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ABOUT

FINEX Research and Development Foundation, Inc.

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FINEX Journal is a publication of the FINEX Foundation's Research Committee that is available online and printed copies. This journal is committed to publishing research articles on areas of finance and other topics that are relevant and timely.

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FOREWORD

The fourth edition of our FINEX Journal contains research article, studies, insights that touches on interesting issues relevant our journey to a digital economy. The COVID-19 pandemic played a key role in advancing and accelerating the use of various e-commerce platforms and payment channels. IT professionals and design engineers developed new applications and platforms to service the growing and demanding needs of the post-Covid-19 economy. User centered design process became even more important in the digital transformation that now affected the lives of everyone. The transformation continues as we experience another "magic" in this digital world with the increasing popularity of many Artificial Intelligence (AI) applications.

A sound financial inclusion strategy implementation that reaches the grass roots level is important to the success of an efficient digital economy.

Our featured article provides valuable insights on how CFOs stirred their respective organization during the turbulent times of the Covid-19 pandemic.

We are thankful to the authors of the articles for sharing the results of their research, studies and insights which will be a useful to our readers.

Romeo B. Bachoco
Chairman, Research Committee

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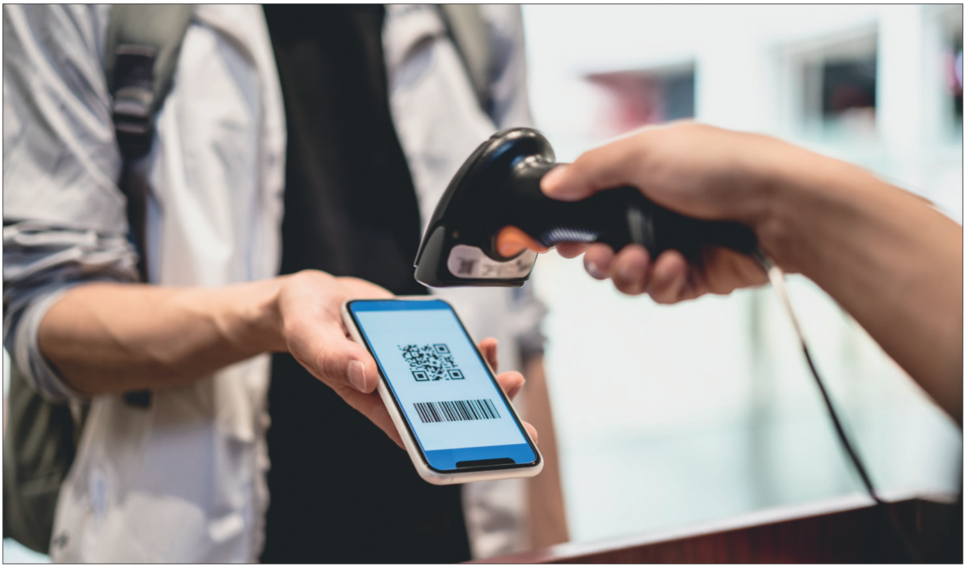

EMERGING DIGITAL TECHNOLOGIES: CUSTOMERS' ADOPTION OF MOBILE PAYMENT SYSTEMS AND THE RELATED CHALLENGES

Froilan S. Labausa, Jowena B. Arnaiz

ABSTRACT

The effect of the pandemic brought new light which gave emphasis on the financial resilience of individuals which accelerated the shift towards digitalization in financial services. The objective of the study is to assess the influencing factors on customers' adoption of mobile payment systems and the related challenges using the following variables such as social influence, perceived ease of use, and security. The identified challenges include electronic fraud (e-fraud), technical problems and internet connection. The survey has a sample size of 386 respondents from Metro Manila. Non- probability sampling methods such as convenience and purposive sampling techniques were employed in selecting the respondents. A survey questionnaire utilizing the Google form was administered and the instrument was distributed to respondents via social media platforms and emails. Results indicate that Gcash is the most adopted mobile wallet with 54.7% followed by Paymaya with 20.7%, while other digital payment services with remaining percentages. Among the influencing factors, perceived ease of use, social influence and security got a very high influence, respectively. Electronic fraud is the highest among the challenges identified followed by technical problems and internet connection.

Keywords: *digitalization, mobile payment systems, electronic payment systems, electronic fraud*

1. INTRODUCTION

Mobile Payment becomes an innovative service that bridges the financial industry and the mobile network industry especially during the heights of the pandemic. The demand for digital payment systems has grown increasingly after the inception of online shopping and e-commerce websites. Customer demand for electronic and mobile commerce, as well as contactless products has accelerated the adoption of these emerging digital technologies. This system is a potential attraction for online traders due to an enormous user base of mobile phones. It makes progressive developments for catering to customers' needs like convenience and quick transactions (Sommer, 2016).

Moreover, mobile payment has become an alternative to existing payment channels and has created new challenges for government and merchants (Oliviera, et. al, 2016). The mobile payment system takes advantage of smartphones which people prefer to carry rather than physical cards (Huang, 2017). The digital payment system made it convenient for the customer to pay for anything at any time.. And with the introduction of faster and more reliable mobile devices, customers have started to expect more effective and faster payment methods (Meharia, 2017)

In addition, mobile payment takes advantage of smartphones which people prefer to carry rather than physical cards. (Jin Huang,2017). This method is a potential attraction for online traders due to an enormous user base of Mobile Phones. Customer demand for Electronic and Mobile commerce and contactless products such as wearables, wallets, mobile phones, and cards has accelerated the adoption of these emerging digital technologies. With the introduction of faster and more reliable mobile devices, Employees have started to expect more effective and quicker Payment methods.

Background of the Study

The Electronic Payment system is considered as the backbone of E-commerce and one of its most crucial aspects. It can be defined as a payment service that utilizes the information and communication technologies including integrated circuit card, cryptography, and telecommunication networks (Raja, et. al, 2010). Consequently, mobile payment is an innovative crossbred service that bridges the financial industry and the mobile network industry (Oliveira, et. al, 2016). On the other hand, the E-payment system is also an important mechanism used by individuals and organizations as a

safe and easy way to make payments over the internet and at the same time, is the gateway to technological advances in the world economy (Slozko & Ppello, 2015).

Our review of related literatures regarding the topic, some studies identified variables such as perceived ease of use, security and social influence. Understanding and satisfying customers' requirements and expectations are also identified as factors in the success of E-payment systems. To increase the adoption rate of E-payment systems should be better managed. (Montazemi, 2015).

Several factors influencing the adoption of E-payment systems have been recognized in E-commerce literatures. However, studies have hardly examined three major factors such as perceived ease of use, social influence, and security from the viewpoints of users of the system.

Research Objectives

The objective of the study is to assess the influencing factors of customers' adoption of mobile payment systems in terms of perceived

ease of use, social influence and security. It also assessed the related challenges experienced by the respondents in utilizing the mobile payment systems in terms of Electronic Fraud, technical problems and internet connection. It sought to answer the following questions;

1. What are the mobile payment platforms or methods used by the customers?
2. What is/are the purpose/s in using a Mobile payment system?
3. What are the influencing factors that customers adopt the Mobile payment
4. system in terms of perceived ease of use with sub-variables of convenience and efficiency, social influence, and security with sub-variables of integrity and confidentiality,
5. What are the challenges experienced by the customers in adopting the mobile payment system identified as E-fraud, technical problem and internet connection.

Theoretical Framework

The study is based on the theory of Davis (1986) who developed the technology Acceptance Model (TAM), which deals more specifically with the prediction of the acceptability of an information system. The model aims to forecast a tool's acceptability and to define the changes that may be made to the device for it to be appropriate to users. The TAM model has three influential factors namely; perceived ease of use (peou), perceived usefulness (pu), and attitude towards using information systems or technology.

Scope and Limitation

The participants of the study are composed of randomly selected customers who are using electronic or digital payment systems for financial transactions in Metro Manila during the period covered January to April of 2021. . The study is limited to assessing the following variables such as perceived ease of use, social influence and security. The challenges are limited to e-fraud, technical problems and internet connection.

2. RELATED LITERATURE

According to the World Payment Report in 2017. The evolution of cashless payment can be seen as the result of a new idea to simplify payment methods, which was then slowly adopted into people's lives. The global non-cash payments market is rapidly expanding, particularly in emerging markets such as emerging Asia, Central Europe, Middle east, and Africa. (Mushkudian, 2018).

Gerald (2011) stated in his study that electronic payment application has substantially improved over the years and some of the factors that have contributed to the improved use of E-payments include, introduction of the internet, the improvement of Information and Communication Technology (ICT), and the quick expansion of wireless telecommunication. Consequently, innovation adoption brings about changes in the organization either in response to changes in the external environment or as a proactive action to influence the environment (Lertwongsatien, 2009).

Meharia (2012) mentioned in his study that over the last decades, the demand for electronic payment systems has grown increasingly after the inception of online shopping and e-Commerce websites. The electronic payment system made it convenient for the customer to pay for anything at any time. This has made customers' payment processes to be much easier and effective. This convenience has created emerging opportunities for employees to extend their access in remote areas without any geographical limitations and reduce the use of time on payment transactions. The adoption of E-payment is influenced by the innovation of electronic payment systems.

According to MEF's third Annual Global Mobile Money Report 2015, E-commerce and mobile banking continue to grow, with 69 percent of mobile users conducting their banking activities via mobile devices. Moreover, Juwaheer (2013) in his study reported that careful planning will be needed in the future to make security an integral part of online payment methods. Mobile phone manufacturers, telecommunication companies, and the payment industry must work together to develop a platform that ensures the most secure environment for online payment transactions if the mobile payment market is to have a bright future.

In addition, a study of Sinhaln (2017) found out that the factors affecting Indian customers are perceived usefulness, perceived ease of use, perceived danger, and perceived security. Mashayekhi (2017) conducted a study in Iran on the factors influencing confidence in the e-payments system. The author discovered that trust is developed and organized in three majors groups such as: technical and transaction procedures, access to security guidelines, and usability. Moreover, Sokobe (2015)

Literatures related to variables of the study:

Social Influence

Social influence represents the social pressure exerted on a person to adopt a new technology (Martins et al., 2014). Yu,(2012), in his study investigated the factors that affect individuals in adopting mobile banking in Taiwan. In relation to that, the study revealed that social influence is the main factor in the study of people's intention to use mobile banking. Social influence has a significant influence on adoption to use e0commerce in Saudi Arabia (Alkhunaizan and Love, 2012). Social influence assumes that individual behavior is influenced by the people around them and how others will see the use of their technology. It palsy a tremendous role while increasing the rate of adoption of customer focused digital services including mobile based services. (Venkatesh, 2013).

Perceived ease of use

Given the technical barriers of using mobile phones, perceived ease of use becomes an important driver of adopting m-payment services (Kim et al., 2010). The perceived ease of use encompasses the degree to which consumers find it easy or difficult to use m-payment service (Davis, 1989). Ease of use of technology is defined as "the degree to which a person believes that using particular payment would be free of effort " (Davis 1989). Lee (2009) defined perceived ease of use in business and fewer complexes to increase the likelihood of its adoption.

Efficiency

An efficient e-payment system enables faster payouts, better tracking, transparent transactions, reduced time use, cost savings and increased trust between sellers and buyers. Chemg (2012) mentioned that the development and adoption of technology in the e-payment system involve financial transactions, assimilated users and quality e-payment technology tend to shape their own perceptions and expectations.

Convenience

Convenience is the ease and the comfort of use as well as the attainment of concrete benefits through the use driven from portability and immediate accessibility (Gutiérrez, 2010). Compared to traditional payment services, the convenience of mobile phone services is defined as agility, accessibility and availability, and flexibility of time and space. Mobile phone service also eliminates the inconvenience of payment devices such as computers, laptops. It can also help small transactions and eliminate the inconvenience to customers who make transactions with a small amount of money (Luam & Lim, 2005).

Security

Security means confidentiality, integrity and availability of resources. (Chapple,2017). Security remains one of the most crucial and well-researched areas of study in payment systems (Abrazhevich, 2014). In electronic payment, it is important to maintain proper security. The successful operation of e-commerce security depends on a complex interrelationship between several applications development platforms, database management systems, systems software and network infrastructure signature (Yasin et al., 2012).

Integrity
Digital payments services are required to maintain the integrity and authorization of transactions (Slade et al. 2015). Integrity is one of the major concerns of any business activity so as of e-commerce systems. Integrity refers to the accuracy and completeness of data. Security controls primarily focused on integrity that are designed to prevent data from being modified or misused by an unauthorized party.

Confidentiality
Confidentiality is defined as the preservation of information within intended usage and among intended stake-holders related at the time of transaction such an identity of users/merchant, credit card information or purchase of products or services (Meharia 2012). Confidentiality inherently means that the information should be secured among the parties involved in the transaction (Meharia 2012). A payment application's primary purpose is to make transactions between two parties easier. The application, on the other hand, may have multiple other access rights in the system.

3. METHODOLOGY

The researchers utilized survey questionnaires to gather data. The survey questionnaire is composed of three parts: First part, the respondents' information as well as supplementary questions about their experiences with the mobile e-payment systems.. The second part is the questions necessary to answer the variables on social influence, perceived Ease of Use in terms of convenience and efficiency, lastly, the variable Security in terms of confidentiality and integrity. The last part is the questions that pertain to issues and challenges employees encountered in using mobile e- payment systems in terms of E-fraud, Technical Problems and internet connectivity. The survey questionnaires through Google forms were distributed using email and other social media platforms.

The survey has a sample size of 386 respondents. The respondents were limited to randomly selected customers who are using electronic or digital payment systems for financial transactions, currently working within Metro Manila. Non-probability sampling methods such as convenience and purposive sampling techniques were employed in selecting the respondents.

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The study used descriptive statistical methods such as frequency, percentages, Weighted Mean and standard deviation. These methods are utilized to interpret the data to show the Influencing Factors on the Adoption of Mobile Payment Systems.

4. RESEARCH FINDINGS

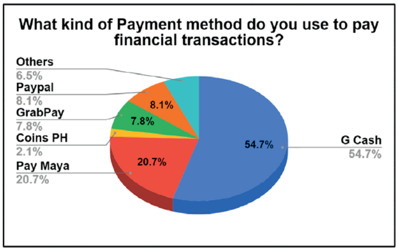


Figure 1. Payment platforms (methods) for financial transactions.

Figure 1 shows that 54.7% or 211 respondents have been using Gcash to pay financial transactions, followed by Pay Maya, which is 20.7% or 80 respondents. Paypal, 8.1% or 31 respondents, GrabPay, 7.8% or 30 respondents). Coins PH, 2.1% or 8 respondents. The respondents' other financial platforms are Cliqq, Credit Cards, and Online banking. It shows that 1.5% (6 respondents) are using Cliq. 3.5% (14 respondents) use Online Banking, and 1.5% (6 respondents use Credit cards. The results below indicate that GCash continues to empower more Filipinos with digital financial tools and services, allowing for safe and convenient transactions amidst the various levels of quarantines.

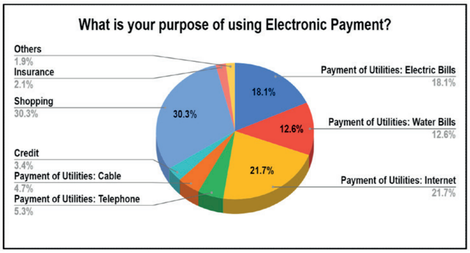


Figure 2. Respondents purpose of using Electronic Payment

Figure 2 shows the total number of participants was 386; the figure shows that the majority of the users of Electronic Payment use it for shopping which in this case had a 30.3% response rate compared to Payment of Utilities. Payment of Internet Bill has the highest percentage compared to Electric Bills (18.1%), Water Bills (12.6%), Telephone (5.3%), Cable (4.7%), meanwhile other purposes of using Electronic Payment such as Credit (3.4%), Insurance (2.1%) and Others had a 1.9% response rate. It means that many respondents used the Electronic Payment Systems primarily for payment for shopping and payment of utility bills. The research's main aim was to determine the Factors influencing Employees' Adoption of Electronic Payment.

Table 1. Social Influence

Descriptors	Mean	Interpretation
I use e-payment system because of the influence of social media	3.45	Strongly Agree
I use an e-payment system because of the influence of advertisements.	3.31	Strongly Agree
I use e-payment system because my friends and family are using e-payment	3.45	Strongly Agree
I use e-payment because my company used it as a tool for financial transactions.	3.25	Agree
I use e-payment because it is more timely than traditional payment method	3.62	Strongly Agree
Composite Mean	3.42	Strongly Agree

Table 1 shows the responses on the influencing factor Social Influence, that the descriptor, "I use e-payment because it is more timely than traditional payment method" got a mean of 3.62 interpreted as strongly agree. Descriptors "I use e-payment system because of the influence of social media, I use e-payment system because my friends and family are using e-payment" got a mean of 3.45 interpreted as strongly agree. Descriptor, "I use an e-payment system because of the influence of advertisements", got a mean of 3.31 interpreted as strongly agree. While the descriptor, "I use e-payment because my company used it as a tool for financial transactions" got a mean of 3.25 interpreted as agree.

Table 2. Perceived Ease of Use - Convenience

Descriptors	Mean	Interpretation
Less time and effort is needed when performing payment transactions on electric methods.	3.65	Strongly Agree
Electronic payment is easy to learn and use.	3.54	Strongly Agree
I feel flexible in performing electronic payment.	3.50	Strongly Agree
I do not get frustrated when using electronic payment.	3.21	Agree
I can access the service anytime and anywhere I go.	3.55	Strongly Agree
Composite Mean	3.49	Strongly Agree

Table 2 shows that the variable perceived ease of use in terms of convenience, the descriptors, "Less time and effort is needed when performing payment transactions on electronic methods" got a mean of 3.65 interpreted as strongly agree. Descriptors, "I can access the service anytime and anywhere I go" and "Electronic payment is easy to learn and use" got mean of 3.55 and 3.54 respectively, interpreted as strongly agree. Descriptor, "I feel flexible in performing electronic payment" got a mean of 3.50 interpreted as strongly agree. While the descriptor, "I do not get frustrated when using electronic payment" got a mean of 3.21 interpreted as agree.

Table 3. Perceived Ease of Use - Efficiency

Descriptors	Mean	Interpretation
Ability of a payment system to service small payments	3.50	Strongly Agree
The use of e-payment has enabled me to accomplish my daily tasks quickly	3.44	Strongly Agree
It allows employees to have an easy-to-use accounts and rewards programs	3.39	Strongly Agree
It is easy to set up an account	3.42	Strongly Agree
Using electronic pay-ments will allow me to pay fast	3.56	Strongly Agree
Composite Mean	3.46	Strongly Agree

Table 3 shows the variable perceived ease of use in terms of efficiency, the descriptors, "Using electronic payments will allow me to pay fast", got a mean of 3.56 interpreted as strongly agree. Descriptor, "Ability of a payment system to service small payments", got a mean of 3.50 interpreted as strongly agree. Descriptor, "The use of e- payment has enabled me to accomplish my daily tasks quickly", got a mean of 3.44 interpreted as strongly agree. Descriptor, "It is easy to set up an account", got a mean of 3.42 interpreted as strongly agree. Descriptor, "It allows employees to have an easy-to- use accounts and rewards programs", got a mean of 3.39 interpreted as strongly agree.

Table 4. Security in terms of Integrity

Descriptors	Mean	Interpretation
Integrity of the service provider has important influence in choosing electronic payment system	3.54	Strongly Agree
E-payment service provider has the ability to provide the transaction effectively	3.44	Strongly Agree
E-payment service providers keep the users informed about financial transactions so that they will know what is coming and what needs to be done.	3.41	Strongly Agree
E-payment service providers adhere to company policies and procedures.	3.40	Strongly Agree
E-payment service providers are honest about their mistakes and take responsibility for their actions.	3.31	Strongly Agree
Composite Mean	3.42	Strongly Agree

Table 4 shows the variable security in terms of integrity, descriptor, "Integrity of the service provider has important influence in choosing electronic payment system", got a mean of 3.54 interpreted as strongly agree. Descriptors, "E-payment service provider has the ability to provide the transaction effectively, E-payment service providers keep the users informed about financial transactions so that they will know what is coming and what needs to be done and E-payment service providers adhere to company policies and procedures" got means of 3.44, 3.41 and 3.40 respectively, interpreted as strongly agree. And the descriptor, "E-payment service providers are honest about their mistakes and take responsibility for their actions" got a mean of 3.31 interpreted as strongly agree.

Table 5. Security - Confidentiality

Descriptors	Mean	Interpretation
Online payments are safe and secure	3.29	Strongly Agree
Willingness to give information in paying online transactions	3.17	Agree
The risk of abuse of user's information (e.g., names of business partners, payment amount) is low when using mobile payment services	3.06	Agree
Fear of using electronic payment because I think people will access my account	2.93	Agree
Security concerns prevent me from checking my account using mobile phone	2.97	Agree
Composite Mean	3.08	Agree

Table 5 shows that the variable security in terms of confidentiality, the descriptor, "Online payments are safe and secure", got a mean of 3.29 interpreted as strongly agree. Descriptors, "Willingness to give information in paying online transactions" and "The risk of abuse of user's information (e.g., names of business partners, payment amount) is low when using mobile payment services" got means of 3.17 and 3.06 respectively, interpreted as both agree. Descriptors, "Security concerns prevent me from checking my account using mobile phone" and "Fear of using electronic payment because I think people will access my account", got means of 2.97 and 2.93 respectively interpreted as both agree.

Table 6. Summary of Findings

Variables	Mean	Responses	Interpretation
Social Influence	3.42	Strongly Agree	Very High Influence
Perceived Ease of Use - Convenience	3.49	Strongly Agree	Very High Influence
Perceived Ease of Use - Efficiency	3.48	Strongly Agree	Very High Influence
Security – Integrity	3.42	Strongly Agree	Very High Influence
Security – Confidentiality	3.08	Agree	High Influence

Table 6 displays a summary of the respondents' responses to each variable. The variable Perceived Ease of Use got a mean of 3.48 interpreted as, with very high influence. Social influence got a mean of 3.42 as, with very high influence. While Security got a mean of 3.25 interpreted as, with high influence.

Table 7. Challenges Encountered under Technical Problem

Descriptors	Mean	Interpretation
Encountered technical problems during transactions in e-payment system	3.10	Agree
Lack of transaction record and documentation	2.77	Agree
Lack of prior announcements to customers regarding technical difficulties	2.90	Agree
Technical problems in e-payment take time to be resolved.	2.96	Agree
Lack of online security procedures. (This would have been sent to you or shown to you electronically when you sign up for electronic payment system providers.)	2.80	Agree
Composite Mean	2.91	Agree

Table 7 summarizes the respondents' responses to the challenges they experienced in using the Electronic Payment System. Based on the findings, employees still have concerns about E-fraud and technical problems as both variables resulted in Agree and are interpreted as a high influence. In addition, the employees gave a strong emphasis on E-payment Systems' need to raise more awareness about online fraud risk. Furthermore, according to the result, Technical Problem is also one of the challenges to employees' adoption of e-payment systems.

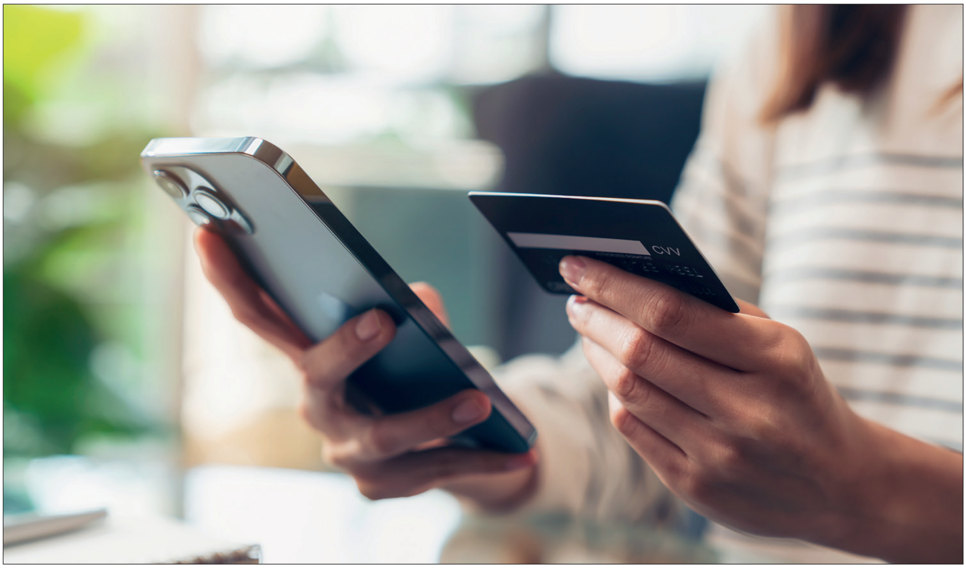
Table 8. Challenges Encountered under E-Fraud

Descriptors	Mean	Interpretation
There is a great potential to lose money if I buy goods on the Internet/social networking using e-payments	3.03	Agree
Other people may know about online transactions if I use e-payment system	2.94	Agree
The risk of abuse of billing information (e.g., credit card number, bank account data) is high when using e-payment system	2.90	Agree
Dishonest merchants and financial providers	2.89	Agree
E-payment systems needs to raise more awareness about online fraud risk	3.18	Agree
Composite Mean	2.99	Agree

Table 8 summarizes the respondents' responses to the challenges they experienced in using the Electronic Payment System. Based on the findings, employees still have concerns about E-fraud and technical problems as both variables resulted in Agree and are interpreted as a high influence. In addition, the employees gave a strong emphasis on E-payment Systems' need to raise more awareness about online fraud risk. Furthermore, according to the result, Technical Problem is also one of the challenges to employees' adoption of e-payment systems.

Table 8. Summary of Findings on Challenges

Variables	Mean	Responses	Interpretation
E-fraud	2.99	Agree	High Influence
Technical Problem	2.91	Agree	High Influence
Internet connection	2.89	Agree	High Influence



5. CONCLUSION

Based on the findings, the following conclusions were drawn;

Perceived ease of use with sub-variables of convenience and efficiency, social influence with sub-variable integrity had a very high influence, while confidentiality had a high influence on customers in adopting mobile payment systems. Mobile payment systems have grown as advanced technology supports mobile transactions and makes them more transparent and convenient. In paying online, customers are shifting from traditional payment methods to more advanced online payment systems. With the majority of mobile devices available, this trend is expected to continue. because it is clear that mobile devices have become an unavoidable part of almost everyone's life. It can be concluded further that among the challenges experienced by customers include e-fraud, technical problems and internet connection.

RECOMMENDATIONS

With the foregoing conclusion, the following is recommended.

1. Service providers must thoroughly educate the customers on how to use digital payments systems as conveniently as possible. Infomercials should be accessible also to mobile devices as guides in using the systems.
2. Mobile payment systems providers should continue to improve their system reliability when it comes to electronic fraud due to electronic scams
3. Quick responses to the concerns of customers when technical problems occur regarding their system.
4. Future research will also be conducted using additional or other variables with different respondents and locale.

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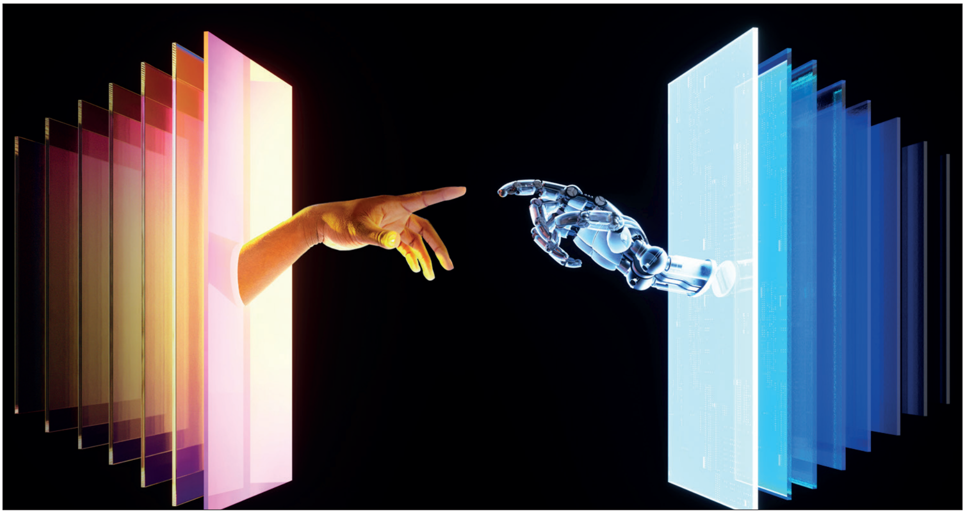

PERCEIVED USEFULNESS AND EASE OF USE OF ARTIFICIAL INTELLIGENCE TOOLS IN LEARNING FINANCIAL LITERACY

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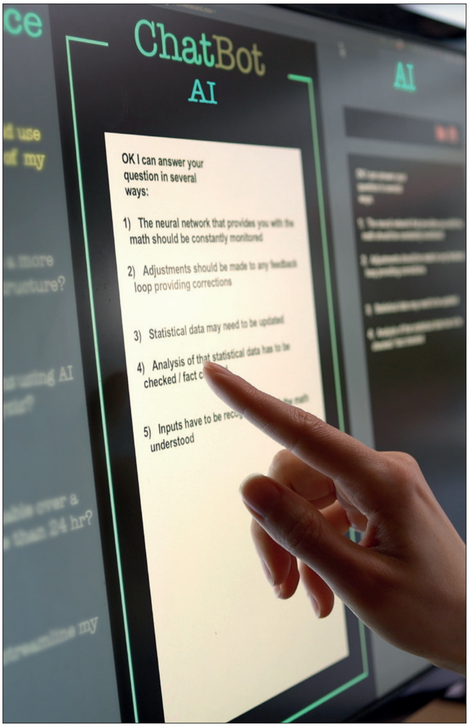
EXECUTIVE SUMMARY

The learning of Financial Literacy has often been discussed through the lens of traditional methods such as using national, institutional and individual data to determine specific financial literacy needs. Past research on learning financial literacy indicates the traditional way of learning financial literacy (Tisdell et al., 2013; Chung et al., Y., 2014; Hanson et al., P.,2018 and Kozina, F. & Ponikvar; N.,2015) and the usage varies significantly from one study to the next depending on the application of financial literacy (Xiao et al., N.,2017; Sevim et al., 2012; Rodrigues et al.,2019; Adam et al, 2017 and Farrell et al, 2016). The introduction of ChatGPT on November 30, 2022, and Google Bard on February 6, 2023, resulted in the new ways of learning that in less than a year Google Bard had 140 million visits while ChatGPT had more than 1.6 billion. Along with this increasing number of A.I. users, are also the availability of financial literacy data mainly to be educated on financial matters and to receive accurate, timely, and understandable information to help in making responsible decisions about financial transactions. Artificial intelligence offers the potential to improve the acquisition of financial literacy skills substantially, and applying artificial intelligence (A.I.) technologies to the financial field is a general trend (Yan et al.,2019). Aside from the theoretical value given by traditional learning on Financial Literacy, the introduction of A.I. tools for financial decision-making, such as robo-advisors, investment analysts, fraud detection software, ChatGPT, and Google Bard, will have great practical value, both for working people who would like to be literate in finance in order to acquire a desirable financial behavior and financial capability and for students who would like to augment their participation in economic/financial courses and acquire the feelings of mastery of financial areas, essential to transfer knowledge into practice. However, users



of Artificial Intelligence need to clearly understand the development trend of artificial intelligence, actively meet the challenges, comprehensively improve the ability to learn financial digitization, and establish macro thinking (Chao, F.,2020).

This research aims to pursue better measures for identifying and explaining Perceived Usefulness and Ease of Use of Artificial Intelligence Tools in Learning Financial Literacy. The investigation focuses on these two theoretical constructs in which their importance is supported by Pandl et al. (2021) extensive research on drivers for organizations' intention to adopt Artificial Intelligence, wherein they defined drivers to include "Perceived benefits of AI, Ease of use, Cost-effectiveness, compliance to regulations governing the use of AI, and AI provider support. These are theorized to be fundamental determinants of system use. Measurement scales for perceived usefulness and ease of use are developed, pretested, and validated. The discussion concludes by drawing implications for future research.

An online-based structured questionnaire based on an extensive evaluation of the literature was used to obtain primary data, and the respondents in this study were the users of ChatGPT and Google Bard in Lucena City. All measurements of the constructs were adapted from previous literature to ensure survey content validity. The survey was divided into demographic information and measurement items, graded on a 5-point Likert scale ranging from strongly disagree = 1 to strongly agree = 5. The measurement scale of the perceived value scale was adapted from the previous studies (Kim et al., 2007; Sirdeshmukh et al., 2002; Xie et al., 2021). A pilot test was conducted among 20 Lucena City academics before the primary survey to evaluate the validity and reliability of the survey. The survey was conducted in Lucena City between August 7 and August 25, 2023, through several social media platforms (Google, Facebook). A total of 144 responses were obtained, 3 of which were excluded from the final analysis due to their invalid and missing values. Hence, the final sample of the study was 141. Frequency and descriptive statistics were used and to provide a broad statistical analysis, the primary acquired data in the surveys were analyzed using SPSS 25.0.

The study developed five hypotheses: *Artificial Intelligence is Useful in Learning Financial Decision Making, Useful in Learning how to Avoid Financial Problems, Useful in Learning how to Achieve Financial Goals, Easy to Use because of Availability of Online Data and Easy to Use because of the Use of Simple Language.*

The findings of the study showed that in the demographic information, the respondents were 78 females (55.3%) and 63 males (44.7%), 28.7% of the 141 samples were 26–35 years old, and most respondents (44.8%) were above 36 years old. Of all respondents, 38.50% had a master's degree, 58.7% reported familiarity with A.I. tools, and 25.2% use A.I. frequently. On reliability analysis, the study uses Cronbach's Alpha (CA) coefficients values which according to Chang (2014) the value of 0.7 is a benchmark value for Cronbach's alpha. The findings of the study indicate that the CA values ranged from 0.705 to 0.801 which means Acceptable. On the second part, the findings showed that majority of the respondents agree on the Usefulness of

A.I. to be literate in Financial Decision Making, to be literate in Avoiding Financial Problems, and to be literate in Achieving Financial Goals. Majority of the respondents also agree on the Ease of Use of A.I. in getting Available Online Data and the Ease of Use of A.I. because of the Simple Language output of the tool Standard Deviation values indicate that the data points cluster closer to the mean—the values in the dataset are relatively consistent.

With the comprehensive application of artificial intelligence technology in learning financial literacy, the tool is now helping to improve the timeliness and accuracy of financial decision-making while reducing the cost of financial decision-making (Jia et al., 2022). This research focused on studying the factors of Perceived usefulness and Ease of Use of A.I. in learning financial literacy, and the study showed that the respondents agree that the A.I. can help and benefit them in their financial decision-making. Additionally, the respondents said using A.I. is worth their time since it provides good data. The high perceived usefulness of A.I. means the respondents believe that A.I. can help them make better decisions and helps in avoiding financial problems.

The current traditional financial decision-making support cannot meet the needs of intelligent development, and the application of A.I. will improve the accuracy, automation, and timeliness of financial decision-making (Ren, 2021). In order to help learn financial literacy, the A.I. data should be accurate and relevant, easily accessible, and written in simple language.

As with all research, the present study has its limitations: Because Artificial Intelligence tools provide general financial literacy data hence the need to embrace these tools with extreme caution, further study is necessary to verify the generalizability of the findings. The sample consists of only students and teaching personnel. Users of A.I. who are not into academics might have different opinions, which could have led to sampling bias. Further study is needed to verify whether this bias will influence the results. As the proposed model did not include behavior and attitude, adding behaviors and attitudes as predictors for adopting A.I. are possible.

INTRODUCTION

Artificial intelligence offers the potential to improve the acquisition of financial literacy skills substantially, and applying artificial intelligence (A.I.) technologies to the financial field is a general trend (Yan et al.,2019). However, users of Artificial Intelligence need to clearly understand the development trend of artificial intelligence, actively meet the challenges, comprehensively improve the ability to learn financial digitization, and establish macro thinking (Chao, F.,2020). Because cognition combined with financial literacy helps people experiencing poverty to make wise financial decisions and choices toward consuming financial services and products provided by formal financial institutions (Bongomin et al., 2018) then financial literacy is critical for learning and promoting access to finance by creating incentives and environments in learning artificial intelligence that promotes desired financial behaviors such as saving, budgeting, or using credit wisely (Kefela, G. 2010). However, numerous studies on the use of artificial intelligence for finance (Chao, 2020; Mhlanga, D. 2021; Dong, J.,2018; and Mallesha, C.,2019) research has been constrained by the shortage of high-quality measures for critical determinants of the need of using A.I. in learning financial literacy. Past research on learning financial literacy indicates the traditional way of learning financial literacy (Tisdell et al., 2013; Chung et al., Y., 2014; Hanson et al., P.,2018 and Kozina, F. & Ponikvar; N.,2015) and the usage varies significantly from one study to the next depending on the application of financial literacy (Xiao et al., N.,2017; Sevim et al., 2012; Rodrigues et al.,2019; Adam et al, 2017 and Farrell et al, 2016). Aside from the theoretical value given by traditional learning on Financial Literacy, the introduction of A.I. tools for financial decision-making, such as robo-advisors, investment analysts, fraud detection software, ChatGPT, and Google Bard, will have great practical value, both for working people who would like to be literate in finance in order to acquire a desirable financial behavior and financial capability and for students who would like to augment their participation in economic/financial courses and acquire the feelings of mastery of financial areas, essential to transfer knowledge into practice.

This research aims to pursue better measures for identifying and explaining needs. The investigation focuses on two theoretical constructs, perceived usefulness and perceived ease of use of A.I. tools in learning Financial Literacy. These are theorized to be fundamental determinants of system use. Measurement scales for perceived usefulness and ease of use are developed, pretested, and validated. The discussion concludes by drawing implications for future research.

Perceived Factors

The two theoretical constructs of perceived factors for using artificial intelligence (AI) are Perceived usefulness and Perceived Ease of Use. The first, Perceived usefulness, is the degree to which an individual believes using AI will help and benefit him or her. This may mean a person who believes that AI can help them make better decisions may have high perceived usefulness of AI. Within an organizational context, the strong correlation between perceived usefulness and user satisfaction suggests that perceived usefulness is one of the factors affecting user satisfaction, attitude, and purchase intention (Zviran et al., 2005; Zhao, J., & Wang, J., 2020 and Or, 2011). An artificial intelligence high in perceived usefulness is one for which the tool user believes in the existence of a positive use-performance relationship.

Perceived ease of use, on the other hand, is the degree to which an individual believes that using AI will be easy and convenient. This may mean a person who believes that AI is easy to learn and use may have a high perceived ease of use of AI. Validated by the findings of Lu (2006) indicating that perceived ease of use is the primary factor affecting the intention to use Internet services and that perceived ease of use has a strong positive effect on perceived usefulness, while Hisao (2015) confirmed that perceived ease of use is influential in the determination of attitudes.

Theoretical foundation

Various studies have determined the factors influencing an individual's technology adoption. The most common theories focusing on technology adoption are the Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1977); the Theory of Planned Behavior (TPB) (Ajzen, 1991); the Innovation Diffusion Theory (IDT) (Rogers et al., 2003); Technology Acceptance Model (TAM) (Davis, 1985; Davis et al., 1989); Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2012); the DeLone and McLean model of information success (DeLone & McLean, 2003); and Bailey and Pearson's analysis of computer user satisfaction (Bailey & Pearson, 1983). Each of these theoretical models contributes to the understanding of technology acceptance. However, this study will focus on the Technology Acceptance Model (TAM). This well-established model has been used to explain and predict the adoption of new technologies in various contexts. The study adopted TAM's two constructs: Perceived usefulness which is defined as the degree to which a person believes that using a particular technology will improve their job performance and Perceived ease of use which is the degree to which a person believes that using a particular technology will be free of effort.

The theoretical importance of perceived usefulness and perceived ease of use as consumers' willingness to use information and communication technology (ICT) was suggested by the work of Davis (2019). Naming his model as Technology Acceptance Model or TAM, it posits that two factors determine whether a computer system will be accepted by its potential users: (1) perceived usefulness and (2) perceived ease of use. The key feature of this model is its emphasis on the perceptions of the potential user. That is, while the creator of a given technology product may believe it is functional and user-friendly, it will only be accepted by its potential users if they share those beliefs.

Malatji et al. (2020) support this Technology Acceptance Model (TAM) that it should be embraced as an accepted theory that identifies consumers' willingness to use information and communication technology (ICT) based on perceived ease of use and perceived usefulness. Using a quality technology acceptance model (Q-TAM), Boakye et al. (2014) said that perceived usefulness means encouraging technology operations managers to focus their efforts on quality to ensure that their products satisfy customer needs and are perceived as valuable, while Taylor, D., & Strutton, D. (2010) suggested that perceived usefulness and perceived ease of use should be the primary constructs of the technology acceptance model (TAM) since it continues to influence purchasing intentions in the post-adoption online context.

The importance of perceived usefulness and ease of use of artificial intelligence is supported by Pandl et al. (2021) extensive research on drivers for organizations' intention to adopt Artificial Intelligence, wherein they defined drivers to include "Perceived benefits of AI, Ease of use, Cost- effectiveness, compliance to regulations governing the use of AI, and AI provider support. Rawson et al. (2019) find that these drivers adopting artificial intelligence tools could support decision-making at multiple levels. Dayo-Olupona et al. (2020) supported this by conforming that Artificial Intelligence is the most preferred alternative, outranking other comparative technologies. These researches on drivers for intention to adopt Artificial intelligence tools provide several theoretical perspectives suggesting that perceived ease of use and usefulness are fundamental determinants of using artificial intelligence.

Adoption of Artificial Intelligence Tools

Research on adopting Artificial Intelligence Tools such as Google Bard AI and ChatGPT also suggests a prominent role for perceived use and ease of use in learning financial literacy. Popkova, E., & Parakhina, V. (2018) conclude that artificial intelligence does possess significant potential to stimulate the financial system. In their analysis using ordered response models, Gaurav and Singh (2012) find that cognitive ability predicts financial aptitude and debt literacy, the two components of financial literacy. This cognitive ability is a factor in improving financial literacy, shaping and improving financial behavior (Xu et al., 2022).

The conceptual framework

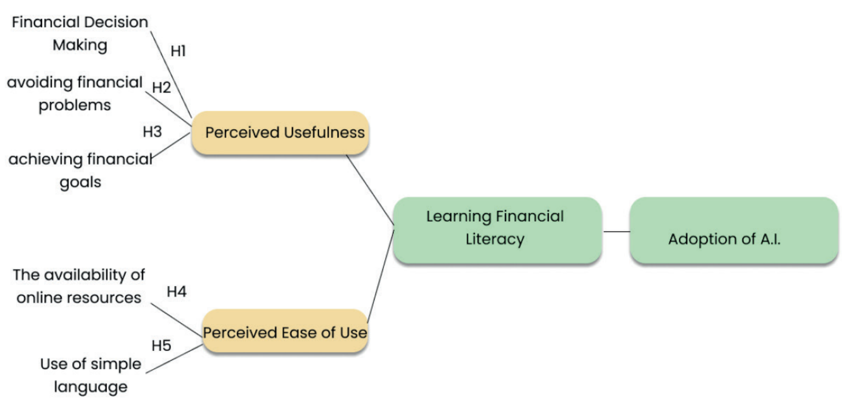


Figure 1. Conceptual Framework of the

Financial Decision Making

Financial Decision making can be defined as a logical choice of available options with considering alternatives that combine new technologies, including financial information processing, manifesting itself as a network where traditional approaches to financial decision-making are eliminated (Njegovanović, 2018). From this perspective, financial decision-making can be improved by providing decision-makers with better quality information presented in a non- complex fashion, an institutional environment conducive to good decisions, an incentive structure that internalizes externalities involved in financial decision-making, and financial education that will facilitate making the best use of the information at hand within a specific decision-making environment. Altman, M. (2012). Therefore, it may be asserted that Financial Decision Making as a factor helps in the adoption of Artificial Intelligence in the pursuit of learning financial literacy. Thus, the following research hypothesis is proposed:

Hypothesis 1 (H1): Artificial Intelligence is Useful in Learning Financial Decision Making.

Avoiding Financial Problems

Avoiding Financial problems indicates that artificial intelligence does have a potential to offer to economic theory, both in terms of providing a fruitful perspective from which to view currently problematic issues and through raising new and interesting problems that have been hitherto marginalized or ignored (Dixon, 2001). According to Pradeep, A., & Patil, K.(2022), the various risks and challenges associated with artificial intelligence adoption should result in an offer for the customers a tool how to avoid future financial challenges. It is then critical for all financial institutes or companies involved in financial tasks to adopt artificial intelligence to compete globally (Pradeep, A., & Patil, K.,2022). Meanwhile, Mhlanga, D. (2021) recommends that financial institutions such as banks and credit lending institutions invest more in artificial intelligence and machine learning to ensure that financially excluded households can obtain credit. An Artificial Intelligence tool that can help people to understand how to avoid financial problems will be accepted by people who perceive artificial intelligence as more beneficial than risky (Cui & Wu,2019). Therefore, Avoiding Financial Problems Making as a factor helps adopt Artificial Intelligence to learn financial literacy, which is especially essential in this context. Thus, the following research hypothesis is proposed:

Hypothesis 2 (H2):Artificial Intelligence is Useful in Learning how to Avoid Financial Problems.

Achieving Financial Goals

Artificial Intelligence in financial services always entails implementing financial education and providing financial resources to achieve financial goals (Li et al., 2021). In learning financial literacy, the Artificial Intelligence tool should offer knowledge to build financial stability through savings, better money management, preparing for unexpected life events, and planning for short- and long-term goals. With the young generation thinking and planning to achieve their financial goals, the Artificial Intelligence tool should include tasks with explicit goals that the users may even sacrifice financial rewards to achieve the goals (Ballard et al., 2018). These goals may include savings behavior, such as saving for emergencies and planning for retirement (Chatterjee, 2017), and when an Artificial Intelligence tool helps in making realistic goals the people persistently save substantially more, achieving savings of nearly 11%, than those choosing very low or unrealistically high goals (Harding & Hisaw, 2014). Therefore, Achieving Financial Goals helps adopt Artificial Intelligence in pursuing learning financial literacy, which is especially essential in this context. Thus, the following research hypothesis is proposed:

Hypothesis 3 (H3): Artificial Intelligence is Useful in Learning how to Achieve Financial Goals.

Availability of Online Resources

Based on the study of Groote & Dorsch (2003), users prefer online resources over print, and convenience and full-text availability are essential factors in selecting online resources. Artificial Intelligence, if adopted to learn financial literacy, should embrace that their customers are well- informed individuals who take advantage of the wealth of resources freely available online (Dewally, M.,2000). Since the Internet is the most-used new resource for finding online information and replacing and supplementing established commercial services (Garrison, B.,2001),

the availability of accurate online resources then will have an impact on the performance and the efficiency of economic activities (Gnezdova,2016) of Artificial Intelligence users. As previous research has shown that the Availability of Online Resources influences their Financial Literacy intentions, their adoption intention of Artificial Intelligence will, therefore, be affected. Thus, the following hypothesis is proposed.:
Hypothesis 4 (H4): Artificial Intelligence is Easy to Use because of Availability of Online Data.

Use of Simple Language

Simple language has been a primary focus of website adoption research, and it is widely used in conjunction with perceived usefulness and perceived ease of use as another critical factor in attracting users (Nantel et al.; E.,2008). The Use of Simple Language is especially significant in financial literacy. A simple yet powerful reporting tool emphasizing concrete language may attract investors who are otherwise reluctant to invest (Elliott et al., 2015). Madden, K., & Perry, C. (2003) findings confirmed the importance of simple language in communicating with customers in a relationship with a financial services provider and suggested communication priorities for customers in this context. According to the studies mentioned above, it is reasonable to assume that the Use of Simple Language as a factor helps adopt Artificial Intelligence in the pursuit of learning financial literacy. Therefore, the following hypothesis is proposed:
Hypothesis 5 (H5): Artificial Intelligence is Easy to Use because of the Use of Simple Language.
Research methodology

Sample and data collection

The study's main aim is to identify the Perceived Usefulness and Ease of Use of Artificial Intelligence Tools in Learning Financial Literacy. The introduction of ChatGPT on November 30, 2022, and Google Bard on February 6, 2023, resulted in the explosion of Artificial Intelligence. In June 2023, Google Bard had 140 million visits, while ChatGPT had more than 1.6 billion. Along with this increasing number of A.I. users, are also the need for how these A.I. tools can help in learning financial literacy, mainly to be educated on financial matters and to receive accurate, timely, and understandable information to help them make responsible decisions about financial transactions. Consequently, the A.I. tools adoption by Filipinos to help themselves, protect their interests, and choose the financial products and services that best fit their needs are vital to preventing consumer harm, and building financial well-being is advantageous to this study. An online-based structured questionnaire was used to obtain primary data, and the respondents in this study were the users of ChatGPT and Google Bard in Lucena City. All measurements of the constructs were adapted from previous literature to ensure survey content validity. A five-point has been chosen, from 1 'strongly disagree' to 5 'strongly agree.' A pilot test was conducted among 20 Lucena City academics before the primary survey to evaluate the validity and reliability of the survey. The survey was conducted in Lucena City between August 7 and August 21, 2023, through several social media platforms (Google, Facebook). A total of 144 responses were obtained, 3 of which were excluded from the final analysis due to their invalid and missing values. Hence, the final sample of the study was 141.

Survey instrument

An online survey was constructed to fulfill the objective of this study, which was based on an extensive evaluation of the literature. The survey was divided into demographic information and measurement items, graded on a 5-point Likert scale ranging from strongly disagree = 1 to strongly agree = 5. The measurement scale of the perceived value scale was adapted from the previous studies (Kim et al., 2007; Sirdeshmukh et al., 2002; Xie et al., 2021). All measurement items in this research were adjusted to fit the research purpose, as demonstrated in Table 1.

Table 1. Questionnaire Items.

Variables for Perceived Usefulness	Description	Items	References
Financial Decision Making	In comparison to the effort required I find that using the Artificial Intelligence tool benefits me in my financial decision making.	FDM 1	Kim et al. 2007; Sirdeshmukh et al. 2002; Xie et al. 2021
	In comparison to the time, I need to decide on financial matters using Artificial Intelligence tool is worthwhile.	FDM 2	
	Overall, the Artificial Intelligence tool provides me with good data in helping me decide on financial matters.	FDM 3	
	People who matter to me believe I should use the Artificial Intelligence tool in my financial decision making.	FDM 4	
Avoiding Financial Problems	I utilize the Artificial Intelligence tool daily to help me avoid financial problems.	AFP 1	Kim et al. 2007; Sirdeshmukh et al. 2002; Xie et al. 2021
	My idle funds are better utilized when I apply the data provided by the Artificial Intelligence tool.	AFP 2	
	Utilizing the Artificial Intelligence tool improves my financial management efficiency.	AFP 3	
	People who have an impact on my behavior believe that I should use Artificial Intelligence tool.	AFP 4	
Achieving Financial Goals	I trust the data provided by the Artificial Intelligence tool in helping me achieve my financial goals.	AFG 1	Kim et al. 2007; Sirdeshmukh et al. 2002; Xie et al. 2021
	I trust the reliability of the Artificial Intelligence tool in terms of applicability in my personal finance.	AFG 2	
	I believe the Artificial Intelligence tool as trustworthy reference that can guide me in my financial goals.	AFG 3	
	Using the Artificial Intelligence tool lessen my financial risks.	AFG 4	
Availability of Online Data	I intend to view that the Artificial Intelligence tool as a good source of online data.	AOD 1	Kim et al. 2007; Sirdeshmukh et al. 2002; Xie et al. 2021
	I expect the use of Artificial Intelligence tool regularly in the future due to easy access.	AOD 2	
	I will strongly advise others to use the Artificial Intelligence tool due to its relevance.	AOD 3	
	When using the Artificial Intelligence tool there is a significant accuracy of the available data.	AOD 4	
Use of Simple Language	Artificial Intelligence data is written in simple language.	USL 1	Kim et al. 2007; Sirdeshmukh et al. 2002; Xie et al. 2021
	I would find the Artificial Intelligence tool easy to use	USL 2	
	For me, learning how to utilize the Artificial Intelligence tool is simple.	USL 3	
	Overall, I believe that adopting the Artificial Intelligence tool is more understandable than the traditional financial literacy tools.	USL 4	

Data analysis techniques

This research used frequency and descriptive statistics and to provide a broad statistical analysis, the primary acquired data in the surveys were analyzed using SPSS 25.0.

Results and findings

The demographic information of the respondents is presented in Table 2.

In Table 2, the characteristics are presented of the 141 participants. There were 78 females (55.3%) and 63 males (44.7%) were included in this study. Regarding respondents' age, 28.7% of the sample were 26–35 years old, and most respondents (44.8%) were above 36 years old. Of all respondents, 38.50% had a master's degree, 58.7% reported familiarity with A.I. tools, and 25.2% use A.I. frequently.

Table 2. Respondents' Demographic Information

Variables	Category	Frequency	Percentage
Gender	Male	63	44.7
	Female	78	55.3
Age	18-25 years	35	24.5
	26-35 years	41	28.7
	36-45 years	31	21.7
	Above 45 years	33	23.1
	No answer	3	2.1
Educational Qualifications	High school or below	32	22.4
	Undergraduate	52	36.4
	Masteral	55	38.50
	Doctoral	1	0.70
	No answer	3	2.1
How familiar are you in using Artificial Intelligence such as ChatGPT or Goggle Bard?	Familiar	84	58.7
	Not Familiar	56	39.2
	No answer	3	2.1
How often do you use Artificial Intelligence such as ChatGPT or Goggle Bard?	Never	34	23.8
	Occasionally	35	24.5
	Usually	35	24.5
	Frequently in everyday	36	25.2
	No answer	3	2.1

Author's compilation based from the field survey , 2023. Computed using SPSS version 25.

Reliability Analysis

To examine the internal consistency and reliability of the adoption intention model, Cronbach's Alpha (CA) coefficients values was used. According to Chang (2014) analysts frequently use 0.7 as a benchmark value for Cronbach's alpha. George and Mallery (2003) provide the following rules of thumb: "_ > .9 – Excellent, _ > .8 – Good, _ > .7 – Acceptable, _ > .6 – Questionable, _ >.5 – Poor, and _ < .5 – Unacceptable" (p. 231) At this level and higher, the items are sufficiently consistent to indicate the measure is reliable. The findings indicate that the CA values ranged from 0.705 to 0.801, as shown in Table 4.

Table 4. Reliability analysis

Variable for Perceived Usefulness	Items	Estimate	Chronbach's alpha
Financial Decision Making	FDM 1	0.701	0.717
	FDM 2	0.772	
	FDM 3	0.789	
	FDM 4	0.792	
Avoiding Financial Problems	AFP 1	0.692	0.705
	AFP 2	0.712	
	AFP 3	0.731	
	AFP 4	0.835	
Achieving Financial Goals	AFG 1	0.918	0.728
	AFG 2	0.592	
	AFG 3	0.773	
	AFG 4	0.856	
Variable for Perceived Usefulness	**Items**	**Estimate**	**Chronbach's alpha**
Availability of Online Data	AOD 1	0.818	0.801
	AOD 2	0.671	
	AOD 3	0.819	
	AOD 4	0.773	
Use of Simple Language	USL 1	0.912	0.785
	USL 2	0.523	
	USL 3	0.763	
	USL 4	0.683	

Research Findings

Table 5. Responses on the Perceived Usefulness of Artificial Intelligence in Learning Financial Decision Making.

Perceived Usefulness Statements	N	Minimum	Maximum	Mean	Standard Deviation
In comparison to the effort required I find that using the Artificial Intelligence tool benefits me in my financial decision making.	141	1	5	3.93	0.790
In comparison to the time, I need to decide on financial matters using Artificial Intelligence tool is worthwhile.	141	1	5	4.04	0.823
Overall, the Artificial Intelligence tool provides me with good data in helping me decide on financial matters	141	1	5	3.99	0.832
People who matter to me believe I should use the Artificial Intelligence tool in my financial decision making.	141	1	5	3.93	0.842

Note: Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4), Strongly Agree (5)

The five-point Likert scale in this study uses the interval scale. The mean is very significant. From 1 to 1.8, it means strongly disagree. From 1.81 to 2.60, it means to disagree. From 2.61 to 3.40, it means neutral; from 3.41 to 4.20, it means agree; from 4.21 to 5, it means strongly agree.

In the first up to the fourth statements, the mean ranges from 3.93 to 4.04. Hence it means that most participants agree on the Usefulness of A.I. in the Financial Literacy Area of Financial Decision Making. Standard Deviation values indicate that the data points cluster closer to the mean—the values in the dataset are relatively consistent.

Table 6. Responses on the Perceived Usefulness of Artificial Intelligence in Learning how to Avoid Financial Problems

Perceived Usefulness Statements	N	Minimum	Maximum	Mean	Standard Deviation
I utilize the Artificial Intelligence tool daily to help me avoid financial problems.	141	1	5	3.96	0.849
My idle funds are better utilized when I apply the data provided by the Artificial Intelligence tool.	141	1	5	3.61	1.068
Utilizing the Artificial Intelligence tool improves my financial management efficiency.	141	1	5	3.93	0.825
People who have an impact on my behavior believe that I should use Artificial Intelligence tool.	141	1	5	3.85	0.870

Note: Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4), Strongly Agree (5)

In the first up to the fourth statements, the mean ranges from 3.61 to 3.96. Hence it means that most participants agree on the Usefulness of A.I. in the Financial Literacy Area of Avoiding Financial Problems. Standard Deviation values indicate that the data points cluster closer to the mean—the values in the dataset are relatively consistent.

Table 7. Responses on the Perceived Usefulness of Artificial Intelligence in Achieving Financial Goals.

Perceived Usefulness Statements	N	Minimum	Maximum	Mean	Standard Deviation
I trust the data provided by the Artificial Intelligence tool in helping me achieve my financial goals.	141	1	5	3.93	0.790
I trust the reliability of the Artificial Intelligence tool in terms of applicability in my personal finance.	141	1	5	4.04	0.823
I believe the Artificial Intelligence tool as trustworthy reference that can guide me in my financial goals.	141	1	5	3.99	0.832
Using the Artificial Intelligence tool lessen my financial risks.	141	1	5	3.93	0.842

Note: Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4), Strongly Agree (5)

In the first up to the fourth statements, the mean ranges from 3.61 to 3.96. Hence it means that most participants agree on the Usefulness of A.I. in the Financial Literacy Area of Avoiding Financial Problems. Standard Deviation values indicate that the data points cluster closer to the mean—the values in the dataset are relatively consistent.

Table 8. Responses on the Perceived Ease of Use of Artificial Intelligence in getting Available Online Data.

Perceived Ease of Use	N	Minimum	Maximum	Mean	Standard Deviation
I intend to view that the Artificial Intelligence tool as a good source of online data.	141	1	5	3.96	0.849
I expect the use of Artificial Intelligence tool regularly in the future due to easy access.	141	1	5	3.61	1.068
I will strongly advise others to use the Artificial Intelligence tool due to its relevance.	141	1	5	3.99	0.832
When using the Artificial Intelligence tool there is a significant accuracy of the available data.	141	1	5	3.90	0.905

Note: Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4), Strongly Agree (5)

In the first up to the fourth statements, the mean ranges from 3.61 to 3.99. Hence, most participants agree on the ease of Use of A.I. in the Financial Literacy Area of Availability of Online Data. Standard Deviation values indicate that the data points cluster closer to the mean—the values in the dataset are relatively consistent.

Table 9. Responses on the Perceived Ease of Use of Artificial Intelligence in the Use of Simple Language.

Perceived Ease of Use	N	Minimum	Maximum	Mean	Standard Deviation
Artificial Intelligence data is written in simple language.	141	1	5	3.59	1.063
I would find the Artificial Intelligence tool easy to use.	141	1	5	3.90	0.973
For me, learning how to utilize the Artificial Intelligence tool is simple.	141	1	5	3.94	0.809
Overall, I believe that adopting the Artificial Intelligence tool is more understandable than the traditional financial literacy tools.	141	1	5	3.77	0.968

Note: Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4), Strongly Agree (5)

In the first up to the fourth statements, the mean ranges from 3.59 to 3.94. Hence, most participants agree on the Ease of Use of A.I. in the Financial Literacy Area of Use of Simple Language. Standard Deviation values indicate that the data points cluster closer to the mean—the values in the dataset are relatively consistent.

Exploratory analysis

Table 10 shows the Mean and Standard Deviation of the Financial Literacy Factors. It can be observed that the statements *"In comparison to the time, I need to decide on financial matters using Artificial Intelligence tool is worthwhile"* and *"I trust the reliability of the Artificial Intelligence tool in terms of applicability in my personal finance"* provided the highest mean of 4.04 among the statements. Unsurprisingly, the statements *"Artificial Intelligence data is written in simple language," "I expect the use of Artificial Intelligence tool regularly in the future due to easy access,"* and *"My idle funds are better utilized when I apply the data provided by the Artificial Intelligence tool"* as they were statements requiring technical and financial skills. Their rank is in accordance with their Standard Deviations.

Table 10. Descriptive Statistics on the Perceived Usefulness and Ease of Use of Artificial Intelligence Tools in Learning Financial Literacy

Statements	Mean	Rank	Standard Deviation	Rank
In comparison to the effort required I find that using the Artificial Intelligence tool benefits me in my financial decision making.	3.93	5	0.790	1
In comparison to the time, I need to decide on financial matters using Artificial Intelligence tool is worthwhile.	4.04	1	0.823	3
Overall, the Artificial Intelligence tool provides me with good data in helping me decide on financial matters.	3.99	2	0.832	5
People who matter to me believe I should use the Artificial Intelligence tool in my financial decision making.	3.93	5	0.842	6
I utilize the Artificial Intelligence tool daily to help me avoid financial problems.	3.96	3	0.849	7
My idle funds are better utilized when I apply the data provided by the Artificial Intelligence tool.	3.61	9	1.068	13
Utilizing the Artificial Intelligence tool improves my financial management efficiency.	3.93	5	0.825	4
People who have an impact on my behavior believe that I should use Artificial Intelligence tool.	3.85	7	0.870	8
I trust the data provided by the Artificial Intelligence tool in helping me achieve my financial goals.	3.93	5	0.790	1
I trust the reliability of the Artificial Intelligence tool in terms of applicability in my personal finance.	4.04	1	0.823	3
I believe the Artificial Intelligence tool as trustworthy reference that can guide me in my financial goals.	3.99	2	0.832	5
Using the Artificial Intelligence tool lessen my financial risks.	3.93	5	0.842	6
I intend to view that the Artificial Intelligence tool as a good source of online data.	3.96	3	0.849	7
I expect the use of Artificial Intelligence tool regularly in the future due to easy access.	3.61	9	1.068	13
I will strongly advise others to use the Artificial Intelligence tool due to its relevance.	3.99	2	0.832	5
When using the Artificial Intelligence tool there is a significant accuracy of the available data.	3.90	6	0.905	9
Artificial Intelligence data is written in simple language.	3.59	10	1.063	12
I would find the Artificial Intelligence tool easy to use	3.90	6	0.973	11
For me, learning how to utilize the Artificial Intelligence tool is simple.	3.94	4	0.809	2
Overall, I believe that adopting the Artificial Intelligence tool is more understandable than the traditional financial literacy tools.	3.77	8	0.968	10

Discussions

With the comprehensive application of artificial intelligence technology in learning financial literacy, the tool is now helping to improve the timeliness and accuracy of financial decision-making while reducing the cost of financial decision-making (Jia et al., 2022). This research focused on studying the factors of Perceived usefulness and Ease of Use of A.I. in learning financial literacy, and the study showed that the respondents agree that the A.I. can help and benefit them in their financial decision-making. Additionally, the respondents said using A.I. is worth their time since it provides good data. The high perceived usefulness of A.I. means the respondents believe that A.I. can help them make better decisions and helps in avoiding financial problems. The current traditional financial decision-making support cannot meet the needs of intelligent development, and the application of A.I. will improve the accuracy, automation, and timeliness of financial decision-making (Ren, 2021). In order to help learn financial literacy, the A.I. data should be accurate and relevant, easily accessible, and written in simple language.

CONCLUSION AND LIMITATION

As with all research, the present study has its limitations:

Because Artificial Intelligence tools provide general financial literacy data hence the need to embrace these tools with extreme caution, further study is necessary to verify the generalizability of the findings.

The sample consists of only students and teaching personnel. Users of A.I. who are not into academics might have different opinions, which could have led to sampling bias. Further study is needed to verify whether this bias will influence the results.

As the proposed model did not include behavior and attitude, adding behaviors and attitudes as predictors for adopting A.I. are possible.

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CASHLESS TRANSACTIONS: ITS INFLUENCE ON THE SPENDING BEHAVIOR OF GEN Z CONSUMERS

Froilan S. Labausa, Vince L. Iguin

ABSTRACT

With the advent of modern cashless transactions, the spending behavior of consumers using digital payment is growing. This study aimed to assess the influence of cashless transactions on the spending behavior of the Generation Z consumers in terms of the following variables such as social, cultural, personal, and psychological. Non-probability sampling methods such as convenience and purposive sampling techniques were utilized in selecting the participants of the study who are aged 18 to 26 years old. .A survey questionnaire using Google form to gather the necessary data was administered, and the instrument was distributed to participants via emails and to various social media platforms. Results indicate that cultural, psychological, and personal factors are highly influential on the spending behavior of the Gen Z consumers which are ranked accordingly. The social factor had a moderate influence. Sub-variables such as promotions & discounts, latest trends and fashions for cultural; habits and moods for psychological; income and profession for personal; and employment for social are highly influential.

Keywords: Cashless transactions, Spending Behavior, Gen Z

1. INTRODUCTION

During the height of the pandemic, governments around the world have imposed restrictions on the use of cash to avoid the spread of Covid19 virus, whether buying to E-commerce or physical stores. Hence, the majority of consumers have resorted to using cashless transactions in purchasing their desired items. With the advent of modern cashless transactions, the spending behavior of consumers using digital payments is growing. Moreover, increasing technology has really changed how consumers buy goods and services. Digitalization has been a major factor of consumers' behavior that has led to new ways of living. With the increasing number of online services, along with the expansion of the range of suppliers and the size of their delivery networks has led to the dependency of a cashless system in performing transactions (Yuvaraj & Eveline, 2018).

One of the reasons to go cashless is undoubtedly the simplicity of performing financial transactions. The use of cashless transactions could make the lives of the people easier. On the other hand, cashless transactions fasten the transaction process because it does not require for a customer to wait for the cashier to process the payment (Mamun, 2021). Moreover, Rahman, M. et. at (2018) mentioned in their study that the Vietnamese government is actively working to reduce cash and promote cashless transactions in businesses. In addition, the study found out that perceived behavior control, attitude and subjective norm are significantly and positively related to online purchase behavior.

Authors Kotler & Armstrong (2018), mentioned that several factors influence the consumer's spending behavior such as social, personal, psychological, and cultural. However, a study conducted by Resource Interactive; demographic variables such as gender, age and stage of life influence the purchasing behavior of an individual. Anothe author also stated in his study that age does have a significant impact in terms of behavior which can be manifested to the younger generation such as Millennial and Gen Z.

With the advent of modern cashless transactions, frequent usage, and the high demand for digital

transformation especially during the pandemic in 2020, the spending behavior of consumers using digital payments have significantly affected. From the purchase of high demand or luxurious products, down to the most essential items needed in every household, the consumer' spending behaviors are influenced by their purchasing decisions using cashless transactions. This study helped in assessing the impact of cashless transactions on the spending behavior of an identified consumers.

Background of the Study

Several factors influencing the consumers' buying behavior such as cultural, social, personal and psychological. Cultural factors include sub-variables that influence the behavior of larger groups of consumers. Social influencing factors are reference groups such as family, social role, and the status of the consumer. The personal factors influencing buying behavior include age, profession, income, lifestyle, and the personality or self-image of the consumer. Psychological factors are the individual motivation, attitude, perception, and individual learning behavior of each consumer. (Kotler & Armstrong, 2018).

This study sought to assess the influence of cashless transactions towards the spending behaviors of the specific consumers. The outcome of the research showed us whether the consumers understand what a cashless transaction is, its advantages and disadvantages; it also helped the businesses come up with valuable solution to make their operations better for customers satisfaction; future researchers may use this study as a reference data in conducting new studies; and will contribute to the benefit of community seeing the cashless transactions plays a vital role in the world today.

Statement of the Problem

The purpose of this study is to assess the influence of using cashless transactions on the spending behaviors of Gen Z consumers. Specifically, this study aims to answer the following questions:

1. How do the following factors influence the spending behavior of the participants of the study?
    1.1 Social
    1.2 Personal
    1.3 Psychological
    1.4 Cultural
2. What is the influence of cashless transactions on the spending behavior of Gen Z consumers?

Theoretical Framework

The theory of Armstrong and Kotler (2018) was utilized as Internal influencing factors that can be classified into four categories: cultural, social, personal, and psychological. Factors that affect the actions of a larger set of consumers are referred to as cultural factors. Reference groups such as family, social position, and customer status are social influencing factors. Age, occupation, income, lifestyle, and the consumer's personality or self-image are all personal factors that influence purchasing behavior. Individual motivation, mood, cognition, and learning habits are all examples of psychological causes.

Conceptual Framework

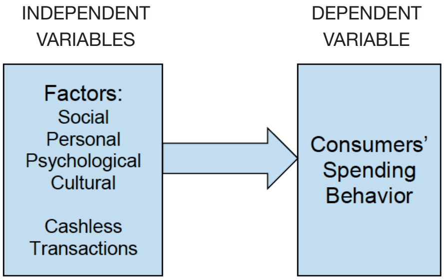

Figure 1.1 Research Paradigm

The research paradigm used in this study is the independent and dependent variables. The independent variables are the factors that influence the consumers' spending behavior such as social, personal, psychological, cultural, and cashless transactions. The factors were derived in accordance with the theory of Kotler and Armstrong. The dependent variable pertains to the consumers spending behavior.

Scope and Limitation of the Study

This study focused on the influence of cashless transactions on the spending behavior of Gen Z consumers affecting the four variables namely; social, personal, psychological, and cultural.. The respondents of the study included any male or female consumers whose age is between 18 to 26 years old who belong to the generation Z. The study was conducted with the use of different digital platforms such as Google forms and messenger app to disseminate the survey questionnaire to the chosen respondents conveniently. The study was conducted during April 2022.

Significance of the Study

The results of this study will be of great benefit to the following:

Cashless Transaction Users. This study will help the cashless transaction users to understand what is the purpose of using a cashless transaction. It will also inform about the effects, the advantages and disadvantages when using a cashless transaction as a mode of payment.

Business / Firms. The finding of this study will help businesses or firms to come up with a valuable solution to make their operation better for customers satisfaction. It will also help the business to conduct a strategy in making better business ideas.

Community. The finding of this study will provide useful information that can be used in the advancement of society towards a cashless economy. This will benefit the community seeing that using cashless transactions as a system of payment plays a vital role in the world today.

Future Researchers. The finding of this study may be used as a reference data in conducting new studies. This study can be improved, and future researchers can use this study as their basis for future research.

Definition of Terms

Cashless Transaction. A financial transaction operated through a digital system for financial purposes that uses cards, other electronic methods rather than physical money. This includes the use of E-wallet(e.g. Gcash, Paymaya), Debit/Credit cards, Checks and online banking.

Consumer Behavior. It refers to the actions of the consumers in the marketplace and the underlying motives for those actions. It is critical to understand consumer behavior to know how potential customers will respond to a new product or service.

Cultural factors. A group of people who are associated with a set of values and ideologies that belong to a particular community. When a person comes from a particular community, his/her behavior is highly influenced by the culture relating to that particular community.

E-Commerce. Business transacted by transferring data electronically like the Internet.

E-Wallet. An electronic device, online service, or software program that allows one party to make electronic transactions with another party bartering digital currency units for goods and services.

Gen Z. They are commonly referred to as the first fully-digitally native generation. They grew up with social media and smartphones—they're used to living in a digital-first world.

Online Banking. An electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website.

Personal Factors. Factors that are personal to the consumers influence their buying behavior. These personal factors differ from person to person, thereby producing different perceptions and consumer behavior. Some of the personal factors are: age, occupation, income, lifestyle, and the consumer's personality or self-image.

Psychological Factors. Human psychology is a major determinant of consumer behavior. These factors are difficult to measure but are powerful enough to influence a buying decision. Some of the important psychological factors are: individual motivation, mood, cognition, and learning habits.

Social Factors. Humans are social beings and they live around many people who influence their buying behavior. Humans try to imitate other humans and also wish to be socially accepted in society. Hence their buying behavior is influenced by other people around them. These factors are considered as social factors, reference groups such as family, social position, and customer status.

Spending Behavior. Commonly a behavior affecting the way a person uses their money in order to satisfy their wants and needs without any use of control.

2. RELATED LITERATURES AND STUDIES

E-payment systems are important tools used by individuals and organizations as a secured and convenient way of making Internet payments and, at the same time, as a path to technological development in the world economy (Slozko & Pello, 2015). The greatest reason to go cashless is undoubtedly the simplicity of performing financial transactions. Furthermore, the e-payment system tends to provide its consumer with multiple electronic payment methods by which financial institutions provide various e- payment options and services, such as the credit cards, debit cards, on-line banking and mobile banking (Premchand & Choudhry, 2015).

Moreover, another study has stated that Cashless payment via digital systems is one of the recent implementations of e-commerce, which refers to a smart payment alternative in several developing countries to gain sustainable competitive advantage. The consumption and consumer behavior are crucial factors in the community particularly nowadays during the coronavirus disease 2019 (COVID-19) outbreak. The digitalization has been a major factor of consumer's behavior that has led to new ways of living and with the increasing number of online services, electronic payment has become more trustworthy, along with the expansion of the range of suppliers and the size of their delivery networks that has led to the dependency on electronic money usage or cashless system in performing transactions. In addition, e-wallets and other cashless transactions simplify purchasing and selling transactions through use of smartphone apps, which enables one to complete online shopping rapidly and without hassle. Despite these benefits, they still pose security risks, demand one's device to be charged, and may lead to reckless spending (Mamun et al., 2021).

In contrast, there is also a major problem with cashless payments in which they lock out the least wealthy members of society, it gives them access to a suitable device and an internet connection is required. A bank account is also a common requirement for cashless payments, and given over five percent of U.S. households are unbanked, this would be another barrier to cashless goods and services. Moreover, cashless society could worsen income inequality, hurting disadvantaged minorities such as workers in service industries who are often paid in cash, or at least receive a large part of their salary from things like cash tippings and others who lack access to the banking system and/or the technology to participate in a cashless economy (Cashless Societies Could Worsen Inequality, 2020).

E-commerce

A study about E- Commerce stated that the demand for e-commerce has surged due to the COVID-19 pandemic. Alibaba's online supermarket, Hema, reported that orders were up 220% year-over-year during Chinese New Year, when the virus started spreading. In the United States, online delivery service Instacart's subscriptions grew 10–20 times in states with the most reported COVID-19 cases. 2 Much of this new e- commerce activity has been from new users. The trend toward digital commerce is expected to continue post-outbreak with consumers reporting that the proportion of instances they shop online will increase from 32% to 37% after the outbreak, illustrating the clear need for a substantial increased investment in this channel (Accenture, 2020).

Factors Affecting Consumer Behavior

Consumer spending or buying behavior was defined by Schiffman (2007) as the behavior that consumers display in searching for, purchasing, using, evaluating, and disposing of products and services that they expect will satisfy their needs‖. Numerous factors and their attitudes towards a specific product or service affects their purchasing decisions.

Similarly, Brzoska & Hjelm (2020) has also provided in their studies that social, technological, and economical factors can also affect spending behavior. They further explained that social factors are molding the proneness towards specific products, since there are some people who are looking at social media influencers or celebrities for inspiration. Thus, new technologies are playing a big part in people's lives. Also, another more important factor is the economic one. People within a different educational background, size of the city that they live in, accessibility to social and entertaining places such as shopping centers, cinemas or restaurants, have different economic standards and are influenced by different impulses.

Another study by Capgemini (2016) states that Social factors affect every individual who has some people around them in a way that the people around them influence and inspire him or her in any way such as social media influencers, celebrities, family members, neighbors, or their friends. In this generation young people want to be trendy and perceived as the cool ones among their peers. Also, Demographic variables such as gender, age and stage of life influence the purchasing behavior of an individual. One study by Resource Interactive, a technology research firm, found out that when shopping online, men prefer sites with lots of pictures of products and women prefer to see products online in a lifestyle context. Women are also twice as likely as men to use viewing tools such as the zoom and rotate buttons and links that allow them to change the color of products.

In connection to this, age does have a significant impact in terms of consuming behavior which can be manifested to the younger generation such as Millenials and Gen Z. Millennials and Gen Z are described as digital natives born who can't recall a world without smartphones and rapid technology. According to Global Web Index (2020), Gen Z spends roughly 8 hours a day online in 2020 and Millenials spends at a maximum of 20 hours and a minimum of 10 hours engaging in various online content according to Fractl and BuzzStream (2020) which makes them a huge market for online shopping. In the study conducted by the Global Web Index, 72 percent of Gen Z reported purchasing an item online in the last month at the time of being surveyed in 2019, whether on a computer or their mobile device. Filipino Millennials increasingly buy things online, but the payment method used by some people is still in its old technology. Examples are cash-on-delivery, bank transfer, etc. (Espenilla, 2017).

Aside from the Social and Demographic factors which influenced consumer behavior, Khan, Belk & Craig-Lees has also shared that historical associations with payment modes generate different sensitivity in mental emotions and influence the type, value, and amount of products purchased which can be seen in a Personality of an individual. Different people have different perceptions about the same product depending on their individual beliefs and attitudes. The study has developed a measurement scale to capture consumers' cognitive and emotional associations with payment modes. The studies show positive emotions against cards. Among consumers that finalize their payments by the usage of credit or debit cards share the same need to use this specific method of payment to create social relations and gain prestige, and higher status among society (Khan, Belk & Craig-Lees, 2015).

In addition, according to Libraries Publishing (2015), Marketers tend to connect people's self-concepts to their purchasing habits. The self-concept of a certain individual is how they view themselves whether it is positive or negative while the ideal self of an individual pertains to how they want to see themselves whether it's prettier, more famous, and environmentally aware . It focuses more on what they really want to be or the better version of themselves. Further, Marketing researchers believe people

buy products to enhance how they feel about themselves to get themselves closer to their ideal selves that is why how an individual believes what other people sees in them can affect their buying behavior. They tend to buy products that can make them stand out with other people and to get the validation that they want.

The publishing also added that a person's social role or position can affect their spending behavior. A single individual who works after graduation probably spends their money differently than a newly married couple. When someone has a young child or a teenager or a child in college, The Diapers and daycare, tuition, electronics—regardless of the age, children affect the spending patterns of families. Once children graduate from college and parents are empty nesters, spending patterns change again. One's spending patterns change depending on their status in life.

Lastly, Cultural factors have a significant effect on an individual's buying decision. Every individual has different sets of habits, beliefs and principles which he/she develops from his family status and background. What they see from their childhood becomes their culture. Each culture further comprises various subcultures such as religion, age, geographical location, gender, status etc. Here is the scenario on how cultural factors affect spending behavior: a sixty year old individual would not like something which is too bright and colorful. He would prefer something which is more sophisticated and simple. On the other hand a teenager would prefer funky dresses and loud colors (Juneja, n.d.).

Advantages and Disadvantages of Cashless Transactions

In the study of Yuvaraj and Evelinne (2018) they found out that Debit/Credit Card is one of the modes of payment which are commonly used in a cashless transaction. They have shared its advantages in which the majority of customers think that using a credit/debit card is the most secure form of payment, followed by using mobile wallets. Privacy and confidentiality, followed by convenience, were found to be the most significant factors influencing consumers' willingness to use cashless transactions. Digishala, a government guide for using digital payments, is also well-known among users. The study also revealed that consumers are sufficiently aware of the protection of information in cashless transactions. As a result, because of technological developments that occur in a cashless world, consumers must be able to respond to these changes and move forward.

Moreover, Tejvan Pettinger (2020) has also stated that the Coronavirus allows people to stop needless physical purchases, it is expected to exacerbate the trend toward a cashless society. A cashless society has many benefits, including a reduced risk of organized crime, lower transaction rates, and fewer tax avoidance problems. However, there are fears that a transition to a cashless society would result in privacy issues as well as challenges for people with low wages and weak credit records. Nielsen also mentioned in his investigation that the COVID-19 outbreak has prompted customers to search out goods that are risk-free and of the highest quality, especially when it comes to food and cleaning products. As a result, customers are able to spend even more (Nielsen, 2020b).

3. METHODOLOGY

Research Method Used

This research used quantitative type of research to further understand the topic and it is applicable to analyze the variables that were used in this study. The research design utilized the Descriptive Research that enabled the research to draw conclusions about the effect of using cashless transactions on the spending behaviors of the identified consumers. Moreover, it relates with the factors such as social, personal, psychological, and cultural to assess how cashless transactions influence Gen Z consumers' spending behaviors.

Respondents of the Study

This study was conducted through the use of a social media platforms such as Facebook and Instagram where Google forms were administered to the respondents.. The respondents of this study are the Gen Z consumers whose ages are between18-26 years old. Since this study has utilized convenience sampling, the number of the respondents has been determined after the data gathering period. The researchers have gathered 106 respondents who answered the survey questionnaire.

Population and Sample Size

The research utilized convenience sampling, which is a non-probability sampling technique where subjects are selected because of their convenient accessibility and proximity to the researcher (Explorable.com, 2009). The questionnaires were distributed by the researchers in their respective social media accounts to easily distribute among the respondents. The researchers were assisted through the help of their family, friends, classmates and schoolmates in distributing the questionnaires to further expand the population of the study. In this case, the population and sample size was ascertained after the data gathering period. In a span of two weeks where the research has gathered a total of 106 respondents for the study.

Sampling Procedures

Convenience sampling is a type of nonprobability or nonrandom sampling were members of the target population met a certain criteria such as accessibility of the respondents towards the researchers, the availability at a given time, and the respondents' willingness in participating to satisfy the research problems at a certain study (Science Publishing Group, 2015). Data in this type of sampling technique were gathered at the researchers and respondents' own convenience.

The link of the questionnaire was distributed to the respondents using social media. Respondents were given time to answer the questionnaire and their responses were automatically collected and saved in Google Drive. These sampling procedures were used to determine the effects of personal, psychological, social and cultural factors on the spending behavior of the respondents when using cashless transactions. The survey questionnaire also included questions about the benefits and detriments of using cashless transactions and the influence of cashless transactions with regard to the spending behavior of the respondents.

Sources of Data

The research used the common sources of quantitative data, the survey will serve as the primary data. They are used to gather information based upon the behaviors, characteristics, and demographic information such as gender, income, occupation (Chipeta, 2020). It enables researchers to evaluate and understand the data through statistical analysis. The survey was conducted online through different online platforms with these the research can easily disseminate the same questions being asked to a large number of potential respondents with convenience and safety.

Moreover, secondary data was used as sources of data which included published case studies, online journals and other online sources which have already been prepared and compiled for analysis.

Research Instrument Used

The research designed a survey questionnaire as one of the data collections instruments for this study. The questions aimed to identify the influence of cashless transactions towards the spending behaviors of the consumers. This is deduced by assessing the benefits and detriments of cashless transactions and from the factors that were presented in the questionnaire i.e. personal, psychological, social and cultural. The content of the instrument was based on the literature and previous studies reviewed.

The first part of the questionnaire focused on the demographic profile of the respondents such as gender, age, and employment status. The second part has (2) questions centered on asking about the benefits and detriments of cashless transactions. The third part covers the questions for the following factors; social, psychological, personal, and cultural with four sub-variables each.

Validity of the Instrument

The research instruments used were developed by the researchers and validated by research specialists. Qualified respondents also validated the research instrument. The questionnaires contained relevant information and it was based on the respondents' level of agreement, opinion, age bracket, gender, perceptions and notions which aimed to assess cashless transaction influence the spending behavior of the respondents.

Data Gathering Procedures

The data gathering procedures were conducted through an online survey where Google forms were distributed to respondents through social media platforms. A survey questionnaire has been distributed through convenience sampling and Google forms were administered to male and female respondents ages 18 and 26. After conducting the survey, data collected from the respondents are then tallied for analysis.

Statistical Treatment of Data

The responses by the respondents were statistically analyzed. The data gathered are subjected to descriptive analysis such as frequency distribution and percentage, this is used to determine the frequency counts and percentage distribution of personal related variables of the respondents. Moreover, the weighted mean was also used to determine the assessment of the respondents with regard to their personal profiles and to ascertain the influence of using cashless transactions.

The likert a scale was used since it's the most commonly used method for scaling responses in survey studies. Through the responses that indicate their level of agreement used it to determine its equivalent scale and do the interpretation using a four-point likert scale which is presented below.

Table 1. Likert Scale on Level of Influence

Scale	Range Value	Verbal Interpretation
4	3.26 - 4.00	Very High Influence
3	2.51 - 3.25	High Influence
2	1.76 - 2.50	Moderate Influence
1	1.00 - 1.75	No Influence

4. RESULTS AND DISCUSSION

The distribution of survey questionnaires was conducted online during April 2022 through social media applications in the form of Google drive.. A total of 106 respondents answered the survey questionnaire through convenience sampling in a span of 2 weeks.

Part I. Demographics

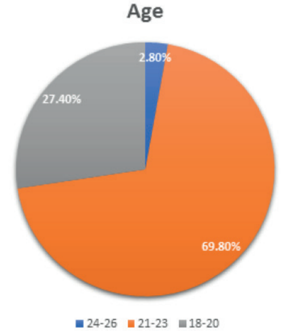

Figure 2. Age Bracket of Participants

As shown in Figure 2, the majority of the respondents who answered the survey were under the age of 21-23 years or a total of 74 with a percentage of 69.80%. Other age groups consis of 18-20 years' old which has 29 respondents or 27.4% and 24-26 years' old which has 3 respondents or 2.8%.

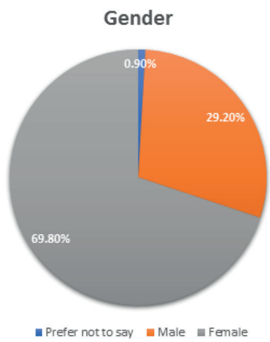

Figure 3. Gender

In terms of gender, Figure 2 presents that female respondents outnumbered the male respondents which totaled 74 or 69.8% and 32 male respondents or 30.2%, respectively.

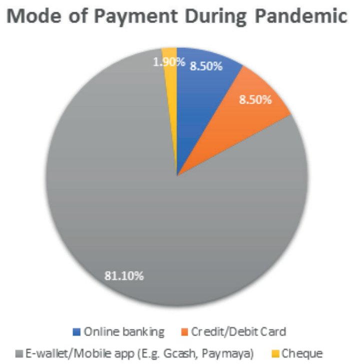

Figure 4. Mode of Payments

As shown in Figure 4, the mode of payments frequently used by consumers is E-wallet/Mobile app (E.g. Gcash, Paymaya) with a percentage of 81.10%. Other respondents used online banking with a percentage of 8.5%; while the other 8.5% used Credit/Debit Cards; and the remaining 1.9% used Check as their modes of payment.

Part II. Benefits and Detriments

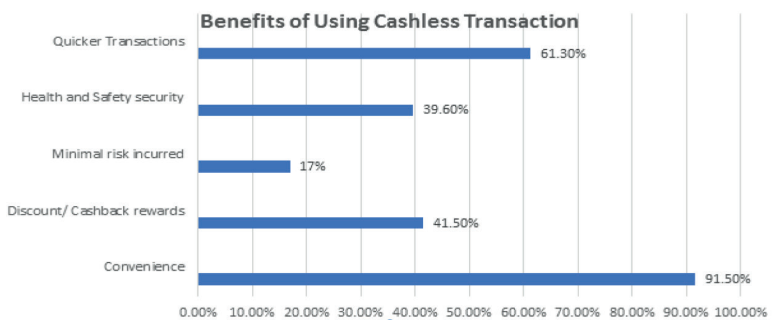

Figure 5. Benefits of Using Cashless Transactions

Figure 5 reveals that the 17% of respondents used cashless transactions because there is a minimal risk incurred with 39.6 % is for health and safety security, while discount and cash back rewards got 41.5%. The 61.3 % of the respondents choose to use cashless transactions for quicker transact. Lastly, Convenience gathered the highest amount of percentage totaling 91.5% This implies that the most common reason of the respondents on using cashless transactions is because of its convenience.

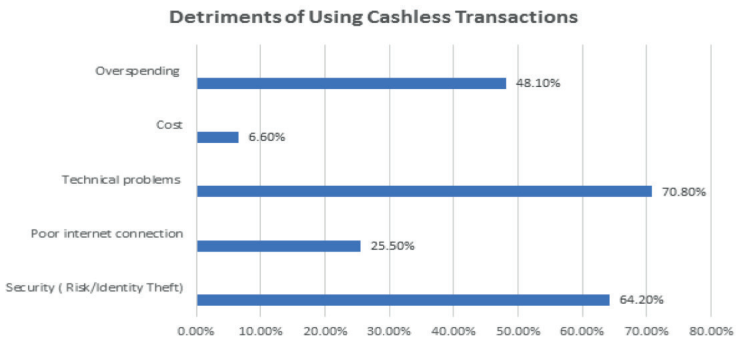

Figure 6. Detriments of Using Cashless Transactions

Figure 6 presents that 7% of the respondents are concerned on using cashless transactions when it is costly, while 25.5% chose that poor internet connectivity is their concern. The 48.1% of the respondents chose overspending with a and 62.4% of the respondents chose security because of higher risk of identity theft; respectively. Lastly, Technical problem gathered the highest amount of percentage totaling to 70.8%. This further indicates that the most common concern of the respondents on using cashless transactions is the possible technical problems that they experienced when using cashless transactions.

Part III. How do the following factors influence your spending behavior?

Table 2. Influence on Social Factor

Social Factor	Mean	Interpretation
Social Status	3.06	High Influence
Reference Group	2.85	High Influence
Civil status	2.42	High Influence
Employment	3.38	Very High Influence
Weighted Mean	2.93	High Influence

Table 2 shows the influence of social factor on the spending behavior of the consumers. The sub-variables social status with a mean of 3.06, reference group with a weighted mean of 2.85, and civil status with a weighted mean of 2.42, all interpreted as high influence. The sub-variable employment which gathered a mean of 3.38 with an interpretation of very high influence. Overall, the social factor resulted to a weighted mean of 2.93 which means that it has a high influence on the spending behavior of the respondents.

Table 3. Influence on Personal Factor

Personal Factor	Mean	Interpretation
Age	2.79	High Influence
Profession	3.36	Very High Influence
Income	3.79	Very High Influence
Personality/Self-image	3.15	High Influence
Weighed Mean	3.27	Very High Influence

Table 3 discloses the influence of personal factor on the spending behavior of consumers. The sub-variables age and personality/self-image had means of 2.79 and 3.15 respectively, indicates that the age and personality or self-image of a person had a high influence on the spending behavior. The sub-variables such as profession and income having computed means of 3.3, 3.79. and 3.15, respectively, resulted to a very high influence. Overall, the personal factor earned a 3.27 weighted mean which means that it has a very high influence on the spending behavior of the respondents.

Table 4. Influence on Psychological Factor

Psychological Factor	Mean	Interpretation
Habit	3.45	Very High Influence
Mood	3.57	Very High Influence
Perception	3.08	High Influence
Attitude	3.12	High Influence
Weighted Mean	3.31	Very High Influence

Table 4 shows the influence of psychological factor on the spending behavior of consumers. The sub-variables such as perception and attitude with computed means of 3.08, and 3.12, respectively, had an interpretation of high influence, while the sub- variables habit and mood had a computed means of 3.45, and 3.57, respectively had an interpretation of very high influence. Overall, the psychological factor earned a 3.31 weighted mean, which means that it has a very high influence on the spending behavior of Gen Z consumers.

Table 5. Influence on Cultural Factor

Cultural Factor	Mean	Interpretation
Advertisement	3.02	High Influence
Beliefs and Values	2.66	High Influence
Promotion and Discounts	3.75	Very High Influence
Latest Fashion and Trends	3.63	Very High Influence
Weighted Mean	3.26	Very High Influence

Table 5 presents that the weighted mean for cultural factor is 3.26 which results in an interpretation of very high influence. This is generated by the following sub- variables such as advertisement with a 3.02 mean, and beliefs and values with a mean of 2.66, resulting to an interpretation of high influence. The sub-variables promotion and discounts with a mean of 3.75, and latest fashion and trends with a mean of 3.63, resulted to an interpretation of a very high influence.

Table 6. Influence of Cashless Transactions

Factors	Weighted Mean	Interpretation	Rank
Social	2.93	High Influence	4
Personal	3.27	High Influence	3
Psychological	3.31	Very High Influence	2
Cultural	3.36	Very High Influence	1

Table 6 presents that cultural factor ranked 1 with a weighted mean of 3.36 followed by psychological factor with a weighted mean of 3.31, while rank 3 is personal factor with a weighted mean of 3.27, and rank 4 is social factor with a weighted mean of 2.93. Cultural and psychological factors were interpreted as with Very High Influence, while social factor had a high influence.

5. CONCLUSION AND RECOMMENDATIONS

In terms of gender, majority of the participants were female whose age ranges from 21-23 years old where they frequently used mode of payments were e-wallets or mobile applications. They chose to use cashless transactions because of convenience and quicker transactions. However, the most common concern of the participants in using cashless transactions is the technical problems they experienced and security of higher risk of identity theft.

In terms of the factors influencing the spending behavior of the participants in cashless transactions; social factor which includes sub-variables such as social status, reference group, civil status and employment had a high influence. The following factors such as personal with sub-variables like age, profession, income, personality or self- image; psychological which consists of habit, mood, perception, attitude; and cultural with advertisement, beliefs and values, promotion and discounts , latest fashion and trends as sub-variables had a very high influence.

RECOMMENDATIONS

1. Gen Z consumers should carefully spend their money even though transactions are cashless, because in the end, they will still pay for whatever they purchased. Moreover, they should buy what they need and not be attracted with discounts and promotions or the latest fashions and trends. They should manage their finances wisely.
2. Business firms that created the e-wallet or mobile application should make the platforms more secure to threats of identity theft and information.
3. Future researchers to conduct further study using other variables on a wider range of participants.

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UNVEILING SMES' ADOPTION OF PRIVATE FINANCE: A THEORY OF PLANNED BEHAVIOR PERSPECTIVE IN BULACAN

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ABSTRACT

The adoption of private finance solutions among Small and Medium-sized enterprises (SMEs) has become instrumental in their growth and sustainability, especially in today's evolving business landscape characterized by rapid technological advancements. Using the Theory of Planned Behavior as a guiding framework, it was hypothesized that attitudes, subjective norms, and perceived behavioral control influence SMEs' private finance adoption. This study employed a face-to-face and online descriptive survey of 244 SME owners and managers in Bulacan. Partial Least Squares Structural Equation Modeling (PLS-SEM) was also used to analyze the data. The findings revealed that only attitudes significantly influenced the respondents' intention to use private finance among the three independent variables. This only implies that SME owners' personal beliefs, perceptions, and evaluations of private finance strongly influence their decision-making process regarding its adoption. Such preliminary findings provide SMEs justification to further capitalize on private finance to help them access resources and promote economic development and resilience in the region.

Keywords: Private Finance, Attitudes, Subjective Norms, Perceived Behavioral Control, Small and Medium-sized Enterprises (SMEs), Partial Least Squares Structural Equation Modeling (PLS-SEM)

INTRODUCTION

In an era where prudent money management and financial literacy are paramount, private finance is critical for a brighter financial future. Private finance is about acquiring funds from various sources to sustain an individual's and a business's day-to-day operations (Kungu., 2018). Under private finance, there are two types of financial sources such as retained earnings and private equity. Retained earnings refer to a private fund generated from collected net income after all costs and expenses have been deducted, while private equity consists of funds and investors who make direct investments in private businesses (Kijkasiwat, 2021). In essence, private finance aims to help individuals or businesses achieve sustainable, profitable growth.

Relevantly, Small and Medium Enterprises (SMEs) are recognized as the backbone of the Asian economy, especially in developing countries (The Word Bank, n.d.). An SME is consistently described in terms of assets and number of employees. A firm may be categorized as a small enterprise if it has between 10 and 99 employees or assets size between 3 million to 15 million pesos—on the other hand, a medium-sized firm has between 100 and 199 employees or assets size between 15 million to 100 million pesos (Canare et al., 2019). At its core, SMEs account for the majority of businesses worldwide and are essential contributors to global economic development and job creation (World Bank, n.d.).

Today, the world's financial markets are dealing with growing inflation, stagnant wage levels, and a general slowdown in growth (World Bank, 2022). There has been an increase in private business owners adopting private finance today to strike a balance between their long-term plans and have a clearer understanding of current events (Deloitte Private Global Survey, 2021). Moreover, in the Philippines, where SMEs are usually run by a single person with full authority (Rasheed et al., 2020), handling finances is vital for small and medium enterprises' growth and success. Such behavior or business style differs from that of corporate firms, and how SMEs handle their money is heavily affected by their personal goals, life events, and expectations for the future.

However, despite SMEs making significant contributions to the economy, there are still challenges—one of which is the limited availability of financial resources. Many SMEs avoid external financing because they are unwilling to take risks. SMEs often do not have access to conventional collateral such as land and buildings because of their small size and lack of fixed assets. Additionally, most SMEs cannot correctly and accurately keep their financial statements (Canare et al., 2019). With this, lenders have trouble providing loans to SMEs since they cannot access their credit history to validate their creditworthiness.

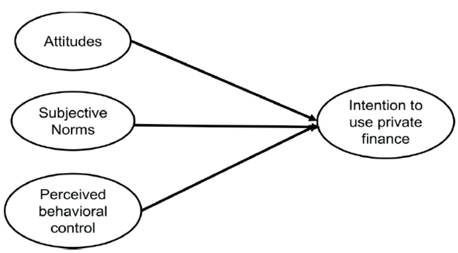
In the Philippines, lack of access to private finance is one of the most significant barriers affecting SMEs' performance, competitiveness, and development. As cited in the study of Flaminiano and Francisco (2021), 42% of small and 33% of medium enterprises had trouble getting credit. SMEs are having difficulty accessing private finance because they lack the necessary documentation, including complete financial statements and sufficient acceptable collateral (Philexport Cebu, 2020). Furthermore, according to the Organization for Economic Cooperation and Development (OECD, 2020), the COVID-19 pandemic substantially impacted SMEs' ability to access financial resources. Although private financing offers greater opportunities for profit maximization, many SMEs remain risk-averse to taking out a loan due to the possibility that they will be unable to pay back the loans due to insufficient cash or going insolvent (Cervantes, 2022).

Hence, this research, inspired by the work of Kijkasiwat (2020), examined the role of the theory of planned behavior towards private finance adoption by SMEs in Bulacan. Specifically, this research answers the questions of to what extent SME owners' (1) attitudes, (2) subjective norms, and (3) perceived behavioral control influence their intention to adopt private finance. In practice, the research findings will bear significant insights for SMEs to comprehend these ideas better and for private institutions to devise a method that will entice SME owners effectively and efficiently.

THEORY OF PLANNED BEHAVIOR

The Theory of Planned Behavior (TBP) was used to delve deeper into how behavioral factors affect the intention of SMEs to use private financing options such as private equity and retained earnings. Also, it was used to explain behavioral factors influencing the financial decision-making of SME owners in Bulacan (Sondari & Sudarsono, 2015). Figure 1 shows the conceptual framework adopted from Kijkasiwat's (2020) research.

Figure 1. Conceptual Framework



The dependent variable is the intention to use private finance to operate SMEs. One component of private financing is "private equity," which comes from shares provided to private enterprises outside the capital markets. The other component of private financing is "retained earnings," which comes on the internal of the business from the collected money, deducting all the expenses incurred by the business.

Meanwhile, the independent variables reflect a disposition toward private finance based on behavioral factors, which include attitude, subjective norms, and perceived behavioral control. Firstly, the attitude was determined by assessing the level to which SME owners were open to adopting private financing. Secondly, the subjective norms refer to SMEs' habitual use behaviors, which may be affected by their close relationships or present financial arrangements. Lastly, perceived behavioral control indicates the perceived capacity of SMEs to repay loans and credit loans. A shorter payback time may be seen as less problematic by the SME.

Relevantly, current initiatives are being taken to get private financing, execute projects, and establish a knowledge base. However, these efforts must be more cohesive and sectorial in nature (Clark et al., 2018). That being said, listed below are the hypotheses of this study following the anchor article:

H1: The attitudes of SME owners are positively associated with the intention to use private finance.

H2: The subjective norms of SME owners are positively associated with the intention to use private finance.

H3: Perceived behavioral control of SME owners is positively associated with the intention to use private finance.

METHODOLOGY

The researchers used a quantitative approach, particularly a descriptive and survey research design. A quantitative approach was employed to measure the respondents' attitudes and behaviors based on statistical and numerical evidence. On the other hand, a descriptive and survey research design was also used as the research questions required analysis and description of the role of TPB towards Bulacan SME owners' adoption of private finance and as the respondents were requested to answer questions in the form of survey questionnaire, respectively (Koh & Owen, 2000).

Additionally, this study was participated by SME owners and managers in Bulacan, Philippines—specifically in Bocaue, Guiguinto, Balagtas, Pandi, Marilao, Santa Maria, and Malolos City. Apart from these locations being situated halfway from both the northern and southern parts of Luzon, the province of Bulacan has retained its status as the capital of SMEs in Central Luzon, with more than 2,000 small businesses (Tuzon, 2023).

The researchers also employed a stratified sampling method. The sample size of 244 was computed using Slovin's formula with a confidence level of 95% and a margin of error of 5%. Relevantly, the researchers used two methods of data collection: face-to-face dissemination and an online survey using Google Forms. The questionnaire was divided into six (6) sections, namely the (1) Consent Form, (2) Demographics Profile, (3) Intention to Use Private Finance, (4) Attitude, (5) Behavioral Control, and (6) Subjective Norms. The primary research questions were set in Likert- scale form. The instrument used in this study was also compiled from different published and peer- reviewed journals. Thus, the researchers did not carry out any pre-testing on the instrument.

RESULTS AND DISCUSSION

Table 1 shows the composite reliability and convergent validity for each latent variable. The convergent validity was assessed using the Average Variance Extracted (AVE), which indicates values higher than the recommended value of 0.05 (Bagozzi & Yi, 1988). The result shows that Perceived Behavioral Controls and Subjective Norms both attained a value less than 0.5, less than the threshold value.

Table 1. Composite Reliability and Convergent Validity

Constructs	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Attitude	0.888	0.900	0.889	0.578
Intention to Use Private Finance	0.904	0.911	0.904	0.655
Perceived Behavioral Controls	0.869	0.906	0.862	0.493
Subjective Norms	0.863	0.920	0.764	0.427

Meanwhile, the reliability was measured using Cronbach's alpha, Composite reliability (rho_a), and Composite reliability (rho_c), where each latent variable attained a value higher than the benchmark of 0.7 (Fornell & Larcker, 1981). Although there is a shortage of AVE values for the mentioned variables (Perceived Behavioral Controls and Subjective Norms), these are near the threshold. Hence, each latent variable was generally accepted to model the research framework of the study.

Table 2 shows the correlation among the different latent variables in the heatmap matrix. The redder it is, the lower the correlation, while the greener it is, the higher the correlation. Note that the correlation values in the diagonal line equal 1.000 since one latent variable correlate itself. The result shows that Attitude has a higher correlation strength towards Intention to Use Private Finance than Perceived Behavioral Controls and Subjective Norms.

Table 2. Latent Variables Heatmap Correlation Matrix

Constructs	Attitude	Intention to Use Private Finance	Perceived Behavioral Controls	Subjective Norms
Attitude	1.000	0.657	0.546	0.354
Intention to Use Private Finance	**0.657**	**1.000**	**0.456**	**0.360**
Perceived Behavioral Controls	0.546	0.456	1.000	0.471
Subjective Norms	0.354	0.360	0.471	1.000

Furthermore, Table 2 display the hypothesis testing conducted analyzing the impact of SME owners' Attitudes, Subjective Norms, and Perceived Behavior Control towards the intention to adopt private finance. Using Partial Least Squares Structural Equation Modeling (PLS-SEM), evidence suggests that the SME owners' attitudes (β=0.565, p<.001) positively and significantly influenced the decision to adopt private finance. An increase in the SME owner's Attitude will translate to a higher adoption of private finance. This aligns with other studies where Attitude is a primary contributor that significantly influences SMEs to make private financial decisions—most especially in countries like Indonesia and Nigeria (Dai et al., 2021; Clement, 2019).

On the other hand, both the SME owners' Subjective Norms (β=0.116, p=0.134) and Perceived Behavior Control (β=0.696, p=0.487) do not significantly impact the intention to adopt private finance. Although it was seen that either factor positively influenced the intention to adopt private finance, it was revealed that it is insignificant since the p-values computed are greater than a 5% significance level.

Regarding SME owners' Subjective Norms, such findings corroborated Hidayah and Rodhiah's (2021) study that Subjective Norms do not always influence SMEs' willingness to adopt financial products that would strengthen their business growth. However, this was in contrast to multiple studies that have shown a positive relationship between Subjective Norms and SME owners' intention to adopt private finance for their day-to-day operations (Oktavia et al., 2020; Bailusy et al., 2023; Tolba et al., 2017; Rasheed et al., 2022).

Moreover, regarding SME owners' Perceived Behavioral Control, this research showed that it negatively influences their intention to adopt private finance. This result supports other findings regarding the Perceived Behavioral Control having a negative influential factor towards the intention to finance SMEs using private equity because of the risk that a financing choice may impose on a business and other factors that influence the adoption other than Perceived Behavioral Control (Sondari & Sudarsono, 2015; Brettel et al., 2009; Koropp et al., 2014). This is in contrast with the study of Ali et al. (2021) and Rahadjeng and Fiandari (2020), who found a positive relationship with the concerned variables.

Table 3. Hypothesis Testing of the Model Parameters

Hypothesis	Path	β	t	p	Remarks
H1	Attitude → Intention to Use Private Finance	0.565	4.482	<.001*	Supported
H2	Subjective Norms → Intention to Use Private Finance	0.116	1.501	0.134	Not Supported
H3	Perceived Behavioral → Controls è Intention to Use Private Finance	0.094	0.696	0.487	Not Supported

CONCLUSION

This study found that Bulacan SME owners' attitudes significantly influence their intention to adopt private finance, thereby accepting H1. This only implies that SME owners' personal beliefs, perceptions, and evaluations of private finance strongly influence their decision-making process regarding its adoption. Conversely, findings showed that subjective norms and perceived behavioral control do not impact SME owners' intention toward private finance adoption, rejecting H2 and H3. Given that subjective norms did not have a substantial influence, it proves that the social pressure and expectations from other people do not contribute to their desire to use private finance. Similarly, an individual's trust and capacity to utilize private funding may not be a decisive factor in determining their usage of private finance. Other factors might play a more significant role in influencing SME owners' private finance adoption besides subjective norms and perceived behavioral control.

Generally, SME owners should participate in financial management programs in order to enhance a deeper understanding of private finance adoption. Also, building a community that targets SME owners with the help of private institutions can be an effective strategy to promote the adoption of private finance. This community can serve as a platform for SME owners to connect with private institutions, receive guidance on securing private financing, and establish relationships that can lead to successful financing partnerships. Additionally, institutions can use the findings of this study in developing and promoting financial products specifically suited to the needs of SMEs and making well-informed investment decisions.

More importantly, this study has identified areas that may be considered in future studies that require further exploration. Firstly, future researchers may consider increasing the sample size to increase the study's statistical power and generalizability. This helps ensure that the findings are representative of the larger population and can be applied to other similar contexts. Secondly, they may consider including micro-enterprises in the study sample to gain a more comprehensive understanding of the subject on a broader range of businesses, including small and medium enterprises. Lastly, the present study suggests that future researchers should compare SME owners who use private finance to those who use other forms of funding, such as government grants, capital from investors, crowdfunding, and personal investment. This will make it less difficult to determine specific challenges and possibilities SMEs face while using private financing.

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FINANCIAL MANAGEMENT PRACTICES OF FACULTY OF CATHOLIC HIGHER EDUCATION INSTITUTIONS TOWARDS A FINANCIAL WELLNESS PROGRAM

Fe Rose-Anne B. Maramag, DBM

INTRODUCTION

Personal financial management is vital in helping people to make key financial decisions that affect their lives. Failure to properly handle personal finances has major short- and long-term ramifications for individuals, businesses, and society. According to studies, there are a set of modern financial standard habits that are helpful in managing personal money and leading to financial success. These habits have evolved into a collection of financial practices that have been shown to have a favorable impact on financial decisions and encourage responsible financial behavior. Despite the fact that personal finance experts and educators advise for the usage of these standard procedures, research shows that many people do not (Bosire, et.al., 2019).

Financial management practices include various strategies, techniques and processes implemented to effectively manage financial resources. Some key financial management practices includes budgeting, financial control, recordkeeping and cash management. Budgeting involves estimating and allocating financial resources to different activities (Horngren, Datar, & Rajan, (2018). On the other hand, recordkeeping practices are essential for teachers to maintain accurate and organized documentation of their activities (Sullo, (2019). In addition, financial control practices involve implementing strategies to effectively manage personal finances, monitoring spending and maintain financial discipline (Egan,2019.). Lastly, cash management practices involve effectively managing their cash flow, handling income and expenses and optimizing financial resources (Bailey, 2016).

Furthermore, the commitment to service inherent in the teaching profession may lead Catholic teachers to prioritize the needs of their students and communities over their personal financial well-being (Hunt & Kunkel, 2017). This selflessness and dedication can create tension when it comes to allocating resources for personal financial goals, such as saving for retirement or acquiring assets. Moreover, the desire to align personal financial decisions with religious beliefs adds another layer of complexity. Catholic teachings emphasize principles of stewardship, charity, and social justice (Franchi & Rymarz, 2017). Catholic teachers may seek to integrate these principles into their financial practices, leading to considerations such as supporting charitable causes, tithing, or making ethical investment choices. Given these unique circumstances and challenges, understanding the personal financial management practices of Catholic teachers is crucial. By examining their financial behaviors, decision-making processes, and the factors that shape their financial choices, this study aims to shed light on the experiences and challenges faced by Catholic teachers in managing their personal finances.

Thus, this study was conducted to determine the prevailing financial management practices among faculty members of Catholic Higher Education Institutions as basis in creating possible intervention. Effective financial management practices should be considered to help address financial constraints of teachers and help improve their performance as teachers.

Significance of the Study

Findings of the study will help the instructors of Catholic HEI's to budget, record, control and manage their financial resources. For school administration, findings can be used as guide in developing financial wellness program or framework for their faculty members. Personal financial wellness directly affects individuals' overall well-being and quality of life. Financial stress can lead to anxiety, depression, and

other mental health issues. By understanding the financial management practices of teachers, strategies and interventions can be developed to improve individuals' financial situations, ultimately enhancing their overall well-being. The focus of this study lies in contributing to the deeper understanding of the private school teachers' financial literacy, financial well-being and financial concerns. By studying the personal financial wellness of teachers, findings of the study can bridge the gap in knowledge and generate evidence-based insights that inform policies and interventions aimed at supporting teachers' financial well-being, job satisfaction, and overall effectiveness in the classroom. In addition, by examining the financial management practices of teachers, this study acknowledges the importance of personal well- being. It explores how financial stability and effective money management can positively impact teachers' overall happiness, job satisfaction, and quality of life.

RESULTS

Results of the study revealed that when it comes to budgeting practices, the listed practices are often practiced by the teachers. The finding that budgeting practices are often practiced by teachers is encouraging because budgeting is a critical component of financial management. A budget allows individuals to plan and control their spending, ensuring that expenses do not exceed income and that savings are possible. This is particularly important for educators who may have a variable income or limited financial resources (Wagithuni, et al., 2014). By practicing budgeting, educators can ensure that they are able to meet their financial obligations while still achieving their financial goals (Zietlow, et al., 2018).

The practice of recordkeeping is an essential component of financial management, particularly for individuals who want to achieve long-term financial stability. In the context of Catholic higher education institution teachers, the finding that recordkeeping is sometimes practiced by respondents is consistent with previous research on financial management practices. A study by Beyers and Mohloana (2015) on the financial management practices of higher education faculty in Saudi Arabia found that recordkeeping was one of the least commonly practiced financial management behaviors among the participants. This suggests that while recordkeeping is important, it may not be a widely adopted practice among educators. Recordkeeping is an important aspect of financial management, as it helps individuals to keep track of their spending, monitor their progress towards their financial goals, and identify areas where they can make adjustments to their budget. This is particularly important for individuals who want to achieve long-term financial stability, as it allows tahem to develop a clear understanding of their financial situation and make informed decisions about their spending (Aliyu, 2018).

The finding that Catholic higher education institution teachers often practice financial control practices, such as postponing purchases and careful analysis before deciding to purchase, is consistent with previous research on financial management practices among educators. Postponing purchases and expenses when income is not sufficient is a common financial control practice (Petty, et al., 2015). This practice is important as it helps individuals to avoid accumulating debt and falling into financial distress. A study by Lim, et al (2014) found that individuals who practiced financial control, including postponing purchases and avoiding impulse buying, had lower levels of debt and higher levels of financial well-being.

The finding that Catholic higher education institution teachers sometimes practice cash management practices, such as keeping emergency cash and holding cash to pay bills and other expected expenses, is consistent with previous research on financial management practices among educators. Keeping emergency cash is an important component of cash management. This practice can help individuals to manage unexpected expenses or emergencies without having to rely on credit or other forms of debt. A study by Drever, et al. (2015) found that individuals who kept emergency cash had lower levels of financial stress and were better able to manage unexpected expenses.

The results suggest that personal profile characteristics such as age and place of origin may play a role in the financial management practices of Catholic higher education institution teachers. This finding is consistent with previous studies that have explored the relationship between personal profile and financial management practices.

Meanwhile, the results indicate that there is no significant difference in financial management practices of teachers when grouped according to their professional profile, including their highest educational attainment, membership to professional organization, eligibility, and trainings/seminars attended related to financial management. These findings suggest that regardless of their level of education, membership to professional organizations, or participation in financial training and seminars, the financial management practices of teachers remain consistent.

Enabling Factors Affecting Instructors' Financial Management Practices

The results show that financial education and literacy, income and remuneration, and supportive policies and programs are all significant factors that affect teachers' financial management practices. This is consistent with previous research that has found that financial literacy is positively associated with financial management behavior (Brigham & Daves, 2018; Xiao, et al., 2014; Stolper & Walter, 2017) and that higher income levels are associated with better financial management practices (Jauch & Watzka, 2016). Furthermore, supportive policies and programs have been shown to have a positive impact on financial management practices (Anitha, 2014).

Restraining Factors Affecting Instructors' Financial Management Practices

Financial management is a critical life skill that is often overlooked, and teachers are not an exception. Teachers, like other professionals, are faced with financial challenges and decisions that require sound financial management practices. The present study examined along with enabling factors the restraining factors that affect teachers' financial management practices. The results indicate that financial education and literacy, income and remuneration, supportive policies and programs are the key enabling factors, while debt and financial obligations, lack of financial resources, lack of financial literacy and education, and time constraints are the key restraining factors affecting teachers' financial management practices.

CONCLUSION

The study on the financial management practices of teachers sheds light on several important aspects of their financial behaviors and practices. Budgeting emerges as a widely adopted practice

among educators, which is encouraging due to its crucial role in financial management. However, the study also highlights a gap in the practice of recordkeeping, emphasizing the need to promote this essential component of financial management among teachers.The findings also underscore the significance of financial control practices, such as postponing purchases and careful analysis before making decisions, among Catholic higher education institution teachers. These practices contribute to avoiding debt accumulation and financial distress, aligning with the principles of responsible financial behavior emphasized in Catholic schools.The study further reveals that teachers face significant challenges in managing their finances. Factors such as debt and financial obligations, limited financial resources, lack of financial literacy and education, and time constraints hinder their ability to effectively manage their finances. Recognizing these challenges presents an opportunity for Catholic schools administration and policymakers to develop targeted interventions and support programs to enhance teachers' financial well-being.

Implications of these results include the need for financial education and literacy programs tailored specifically for teachers, addressing topics such as budgeting, recordkeeping, debt management, and investment strategies. Providing teachers with the necessary knowledge and skills to manage their finances can contribute to their overall financial well-being and job satisfaction.

BEYOND BALANCE SHEETS AND BOARDROOMS: CFOS' ROLE AS CAPTAINS IN CAPITAL MARKETS

Key Points:

- The CFO's roles and responsibilities go beyond accounting and financial reporting. They also play a critical role in driving the growth of the Philippine capital markets and making this growth sustainable and inclusive.
- The case studies of Aboitiz Equity Ventures, San Miguel Corporation, and Ayala Land show how CFOs successfully navigated the pandemic and pursued their business' growth through the capital markets.
- For the Philippine capital markets to meet the challenges of sustainability, the government and the private sector must join forces.

What do San Miguel Corporation (SMC), Ayala Land Inc. (ALI), and Aboitiz Equity Ventures (AEV) have in common, aside from being among the "bluest of the blue" in the stock market and the most enduring conglomerates in the country? These companies have award-winning chief finance officers (CFOs) recognized for leading their organization towards sustainable growth despite the constant threat of rising risks and volatility.

SMC's Ferdinand Constantino and ALI's Augusto Bengzon were both recognized as "ING FINEX CFO of the Year" in 2018 and 2019, respectively, while AEV's Manuel Lozano was named the "Best CFO in the Philippines" in the Alpha Southeast Asia's 12th Institutional Investor Corporate Awards in 2022.

As "Captains of Capital," they steer their respective conglomerates towards creating value and actively raising capital. Thus, they play a pivotal role that goes far beyond the confines of their corporate boardrooms but contributes to deepening the country's capital markets.

When the global capital markets slowed due to the COVID-19 global pandemic starting in 2020, CFOs like them suddenly transformed into "boardroom brave hearts," with roles that are more pronounced as the economic environment becomes more volatile, more uncertain, and more interconnected. While these CFOs were no stranger to crises — having gone through the 1980s debt crisis in the Philippines, the 1997 Asian financial crisis, and the 2008 global financial crisis — COVID put to the test their ability and agility to lead their organizations in facing emerging challenges ahead.

How the CFOs of these three conglomerates managed to navigate the market turbulence and emerge even stronger from the pandemic provides valuable lessons, particularly to present and future capital market issuers.

AEV: Powering Through

Aboitiz Equity Ventures Inc. (AEV) is the public holding company of the Aboitiz Group with major investments in power, banking and financial services, food, infrastructure, land, and data science and artificial intelligence. With five generations of Aboitiz Group business success behind it, AEV is recognized as one of the best-managed companies in the Philippines and the region.

In 2020, AEV, like most businesses globally, suffered from a drop in income due to the debilitating economic impact of the pandemic. When community quarantine was imposed in the country, a number of businesses and commercial establishments succumbed to huge economic losses, thus dampening demand for power.

Mobility restrictions prompted many Filipinos to shift digital channels to access banking and financial services. The economic uncertainty, however, forced banks to set aside higher credit provisions and imposed tighter lending policies.

To manage the impact of the COVID crisis, AEV embarked on an aggressive program to manage its cash flows, which included a group capex budget cut of about a third, opex budget revisions, and proactive customer and supplier management.[1]

These cost rationalization measures, however, did not stop AEV from tapping the capital markets — even topping its pre-pandemic fundraising level — with an eye towards future growth. The Group raised PHP12.0 billion in preferred shares and listed PHP20 billion in bonds. Subsidiary Aboitiz Power Corp. also issued PHP10 billion worth of bonds.

Proceeds will go to partially funding the Aboitiz Group's PHP25-billion acquisition of the private operator of the Mactan Cebu International Airport, the country's second-busiest gateway. The Group plans to acquire more airports to support its vision of building a regional network of gateways with the Cebu project serving as the main hub.

Subsidiary Union Bank of the Philippines also raised PHP40 billion from a stock rights offer to partly finance its takeover of Citi Philippines' consumer business, in addition to selling PHP11 billion in bonds in June 2022.[2]

ALI: Building for the Long Haul

During the pandemic, Ayala Land, Inc. (ALI), the country's largest property developer, reported a 43% decline in consolidated revenues and a 74% drop in net income due to construction restrictions and lower bookings. Commercial Leasing revenues also contracted due to limited mall and hotel operations.

While there was no escaping the major disruption caused by the pandemic in 2020, ALI managed to turn around its financial performance in the

1 https://aboitiz.com/aboitiz-group-unveils-plans-for-post-covid-recovery/

2 https://business.inquirer.net/371561/aboitiz-fears-funding-challenges-as-rates-soar#ixzz7pxw4Q8EP

latter part of the year as it maintained a strong balance sheet to weather the crisis. Operating procedures were also put in place to ensure the safety of its people and customers.

Not to be derailed from pursuing its growth aspirations, the property powerhouse raised PHP45 billion via the domestic bond market to support the continuous construction of its 174 projects across the country.

COVID also did not stop ALI from giving birth to the country's first Real Estate Investment Trust (REIT) with the listing of its subsidiary AREIT Inc. at the Philippine Stock Exchange in 2021. The landmark listing saw AREIT raise net proceeds of PHP12.3 billion through an initial public offering. The success of AREIT emboldened other conglomerates to follow suit, thus promoting and strengthening the country's capital markets and providing broader investment options for Filipinos.

SMC: Braving the Future

The Philippines' largest and most diversified conglomerate serves as a microcosm of the Philippine economy — even more so during the pandemic. San Miguel Corp. (SMC) saw a 91% year-on-year drop in first-quarter 2020 net profit as lockdown measures were curb the spread of COVID-19.

The community quarantine and mobility restrictions dented the growth of its various businesses in many ways. Its food and beverage business faced difficulties in logistics due to the strict lockdown periods while the sudden need to improve digital commerce platforms increased operating costs. The lockdowns also led to slower vehicular traffic and affected SMC's infrastructure business, particularly its tollway operations. Liquor bans imposed during the initial lockdowns also tempered the revenues of its beverage business.

The government's travel restrictions during the onset of the pandemic also affected SMC's Philippine and Malaysian fuel and oil operations, exacerbated by the fluctuation in crude oil prices globally. Its energy business, meanwhile, saw a shift in demand from industrial and commercial clients to retail during the strict quarantine period. However, the increasing cost of inputs (coal and LPG) continued to challenge the business.

Despite the heavy toll of the pandemic on the corporate giant, SMC still managed to emerge as top Philippine capital market issuer in terms of amount raised in 2022. It raised a total of PHP90 billion through the issuance of fixed-rate bonds. During the pandemic in 2020, subsidiary San Miguel Food and Beverage Inc. raised PHP15 billion in retail bonds while SMC opted to issue preferred shares, allowing it to raise PHP33.79 billion in two tranches.

To be successful amidst the volatile markets, SMC had to recalibrate its planned issuances for the year and re-assess the timing of its issuances. In 2022, it re-established itself as one of the most prolific issuers in the capital markets through its two bond offerings: SMC PHP30 billion Series J & K Bonds, which was oversubscribed by 1.65x; and SMC Global Power PHP40 billion Series K, L, and M bonds, which was 2.35x oversubscribed. SMC Global Power's PHP40-billion bond issuance now holds the record for being the largest corporate bond issuance to date.

5 Key Lessons for the Post-Pandemic Future

The success of these three conglomerates in navigating the capital markets during the pandemic can be attributed to these 5 vital lessons:

1. ***Strong relationships matter, especially in times of uncertainty.*** SMC, AEV and ALI took risks going to the market and pursuing their capital expenditure plans. To gain the trust and confidence in their issues, the conglomerates relied on the time-tested ability of their investment banks to place a deal while investors put their money in knowing that the deal is put together well, issued by companies that have been reliable, year in and year out. The risks were made manageable because there have been multi-year relationships and track records to bank on.
2. ***Listen closely to the market.*** These conglomerates relied on underwriters that were able to feel the pulse of investors towards the issues. Aside from providing guidance in terms of tenor and pricing, underwriters needed to be able to tell a story of balance to investors: the issuer's credit strength, social responsibility, and how to spot opportunity amidst the pandemic.
3. ***When in doubt, debt.*** Throughout the pandemic uncertainty, liquidity remained robust, but investors remained on the sidelines. While the rates were very attractive to issuers, most of the debt instruments raised featured short tranches of 2 and 3 years. While bond instruments may not be the funding solution for all instances, it is very strong in terms of price tension, average life and investor diversification. The conglomerates relied on a strong execution and distribution syndicate to reap the benefits of the bond markets in providing a reliable source of competitively priced debt capital.
4. ***There's always a way.*** The lockdowns and mobility restrictions did not deter the conglomerates from deals. At a time when virtual meetings, working from home, and electronic filings were mostly unheard of, issuers, underwriters and regulators learned how to pivot to the New Normal. The successful issuances served as a testament to the adaptability of the entire market in pursuing deals during the pandemic.
5. ***The paradigm has shifted.*** COVID has upended the way people live, work, shop, even make hay. While online trading has been around for years, the pandemic-induced Work from Home mode accelerated online trades in recent years. Online trades among Filipinos now account for more than half of the investor base. Fortunately, the trend is in sync with the so-called "demographic sweet spot" the country is enjoying.

When foreign investors headed for the exit door during the onset of the pandemic, retail investors were left holding the fort, driving liquidity and moving the markets. In 2020 alone, local investors accounted for 55% or PHP7.35 billion of the daily average trading volume in the PSE. Of this, slightly more than a quarter was from retail investors — mostly young, tech-savvy millennials awash with cash and trading online. With more familiarity with the local market and growing maturity in investing, these investors have been buoying up interest in listed shares and enabling the economy to recover faster from the impact of the pandemic.

Challenges for the Capital Markets

The stories of the three conglomerates reflect how the Philippine capital markets has grown over the span of nearly three decades.

When I first joined BDO Capital in 1999, an initial public offering (IPO) in the vicinity of PHP300 million to PHP500 million would have been already large and a much bigger size issuance would already need foreign investor backing. Nowadays, an IPO worth PHP7-8 billion would have been easily gobbled up by local investors. A PHP2-3 billion loan syndication before was already considered a huge deal because banks could only underwrite PHP300-500 million and usually in very short, 3–5-year tenors. Nowadays, each bank can underwrite longer tenors of 5, 10, and 15 years and around PHP15 billion.

While these numbers speak volumes about the development of the Philippine capital markets, the market is still nowhere near the radar of many global investors because of lack of liquidity and diversity. According to the country's Department of Trade and Industry (DTI), there were 957,620

registered businesses in the Philippines as of 2022. However, only 275 are listed on the stock exchange — just 0.03% of the total number of businesses in the country — the lowest in Asia.

Other countries have more names, more issuers, leading to a bigger stock exchange and more robust capital markets. The country needs to encourage more businesses — particularly small and medium enterprises that comprise 99% of the economic backbone and generate majority of the domestic employment — to tap the capital markets.

The tide is slowly turning, however. In 2022, the Philippine Dealing and Exchange Corp. (PDEx) enjoyed a banner year for the fixed-income exchange, with funds raised through bond listings hitting a new all-time high of PHP508 billion. The amount raised via new listings and enrollment soared by 138% from PHP213.45 billion in 2021 as the Philippines continued to recover from the pandemic-induced recession.

In the equities market, the PSE had nine initial public offerings in 2022, the greatest number of IPOs in a single year since 2007 or years ago. Other capital-raising activities included one listing by way of introduction, five stock rights offerings and 12 private placements. The bourse also saw the listing of three new REITs, with two being energy-themed REITs. The PSE expects its REIT roster to expand and diversify to include other themes beyond what is currently listed.

For the capital markets to catch up with its more developed neighbors in Asia, the government and the private sector must continue to lead the charge through capital market reforms that would further deepen the market and bolster confidence among issuers and underwriters. Efforts to bring in the next tier of corporate issuers such as the PSE's introduction of an SME Board and the sponsor-led listing for family-run businesses are a step towards the right direction.

The Securities and Exchange Commission (SEC) and the Bangko Sentral ng Pilipinas (BSP) are also introducing global best practices and benchmarks such as sustainability reporting, the adoption of Environmental, Social and Governance (ESG) principles, and the United Nations Sustainable Development Goals. Aside from trying to do well, companies now have to do good for planet and people.

The Philippines has also taken part in regional partnerships to deepen its local bond market by implementing the ASEAN+3 Multi-Currency Bond Issuance Framework. The increased activity in online platforms for both stock and bond investing is also greatly spawning more individual investors in the Philippines, which now account for the most volume of market transactions. Retail participation is expected to get a further fillip from the financial literacy campaigns conducted by the PSE, SEC, and the Capital Markets Development Council, together with the Financial Executives Institute of the Philippines (FINEX) and as new financial products come onstream.

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