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Factors Influencing User's Continuance Intention Towards E-CNY Payment in Shanghai, China

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Abstract

Background and Aim: In modern society, there is a growing desire to use mobile phones to make m-payments instead of cash, credit cards, and other payment methods. This study examined the current situation of the E-CNY payment users' continuance intention by applying the Unified Theory of Acceptance and Use of Technology (UTAUT) and the Technology Acceptance Model (TAM).

Materials and Methods: A sample of 311 valid respondents who lived in Shanghai, China, and had experience using E-CNY payments participated in an online survey using convenience and snowball sampling. A quantitative method applies multiple linear regression.

Results: As a result, Satisfaction showed the most decisive influence among other variables, followed by perceived risk, which negatively influenced continuance intention. Perceived usefulness and perceived ease of use showed significant influences. Hedonic motivation did not show a substantial influence on continuance intention.

Conclusion: According to this study, improving users' continuance intention to use the E-CNY payment first is improving the interface of the E-CNY payment. Secondly, it should promote the potential risk of this payment method to be relatively low, applying anti-fraud measures and resolving conflict processes. These findings emphasize the importance of user satisfaction and risk perception in shaping the continued use of E-CNY, with implications for policymakers and practitioners looking to promote digital currency adoption and usage.

Keywords: E-CNY; Continuance Intention; Satisfaction; Perceived Risk; Digital Currency Adoption, Mutiple Linear Regression

Introduction

With mobile payment technology rapidly redefining how people conduct financial transactions, introducing the Electronic Chinese Yuan, or E-CNY, is a significant advance in this dynamic environment. E-CNY provides a government-backed digital currency solution that is relevant for consumers and stakeholders by integrating into the mobile payment ecosystem. Understanding the determinants that propel consumers' desire to stick with E-CNY is crucial to appreciating its position in the larger scheme of mobile payment technologies(Jiang & Lucero, 2023). The establishment of E-CNY seems to be primarily motivated by domestic policy goals that China is hoping to advance, including cost reduction, money laundering prevention, financial inclusion, cashless economy transition, breaking up the duopoly in the mobile payment market, and generally strengthening government understanding of and ability to intervene in the Chinese economy (Urquhart, 2023). According to Lin and Chen (2023), the effectiveness of E-CNY payment can lower the expense of future cross-border transactions and is more secure and efficient; furthermore, most Chinese cities can download and use E-CNY payment from significant app stores by the end of 2022. The E-CNY pilot program extended into new use cases, and commercial banks and internet service providers are encouraging the creation and use of accounts. The E-CNY payment method from The People's Bank of China (PBOC) is available for download from the app store as of January 2022. The E-CNY has been tested at the Beijing Winter Olympics (Fan, 2022). In June 2023, the mobile payment user number in China reached 943 million users; compared to December 2022, the number has increased by 3.17 million (AskCi, 2023). However, according to Fan (2022) research, only one-third of the users prefer to keep using the E-CNY payment method, around 40% of the users still prefer using the third-party payment method (WeChat pay/Alipay), and another 27% of the users felt no different. Better security

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(because the central bank supports e-CNY), more privacy, no transfer fees, and the ability to conduct offline transactions are the main concerns of those who prefer the E-CNY payment.

Although E-CNY (Electronic Chinese Yuan) is becoming increasingly popular in mobile payment, less has been established about the elements influencing users' continuous intentions to use this digital currency. Although previous studies have investigated the factors that lead to early acceptance, there is a significant study gap regarding the long-term continued usage of E-CNY. By studying particular factors behind users' desire to continue using E-CNY, This study aims to investigate the motivations behind users' continuance intention to use E-CNY and provide insights into its adoption and implications for the future of digital currencies and financial transactions.

Theoretically, current theoretical frameworks concerning technology adoption and maintenance may be advanced by better understanding the elements influencing users' continued use of E-CNY. By identifying the particular reasons behind users' continuance intention, this research can improve and broaden theoretical frameworks, offering a more profound understanding of the dynamics surrounding the adoption of digital currencies. In practice, the knowledge obtained from this research may guide establishing strategies intended for user retention and engagement in the E-CNY ecosystem. Policymakers, financial institutions, and technology providers can adapt their goods and services more effectively to consumers' changing requirements and preferences by understanding the primary drivers of continuation intention; this will eventually lead to increased acceptability and adoption of E-CNY. Furthermore, the results of this study may significantly impact how digital finance policies are made. Policymakers and regulators may create laws and regulations encouraging E-CNY's general acceptance and usage while addressing possible obstacles and concerns about privacy, security, and usability by utilizing information regarding users' intentions to continue.

Examining users' intention to continue using E-CNY is crucial because it advances our theoretical knowledge of technology adoption and offers practical, policy-relevant insights that might spur innovation and advancement in digital banking.

Objectives

1. To investigate the influence of hedonic motivation on users' continuance intention toward E-CNY Payment.
2. To investigate the influence of perceived risk on users' continuance intention toward E-CNY Payment.
3. To investigate the influence of Satisfaction on users' continuance intention toward E-CNY Payment.
4. To investigate the influence of perceived usefulness on users' continuance intention toward E-CNY Payment.
5. To investigate the influence of perceived ease of use on the users' continuance intention toward E-CNY payment.

Literature review

1. Applied Theories

In this study, the first model employed is the unified theory of acceptance and use of technology (UTAUT), a model proposed by Venkatesh et al. (2003). According to this theory, four key indicators are performance, expectancy, effort expectancy, social impact, and facilitating conditions that influence a user's acceptance of a particular technology. Furthermore, age, gender, experience, and voluntariness of use were defined as moderating factors for users' behavioral intention. In the field of behavioral intention mobile application research, Bere (2014) has applied the UTAUT model to predict students' behavioral intention toward mobile learning applications based on performance expectancy, effort expectancy, social influence, student-centric learning, and hedonic motivation. The result showed that all the predictors would influence students' behavioral intention to mobile learning. Indrawati & Putri (2018) modified the behavioral intention to continuance intention in the UTAUT model to be more suitable for studying their intention of

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using E-payment rapidly in Indonesia. The study by Marinković et al. (2020) applied the UTAUT model and defined Satisfaction as a critical factor for predicting users' continuance intention of e-commerce usage.

The second model employed is the technology acceptance model (TAM), proposed by Davis (1989), to examine how users would accept the technology. According to this theory, two key indicators influencing a user's acceptance of information technology are perceived ease of use (PEOU) and usefulness (PU). Yuan et al. (2016) applied the TAM model to examine Chinese customers' continued intention to use mobile banking. Based on the research objective, the author(s) replaced behavioral intention with continuance intention and extended another variable, perceived risk, to be another indicator, resulting in a significant positive relationship.

2. Factors Affecting the Continuance Intention

2.1 Hedonic Motivation

Hedonic motivation has been defined as a significant influencing factor that drives users' adoption of a particular technology or service and influences their continuance intention of using it (Liébana-Cabanillas et al., 2021). Liébana-Cabanillas et al. (2021) also pointed out that a deficiency of hedonic motivation could cause disengagement and increase the risk associated with the post-purchase experience; it also may influence users' decision to remain with a particular technology. In the study of the model Unified Theory of Acceptance and Use of Technology (UTAUT), hedonic motivation has been described as the enjoyment of the individual that derives from adopting a technological breakthrough, which encourages the user to keep using such technology (Venkatesh et al., 2012). The hedonic motivation was considered equally important as other UTAUT2 factors studied in further research that evaluated their influence on users' intentions to embrace technology (McLean & Wilson, 2019). Raman and Don (2013) conducted a study that applied the UTAUT2 model to school teachers and examined hedonic motivation, resulting in facilitating conditions and hedonic motivation significantly influencing users' behavioral intention. The perceived pleasure or enjoyment of using a particular technology affects its use over time and can raise the users' continuous use intention. Halzack (2015) defined a significant relationship between customers' post-purchase behavior regarding internet technologies and their perceived enjoyment, which is linked to hedonic pleasure. Therefore, hedonic motivation in the context of E-CNY may come from components like gamification, rewards systems, or the novelty of utilizing a digital currency. Considering users are more inclined to continue with E-CNY if they find the experience gratifying and pleasurable, it is expected that higher levels of hedonic motivation will likely influence users' continuation intention toward E-CNY payment.

2.2 Perceived risk

Perceived risk has been defined as the potential risk or uncertainty associated with using an innovative technology or service; it also has been widely examined as a critical factor that influences customers' pre- or post-purchase behavior and regulates their behavioral intention (Chong et al., 2012; Slade et al., 2015). This variable has also been commonly examined as an extension factor of UTAUT, which affects users' technology adoption process (Williams et al., 2011). In the field of mobile payment service, the perceived risk has played an important role. It has been determined that when a user or a potential user is unfamiliar with the current mobile payment system, their perceived risk of using it will increase, as well as the subjective advantages of using it shortly (Gbongli et al., 2019). In a similar field of mobile services, Lu et al. (2017) conducted research to examine Chinese users' continuance intention toward mobile payment services; it showed that the perceived risk negatively influences users' continuance intention of using mobile payment services. This study also proposed that a lack of experience or awareness of the mobile payment service would cause users to process relatively high perceived privacy risks. The most significant concerns of users are privacy violations, unauthorized access to transactions, and personal data.

Nevertheless, raising users' understanding and familiarity with mobile payment services might lower their perceived risk and help businesses take preventive actions. Therefore, perceived risks in the context of E-CNY may include concerns about privacy, security, financial loss, or technological difficulties. Higher

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levels of perceived risk harm users' intentions to continue using E-CNY payment since people may be hesitant if they believe it to be unsafe or risky.

2.3 Satisfaction

Many studies examined Satisfaction as the most critical factor influencing users' continuance intention, commonly defined as a user's overall perception and experience while using a particular technology service (Chow & Shi, 2014; Hadji & Degoulet, 2016). Hsiao et al. (2016) supported these conclusions and proposed that users' general Satisfaction with the features and benefits of a particular technology would drive their continuance intention of using it. The study also showed a significant positive relationship between user satisfaction and continuance intention to use mobile payment technology. Therefore, Satisfaction would encourage users to use a product or service in the long term; on the other hand, users who are dissatisfied or have negative experiences with the product or service are likely to discontinue using it. Customers and users who are satisfied with mobile banking services are more likely to spread positive word-of-mouth and recommend the services to others (Jamal & Naser, 2002). If mobile payment constantly offers value-added services to increase efficiency and convenience, it might lead to more satisfied consumers. As a result, if the technology provides suitable levels of convenience, the user may use it longer and gradually increase the frequency of use (Liébana-Cabanillas et al., 2021). In the case of E-CNY, elements that include the platform's trustworthiness, the level of customer support, and the simplicity of transaction processing might increase user satisfaction. Higher satisfaction levels influence users' intentions to continue utilizing E-CNY payment, as happy users are more inclined to do so because of their favorable experiences.

2.4 Perceived usefulness

The model of technology acceptance (TAM) was designed to examine the users' acceptance of a particular information technology; the model has three fundamental factors: perceived usefulness (PU), perceived ease of use (PEOU), and intention to use (IU), perceived ease of use would influence perceived usefulness and, the factors perceived usefulness and perceived ease of use associated user's purpose of using a particular technology (Davis, 1989). The previous study also confirmed that perceived usefulness and ease of use would impact users' adoption of a new technology (Al-Sharafi et al., 2017). Perceived usefulness (PU) encourages users to think that using the technology or service would improve their performance or output. The users were likely to use the technology or service if they believed it would benefit them and help them perform better. To comprehend both initial adoption and continuing intention behavior. (Abdullah et al., 2017; Aslam et al., 2017; Taylor & Strutton, 2010). Gupta et al. (2021) confirmed that perceived usefulness significantly influences the intention to continue using a mobile application. In the context of E-CNY, the perceived usefulness may be determined by elements including how easy it is to use E-CNY for transactions and how well it works with current financial services. Higher perceived usefulness levels are expected to favor users' intention to continue using E-CNY payment, as people are more inclined to stick with E-CNY if they think it will help them with their financial demands.

2.5 Perceived ease of use

Perceived ease of use is another fundamental factor of the TAM model; it's also an antecedent to forecasting a user's behavioral intention to utilize a particular technology (Davis, 1989). This variable has been described as the degree to which the users believe that using a specific technology involves less work, such as how the technology releases from complexity and improves usability. Users would get discouraged from using the system if they encountered a certain degree of difficulty (Che Nawi et al., 2022). On the other hand, relatively simple payment processing procedures and educational aspects would make it easier to conduct financial activities and enhance the probability of users' intention to use mobile payment (Senali et al., 2023). Liébana-Cabanillas et al.(2021) also defined that the perceived ease of use significantly influences users's continuous intention toward mobile applications. Therefore, perceived ease of use in the context of E-CNY may be determined by elements like the support resources' accessibility, the transaction procedures' clarity, and the design of the user interface. Higher levels of perceived ease of use favor users' desire to continue using E-CNY payment, as people are more inclined to stick with E-CNY if they find it straightforward to use.

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3. Review of recent studies

To properly represent the current state of research on this subject, this literature review covers a wider variety of recent research and attempts to offer a thorough summary of recent studies evaluating variables impacting users' continuing intention toward E-CNY payment. Xia et al. (2023) determined that perceived usefulness and perceived ease of use significantly influenced users' intention to use E-CNY payment. According to Gupta et al. (2023), hedonic motivation is significant in determining consumers' continued involvement with digital currency, highlighting the necessity of creating user-friendly and entertaining digital currency platforms. Song & Wang (2022) highlighted users' concerns regarding security and privacy risks related to E-CNY payment, suggesting that addressing these concerns is critical for promoting trust and E-CNY adoption.

Conceptual Framework

The emphasis on consumers' intention to continue using E-CNY follows directly from the issues found in earlier research on adopting digital currencies. Although much of the research that has been done so far has focused on the variables that influence users' early adoption of digital currencies like E-CNY, there is a shortage of thorough knowledge on the factors that influence users' continued usage of these currencies over time. Prior research has frequently focused on the factors that lead to early adoption, ignoring the fact that users' behaviors and motives change over time after adoption (Lin & Chen, 2023; Song & Wang, 2022).

By filling this gap, the current study aims to advance previous findings by exploring users' intentions to continue using E-CNY in greater detail; this emphasizes that user motives and behaviors may change beyond the first adoption stage. It highlights the importance of comprehending the elements that support long-term engagement with E-CNY. Furthermore, the focus on continuance intention matches the increasing recognition that long-term usage and retention are essential indicators to measure the efficacy and viability of digital currency initiatives. Acknowledging the drawbacks of concentrating only on initial adoption might not be enough; this study attempts to close a significant gap in the literature and advance our understanding of the dynamics of digital currency adoption by offering insights into the elements that affect users' choices to stick with E-CNY.

In conclusion, the choice to investigate users' desire to continue using E-CNY derives directly from the gaps found in earlier research, which mainly concentrated on early adoption issues. By filling this knowledge vacuum, the current study hopes to improve our comprehension of the adoption of digital currencies and offer insightful information to practitioners and academics working in digital finance.

The conceptual framework of this research is illustrated in Figure 1.

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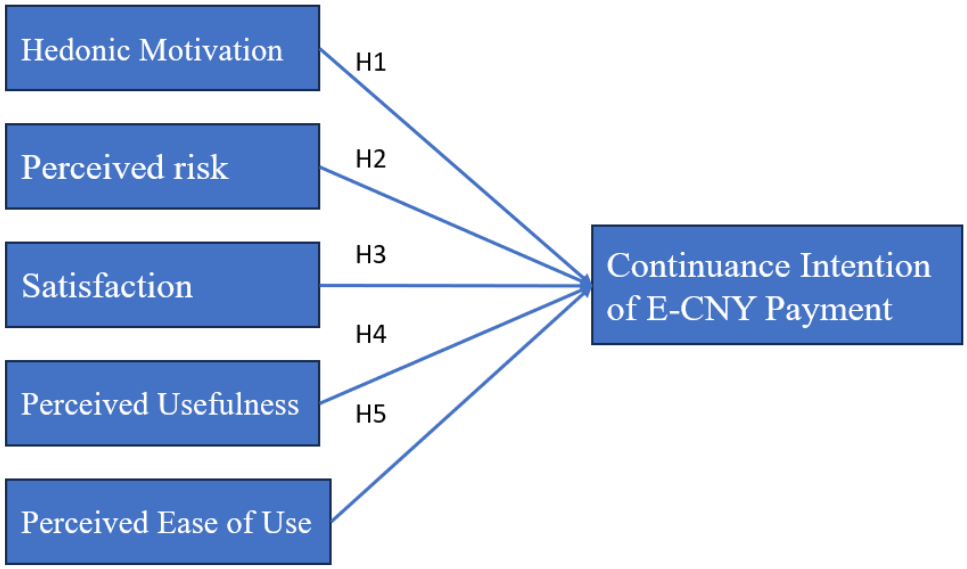

Figure 1. Conceptual Framework
Note: Adopted from Gupta et al. (2021) and Liébana-Cabanillas et al.(2021)

The conceptual framework of this study was developed based on two theoretical frameworks from two studies. The first theoretical framework adopted was from Gupta et al. (2021); this research has applied information mobile applications (apps) to forecast and determine the particular precursors that drive users to continuously use an application, with perceived usefulness and perceived ease of use mediating factors. It resulted in information quality, system quality, and interactivity determining perceived ease of use; interactivity and perceived ease of use impacted perceived usefulness; both perceived usefulness and perceived ease of use impacted users' continuous intention.

The second theoretical framework adapted was from Liébana-Cabanillas et al.(2021); this research focused on the present situation of near-field communication (NFC) mobile payment services and the factors that influence consumers' intentions to continue with them; it resulted in the subjective norms; performance/quality value; perceived usefulness; personal innovation; consumer-brand engagement; perceived trust; perceived risk and Satisfaction had significant impacts towards users' continuance intention.

This research proposes the following hypothesis in light of this theoretical framework and the knowledge gained from the literature:

Research Hypotheses

H1. Hedonic motivation impacts the users' continuance intention toward E-CNY payment.
H2. Perceived risk impacts the users' continuance intention toward E-CNY payment.
H3. Satisfaction impacts the users' continuance intention toward E-CNY payment.
H4. Perceived usefulness impacts the users' continuance intention toward E-CNY payment.
H5. Perceived ease of use impacts the users' continuance intention toward E-CNY payment.

Methodology

The research methodology of this study has applied a quantitative approach by using an online questionnaire. Convenience sampling and snowball sampling are applied in this study, given the objective of the study, which involves collecting data on users' continuance intention toward E-CNY payment; convenience sampling supports the collection of participants who are readily available and accessible; this

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approach is beneficial for research involving specialized or niche groups, like users of a particular digital currency, for whom it might be challenging to choose a representative sample using random sampling techniques. Since users of E-CNY may not be easily identifiable through traditional sampling methods, snowball sampling allows the collection of respondents through recommendations from initial participants. This strategy helps reach people who are hidden or challenging to get, such as early users of digital currencies, who can be difficult to identify using convenience sampling (Emerson, 2015). On the other hand, convenience sampling can cause bias in selection, as individuals who can easily be reached or are willing to participate might not represent the overall population. Snowball sampling may result in a lack of diversity within the sample, as respondents are selected through referrals from existing respondents. Convenience sampling and snowball sampling can potentially create sampling error since the sample may not fairly represent the population's characteristics. Sample variability might result in inaccurate parameter estimations and lower the confidence of the findings (Mujere, 2016).

The questionnaire contained screening (2 items), demographic (4 items), and 5-level Likert scale questions (1-strongly disagree to 5 strongly agree) for measuring the dependent variable(continuance intention) and independent variables(hedonic motivation, perceived risk, Satisfaction, perceived usefulness, and perceived ease of use). All the questionnaire items were adapted from previous studies to ensure the content validity of the scale items. To examine the reliability and validity of the measurement items, the researcher conducted a pilot test of 30 respondents who lived in Shanghai, China and had used E-CNY payment within six months. It was resulting in the Cronbach's alpha values in Table 1. According to Gliema and Gliemb (2003), the coefficient of Cromhach's alpha association strength >0.9 represents excellent reliability; >0.8 represents excellent reliability; >0.7 represents good reliability; >0.6 represents acceptable reliability. Therefore, all the variables in this study passed the reliability test. There are 385 questionnaires collected through the Wenjuanxing and social media applications (WeChat & QQ) from 2023 December 20 to 2024 January 20, and 311 were valid with an effective rate of 80.77%.

This research has applied a multiple linear regression method; using multiple linear regression, we can evaluate the linear correlations between a continuous outcome variable (continuance intention toward E-CNY payment) and various predictor factors (such as perceived utility, perceived ease of use, and Satisfaction). This approach is especially well-suited for examining how several elements impact a result. It simply offers understandable coefficients for each predictor variable, suggesting the strength and direction of their relationships with the outcome variable. Therefore, it becomes easier to identify essential indicators and comprehend how they affect the intention to continue paying for E-CNY (Uyanık & Güler, 2013).

Table 1 The result of reliability

Construct	Cronbach's alpha	items	Strength of Association
Continuance Intention (CI)	0.865	3	Very good
Hedonic Motivation (HM)	0.842	5	Very good
Satisfaction (SA)	0.820	4	Very good
Perceived Risk (PR)	0.799	4	Good
Perceived Usefulness (PU)	0.788	4	Good
Perceived Ease of Use (PEU)	0.864	4	Very good

Results

Result of demographic data

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Table 2 Demographic data result.

Gender (N=311)	Frequency	Percentage
Male	133	43%
Female	178	57%
Age		
18-24	9	3%
25-35	106	34%
36-45	156	50%
More than 45	40	13%
Occupation		
Company employees	236	76%
Housewives	39	12%
Freelancers	30	10%
Retired	4	1%
Income in CNY		
Less than 3000	34	10%
3,001-5,000	14	5%
5,001-7,000	91	29%
7,001-9,000	106	34%
More than 9,001	66	21%

Distributive analysis

The mean and standard deviation of each measurement and Cronbach's Alpha of each construct have been shown in Table 3, and all the constructs' Cronhach's Aplha have all passed the reliability test. All the measurement items have applied a 5-point Likert scale from 1 strongly disagree to 2 disagree to 3 neutral to 4 agree to 5 strongly agree.

Table 3 Mean, standard deviation, and Cronbach's Alpha N=31

Construct	Mean	Standard Deviation	Cronbach's Alpha
CI1. I intend to continue using E-CNY payment in the future	3.91*	0.678	
CI2. I will try to use E-CNY payment in my daily life	3.97	0.781	0.772
CI3. I will continue to use E-CNY payment as often as I do now	3.92	0.662	
Adapted from Chen and Li (2017)			
HM1. Using E-CNY payment is fun	3.83	0.767	
HM2. Using E-CNY payment is enjoyable	4.02	0.658	
HM3. Using E-CNY payment is very entertaining	4.01	0.643	0.798
HM4. Using E-CNY payment gives me pleasure	3.88	0.778	
HM5. Using E-CNY payment is exciting	3.78*	0.842	
Adapted from Talwar et al. (2020)			
SA1. I am generally pleased to use E-CNY payment.	3.74*	0.667	
SA2. My choice to use E-CNY payment was a wise one	4.06	0.659	0.814
SA3 I am very satisfied with using E-CNY payment	3.93	0.717	
SA4. I think I did the right thing by using the E-CNY payment	3.77	0.724	
Adapted from Al Amin et al. (2023)			
PR1. Other people may see the information about my online transactions if I use E-CNY payment.	2.18	0.733	
PR2. There is a high chance of wasting money if I make purchases using E-CNY payment.	2.14	0.776	0.773

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Construct	Mean	Standard Deviation	Cronbach's Alpha
PR3. There is a significant risk involved in purchasing through E-CNY payment.	2.28*	0.598	
PR4. I think that making purchases with E-CNY payment is risky Adpated from Liébana-Cabanillas et al. (2021)	2.02	0.715	
PU1. Using E-CNY payment could help me make purchases	3.84	0.773	
PU2. Using E-CNY payment could increase the efficiency of making my purchases	4.03	0.778	0.841
PU3. Using E-CNY payment for my purchases could increase my productivity	3.93	0.588	
PU4. In general, E-CNY payment could be useful for me to make purchases Adapted from Hossain et al. (2018)	3.77*	1.028	
PEU1. Learning to use the E-CNY payment is easy for me	3.74*	1.171	
PEU2. My interaction with the E-CNY payment procedure would be clear and understandable	4.07	0.670	0.794
PEU3. It would be easy for me to become skillful at using E-CNY payment	3.98	0.878	
PEU4. I find the E-CNY payment easy to use. Adapted from Pal et al. (2015)	4.02	0.652	

Multiple linear regression analysis

Multiple linear regression was selected as the primary statistical method for this study due to its suitability for investigating the associations between several predictor factors and a continuous outcome factor. Multiple linear regression is a valuable tool for testing hypotheses about continuance intention in the context of this study on users' intention to continue paying for E-CNY.

In the regression model in Table 4, the value of R^2 is 0.684, which indicates the independent variables (hedonic motivation, Satisfaction, perceived risk, perceived usefulness, perceived ease of use) explained 68.4 percent of the dependent variable (continuance intention). An adjusted R^2 value of 0.678 suggests that nearly 67.8% of the variance in the dependent variable (continuance intention toward E-CNY payment) has been explained by the independent variables (perceived usefulness, perceived ease of use, Satisfaction, perceived risk, and hedonic motivation) included in the regression model. This study's adjusted R-squared of 0.678 indicates that the model reasonably fits the data, explaining a substantial variation in continuance intention toward E-CNY payment. An F-value of 132 suggested that the overall regression model is statistically significant. This F-value suggests a significant association between the independent variables (predictors such as perceived usefulness, perceived ease of use, Satisfaction, perceived risk, and hedonic motivation) and the dependent variable (continuance intention toward E-CNY payment). With the p-value less than 0.001, for model fit measures are lower than the chosen significance level ($\alpha = 0.05$), it suggests the regression model gives a good fit to the data and that at least one of the independent variables significantly contributes to predicting the dependent variable.

Table 4 Model Fit Measures

Model Fit Measures					
Model	**R**	**R^2**	**Adjusted R2**	**F**	**P**
1	0.827	0.684	0.678	132	＜.001

As the result of the hypotheses test in Table 4, this study has applied multiple linear regression to test the hypotheses, with a significant level of 0.05 or 95% confidence level. Hypotheses H2, H3, H4, and H5

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resulted in a p-value less than 0.05, indicating that the hypotheses are supported. The H1 resulted in a p-value of more than 0.05 (0.284), which stated that H1 was not supported. Furthermore, the variance inflation factors (VIFs) are tested to validate no multicollinearity problems. In this research, all the VIFs of the independent and dependent variables are lower than 5; Daoud (2017) defined that when the VIFs are higher than five, it will cause multicollinearity; therefore, there is no collinearity problem has been coursed in this study.

Table 5 Mulitple Linear Regression

Model Coefficients - CI_M						
Predictor	**t**	**p**	**Stand. Estime**	**VIF**	**Tolerance**	**Result**
HM (H1)	1.06	0.284	0.071	4.45	0.228	Not Support
SA (H2)	3.334	<.001	0.221	4.30	0.231	Support
PR (H3)	-5.37	<.001	-0.196	4.48	0.226	Support
PU (H4)	2.604	0.009	0.122	4.15	0.241	Support
PEU (H5)	2.389	0.017	0.113	4.13	0.242	Support

Discussion

Based on the hypotheses testing, Satisfaction has the most decisive impact among the four supported independent variables, with a standardized estimate of 0.221, and perceived risk has the second most substantial impact, which included a standardized estimate of -0.196, perceived usefulness has the third most significant impact, which with a standardized estimate of 0.122, and perceived ease of use has the least strong impact, with a standardized estimate of 0.113. In this study, Satisfaction with using the E-CNY payment system reflects users' general positive experiences and opinions of the service. Satisfied users are more likely to continue using E-CNY, as their positive experiences promote their intention to stay with the system; the result aligns with the previous result, which suggests that Satisfaction with a technology service is influenced by a match between customer expectations and their perceived performance of the service. Customers who perceive lower levels of risk are more likely to feel confident and secure in their continual usage of the service. The previous research noticed perceived risk as a critical determinant of users' technology acceptance and adoption behaviors. Users' opinions of perceived usefulness and perceived ease of use of E-CNY payment systems are crucial factors in their intention to continue. If users perceive E-CNY as helpful in meeting their financial requirements and easy to use in their daily transactions, they are more likely to continue using the service. The previous study indicates perceived usefulness and perceived ease of use as the main factors of users' intention to adopt and continue using technology-based services (Che Nawi et al., 2022; Gupta et al., 2021; Liébana-Cabanillas et al., 2021). However, the data hasn't supported the hedonic motivation influencing users' convenience intention of using E-CNY payment; this result aligned with Museli and Navimipour (2018), who verified that users perceive certain new technology services as helpful for completing tasks rather than providing happiness and delight.

Conclusion

In summary, this study has answered what factors impact users' continuance intention of using E-CNY payment and how to improve it. Satisfaction, perceived risk, perceived usefulness, and perceived ease of use significantly influence users' continuance intention toward E-CNY payment. On the other hand, hedonic motivation did not show a significant influence on continuance intention toward E-CNY payment. Among the five independent variables, Satisfaction is the most critical variable that impacts users' intention to continue. These findings have practical implications for payment service providers, policymakers, and the broader community, informing strategies that improve user satisfaction, reduce perceived risk, and promote E-CNY payment systems' usefulness and ease of use.

Limitation：

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Firstly, the study's sample might not adequately reflect the various groups of E-CNY users, potentially limiting the generalizability of the results. Participants were selected through convenience and snowball sampling, which could cause selection bias in the results toward certain demographic groups or user profiles. Counting on self-reported data can cause response bias and bias toward social desirability, where participants provide responses they believe are socially suitable or acceptable rather than reflecting their actual attitudes. This study only concentrated on variables influencing the continuance intention of using E-CNY payment and didn't consider the demographic factors; therefore, conducting an in-depth demographic analysis to investigate how age, gender, income level, and occupation influence users' continuance intention toward E-CNY payment, this would provide an understanding of the various impacts of these factors on adoption behavior and inform customized strategies for specific demographic groups.

Practical Implications：

Financial institutions and payment service providers may apply the findings from the study to improve the design and usability of E-CNY payment systems. Policymakers may apply the findings to inform regulation policies and initiatives to promote adopting and using E-CNY payment systems. Community and advocacy organizations might have a role in increasing awareness about the benefits of E-CNY adoption and barriers to access and usage, particularly among underserved communities.

Recommendation

Satisfaction has the most substantial impact on users' continuance intentions; financial institutions and payment service providers should enhance user satisfaction by improving the usability and functionality of the E-CNY services; this can be accomplished by optimizing the user interface, providing clear instructions, and offering responsive customer support. Perceived risk has the second most substantial impact on users' continuance intentions; policymakers should establish solid security measures and consumer protection regulations to reduce perceived risks related to E-CNY usage; this includes promoting more about the fact that the Central Bank of China launched the E-CNY payment method, which the potential risk is relatively lower than other third-party methods (Jiang & Lucero, 2023), applying anti-fraud measures, and resolving conflict processes. Perceived usefulness and perceived ease of use significantly influence users' continuance intentions; community and advocacy organizations can promote E-CNY adoption by arranging educational training courses and workshops to improve users' awareness of the benefits and functionalities of E-CNY systems. They may also work with financial institutions to support individuals with disabilities in accessing and using E-CNY services. Lastly, industry associations should partner with research teams to conduct user satisfaction investigations and collect feedback on E-CNY platforms. This information can identify areas for improvement and emphasize enhancements that enhance user satisfaction and retention.

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