

Economics and Business Quarterly Reviews

Tam, F. Y., Lung, J. W. Y., Iao, C. H., Chong, N. L., & Mak, I. K. (2023). The Role of Social Media in Promoting Mobile Payment: A Qualitative Study of Consumers in Macao. *Economics and Business Quarterly Reviews*, 6(1), 241-252.

ISSN 2775-9237

DOI: 10.31014/aior.1992.06.01.500

The online version of this article can be found at:
<https://www.asianinstituteofresearch.org/>

Published by:
The Asian Institute of Research

The *Journal of Economics and Business* is an Open Access publication. It may be read, copied, and distributed free of charge according to the conditions of the Creative Commons Attribution 4.0 International license.

The Asian Institute of Research *Journal of Economics and Business* is a peer-reviewed International Journal. The journal covers scholarly articles in the fields of Economics and Business, which includes, but is not limited to, Business Economics (Micro and Macro), Finance, Management, Marketing, Business Law, Entrepreneurship, Behavioral and Health Economics, Government Taxation and Regulations, Financial Markets, International Economics, Investment, and Economic Development. As the journal is Open Access, it ensures high visibility and the increase of citations for all research articles published. The *Journal of Economics and Business* aims to facilitate scholarly work on recent theoretical and practical aspects of Economics and Business.



ASIAN INSTITUTE OF RESEARCH
Connecting Scholars Worldwide

The Role of Social Media in Promoting Mobile Payment: A Qualitative Study of Consumers in Macao

Fung Yi Tam¹, Jane W. Y. Lung², C. H. Iao³, N. L. Chong⁴, I. K. Mak⁵

^{1,2} Associate Professors of Macao Polytechnic University, Faculty of Business, Macao SAR, China

^{3,4,5} Graduates of Macao Polytechnic University, Faculty of Business, Macao SAR, China

Correspondence: Fung Yi Tam, Faculty of Business, Macao Polytechnic University, R. de Luís Gonzaga Gomes, Macao SAR, China. E-mail: fytam@mpu.edu.mo

Abstract

The objective of this study is to identify the role of social media to promote mobile payment in Macao. Online focus groups were used for this study. There was a total of 18 participants attended online focus groups. The results showed that the age group of 18 to 30 used social media all the times and felt comfortable to receive promotion information of mobile payment through social media. Company can use social media in promoting mobile payment for age group 18-30, however, company needs to consider their concerned about the improvement of the existing mobile payment system such as offer a unified payment app in Macao and optimize the interface of mobile payment to be more user friendly. The age group of 31 to 49 did not have enough time to browse the information about mobile payment from social media. If a company can provide more attractive and engaging content helping consumers spend less time learning and browsing information, then social media can become an effective tool to promote mobile payments. The age group of 50-65 felt drawback about social media because they believed that there were a lot of fake information on the internet. To promote mobile payment for the 50-65 age group, free lectures, personal promotion, newspapers and TV are suggested.

Keywords: Mobile Payment, Perceived Usefulness, Perceived Ease of Use, Social Media, Adoption of Mobile Payment, Promotion of Mobile Payment, Focus Group

1. Introduction

According to the statistics report of the International Monetary Fund (IMF), Macao is one of the richest cities in Asia. In terms of per capita incomes and GDP per capita by purchasing power parity, Macao is one of the highest in the world (IMF, 2019). Macao has 662.9 thousand people, according to statistics, internet uses as a percentage of total population in Macao is 86.5% (Datareportal.com, 2022).

Regarding the uses of social media, 72.1 percent of residents surveyed use WeChat the most, compared to other websites and social networks like Facebook and YouTube. Among these interviewees, some 47.7 percent of them spend an average of one-hour daily to check WeChat. Around 19.2 percent of interviewees spend more than three

hours a day on WeChat, 12.4 percent spend two to three hours to browse WeChat, and 16.1 percent use it for one to two hours (Macao Daily Times, 2017). Social media marketing is one of the biggest opportunities in marketing today (Luck et al., 2021). Social media marketing focuses on how to use social media such as Facebook, Instagram, Pinterest, YouTube, Tweeter and Snapchat. With the help of various social media marketing tools, marketers can understand the needs and interests of target audiences through various social media platforms, and promote ideas and products at low cost.

Mobile payment is defined as the transaction between two parties using mobile devices including wireless handsets, personal digital assistants (PDA), radio frequency (RF) devices, and near field communication (NFC) based devices (Ling, 2004; Chen and Nath, 2008). Mobile payment is a monetary payment for products or services through portable electronic devices such as tablets or mobile phones. Mobile payment technology can also be used to send money to friends or family members, for example using the PayPal app (Grand, 2021). Mobile payment has been very popular in Mainland China. In 2020, over 86% of the mobile internet users in China adopt mobile payment, representing a user base of over 852 million. In urban areas, the Mobile payment penetration rate is close to 90 percent (Slotta, 2021). *Macao* is a *Special Administrative Region* (MSAR) of the People's Republic of China. However, Macao is still behind in the adoption of mobile payments.

The COVID-19 pandemic may be an exogenous shock that eventually pushes consumer adoption to a tipping point (Hung, 2020; Immanuel et al. 2020). When the lockdowns began around the world, non-essential physical shopping changed to online shopping only, or the place of purchase changed to a contactless experience -- including mobile payments highly encouraged at checkout. Cash and plastic back-and-forth passage began and continued to be considered unhygienic. Such sudden and rapid changes in our daily lives even force consumers to feel more comfortable with various forms of payment technology. The promotion of the adoption of mobile payment seems the direction of now and future. In fact, the government of Macao and Hong Kong have distributed digital payment vouchers since 2020 and 2021 respectively to stimulate consumer spending for use at local businesses (Philips, 2021). The scheme in Macao is being supported by eight mobile payments platforms, namely, AiliPay (Macao), BOC Macao, CGB Pay, ICBC ePay, LusoPay, MPay, TAIFUNG Pay, UePay (Moura, 2021). However, do the Macao consumers accept mobile payment? How to promote the adoption of mobile payment through social media in Macao? These questions will be answered by achieving the following six objectives of this study:

- 1) to gain an understanding of the perception of mobile payment in Macao;
- 2) to investigate the perceived ease of use of mobile payment in Macao;
- 3) to investigate the perceived usefulness of mobile payment in Macao;
- 4) to explore the degree of acceptance of mobile payment in Macao;
- 5) to identify the role of social media to promote mobile payment in Macao; and
- 6) to find out the ways that can promote the adoption of mobile payment in Macao.

2. Literature review

The Technology Acceptance Model (Davis, 1989), or TAM, suggests that the use of information technology is related to some of the external variables, users' perception and users' behavioral intentions (see Figure 1). External variables such as users' internal beliefs, attitudes and intentions affect the people's perception of actual systems. Perceived usefulness refers to the extent to which an individual is subjectively aware that using a particular system would improve or facilitate his or her job improvement (Davis, 1989; Hajiheydari and Ashkani, 2018; Qu et al., 2018). Perceived ease of use refers to the extent to which an individual considers that using a particular system would be easy. Previous research indicates that individuals' perceived usefulness positively affects their trust in a mobile information system (Afshan and Sharif, 2016; Kumar et al., 2018; Hung, 2019). Behavioral intention predicts a user's adoption of a particular system and its usage (Agrebi and Jallais, 2015; Davis, 1989), and behaviour intention is directly influenced by perceived usefulness and perceived ease of use, and is the prime determinant for a user to accept or reject a system (Qu et al., 2018). The TAM model has become a leading model for predicting and explaining system acceptance, which is also considered adequate for analyzing the popularity of social network-based mobile payment tools (Qu et al., 2018).

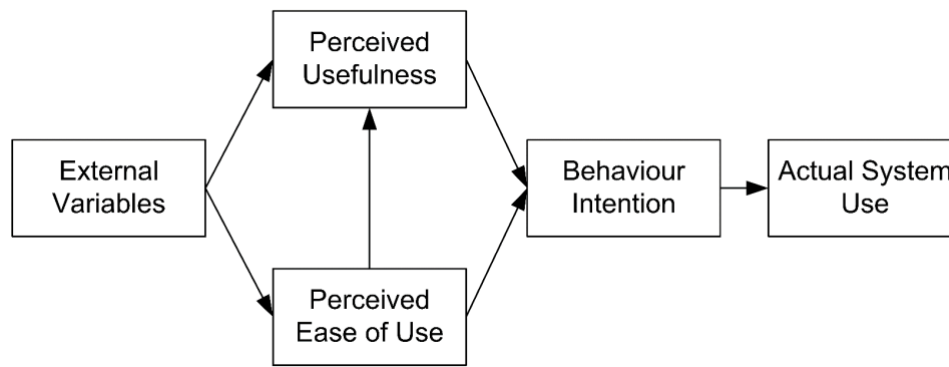


Figure 1: Conventional technology acceptance model

Source: Davis (1989)

Sharma and Bhatt (2018) state that social media have an absolute impact on perceived usefulness and perceived ease of use. Social media is very useful because it can help people make connections with others, easily get information about products and services as well as information about e-commerce companies, which can actually affect their behavioral intentions. The essence of social media focuses on two-way communication and interactivity. Social media is described as an online tool through which people can communicate with each other. It has become the standard word for online cultural exchanges and the primary form for individuals to participate on the Internet. By using social media, individuals are more closely connected than ever before. There are five social media most widely used in Macao: WeChat, Facebook, YouTube, Instagram, and Snapchat. As shown in Figure 2, there are total number of 439.6 thousand active social media users in Macao. Social media users represent 66.3% of the total population and 76.5% of social media users age over 13 (Datareportal.com, 2022).

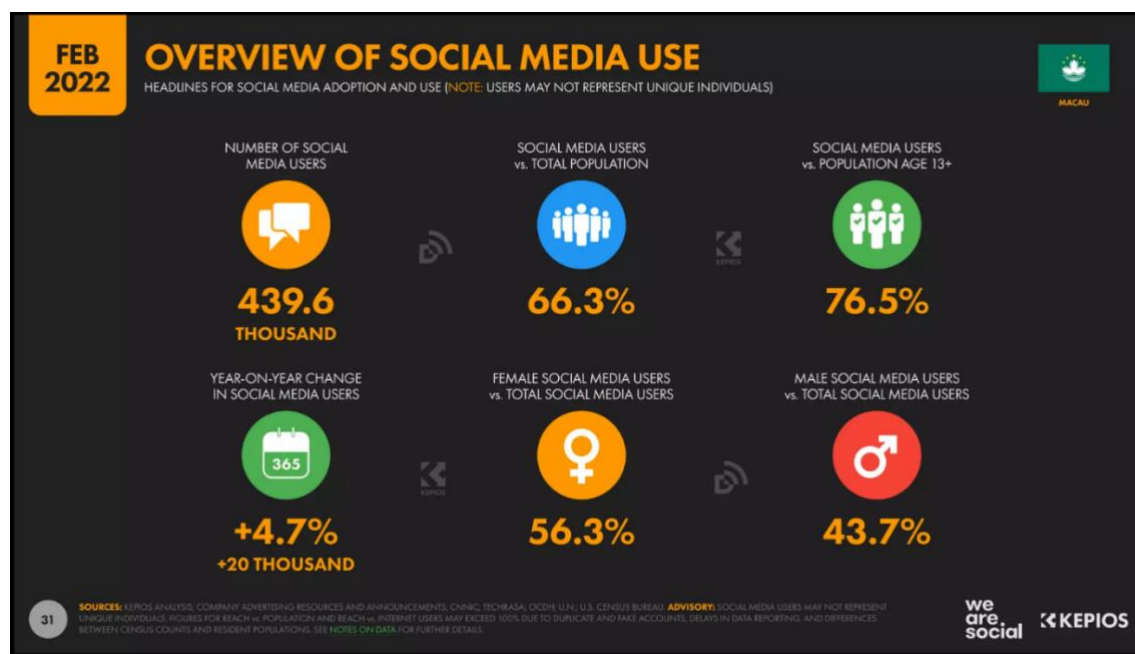


Figure 2: Macao's Social Media Overview 2022

Source: Datareportal.com (2022)

3. Methodology

This study used online focus groups method in order to obtain the qualitative data from the target groups of consumers in Macao, and to gain an in-depth understanding of mobile payments in Macao. The focus groups were used as a preliminary, explorative tool to identify some of the ways that respondents felt were of importance to promote the adoption of mobile payment in Macao. The group discussions focused on their knowledge, beliefs, experience and impressions towards mobile payments.

The study conducted a series of three focus groups to better understand how consumers in Macao perceive mobile payment and its adoption. There were eighteen respondents in total, and they were formed in groups according to their age: Group A aged from 18 - 30 years old; Group B aged from 31 - 49 years old; Group C aged range from 50 - 65 years old. Tables 1-3 present the composition of the focus groups. Each group consisted of six respondents led by a moderator who used a set of guided questions. Table 4 presents the twenty-one questions used and discussed. The questions were developed according to the TAM model and the research objectives for this study. The intent was for the groups to explore a range of topics including:

1. What are their knowledge of mobile payment in Macao?
2. Is mobile payment ease to use and useful?
3. What is the degree of acceptance or resistance towards mobile payment in Macao?
4. What is the role of social media in promoting mobile payment in Macao?
5. How to promote the adoption of mobile payment in Macao?

Table 1: Focus Group A

Group A (Age range from 18 - 30 years old) N=6					
	Age	Gender	Education level	Job Occupation	Income Level
A1	24	Male	University	Assistant engineer	MOP10,000-19,999
A2	30	Male	University	Clerk	MOP10,000-19,999
A3	27	Male	High school	Assistant engineer	MOP10,000-19,999
A4	23	Female	University	Freelancer	MOP 5,000-9,999
A5	25	Female	University	Technician in Facility Department	MOP10,000-19,999
A6	26	Female	University	Freelancer	MOP 5,000-9,999

Remark: MOP 1000 = US\$124.5

Table 2: Focus Group B

Group B (Age range from 31 - 49 years old) N=6					
	Age	Gender	Education level	Job Occupation	Income Level
B1	41	Female	University	High school teacher	MOP30,000-39,999
B2	32	Female	High School	Clerk	MOP10,000-19,999
B3	35	Male	High School	Safety supervisor	MOP20,000-29,999
B4	33	Female	High School	Receptionist	MOP10,000-19,999
B5	31	Male	University	Engineer	MOP20,000-29,999
B6	45	Male	University	Project manager	MOP30,000-39,999

Remark: MOP 1000 = US\$124.5

Table 3: Focus Group C

Group C (Age range from 50 - 65 years old) N=6					
	Age	Gender	Education level	Job Occupation	Income Level
C1	54	Female	Junior High School	Cashier in parking company	MOP10,000-19,999
C2	61	Male	Junior High School	Technician in Hotel	MOP10,000-19,999
C3	63	Female	Primary School	Housewife	MOP 5000 or below
C4	58	Female	Primary School	Housewife	MOP 5000 or below
C5	62	Male	Primary School	Freelancer	MOP10,000-19,999
C6	52	Female	Junior High School	Shuttle Bus Attendant	MOP10,000-19,999

Remark: MOP 1000 = US\$124.

Table 4: Questions asked and objectives achieved through focus group

Questions Asked in the Focus Groups	Research objectives to achieve
1. Do you know what is the mobile payment?	1
2. Do you know what kinds of mobile payment service providers are available in Macao?	1
3. Did you use the mobile payment in Macao? How do you feel while you are using the mobile payment in Macao? Why?	4
4. How many times do you use the mobile payment in Macao? Everyday? Every week?	4
5. How do you use the mobile payment to settle the payment? Which mobile payment service do you prefer to use? Why? (such as BOC, MPay etc.)	4
6. Do you know social media tools such as WeChat, Facebook YouTube etc.?	5
7. Do you think social media tools such as WeChat, Facebook YouTube etc. that allow you to receive more useful information of mobile payment?	5
8. Do you think social media tools such as WeChat, Facebook, YouTube etc. allow you to know/recognize the ease of using mobile payment?	5
9. Do you think social media tools such as WeChat, Facebook, YouTube etc. allow you to learn the ease of using mobile payment?	5
10. Do you think mobile payment is very useful if this is easy to use?	2 & 3
11. Do you think mobile payment can bring you any kind of usefulness?	3
12. Do you think mobile payment is easy to use?	2
13. If you know the mobile payment is very useful, will you adopt?	4
14. If you know the mobile payment is easy to use, will you adopt?	4
15. What kind of promotion methods do you know?	6
16. What kind of promotion methods that can enhance the people use/recognize the mobile payment?	6
17. What kind of promotion methods that can attract the people use/use more/recognize the mobile payment? Suggest some effective ways.	6
18. What promotion methods that can help to generate a positive effect on the adoption of the mobile payment?	6
19. Do you think the necessity of mobile payment in Macao?	4
20. What kind of promotion methods that can help to increase the necessity of mobile payment in Macao?	6
21. Do you have any other suggestions to promote the mobile payment in Macao?	6

4. Results

4.1. Result of objective one: to gain an understanding of the perception of mobile payment in Macao

In order to gain an understanding of the basic knowledge of mobile payment in Macao, respondents were asked questions such as: “what is mobile payment?” and “what are the service providers of mobile payment?”. Table 5 presents the results of the three groups of respondents.

All the respondents of groups A, B and C knew what mobile payment was. Group A and Group B were able to name the payment service providers that were available in Macao such as AiliPay (Macao), BOC Macao, CGB Pay, ICBC ePay, etc. One participant from group C did not know any service providers available in Macao.

Table 5: Participants' understanding of mobile payment in Macao

Questions	Number of respondents					
	Group A		Group B		Group C	
	Yes	No	Yes	No	Yes	No
1) Do you know what is the mobile payment?	6	0	6	0	6	0
2) Do you know what kinds of mobile payment service providers are available in Macao?	6 *MPay *Alipay *WeChat Pay *BOC Pay	0	6 *MPay *Alipay *WeChat Pay *BOC Pay	0	5 *MPay *Alipay	1

Group A: Aged from 18 - 30 years old; Total number (N) is 6.

Group B: Aged from 31 - 49 years old; Total number (N) is 6.

Group C: Aged from 50 - 65 years old; Total number (N) is 6.

4.2 Results of objectives two and three: to investigate the perceived ease of use and usefulness of mobile payment in Macao

Questions 10, 11 and 12 are related to the objectives 2 and 3. To investigate the perceived ease of use and usefulness of mobile payment in Macao, questions such as "Do you think mobile payment is very useful if this is easy to use?", "Do you think mobile payment is easy to use?" and "Do you think mobile payment can bring you any kind of usefulness?". The results are shown in Table 6.

Table 6: Participants' perceived ease of use and usefulness of mobile payment in Macao

Questions	Number of respondents					
	Group A		Group B		Group C	
	Yes	No	Yes	No	Yes	No
10. Do you think mobile payment is very useful if this is easy to use?	4	2	4	2	4	2
11. Do you think mobile payment can bring you any kind of usefulness?	6	0	4	2	2	4
12. Do you think mobile payment is easy to use?	6	0	2	4	3	3

Group A: Aged from 18 - 30 years old; Total number (N) is 6.

Group B: Aged from 31 - 49 years old; Total number (N) is 6.

Group C: Aged from 50 - 65 years old; Total number (N) is 6.

As shown in Table 6, all the participants of group A agreed that mobile payment is very useful and easy to use, because of the convenience of payment, exclusively discount offered by the service providers, avoidance of receiving fake money, bacteria free payment, payment can be settled when purchase on internet, and users are able to control the transaction.

"Mobile payment is useful. It can bring me convenient, I do not need to bring any cards and keep any changes. It can be used when I did not bring cash with me. I do not need to go to the cash withdrawal machine every time and afraid of receiving fake money. Mobile payment used to cooperate with different type of stores and provided QR code scanning payment, it can be more convenient and shorten the transaction time."

"The usage of mobile payment is very simple and easy. All you have to do is to create your own account and link up with your mobile phone number and set password, then recharge money there. This is easy to use because the

interface of the mobile payment app is simple, and the description of each function is clear. After using for once or twice, you can understand how to control it.”

However, some of the participants of group B did not think mobile payment is very useful and easy to use, because some of them think that to pay by cash is faster than mobile payment, this is easy to give wrong amount of money when mobile payment apps improper operation, and mobile payment cannot be used if mobile phone is out of battery.

“Mobile payment is not easy to use and useful, it is easy to give the wrong amount of money when I did not operate probably, sometimes pay by cash is faster than mobile payment.”

“Even though you do not need to bring wallet with you with the use of mobile payment, it will be bad if your mobile phone runs out of battery.”

Some of the participants of group C shared that mobile payment is not useful because they get used to pay by cash, and they do not know how to use.

“Even though I know mobile payment is easy and useful, I prefer to pay by cash. I think this is not necessary in my life and I have already got used to pay by cash.”

4.3 Results of objective four: to explore the degree of acceptance of mobile payment in Macao

As shown in Table 7, questions 3, 4, 5, 13, 14 & 19 were asked to explore the degree of acceptance of mobile payment in Macao.

Table 7: Participants’ acceptance of mobile payment in Macao

Questions	Number of respondents					
	Group A		Group B		Group C	
	Yes	No	Yes	No	Yes	No
3. Did you use the mobile payment in Macao? How do you feel while you are using the mobile payment in Macao? Why?	6 *Feel good *Quick *Easy, no need to handle small change	0	5 *Convenience *Easy to add value and transfer money to friends	1 *Only trust currency	2 *Feel good *Enjoy coupon *Quick *Easy, no need to handle small change	4 *Do not know how to use *Complicated *Too convenience will be easy to spend more money *Stolen money if system goes wrong
4. How many times do you use the mobile payment in Macao? At least once per day → At least once per week → At least once per month →	6	0	2 2 1	1	2	4
5. How do you use the mobile payment to settle the payment? Which mobile payment service do you prefer to use? Why? (such as BOC, MPay etc.)	6 MPay & BOC pay	0	5 MPay, BOC pay & Alipay	1	2 MPay	4
13. If you know the mobile payment is very useful, will you adopt?	6	0	5	1	2	4
14. If you know the mobile payment is easy to use, will	6	0	5	1	2	4

you adopt?						
19. Do you think the necessity of mobile payment in Macao?	5	1	4	2	2	4

Group A: Aged from 18 - 30 years old; Total number (N) is 6.

Group B: Aged from 31 - 49 years old; Total number (N) is 6.

Group C: Aged from 50 - 65 years old; Total number (N) is 6.

In the study of group A, all participants used mobile payment, they expressed that mobile payment is good to use, quickly to settle payment, and easy because they do not need to handle small change. They used mobile payment at least once per day. They preferred MPay and BOC Pay because of the discount offered by the service providers. They used mobile payment for purchasing daily necessities such as food and dining out. They all agreed that mobile payment is necessity in their daily living.

“I adopted mobile payment because this is very convenience. It makes me feel fretted to bring my wallet and a bag to carry my wallet all the time. I would like to introduce mobile payment to my friends and family.”

Results of group B showed that five out of six participants used mobile payment, and only one did not use because who trust on currency rather than mobile payment. They used mobile payment vary from at least once per day to once per month. Similar to the participants of group A, they preferred MPay, BOCpay and Alipay (Macao) because of the coupons and discounts. Furthermore, they are easy to register and operations are user friendly. Four participants expressed that mobile payment is necessary in Macao, but the key is how to make the local mobile payment system connected to the world is very important. If mobile payment is very easy to use and useful, 5 participants responded that they would adopted. One participant would not adopt because who does not interest in it.

“I will use mobile payment only if currency has totally replaced by the electronic payment”

In the study of group C, four participants did not adopt mobile payment because they do not know how to use, or think that this was very complicated to use. Whereas, some of them afraid that because this is too convenience to use, money will be spent easily. And they also worry that money would be stolen if the payment system goes wrong. The exiting users in this group used mobile payment at least once per day. They preferred only MPay because they do not know any other service providers and MPay offered purchasing coupons which is more value for money than pay by cash. They would use mobile payment for grocery shopping in the supermarkets and paying the bus fares. If mobile payment is very easy to use and useful, two participants responded that they would adopt, and three participants shared that they do not interest in it. Only two participants think that mobile payment is necessary in Macao.

“I do not prefer to adopt mobile payment because I am not young. The design of mobile payment is only for youngster but not me. I think mobile payment is not good because this is too convenient, people would easy to spend a lot of money within short time.”

“I do not use mobile payment because this is too easy and care free, putting all amount of money on the internet is easy to be stolen, I worry about the security system of mobile payment.”

4.4 Results of objective five: to identify the role of social media to promote mobile payment in Macao

As shown in Table 8, questions 6 to 9 helped to identify the role of social media to promote mobile payment in Macao.

Table 8: Participants identify the role of social media to promote mobile payment in Macao

Questions	Number of respondents					
	Group A		Group B		Group C	
	Yes	No	Yes	No	Yes	No

6. Do you know social media tools such as WeChat, Facebook YouTube etc.?	6	0	6	0	6	0
7. Do you think social media tools such as WeChat, Facebook YouTube etc. that allow you to receive more useful information of mobile payment?	6	0	3	3	2	4
8. Do you think social media tools such as WeChat, Facebook, YouTube etc. allow you to know/recognize the ease of using mobile payment?	6	0	6	0	1	5
9. Do you think social media tools such as WeChat, Facebook, YouTube etc. allow you to learn the ease of using mobile payment?	6	0	6	0	1	5

Group A: Aged from 18 - 30 years old; Total number (N) is 6.

Group B: Aged from 31 - 49 years old; Total number (N) is 6.

Group C: Aged from 50 - 65 years old; Total number (N) is 6.

Results showed that group A knows social media very well and they use it always. They used WeChat, Facebook, LINE and YouTube, amongst these WeChat frequently used by them. They chose different social media for different purposes. WeChat, WhatsApp and LINE are used for connecting with friends. YouTube is used for entertainment such as music and movies. They expressed that some useful information about mobile payment can be obtained through social media. They would use the videos from YouTube and Facebook to receive news and new offers about mobile payment. They all agreed that social media can help them to recognize the ease of use and learn about how to use mobile payment. In fact, there are so many people produce videos, teach audiences how to use mobile payment and upload the teaching videos on the social media. They can learn about it step by step without any problems.

“In fact, WeChat, Facebook and YouTube have good and sufficient information help you learn about the use of mobile payment.”

“There are so many people make videos and teach people how to use mobile payment step by step, and I can follow it easily.”

Similarly group B also feel comfortable with social media, participants of Group B reflected that both WeChat, Facebook, YouTube and Instagram are widely used, except when asking question 7, “Do you think social media tools such as WeChat, Facebook YouTube etc. that allow you to receive more useful information of mobile payment? Three of the participants express that even though they use social media, they do not actively browse the information from social media. In fact, they do not want to spend much time to search for the information about mobile payment, so they do not think it can help to receive useful information.

“Even though I use social media, but I do not actively search and browse the information about mobile payment.”

Also, results showed that all the participants of group C know about different type of social media, they used WeChat, Facebook, YouTube and Tiktok, amongst these WeChat is preferred by them. Only two participants agreed that some useful information about mobile payment can be obtained through social media. The other four participants preferred newspaper and television to receive information of mobile payment because they think that there is so many fake news on the internet, the information source is not trustable. Almost all the participants disagreed that social media can help them to recognize the ease of use of mobile payment. To learn about how to use mobile payment, they would prefer face to face interaction, newspaper or television.

“I think that information on the newspapers and television is better than social media.... if people such as friends or my family members who are able to teach me face to face which will be better.”

4.5 Results of objective six: to find out the ways to promote the adoption of mobile payment in Macao

As shown in Table 9, questions 15, 16, 17, 18, 20 & 21 were asked to provide suggestions that can promote the adoption of mobile payment in Macao. Both groups A, B & C know very well about different advertising and promotion methods such as broadcasting media (television), social media, print media (newspapers and magazines), discounts and coupons. Furthermore, participants from all groups agreed that social media, government support, discounts and coupons can help enhancing the promotion of mobile payment. However, participants from different groups suggested different ideas. Participants from group A, particularly concerned about the improvement of the existing mobile payment system such as offer unified payment apps, optimize the interface of mobile payment to be more user friendly.

“I think online advertising and social media ads can be used to promote mobile payment. To stimulate the uses of mobile payment is to unified the existing mobile payment apps into one, too many mobile payment apps make me confused and feel inconvenient.”

Participants from group C thought that free lectures, face-to-face interaction and personal promotion are very important to them. Both participants from group A and B considered about the issues such as system security, protection of personal data and privacy are their key concerns.

Table 9: Participants suggest the ways to promote the adoption of mobile payment in Macao

Questions	Group A	Group B	Group C
15. What kind of promotion methods do you know?	*TV ad. *Billboard *Bus shop shelter ad. *Email ad. *Social media and online promotion *Word of mouth	*Newspapers *Magazines *Online ad *TV ad *Community promotion *Social media	*Newspapers *Magazines *TV ad *Radio *Social media *Personal promotion
16. What kind of promotion methods that can enhance the people use/recognize the mobile payment?	*Social media *Patronage reward	*Online ad *TV ad *Social media	*Newspapers ad *TV ad *Free lectures *Social media ad *Personal promotion
17. What kind of promotion methods that can attract the people use/use more/recognize the mobile payment? Suggest some effective ways.	*Community event *Poster *Discount *Free gifts	*Security & privacy *Discount	*Free lectures *Coupon & discount
18. What promotion methods that can help to generate a positive effect on the adoption of the mobile payment?	*Offer unified payment apps *Word of month *Offer more benefits *Money rebate or redeem	*Discount	*Free lectures *Coupon & discount
20. What kind of promotion methods that can help to increase the necessity of mobile payment in Macao?	*Government support *Word of mouth *Discount *Social media promotion	* Government support	*Government support *Word of mouth
21. Do you have any other suggestions to promote the mobile payment in Macao?	*Optimize the interface of mobile payment *Shorten maintenance time	*Simplified step and procedure when use	*Discount

	*Privacy protection		
--	---------------------	--	--

Group A: Aged from 18 - 30 years old; Total number (N) is 6.

Group B: Aged from 31 - 49 years old; Total number (N) is 6.

Group C: Aged from 50 - 65 years old; Total number (N) is 6.

5. Conclusions and implications

The purpose of this research is to study the role of social media in promoting mobile payment in Macao. The conventional technology acceptance model (TAM) used as the base for this study. Social media tools have been infiltrated into the lives of different age groups. Therefore, the focus group research method has been used to explore the perception of participants in different age range. The three different age groups are: 1) 18-30; 2) 31-49; and 3) 50-65.

Regarding age group of 18 - 30 years old, they know very well about mobile payment, social media and different mobile payment service providers in Macao. They all agreed that mobile payment is very useful and easy to use. All participants have already adopted mobile payment. They think this is important in their daily living. Company can use social media for this age group because they use social media all the times. Indeed, they feel so comfortable to obtain useful information such as new offers and discount from social media about mobile payment. However, company needs to consider their concerned about the improvement of the existing mobile payment system such as offer a unified payment app in Macao, optimize the interface of mobile payment to be more user friendly.

When studying age group of 31 - 49 years old, it also found that all of them know very well about mobile payment, social media and different mobile payment service providers in Macao. Almost all participants have adopted mobile payment. However, company needs to pay attention that some of them do not think mobile payment is useful because they think that to pay by cash is more efficient and effective. Moreover, company needs to consider their concerns about how to make the local payment system connected to the world system, system security, protection of personal data and privacy issue. In fact, they used social media, but they do not have enough time to browse the information about mobile payment from social media. If company is able to deliver more engaging content, consume less time in learning and browsing the information, social media could be an effective tool for promoting mobile payment.

The results showed that age group of 50 - 65 years old did not think positively of social media tools effect on the perceived usefulness and ease of use of mobile payment. They feel drawback about social media because they believed that there are a lot of fake information on the internet, newspapers and televisions are more trustworthy for this group of people. They do not consider social media is the fastest and easiest way to deliver information. In fact, most of them did not adopt mobile payment because they think that this is so complicated to use. To teach them how to use and increase the usage rate, company can enhance on face-to-face interaction such as offering free lectures. To promote mobile payment, personal promotion, newspaper and television are suggested.

6. Limitations and future research directions

Similar to other research, there are several limitations in this study where require further effort to pay. Firstly, typically a number of people consist of five to eight participants are appropriate in conducting a focus group (Robinson, 1999). This study obtained 18 participants attended the three focus groups, and although fulfilling the requirement, further insights could be gained from a larger sample size. Secondly, in order to understand the perception and attitude of local consumers towards mobile payment, focus groups have been used to collect data for this research study, quantitative research study such as questionnaire with larger sample size is suggested. In addition, this study only focuses on Macao, similar research study can be conducted and data can be collected from different places around the worlds. And hence, the study results from different places in terms of the perceived usefulness and ease of use of mobile payment can be used to compare with one and another, a more insightful conclusion could be drawn.

References

- Afshan, S., and Sharif, A. (2016), "Acceptance of mobile banking framework in Pakistan", *Telematics and Informatics*, Vol. 33, No. 2, pp.370–387 [online] <https://doi.org/10.1016/j.tele.2015.09.005>.
- Agrebi, S., and Jallais, J. (2015), "Explain the intention to use smartphones for mobile shopping", *Journal of Retailing and Consumer Services*, Vol. 22, pp.16–23. [online] <https://doi.org/10.1016/j.jretconser.2014.09.003>.
- Chen, Lei-da., and Nath, R. (2008), "Determinants of mobile payments: an empirical analysis," *Journal of International Technology and Information Management*: Vol. 17: Iss. 1, Article 2. [online] <https://doi.org/10.58729/1941-6679.1105>
- Datareportal.com (2022), "Digital 2022: Macau" [online] <https://datareportal.com/reports/digital-2022-macau>
- Davis, F. D. (1989), "Perceived usefulness, perceived ease of use, and user acceptance of information technology", *MIS quarterly*, pp. 319-340.
- Grand, M. (2021), "Mobile payment" [online] <https://www.investopedia.com/terms/m/mobile-payment.asp#:~:text=Key%20Takeaways%201%20Initially%20more%20popular%20in%20Asia,benefits%20compared%20to%20physical%20cards.%20More%20items...vestopedia.com>
- Hajiheydari, N., and Ashkani, M. (2018), "Mobile application user behavior in the developing countries: a survey in Iran", *Information Systems*, Vol. 77, pp.22–33 [online] <https://doi.org/10.1016/j.is.2018.05.004>.
- Hung, K. (2020), "Covid-19 bringing in new mobile payment users" [online] <https://www.forbes.com/sites/kevinhung/2020/08/17/covid-19-bringing-in-new-mobile-payment-users/?sh=524ad7e32b54>
- Hung, S., Nakayama, M., Chen, C., and Tsai, F.L. (2019), "Physician perceptions of electronic medical records: the impact of system service quality, and generation/experience gaps", *International Journal of Healthcare Technology and Management*, [online] <https://doi.org/10.1504/IJHTM.2019.104936>
- IMF. (2019), "World economic outlook: global manufacturing downturn, rising trade barriers. Washington, DC. International Monetary Fund.
- Immanuel, D. M., and Dewi, Y. K. (2020), "Mobile payment adoption intention during pandemic Covid-19 in Indonesia", *Journal of Information System and Technology Management*, Vol. 5, No. 19, pp. 60-76 [online] DOI: 10.35631/JISTM.519006.
- Kumar, R. R., Israel, D., and Malik, G. (2018), "Explaining customer's continuance intention to use mobile banking apps with an integrative perspective of ECT and self-determination theory", *Pacific Asia Journal of the Association for Information Systems*, Vol. 10, pp. 79–112 [online] <https://doi.org/10.17705/1PAIS.10204>.
- Ling, R. (2004), "The mobile connection: the cell phone's impact on society", Morgan Kaufmann, San Francisco, CA
- Luck, E., Barker, N., and Sassenberg, A. M. (2021), "Integrated marketing communications", 6th Edition, Cengage Learning AUS
- Macau Daily Times, (2017), "WeChat has become Macau's most-used new media" [online] <https://macaudailytimes.com.mo/wechat-become-macaus-used-new-media.html>
- Moura, N. (2021), "Mobile payment volume up by a third in Q1" [online] <https://www.macaubusiness.com/mobile-payment-volume-up-by-a-third-in-q1/>
- Philips, T. (2021), "Hong Kong and Macau to distribute stimulus payments to citizens' digital wallets" [online] <https://www.nfcw.com/2021/04/15/371718/hong-kong-and-macau-to-distribute-stimulus-payments-to-citizens-digital-wallets/>
- Qu, Y., Rong, W., Chen, H., Ouyang, Y., and Xiong, Z. (2018), "Influencing factors analysis for a social network web based payment service in China", *Journal of Theoretical and Applied Electronic Commerce Research*, Vol. 13, No. 3, pp. 99-113 [online] <https://doi.org/10.4067/S0718-18762018000300106>
- Robinson, N. (1999), "The use of focus group methodology — with selected examples from sexual health research", *Journal of Advanced Nursing*, pp. 29(4).
- Sharma, K. B., and Bhatt, K. V. (2018), "Impact of social media on consumer buying behavior - a descriptive study on tam model", *i-Manager's Journal on Management*, 13(1), pp. 34-43.
- Slotta, D. (2021), "Share of mobile internet users using mobile payment in China from 2016 to 2020" [online] <https://www.statista.com/statistics/1243879/china-mobile-payment-penetration-rate/>