

The Effect of Mobile Payment Service Characteristics on Behavioral Intention through Positive Psychological Capital

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Abstracts: The introduction of Apple Pay in Korea is bringing about changes in the mobile payment service market. Mobile payment services are rapidly growing worldwide, gaining popularity among users as a convenient and easy payment method with the proliferation of smartphones and mobile apps. The advantages of contactless payments have been highly highlighted during the COVID-19 pandemic, leading to an increase in usage. Additionally, the introduction of new technologies such as cryptocurrency payments, biometric authentication, and IoT payments has resulted in the emergence of diverse and innovative services. However, concerns and challenges regarding security and personal information protection still exist, and changes continue to occur from a legal and regulatory perspective. Furthermore, intense competition drives ongoing efforts to provide better services that meet user demands. The findings of this study reveal that among the characteristics of mobile payment services, security positively influences positive psychological capital, and particularly, positive psychological capital plays a significant role in behavioral intentions.

Keywords: Mobile Payment Service, Positive Psychological Capital, Behavioral Intention, Switching.

1. INTRODUCTION

As of March 2023, mobile payment services are widely used worldwide common. The demand for mobile payment services has increased even more due to the rise of contactless transactions caused by the COVID-19 pandemic. Currently, Alipay and WeChat Pay are the most representative mobile payment services globally, each holding approximately 50% market share in China. Moreover, regionally famous mobile payment services such as Paytm in India, Apple Pay in the United States, and Interact in Canada are also being utilized. In this global trend of mobile payment service adoption, South Korea has its own representative services, including Kakao Pay, Naver Pay, and Samsung Pay. These services are integrated with their respective popular apps, providing convenient payment environments for consumers. Recently, platforms like Toss have also started offering mobile payment services, and there is a growing presence of mobile payment services utilizing cryptocurrencies. For instance, numerous apps providing mobile payment services using Bitcoin have been released.

Overall, mobile payment services are continuously advancing and becoming a more convenient payment method integrated into consumers' daily lives. With the recent introduction of Apple Pay in South Korea, a further shift in the market is anticipated. Therefore, it is necessary to conduct research on the current status of the mobile payment service market and its related aspects. Various studies are underway concerning mobile payment services, including research on security and privacy protection, usability and user experience, new payment methods, and user behavior and preferences analysis. However, there may exist technological, cultural, or social limitations, among other reasons. this study, I aim to investigate the current mobile payment service market at the time of Apple Pay's introduction, focusing on the limitations of user experience, which is considered crucial due to the increased importance of user experience resulting from Apple Pay's launch in South Korea.

Therefore, this research intends to examine the influence of mobile payment service characteristics on consumers' purchasing behavior through their positive psychological capital. Mobile payment services can enhance consumers' positive psychological capital by providing positive user experiences along with a high level of security and stability. Such positive psychological capital can be a significant factor influencing consumers' purchasing decisions. Mobile payment services offer functionalities that enhance user experience, which can induce users to make more purchases. Users can make purchasing decisions by considering factors such as the convenience and security of the payment process and the reliability of the mobile payment service provider. Mobile payment service providers can develop positive marketing strategies to enhance users' positive psychological capital. These

strategies emphasize the functionalities, convenience, security, and user experience associated with the payment service.

2. Literature Review

2.1 The characteristics of mobile payment service

The mobile payment service (MPS) is a form that naturally evolved from past electronic payment services due to advancements in technology and communication [1]. MPS is a service designed to enable payment functionality on mobile devices, beyond their original communication capabilities [2]. Therefore, MPS refers to a form of mobile machine-initiated payment, utilizing wireless communication technology and utilizing means such as mobile credit cards or mobile wallets for payment [3].

Traditional mobile payment methods required users to enter payment information each time, which was cumbersome. However, with the introduction of mobile convenient payment services, consumers can pre-register their payment information and passwords on their smartphones (Samsung Pay, Apple Pay) or servers (Naver Pay, Kakao Pay). This allows them to make quick payments using only a convenient payment password when needed [4, 5]. Furthermore, the payment password for mobile convenient payment services has evolved to be replaceable with consumer biometric information (fingerprint, iris recognition, face recognition), making payments even faster and more convenient.

Previous studies have examined various factors related to the characteristics of mobile payment services. A study by Lee et al. [6] investigated the security, convenience, responsiveness, and cost-effectiveness of NFC payment services, finding that convenience, responsiveness, and cost-effectiveness had significant influences. Kim et al. [7] presented convenience, reachability, and complexity as factors for mobile convenient payment services. Lee and Kang [8] identified cost-effectiveness, convenience, and situation-based provision as factors for smartphone payment services such as mobile wallets. Schierz et al. [2] presented perceived usefulness, ease of use, and compatibility as factors for mobile convenient payment services. Based on these previous studies, this study aims to examine immediacy, security, and convenience as characteristics of mobile payment services.

Immediacy refers to the perception of the speed at which an action or event occurs, defined as "the individual's perception of the time between an action and its resulting outcome" [9]. With the advancement of technology, faster internet connections and information acquisition speeds allow tasks and operations to be performed immediately, regardless of time and location [10]. Immediacy can be seen as a characteristic that combines the aspects of mobility and ubiquity [11, 12].

Security refers to ensuring personal information is protected and minimizing concerns about information leakage through a trusted electronic payment system [13]. Mobile payment systems need to be safe and reliable. Offline payments are made directly through cash or physical plastic cards, while online payments require more consideration for personal information leakage during the information input process and secure payment processing. If consumers perceive the system as insecure, they may discontinue their purchase.

Convenience refers to the ease of using a product or service, the simplicity of the usage process, and minimizing the effort required by consumers [14]. In the context of mobile payment services, it refers to the degree to which users perceive the service as convenient. Systems that are convenient are not only used more frequently compared to inconvenient systems but also increase user satisfaction. Factors of convenience include the ability to quickly obtain information, ease of service usage, and availability when needed [15].

2.2 Positive psychological capital

Positive psychological capital, which originated from research on depression, has emerged as a concept aimed at improving individuals' lives [16]. Subsequently, Luthans [17] identified four common concepts of positive psychological capital: positive psychological states, optimism, self-efficacy, resilience, and hope. Based on this,

positive psychological capital was conceptualized. Furthermore, Luthans et al. [18] suggested that when positive psychological capital is understood as a unified psychological dimension rather than individually accepting its four components, it has a higher impact. In other words, positive psychological capital can be defined as an individual's positive motivation and positivity toward work or tasks [19].

Positive psychological capital consists of four sub-dimensions: optimism, self-efficacy, resilience, and hope. Optimism refers to one's belief and trust in envisioning a positive future [20]. In other words, when faced with unexpected events, optimistic individuals tend to attribute positive events as permanent, internal, and pervasive, while attributing negative events as temporary, external, and situation-specific [21]. Self-efficacy refers to the cognitive motivation and confidence in successfully performing tasks in a given environment [22]. Individuals with high levels of self-efficacy seek various ways to overcome difficulties encountered in their tasks, while those with low self-efficacy tend to give up easily [23]. Resilience refers to positive psychological capacity that opposes conflicts and adversities, embracing positive changes and progress [17]. In other words, resilience refers to an individual's positive coping and overcoming characteristics in difficult and risky situations [24, 25]. Individuals with high resilience can cope with any difficulties with a sense of stability. Hope is the motivational energy focused on achieving goals [26]. It refers to the will to concentrate and make efforts to successfully perform tasks to achieve goals [27].

2.3 Behavioral Intention

According to Ajzen and Fishbein's [28] study, intention is a variable that connects individuals' attitudes and behaviors, representing their subjective state. It can be understood as the will or belief that positive attitudes, such as satisfaction, lead to the intention or belief in specific future actions. Consumers determine their satisfaction or dissatisfaction based on the alignment between their expectations before using a product or service and the actual outcomes after using it. In other words, satisfied consumers are more likely to demonstrate behavioral intentions that correspond to their satisfaction. This study aims to examine the intention of continued usage and switching.

The continue usage intention refers to the intention of individuals who have used a new product or service at least once to continue using it. It can be considered the true success of a product or service. Bhattacharjee [14] suggested that consumer satisfaction leads to the intention to continue usage and has a higher explanatory power than perceived usefulness. In other words, when consumers adopt and use a product or service and become satisfied, the likelihood of continued usage increases.

The switching intention is the intention of consumers to switch from the current service to another service, and it is the opposite concept of repurchase intention or intention to continue usage [29]. Customer switching behavior refers to customers moving to another company's product [31], and various factors contribute to switching, with the most influential factor being the failure of the core service [32].

3. Research Method

3.1 Data Collection

This study aimed to investigate the relationship between the characteristics of mobile payment services and behavioral intentions mediated by positive psychological capital. The participants were consumers who had experience using mobile payment services. Data collection took place from April 1st to April 14th, 2023. The researchers explained the purpose and content of the study thoroughly through online and offline surveys and obtained consent before distributing questionnaires to 320 users. A total of 320 questionnaires were collected. Among them, 18 responses had missing information or showed a prominent central tendency, rendering them statistically invalid. Thus, a final sample of 302 questionnaires was used for analysis.

Based on the previous literature on mobile payment service characteristics, positive psychological capital, and behavioral intentions, the measurement items were organized in line with the research purpose. The items presented in previous studies were modified to fit the context, and a 5-point Likert scale was used to construct the

evaluation items, as follows.

Table 1. List of measurement

Factor	Measurement Items	Research
Convenience	The usage of mobile payment services is more convenient than traditional payment methods. Mobile payment services allow for faster processing compared to traditional payment methods. Mobile payment services are more effective than traditional payment methods.	
Security	The security of the connection and transactions in mobile payment systems is trustworthy. When using mobile payment systems, I believe that my personal information provided will not be leaked to other places. The confidentiality of transaction and payment details entered when using mobile payment systems will be ensured.	[33, 34, 35]
Immediacy	Mobile payment systems have fast connection and loading speeds. Mobile payment systems have fast processing speeds. With mobile payment, I can perform immediate transactions.	
self-efficacy	I can achieve most of my planned goals. I can perform difficult tasks perfectly when encountered. I can achieve most of my goals.	
Hope	Currently, I am moving forward vigorously towards my goals. I believe there are many ways to solve the difficulties I am currently facing. I generally think that the outcomes of all things will be good.	[36, 37]
resilience	Even after experiencing stress, I recover quickly. I generally recover quickly after experiencing stress. I generally cope well with difficult tasks without much difficulty.	
optimism	I am always optimistic about my future. I expect to succeed when starting something new. I believe that where there is a will, there is a way.	
Continuance use intention	I will continue to use mobile payment services frequently in the future. I will continue to use mobile payment services regularly in the future. If possible, I plan to continue using mobile payment services.	[39]
Switching intention	I am highly likely to switch from the existing mobile payment service to other alternative methods. If there are other alternative payment methods available, I intend to switch from the existing mobile payment service. If there are other payment services available, I am willing to invest time and effort into exploring alternative methods.	[40]

3.2 Analysis Method

To analyze the causal relationships between the variables proposed in this study, covariance structure analysis was employed instead of individually verifying each hypothesis. Covariance structure analysis is a statistical technique designed to analyze complex causal relationships. IBM's SPSS 22.0 and Amos 22.0, which are structural equation modeling software tools, were utilized for the analysis.

3.3 Hypotheses

3.3.1. Relationship between Mobile Payment Service Characteristics and Positive Psychological Capital

Mobile payment services, as a new digital business model, provide convenient and fast payment services to users, which quickly permeates among people who make purchases of products or services. Among the characteristics of mobile payment services, convenience allows users to make payments anytime and anywhere through mobile devices without the need to carry cash or cards. This convenience is expected to provide users with a positive experience, leading to an increase in positive psychological capital. Furthermore, in terms of security, mobile payment services enhance their security systems to protect users' personal and payment information, reducing potential risks during the payment process. This enhanced security is likely to increase users' trust, resulting in an increase in positive psychological capital. Lastly, in terms of immediacy, mobile payment services offer quick processing speeds. Users can complete payments with just a few touches, and they can also check payment details in real-time. This fast-processing speed is expected to increase user satisfaction and consequently enhance positive psychological capital. Based on these considerations, the following hypotheses are proposed:

Hypothesis 1-1: Convenience, as a characteristic of mobile payment services, positively influences self-efficacy in positive psychological capital.

Hypothesis 1-2: Security, as a characteristic of mobile payment services, positively influences self-efficacy in positive psychological capital.

Hypothesis 1-3: Immediacy, as a characteristic of mobile payment services, positively influences self-efficacy in positive psychological capital.

Hypothesis 2-1: Convenience, as a characteristic of mobile payment services, positively influences hope in positive psychological capital.

Hypothesis 2-2: Security, as a characteristic of mobile payment services, positively influences hope in positive psychological capital.

Hypothesis 2-3: Immediacy, as a characteristic of mobile payment services, positively influences hope in positive psychological capital.

Hypothesis 3-1: Convenience, as a characteristic of mobile payment services, positively influences resilience in positive psychological capital.

Hypothesis 3-2: Security, as a characteristic of mobile payment services, positively influences resilience in positive psychological capital.

Hypothesis 3-3: Immediacy, as a characteristic of mobile payment services, positively influences resilience in positive psychological capital.

Hypothesis 4-1: Convenience, as a characteristic of mobile payment services, positively influences optimism in positive psychological capital.

Hypothesis 4-2: Security, as a characteristic of mobile payment services, positively influences optimism in positive psychological capital.

Hypothesis 4-3: Immediacy, as a characteristic of mobile payment services, positively influences optimism in positive psychological capital.

3.3.2. Relationship between Positive Psychological Capital and Behavioral Intention

Positive psychological capital is a mental resource that individuals possess, characterized by positive perceptions and self-efficacy. Behavioral intention, on the other hand, represents an individual's intention to engage in a specific behavior. Therefore, the relationship between these two factors can be described as follows.

Firstly, positive psychological capital is expected to have a direct influence on behavioral intention. Individuals with high positive psychological capital are more likely to have high self-efficacy, enabling them to have a higher likelihood of persisting in using a service or product. Conversely, individuals with low positive psychological capital are more likely to discontinue the use of a service or product and switch to alternatives. Based on these considerations, the following hypotheses are proposed:

Hypothesis 5-1: Self-efficacy in positive psychological capital positively influences the intention to continue using a service (positive impact).

Hypothesis 5-2: Hope in positive psychological capital positively influences the intention to continue using a service (positive impact).

Hypothesis 5-3: Resilience in positive psychological capital positively influences the intention to continue using a service (positive impact).

Hypothesis 5-4: Optimism in positive psychological capital positively influences the intention to continue using a service (positive impact).

Hypothesis 6-1: Self-efficacy in positive psychological capital negatively influences the intention to switch to an alternative service (negative impact).

Hypothesis 6-2: Hope in positive psychological capital negatively influences the intention to switch to an alternative service (negative impact).

Hypothesis 6-3: Resilience in positive psychological capital negatively influences the intention to switch to an alternative service (negative impact).

Hypothesis 6-4: Optimism in positive psychological capital negatively influences the intention to switch to an alternative service (negative impact).

4. Analysis Results

4.1 Sample Characteristics

The demographic characteristics of the sample used in the analysis of this study are as follows. First of all, by gender, 139 (46.0%) respondents were men, and 163 (54.0%) were women. By age, 115 (38.1%) were in their 20s, 89 (29.5%) were in their 30s, and 61 (20.1%) were in their 40s, and 37 (12.3%) were in their 50s or older. In terms of marital status, 104 (34.4%) were married and 198 (65.6%) were unmarried. As for the average number of times of using mobile payment services per month, 1-2 times 14 people (4.6%), 3-4 times 41 people (13.6%), 5-6 times 67 people (22.2%), 7-10 times 40 people (13.2%), and 140 people (46.4%) for more than 11 times, indicating that they often use mobile payment services recently.

4.2 Reliability and Validity of Measurement Items

The validity of the measurement model was assessed using the final collected data (n=302). The validation of the measurement model typically involves examining the reliability and validity of the measurement items. In this study, I conducted validity tests, specifically convergent validity, and discriminant validity, to assess the validity of

the measurement items.

Reliability validation was performed using Cronbach's α coefficient, which is widely used in social science research with a recommended threshold of 0.7 or higher [41]. Additionally, AMOS was utilized to calculate factor loadings from confirmatory factor analysis, and a factor loading of ± 0.4 or higher is generally considered significant [42].

Discriminant validity was examined to assess the degree of distinction between similar concepts. For this purpose, the average variance extracted (AVE) proposed by Fornell and Larcker [43] and Pearson correlation analysis were employed. Discriminant validity is supported when the square root of the AVE for each construct exceeds the correlation coefficients between that construct and other constructs [44].

Table 2. Reliability and validity of measurement items

Variables	Measurement Items	Factor Loadings	Measurement Errors	Cronbach's α	C.R	AVE
Convenience	CONV1	0.902	0.207	0.919	0.913	0.778
	CONV2	0.913	0.173			
	CONV3	0.854	0.297			
Security	SECU1	0.837	0.224	0.863	0.887	0.724
	SECU2	0.814	0.281			
	SECU3	0.814	0.266			
Immediacy	IMME1	0.883	0.138	0.882	0.918	0.788
	IMME2	0.844	0.191			
	IMME3	0.800	0.243			
self-efficacy	SELF1	0.831	0.245	0.859	0.874	0.698
	SELF2	0.850	0.251			
	SELF3	0.786	0.384			
Hope	HOPE1	0.809	0.250	0.829	0.864	0.680
	HOPE2	0.786	0.265			
	HOPE3	0.780	0.372			
resilience	RESI1	0.905	0.182	0.907	0.909	0.769
	RESI2	0.900	0.185			
	RESI3	0.825	0.327			
optimism	OPTI1	0.854	0.247	0.885	0.876	0.702
	OPTI2	0.885	0.276			
	OPTI3	0.813	0.401			
Continuance use intention	CONT1	0.906	0.252	0.911	0.894	0.739
	CONT2	0.909	0.236			
	CONT3	0.830	0.338			
Switching intention	SWIT1	0.819	0.267	0.898	0.909	0.770
	SWIT2	0.908	0.155			
	SWIT3	0.861	0.247			

Table 2 displays the results of reliability and validity tests for the variables used in this study. The reliability measurement results indicated no items compromising reliability, and the Cronbach's α values ranged from 0.829 to 0.919, surpassing the recommended threshold of 0.7, thereby establishing the reliability of the measurement items [41]. Furthermore, the factor loadings used to validate validity exceeded the thresholds suggested in previous studies, indicating no issues with the measurement items. Lastly, discriminant validity assessed using the average variance extracted values showed no problems, confirming its establishment [42].

These results statistically demonstrate the internal consistency and validity of the survey items. Table 2 presents the validation results for the reliability and validity of the measurement model. Additionally, as shown in Table 3, the square root of the extracted variances along the diagonal was greater than the correlation coefficients between

each pair of constructs, indicating the presence of discriminant validity among the constructs.

Table 3. Correlations among Constructs

Factor	Correlations								
	1	2	3	4	5	6	7	8	9
Convenience	.882								
Security	.555**	.851							
Immediacy	.474**	.790**	.888						
self-efficacy	.543**	.673**	.648**	.835					
Hope	.447**	.702**	.695**	.664**	.825				
resilience	.450**	.609**	.478**	.493**	.517**	.877			
optimism	.488**	.677**	.596**	.635**	.629**	.506**	.838		
Continuance use intention	.453**	.732**	.593**	.669**	.526**	.557**	.639**	.860	
Switching intention	-.408**	-.631**	-.593**	-.612**	-.619**	-.534**	-.567**	-.591**	.877

** p<0.01

4.3 Fit Assessment of the Measurement Model

After conducting reliability and validity tests for the measurement model, I further assessed the fit of the collected data to the research model using AMOS 22.0. The initial measurement model, consisting of 27 measurement items, underwent fit assessment. Fit assessment commonly employs the following criteria: a Goodness-of-fit Index (GFI) of 0.9 or higher, a Normed Fit Index (NFI) of 0.9 or higher, a Root Mean Square Error Approximation (RMSEA) of 0.05 or lower, and a Comparative Fit Index (CFI) of 0.9 or higher, with p-values greater than or equal to 0.05.

The fit assessment of the measurement model resulted in the following indices: $\chi^2 = 436.821$ (df=288), $p = 0.000$, $\chi^2/df = 1.517$, GFI = 0.904, NFI = 0.937, CFI = 0.977, and RMSEA = 0.041. Overall, these indices indicate a good fit of the measurement model. Therefore, it can be interpreted that the collected data fit the research model well [41].

4.4 Results of Hypothesis Testing

To examine the effects among the variables proposed in the research model, a structural equation modeling (SEM) analysis was conducted following the validation of the measurement model. The goodness-of-fit indices for the research model were as follows: $\chi^2 = 505.554$ (df = 301), $p = 0.000$, $\chi^2/df = 1.68$, GFI = 0.886, TLI = 0.964, NFI = 0.927, CFI = 0.969, and RMSEA = 0.048. These indices, primarily focusing on CFI, TLI, and RMSEA as suggested by Hong [41] as indicators of model fit, indicate that the overall fit of the research model is satisfactory. The results of hypothesis testing are as follows:

First, hypothesis H1-1 was rejected as the convenience factor of mobile payment services did not have a significant effect on self-efficacy ($\beta = 0.076$) within positive psychological capital. Additionally, hypothesis H1-2 was accepted, as security had a positive influence on self-efficacy ($\beta = 0.975$). Hypothesis H1-3 was rejected as immediacy did not have a significant effect on self-efficacy ($\beta = -0.186$).

Second, hypothesis H2-1 was rejected as the convenience factor of mobile payment services did not have a significant effect on hope ($\beta = -0.061$) within positive psychological capital. Conversely, hypothesis H2-2 was accepted, as security had a positive influence on hope ($\beta = 0.926$). Hypothesis H2-3 was rejected as immediacy did not have a significant effect on hope ($\beta = -0.018$).

Third, hypothesis H3-1 was rejected as the convenience factor of mobile payment services did not have a significant effect on resilience ($\beta = 0.055$) within positive psychological capital. Conversely, hypothesis H3-2 was accepted, as security had a positive influence on resilience ($\beta = 1.474$). Hypothesis H3-3 was accepted as

immediacy had a negative influence on resilience ($\beta = -0.752$).

Fourth, regarding the convenience factor of mobile payment services, it was found that it did not have a significant effect on optimism ($\beta = -0.021$). Therefore, hypothesis H4-1 was rejected. However, security had a positive influence on optimism ($\beta = 1.71$), leading to the acceptance of hypothesis H4-2. Furthermore, immediacy had a negative influence on optimism ($\beta = -0.763$), supporting the acceptance of hypothesis H4-3.

Fifth, within positive psychological capital, self-efficacy had a positive influence on the intention to continue using mobile payment services ($\beta = 0.743$), resulting in the acceptance of hypothesis H5-1. However, hope did not have a significant effect on the intention to continue using ($\beta = -0.16$), leading to the rejection of hypothesis H5-2. Additionally, both resilience ($\beta = 0.225$) and optimism ($\beta = 0.393$) had positive influences on the intention to continue using, supporting the acceptance of hypotheses H5-3 and H5-4, respectively.

Lastly, within positive psychological capital, self-efficacy had a negative influence on the intention to switch ($\beta = -0.34$), leading to the acceptance of hypothesis H6-1. Moreover, both hope ($\beta = -0.384$) and resilience ($\beta = -0.167$) had negative influences on the intention to switch, resulting in the acceptance of hypotheses H6-2 and H6-3, respectively. However, optimism did not have a significant effect on the intention to switch ($\beta = -0.106$), leading to the rejection of hypothesis H6-4.

CONCLUSION

The study on mobile payment service has yielded positive and negative findings from previous research in various directions. However, due to the changes in the environment and several factors resulting from the impact of COVID-19, it appears that research on the current situation is necessary. Accordingly, I aim to draw conclusions through the results of this study.

First, it was found that the security of mobile payment services has a positive impact on self-efficacy. When users can securely perform payments using mobile payment services, their self-efficacy is enhanced. Therefore, by positively influencing self-efficacy, security can lead users to actively utilize mobile payment services. Additionally, security was found to have a positive impact on hope. These results indicate that highly secure mobile payment services provide users with a sense of security. Trust and use of mobile payment services with sensitive information, such as personal and financial assets, are crucial for users. By strengthening the security of mobile payment services, users can believe that their personal information and financial assets are being protected securely. As a result, users will have greater hope and be more inclined to use mobile payment services.

Furthermore, it was found that the security of mobile payment services has a positive impact on resilience and optimism. Highly secure mobile payment services can enhance users' resilience. Resilience refers to an individual's ability to recover from difficult situations and can serve as a positive psychological resource. When the security of mobile payment services is high, users can have confidence in the protection of their personal information and financial assets. Consequently, users can recover quickly from challenging situations and utilize positive resources. Secondly, highly secure mobile payment services can enhance users' optimism. Optimism refers to an individual's tendency to expect positive outcomes and think positively. When the security of mobile payment services is high, users will have trust and expectations for the service. Therefore, users will have greater optimism and desire positive outcomes.

On the other hand, the immediacy aspect of mobile payment services was found to have a negative impact on resilience and optimism. Mobile payment services with high immediacy can weaken users' resilience. Immediacy refers to quick payments that can result in a rapid decrease in financial assets. As a result, users may experience financial difficulties, such as financial losses or exceeding budgets, which can undermine their resilience. Additionally, mobile payment services with high immediacy can decrease users' optimism. When the financial changes in mobile payment services occur rapidly, users may experience a decrease in optimism if the desired outcomes do not materialize quickly.

Regarding the relationship between positive psychological capital and behavioral intention, it was found that self-efficacy, resilience, and optimism have a positive impact on the intention to continue using mobile payment services. If users have high self-efficacy, they can proficiently use mobile payment services and experience positive outcomes, leading to the intention to continue using the services. Similarly, individuals with high resilience, who can recover from difficult situations, are more likely to intend to continue using mobile payment services. Lastly, individuals with high optimism, who expect positive outcomes and think positively, are more likely to have the intention to continue using mobile payment services. Conversely, this study has shown that as positive psychological capital increases, the intention to switch decreases.

The following limitations should be considered: Firstly, it may be challenging to clearly explain the causal relationship between the characteristics of mobile payment services and positive psychological capital (PPC). PPC encompasses individual factors such as self-efficacy, optimism, and resilience, and understanding how these factors influence the characteristics of mobile payment services can be a complex and challenging process. Secondly, individuals have unique personal traits and personalities, which means that the impact of mobile payment service characteristics on PPC may vary from person to person. For example, individuals with high self-efficacy may be more sensitive to the convenience and technical security of mobile payment services. Therefore, without considering individual differences, accurately predicting the influence of mobile payment service characteristics on PPC can be difficult. Lastly, there are limitations to the scope and generalizability of the research. Academic studies are often conducted on specific research subjects and in specific research environments, which can impose limitations on generalizing research.

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