behav	vioral inter	tions to u	se e-wallet	S			
H1	PE → BI	0.336	0.317	0.117	2.879	0.336	0.004	Accepted
H2	PU → BI	-0.117	-0.070	0.124	0.948	-0.117	0.344	Not
								accepted
H3	PR → BI	0.329	0.342	0.091	3.619	0.329	0.000	Accepted
H4	SI → BI	0.204	0.202	0.091	2.238	0.204	0.026	Accepted
H5	GS → BI	0.243	0.236	0.090	2.692	0.243	0.007	Accepted
Factors affecting the adoption use of e-wallets								
H6	BI → AEW	0.132	0.154	0.139	0.946	0.132	0.345	Not
								accepted
Note. PE	: Perceived E	ase of Us	e; PU: Pe	erceived U	sefulness;	PR: Perce	ived Risk;	SI: Social

Influence; GS: Government Support; BI: Behavioral Intentions; AEW: Adoption to E-Wallets In this study, PE was a significant indicator of BI.

The study by Bee and Ying showed that only Social Influence (SI) significantly contributed to the adoption of e-wallets in Malaysia. However, this was not the case in this study. In the Technology Acceptance Model, Perceived Ease of Use (PE) and Perceived Usefulness (PU) are significant indicators of Behavioral Intention (BI). However, this research shows that PU is not a significant contributor to BI in using e-wallets. All other variables, namely Perceived Risk (PR), Social Influence (SI), and Government Support (GS), have significant effects on BI. BI is also nonsignificant to the Adoption of E-wallets (AEW).

The findings of this study agree with Saeed & Al-Emran (2018) and Yi & Hwang (2003), which claim that PE positively impacts BI in the aspect of using new technology. This result is similar to Effendy et al. (2020), which poses the significant effect of PE on the intention to use e-wallets, showing that when a new technology, such as e-wallets, is perceived as uncomplicated, effortless, and straightforward, consumers will intend to use it.

PU has no significant contribution to the BI to use e-wallets. Bee & Ying (2021) found similar results as they elaborated that the relative efficacy and practicality of using e-wallets are insufficient to affect the consumer's intention to use them significantly. Although e-wallets are becoming widely prolific in the Philippines, this seems to show the need to improve user experience such that consumers will find the usefulness of these e-wallet platforms as a trigger for its continued utilization.

This research proves the hypothesis that PR is negatively significant to the BI to use ewallets. Kesharwani et al. (2012) had a similar finding in their study and explained that building trust and reducing PR will positively influence the consumers' intention and action to use internet banking. Furthermore, this shows that reducing the perceived financial risk in using e-

wallet platforms for payments by ensuring security and reliability will increase the consumers' intention to use them.

SI had a significant effect on BI. In the research of Bee and Ying (2021), thriving in a social environment elicits feelings of confidence and self-respect, while failure to act socially evokes shame. In this research, the respondents' social circles significantly influence whether or not they use e-wallets as a preferred payment method.

GS significantly influences consumers' BI to use e-wallets. This research claims that when there are explicit and known regulations from the government that support e-wallets, consumers tend to have a higher intention to use them. This claim is in conjunction with the studies of Soon et al. (2020), who concluded that government support is an essential factor that induces people to adopt e-wallets directly, and Kiwanuka (2015, as cited in Bee and Ying, 2021), who concluded that government support positively affects technological adoption and continuous-use intention.

BI might theoretically be a significant factor in the AEW, but this research claims no significant relationship between the two variables. The intention to use e-wallets does not mean that consumers will continually use e-wallets. The use of e-wallets in the Philippines began in 2001 (Funa et al., 2020) with the launch of mobile money. However, it did not gain traction immediately. The notable e-wallet usage of Filipinos had just started in recent years, specifically in 2012 when Globe Telecom introduced the GCash mobile app (Legaspi, 2020). Indeed, this payment option is slowly growing in popularity and usage, with the payment volume increasing only in 2018 (Funa et al., 2020). Local consumers have also preferred payments to be made in cash. According to Massally et al. (2019), even if the market for digital payments has expanded over the past few years, this increase comes only from the 15% of the estimated 15–23 million

paying individuals. However, over half of these account holders still prefer cash over digital to fulfill payments. Thus, adopting technological advancements in purchase fulfillment, such as e-wallets, could take a while.

Conclusion

This paper explores how e-wallet penetration has transpired in the Philippines alongside the changing consumer expectations and demands. Based on the modified TAM variables included according to the study needs deemed by the researchers, this study proposes practical relevance for retailers and service providers by understanding the determinants influencing consumers' intention to utilize e-wallets for their purchases. After reviewing the literature, the researchers found that most studies have focused on the initial adoption of e-wallets, and few have tackled the post-adoption phase. Therefore, this study applied the TAM framework, which provided significant results to explain the continuous intention and adoption of e-wallets. Perceived usefulness, perceived risk, social influence, and government support showed high explanatory power for behavioral intention to use e-wallets. In addition, the model explained that one's intention to purchase an item does not necessarily conclude total and continuous adoption of e-wallets which can explain the consumer's preference for using physical banknotes. However, the research has compelling evidence that retailers can increasingly drive usage. The theoretical assessment of the actual situation of consumer behaviors highlighted the underlying mechanisms and identified impediments and deterrents in Filipino consumers' intention and acceptance of ewallets in their clothing purchases, which helped to meet the research objectives.

With perceived ease of use seen as a significant factor, enhanced convenience in e-wallet payments foster business growth for new and small firms. Privacy and security are among the prerequisite dimensions that e-wallet providers should emphasize to create a positive intention

among consumers. Thus, ensuring safe and secure transactions should be emphasized as retailers further integrate e-wallets into their operations and communications. The current study also found that SI significantly influenced AEW in the Philippines. Retailers should beware of the word-of-mouth marketing power and provide high service quality and efficient customer services to warrant positive word-of-mouth, specifically among the youth, or risk consumers switching to competitors' e-wallet apps.

Recommendations

In recent decades, the rapid rise in competitiveness and technological advancements in all commercial sectors, as equally important factors, have led to the development of a new communication strategy for companies and customers; this new channel has evolved into a practical application known as e-commerce. In this regard, firms have catered effectively to the demands of their particular business sectors. With the widespread usage of mobile devices, particularly smartphones, and the potential of a high penetration rate in our society, mobile commerce and new mobile payment systems are essential actors with a critical role in market evolution. The commercial outlook for this industry is promising for all of these factors. As for the managers aiming to maximize the potential of e-wallet integration in their respective companies, they can consider the following:

- Customers should be fully informed about the many existing mobile payment solutions available online (websites and social media) and through traditional communication channels.
- 2. To promote the advantages and benefits of using the new mobile payment technologies.
- 3. To encourage the adoption of mobile payment tools, offer in-store discounts.

 To improve clients' perceptions of new technologies by reinforcing security systems in their businesses.

Limitations and Future Research

In the study's administration, the researchers used online resources such as Google Forms to format the survey and social media channels to disseminate the questionnaires. However, given the more significant potential of the audience and the limitations of the scope, this could result in a deficiency in the results and problems for extrapolating the conclusions. Therefore, expanded research with more representatives of the target market can be considered in future studies.

Further, this paper sheds light on the insufficient literature that analyzes the antecedents of e-wallet adoption by Filipino consumers preceding the 2020 COVID-19 pandemic, specifically in the clothing industry. This study revealed that e-wallets in the country have still not achieved their purpose, but the vast potential exists. While this study provides a timely start to research new payment technology, complex digital ecosystems, and different market contexts, much more can be explored. To replicate the current study, succeeding researchers can use the same concept in different contexts to study the behavioral intention of using an e-wallet. Subsequent studies can investigate how trust, lifestyle, and demographics can also influence the adoption of e-wallets.

References

Agarwal, Z., & Zhang, J. (2020, April 10). FinTech, Lending, and Payment Innovation: A Review. Asia-Pacific Journal of Financial Studies, (49), 353–367. https://doi.org/10.1111/ajfs.12294 Al-Smadi, M. O. (2021, September). Factors affecting adoption of electronic banking: An analysis of the perspectives of banks' customers. *International Journal of Business and Social Science*, 3, 294-309.

https://www.researchgate.net/publication/285005684_Factors_affecting_adoption_of_ele ctronic_banking_An_analysis_of_the_perspectives_of_banks'_customers

- Aji, H. M., Berakon, I., & Husin, M. M. (2020, August 14). COVID-19 and e-wallet usage intention: A multigroup analysis between Indonesia and Malaysia. *Cogent Business & Management*, 7(1). https://doi.org/10.1080/23311975.2020.1804181
- Ajzen, I., & Fishbein, M. (1975). Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research. (Vol. 2089). Addison-Wesley Publishing Company. https://doi.org/10.2307/2065853
- Ali, D. A. M., & Kamal, S. (2018). eWallet: A Dominant Paradigm Leading the Way to a Cashless World? Azmi & Associates. Retrieved February 4, 2022, from https://www.azmilaw.com/insights/ewallet-a-dominant-paradigm-leading-the-way-to-acashless-world/
- Bangko Sentral ng Pilipinas. (2021). Forging Pathways To A Cash-Lite Society. Bangko Sentral ng Pilipinas. https://www.bsp.gov.ph/PaymentAndSettlement/BSP-Forging_pathways_to_a_cash-lite_society-Status_of_Digital_Payments_in_the_Philippines_(2021_edition).pdf
- Bee, T. S., & Ying, K. Y. (2021, November 15). An examination of determinants for e-wallet adoption in Malaysia: a combined approach. *F1000Research*, *10*(1155), 1-17. https://doi.org/10.12688/f1000research.73402.1

- Better than Cash Alliance & Banko Sentral ng Pilipinas. (2019). State of Digital Payments in the Philippines. *Highlights Report*, 1-7.
 https://www.bsp.gov.ph/PaymentAndSettlement/210616_BTC_Philippines_Report_DPS.
 pdf
- Blockchains. (2018, February 1). *Growing use of digital wallets [Summary of studies by country]*. Blockchains. http://bcmy.io/blog/growing-use-of-digital-wallets-summary-of-studies-by-country/
- Ching, M. R. D. (2017, June 22). Challenges and Opportunities of Electronic Payment Systems in the Philippines. De La Salle University. https://www.dlsu.edu.ph/wpcontent/uploads/pdf/conferences/research-congress-proceedings/2017/HCT/HCT-I-006.pdf
- Cho, H., & Wang, Y. (2010). Cultural comparison for the acceptance of online apparel customization. *Journal of Consumer Marketing*, 27(6), 550-557. https://doi.org/10.1108/07363761011078299
- Davis, F. D. (1989, September). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319-340. https://doi.org/10.2307/249008
- Effendy, F., Hurriyati, R., & Hendrayati, H. (2021, September 2). Perceived Usefulness,
 Perceived Ease of Use, and Social Influence: Intention to Use e-Wallet. *Proceedings of the 5th Global Conference on Business, Management and Entrepreneurship (GCBME* 2020). https://doi.org/10.2991/aebmr.k.210831.060
- Funa, D. B., Bonilla, R. C., Ceballos, A., Duran, J., Gaad, J., & Acosta, R. (2020, June 10). Digital payments in the Philippines / Atty. Dennis B. Funa. BusinessMirror. Retrieved

April 9, 2022, from https://businessmirror.com.ph/2020/06/10/digital-payments-in-the-philippines/

Intarot, P., & Beokhaimook, C. (2018). Influencing Factor in E-Wallet Acceptant and Use. *International Journal of Business and Administrative Studies*, 4(4), 167-175. https://dx.doi.org/10.20469/ijbas.4.10004-4

- Kesharwani, A., & Singh Bisht, S. (2012). The impact of trust and perceived risk on internet banking adoption in India An extension of technology acceptance model. *International Journal of Bank Marketing*, 30(4), 303-322. 10.3390/su13020831.
- Kim, J., & Forsythe, S. (2008). Adoption of Virtual Try-on technology for online apparel shopping. *Journal of Interactive Marketing*, 22(2). https://doi.org/10.1002/dir.20113
- Kim, J., Ma, Y. J., & Park, J. (2009, May 8). Are US consumers ready to adopt mobile technology for fashion goods? An integrated theoretical approach. *Journal of Fashion Marketing & Retail*, *13*(2), 215-239. https://doi.org/10.1108/13612020910957725
- Kiwanuka, Achilles. (2015). Acceptance Process: The Missing Link between UTAUT and
 Diffusion of Innovation Theory. *American Journal of Information Systems*. 3. 40-44.
 10.12691/ajis-3-2-3
- Kotler, P., & Keller, K. L. (2016). The Buying Decision Process: The Five-Stage Model. In Marketing Management, 15th Edition (pp. 194-202). Pearson. https://www.koreascience.or.kr/article/JAKO201915658234374.page
- Kumar, V., Nim, N., & Sharma, A. (2018, November 12). Driving growth of Mwallets in emerging markets: a retailer's perspective. *Journal of the Academy of Marketing Science*, 47, 747-769. https://doi.org/10.1007/s11747-018-0613-6

Legaspi, R. (2020, September 17). *E-Wallet Now Essential for Philippines Growing Number of Mobile Users*. Disruptive Tech Asia. Retrieved April 9, 2022, from https://disruptivetechasia.com/big_news/e-wallet-now-essential-for-philippines-growingnumber-of-mobile-users/

- Li, Y.-H., & Huang, J.-W. (2009). Applying Theory of Perceived Risk and Technology Acceptance Model in the Online Shopping Channel. *International Journal of Economics* and Management Technology, 3(4). doi.org/10.5281/zenodo.1085603
- Marasigan, A. J. (2020, August 2). *The state of e-commerce in the Philippines*. Business World. https://www.bworldonline.com/the-state-of-e-commerce-in-the-philippines/

Massally, K. N., Ricart, R. M., Bambawale, M., Totapally, S., & Bhandari, V. (2019, December). The State of Digital Payments In The Philippines. Responsible Finance Forum. *https://responsiblefinanceforum.org/wp-*

content/uploads/2020/02/The_State_of_Digital_Payments_in_the_Philippines-Feb20.pdf

- Mathiyazhagan, T & Nandan, D. (2010) Survey Research Method. *Media Mimansa. 2010, July-September,* 34-45.
- McKinsey and Company. (2020, June). *How COVID-19 is changing consumer behavior –now and forever*. McKinsey and Company.

https://www.mckinsey.com/~/media/mckinsey/industries/retail/our%20insights/how%20c ovid%2019%20is%20changing%20consumer%20behavior%20now%20and%20forever/h ow-covid-19-is-changing-consumer-behaviornow-and-forever.pdf

Megadewandanu, S., Suyoto, S., & Pranowo, P. (2016, October). Exploring mobile wallet adoption in Indonesia using UTAUT2: An approach from consumer perspective. 2016 2nd International Conference on Science and Technology-Computer (ICST), 11-16. https://doi.org/10.1109/ICSTC.2016.7877340

- Yi, M. & Hwang, Y.. (2003). Predicting the use of web-based information systems: self-efficacy, enjoyment, learning goal orientation, and the technology acceptance model. International Journal of Human-Computer Studies. 59. 431-449. 10.1016/S0171-5819(03)00114-9.
- Nag, A. K., & Gilitwala, B. (2019, November). E-Wallet- Factors Affecting Its Intention to Use. International Journal of Recent Technology and Engineering (IJRTE), 8(4), 3411–3415. https://www.ijrte.org/wp-content/uploads/papers/v8i4/D6756118419.pdf
- Nair, V. P. (2016, December). Eschewing Cash: The Challenges of Cashless Transactions in the Philippines. *Journal of Southeast Asian Economies*, 33(3), 387-397. https://www.jstor.org/stable/44132412
- Nikou, S. A., & Economides, A. A. (2017, February 15). Mobile-based assessment: Investigating the factors that influence behavioral intention to use. *Interdepartmental Programme of Postgraduate Studies in Information Systems*, 109, 56-73. https://doi.org/10.1016/j.compedu.2017.02.005
- Ozkan, S., Bindusara, G., & Hackney, R. (2009). Towards successful e-payment systems: An empirical identification and analysis of critical factors. *Proceedings of the European and Mediterranean Conference on Information Systems, EMCIS*. https://www.researchgate.net/publication/288436450_Towards_successful_e-payment_systems_An_empirical_identification_and_analysis_of_critical_factors

Parten M. (1950), Surveys, Polls and Samples, Harper and Row, New York, U.S.A. 4.

- Pinho, J. C. M. R., & Soares, A. M. (2011, June 7). Examining the technology acceptance model in the adoption of social networks. *Journal of Research in Interactive Marketing*, 5(2/3), 116-129. https://doi.org/10.1108/17505931111187767
- Raon, C. J. B., De Leon, M. V., & Dui, R. (2021, June). Adoption of E-Payment Systems in the Philippines. *ILMU KOMUNIKASI*, 18(1), Jurnal ILMU KOMUNIKASI. https://ojs.uajy.ac.id/index.php/jik/article/view/3197
- Saeed, R. & Al-Emran, M. (2018). Students Acceptance of Google Classroom: An Exploratory Study using PLS-SEM Approach. *International Journal of Emerging Technologies in Learning (iJET)*. 13. 112-123. 10.3991/ijet.v13i06.8275.
- Shin, D.-H., & Kim, W.-Y. (2008, June 7). Applying the Technology Acceptance Model and Flow Theory to Cyworld User Behavior: Implication of the Web2.0 User Acceptance. *CyberPsychology & Behavior.*, 11(3), 378-382. https://doi.org/10.1089/cpb.2007.0117
- Soon, C. C., Xiong, L. W., Xin, N. S., & Juin, W. W. (2020, September). Exploring the moderating effect of government support on actual adoption of e-wallet among mobile phone users in Malaysia. UNIVERSITI TUNKU ABDUL RAHMAN. http://eprints.utar.edu.my/3988/1/fyp_FE_2020_WWJ_-_1601233.pdf
- Statista. (2020, January 18). Main Reasons for not making transactions through e-payment methods in the Philippines as of February 2020. Statista. https://www.statista.com/statistics/1105573/philippines-reasons-against-e-paymentmethods/
- Statista. (2021, December 13). Internet user penetration in the Philippines from 2017 to 2020, with forecasts until 2026. Statista. Statista.

https://www.statista.com/statistics/975072/internet-penetration-rate-in-the-philippines/

- Statista. (2021, November 8). Market Share of Leading Mobile Wallet Applications in the Philippines in 2020. Statista. https://www.statista.com/statistics/1258098/philippinesmobile-wallet-apps-market-share/
- Statista Research Department. (2021, August 13). *Smartphone users in the Philippines 2017-2026*. Statista. https://www.statista.com/statistics/467186/forecast-of-smartphone-users-in-the-philippines/
- Tan, G. W. H., Ooi, K. B., Sim, J. J., & Phusavat, K. (2012). Determinants of mobile learning adoption: An empirical analysis. The Journal of Computer Information Systems, 52(3), 82–91.
- Ulfy, M. A., Haque, A., & Karim, M. W. (2020, February). Factors Influencing the Use of Ewallet as a Payment Method among Malaysian Young Adults. *International Journal of Business and Management.*, 3, 1-12. 10.37227/jibm-2020-2-21
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003, September). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, 27(3), 425-478. https://doi.org/10.2307/30036540
- Vijayasarathy, L. R. (2004, July). Predicting consumer intentions to use online shopping: the case for an augmented technology acceptance model. *Information & Management*, 41(6), 747-762. https://doi.org/10.1016/j.im.2003.08.011
- Villanueva, J. (2022, March 29). Digital payments growth seen to remain robust post-pandemic. Philippine News Agency. Retrieved April 9, 2022, from https://www.pna.gov.ph/articles/1170948

Wang, Y.-M. (2008, December 11). Determinants Affecting Consumer Adoption of Contactless Credit Card: An Empirical Study. *CyberPsychology & Behavior.*, 11(6), 687-689. https://doi.org/10.1089/cpb.2007.0244

We Are Social & Hootsuite. (2021, February 11). *DIGITAL 2021: THE PHILIPPINES*. DATAREPORTAL. https://datareportal.com/reports/digital-2021-philippines

Zaiontz, Charles (2022). Cronbach's Alpha Basic Concepts. Real Statistics Using Excel. Retrieved April 13, 2022, from https://www.real-statistics.com/reliability/internalconsistency-reliability/cronbachs-alpha/cronbachs-alpha-basic-concepts/

Appendix A

SmartPLS Path Test Results

	Original Sample (O) ~	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
PE -> BI	0.336	0.314	0.111	3.029	0.003
PR -> BI	0.329	0.338	0.089	3.713	0.000
GS -> BI	0.243	0.240	0.080	3.049	0.002
SI -> BI	0.204	0.206	0.090	2.269	0.024
BI -> AEW	0.132	0.151	0.144	0.914	0.361
PU -> BI	-0.117	-0.075	0.121	0.970	0.333

