

# Compare the Differences Between Overseas Payment Platforms and Domestic Third Party

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## ABSTRACT

In the third-party payment mode, after purchasing goods, the buyer uses the account provided by the third-party platform to make payment for goods, and the third party notifies the seller of the arrival of payment for goods and requires delivery. The buyer shall notify the third party of payment after receiving the goods, inspecting the goods, and confirming them. The third party will transfer the money to the seller's account. At present, third-party payment platforms have been applied in various countries around the world. Even though different companies have launched third-party payment platforms with similar features, users have different choices. The paper aims to analyze the drivers of third-party payment platforms and to compare the similarities and differences between the mainstream third-party payment platforms in China and the West. This study also analyzes the impact and outlook for third-party platforms in today's digital currency era. At the same time, it points out the risks of today's mobile payment platforms and jointly gives suggestions for improvement to developers and governments. It suggested that the supervision of China's third-party payment platform will become more reasonable and strict.

**Keywords:** *The third-party payment, Alipay, Paypal, Wechat, Digital currency*

## 1. INTRODUCTION

### 1.1 Background

In recent years, with the development of technology and the economy, electronic devices are no longer just for communication, mobile phones or computers, etc. It can be used for online transactions. Electronic commerce (e-commerce) has been popularized worldwide, and therefore third-party payment platforms are rapidly implemented in most countries. A variety of payment options for online transactions have emerged, including credit cards, debit cards, digital wallets, and mobile payments, among others. The Global Digital Payments Market was worth USD 5.44 trillion in 2020 and is expected to be worth USD 11.29 trillion by 2026, growing at a CAGR of 11.21 percent between 2021 and 2026 [1]. Therefore, the electronic payment will be a very important part of China's economic development.

Currently, the main third-party payment platforms in China are Alipay and WeChat pay, while the largest

online payment platform overseas is PayPal. In 2017, China had an estimated 890 million unique mobile payment users, processing nearly \$17 trillion in transactions, more than double the number in 2016. Mobile merchant payments are predicted to grow to 577 million in 2019 and approximately 700 million in 2022 [2]. While PayPal giant added 67 million people to its user base in a year, reaching 392 million active users in the first quarter of 2021—which is 15 million more than the previous quarter. The company had just 84 million active users at the beginning of 2010.[3] Alipay, WeChat Pay, and PayPal act as third-party money intermediaries, providing guarantees for payments for goods, requiring real names, being free to open accounts, and making payments.

However, although Alipay, WeChat Pay, and PayPal have many of the same features and are all being promoted and used around the world, they are still not interchangeable. The research aims are to analyze the drivers of third-party payment platforms through four aspects: political, economic, social, and technological. It

also compares the differences in profit models and functionality between Chinese and overseas online payment platforms.

## **1.2 Related research**

Nowadays third-party payment is very common in China, but there are still some shortcomings on it. Xu explained the process of two models of WeChat payment through flowcharts and introduced the positive impact of WeChat payment to financial consumers, such as innovative financial management models and financial marketing. At the same time, Xu also pointed out the shortcomings of WeChat Payments mainly in terms of insufficient security and privacy for consumers. Finally, he also made suggestions for the shortcomings [3]. Avaliani introduces the functions used by buyers and sellers of PayPal through two diagrams. Then, Avaliani describes PayPal's profit sources and shows eBay's profitability in a table. He also analyzes PayPal's security measures and the reasons why eBay acquired PayPal. Finally, Avaliani analyzes why systems like PayPal are popular today and give them some advice, like improving security constantly and ease of use [4].

Users will have different preferences on the various third-party payment platform. Xu et al researched the data set from one of the largest banks in China, which contains the consumer credit card consumption from PC, offline, and mobile payment channels. Xu et al exploit a natural experiment through the Alipay channel adoption to study. Xu et al found that the adoption of the mobile payment channel would be associated with hedonic shopping motivations [5]. Mu and Lee researched factors that are likely to influence the user's intention to adopt a third-party mobile payment platform. Mu and Lee found that users' intention is determined by their trust in third-party mobile payment services and perceived usefulness of use. Mu and Lee also examine whether the most influential factors have the same influence on different third-party mobile payment services, and Mu and Lee's result suggest that the factors have different influences on the Alipay group and WeChat Pay group [6]. Lu introduces the status of Alipay in the Chinese market, the scope of application and security measures, and then talks about the popularity and development of Alipay in foreign markets. By comparing UnionPay and Visa and a series of data, Lu points out that Alipay has affected the payment business of traditional banks in the global financial industry. Furthermore, Lu also illustrates the advantages of Alipay over traditional banks in terms of savings and user information collection, which is why more users choose Alipay [7]. Li et al used an extended version of the technology acceptance model (TAM) to investigate the effects of a user's risk perception, perceived ease of use, perceived usefulness, and attitude

on a user's willingness to use Alipay, and this model was inspected with the use of structural equation modeling (SEM). The data were collected from 491 users in China. Li et al's result showed that when the user acknowledged that the risks of using Alipay are higher, they will hold a negative attitude using Alipay and are less likely to use Alipay [8].

The third-party payment platform's prospect is very potential in China, but Outside of China, the development potential of third-party payment is not clear. Bezhovski first introduces the current status of electronic payments and then describes each of the five major online payment systems currently. Then, he specified the security system of electronic payment. He also noted that electronic payment systems offer many advantages to consumers, but that consumers care more about their compatibility. Bezhovski concludes that the future of mobile payments is bound to be better, but should also be integrated with the financial infrastructure to expand compatibility [9]. Chen made one comprehensive review, analysis of the development of third-party payment in China by combining relevant data and models Chen researched the development of PayPal, and get some conclusions, including mobile payments and cross-border payments will be the direction of future development of third-party payment market, and China's third market structure market is a competitive market of the duopoly. Chen pointed out that the interconnection of different third-party payments will be beneficial to consumers [10]. Yang researched the competition and cooperation relationship between third-party payment and commercial banks, and Yang takes Alipay as a specific case analysis. Cooperation is due to a certain degree of protection of commercial banks by the country. Yang pointed out that third-party payment platforms will have greater development potential than commercial banks [11]. Zhu combined the relevant literature on third-party payment platforms in recent years and researched the profit model of Alipay and WeChat pay. Zhu thought Alipay would have more potential prospects, due to its complete industrial chain and enjoyment. Zhu pointed out that if Alipay and WeChat want to remain their leading position, they need to add various profit models and enhance their technical level [12].

Third-party payment plays an important role in people's daily life and national economic development. Therefore, this paper will study China's third-party payment, explore its existing problems and study the corresponding solutions.

## **2. THE DRIVING FACTORS OF THIRD-PARTY PAYMENT**

### ***2.1 Condition***

The establishment of China UnionPay solves the problem of multi-bank interface undertaking. By sharing costs with banks, local UnionPay provides merchants with a unified interface for online payment with multiple bank cards, making an online payment between different banks possible. Other third-party payment institutions arising from the development of e-commerce undertake the interface between financial networks and the Internet. The payment service provided by third-party payment institutions is the payment gateway mode, which connects banks and merchants respectively, to help consumers and merchants jump to the e-banking interface of each bank for payment operation in the process of online transaction and payment. In addition to providing basic payment services, it began to provide users with various value-added services, such as payment, transfer, repayment, credit granting, etc. Then the public gradually recognized third-party payment.

### ***2.2 Convenience***

The third-party payment platform provides a series of application interface programs to integrate various bank card payment methods into one interface, which is responsible for the connection between transaction settlement and the bank, making online shopping faster and more convenient. The third-party payment integrates different payment interfaces of major back-end banks to provide a unified access platform for merchants. Due to the requirements of the security level of the commercial system of banks, the payment experience is relatively poor, and it is easier and more acceptable to use the third-party payment platform for payment operation. In the fierce competition of third-party payment, to compete for more users, a lot of optimization has been made in merchant access, user experience, product ease of use, and other aspects to facilitate the payment experience of users and merchants.

### ***2.3 Cost***

The third-party payment platform itself is attached to large portal websites and relies on the credit of its cooperative banks. Therefore, the third-party payment platform can better break through the credit problems in online transactions, which is conducive to promoting the rapid development of e-commerce. In terms of cost, the third-party payment platform reduces the cost for enterprises to directly connect with banks, to meet the receipt and payment requirements for enterprises to develop online business. The third-party payment

platform simplifies the transfer of payment, thus reducing the transfer time. Third-party payment platforms avoid competition with service companies.

### ***2.4 Advances in technology***

As the terminal carrier of mobile payment, the possession of smartphones has increased rapidly in recent years, which ensures the rapid development of many mobile applications including mobile payment; Mobile payment technology such as NFC payment, two-dimensional code payment, acoustic payment, biometric identification technology, and other related innovative technologies continue to emerge, user experience and payment security have been significantly improved; The O2O mode of offline consumption with online payment is increasingly accepted by the majority of users in terms of usage habits, which urges mobile payment institutions to strengthen close cooperation with offline enterprises and attract offline consumers to use mobile payment continuously by launching various preferential activities such as e-coupons.

### ***2.5 Cross-border businesses keep increasing***

In addition, with the continuous increase of national income, Chinese people's demand for cross-border e-commerce, outbound tourism, study abroad, and other cross-border businesses keep increasing: At the same time, relevant government departments relaxed regulatory requirements for third-party payment institutions to carry out cross-border payment business, and extended the pilot business of cross-border foreign exchange payment to the whole country, creating convenient conditions for third-party payment institutions to carry out cross-border payment business.

## **3. COMPARISON**

### ***3.1 Range of Application***

PayPal and Alipay are the most widely used in the West and China respectively. Paypal is not well known in the Chinese market. In 2014, less than 2% of Chinese users completed online transactions through the Paypal payment platform. Meanwhile, Alipay has one billion users worldwide in 2019, but more than 70% of them are domestic users.

### ***3.2 Business Model***

Both Paypal and Alipay primarily generate revenue by deducting service commissions from users' transactions. Meanwhile, Paypal and Alipay offer credit lending services. Users do not have to pay interest when they repay the loan in full within a certain period, but the platform will charge the corresponding interest as income after that time.

### 3.3 Custody

Paypal and Alipay offer a third-party escrow role. In a buyer-seller transaction, the third-party payment platform will temporarily keep the buyer's funds until they receive the product instead.

### 3.4 Difference

#### 3.4.1 Payment methods

Alipay has three payment methods: express checkout payment, e-currency payment, and account payment (balance payment). PayPal has two payment methods, magnetic-free payment, and payment without password.

#### 3.4.2 The supported currencies

Alipay is used for collection on various Chinese platforms and currently only supports RMB business, not the function of supporting cross-border transactions to collect payments. PayPal is mainly used for international transfer remittances, supporting the United States dollar, British pound, euro, NT dollar, Canadian dollar, and many other currencies, mainly used in the United States dollar-based foreign 24 currencies between the collection and payment. RMB is not currently supported.

#### 3.4.3 Instant access

PayPal can withdraw money as soon as it is received, which means that as long as the buyer pays the money for the transaction, it can withdraw immediately, and the reason for doing so is because PayPal is tied to a line of credit cards. However, Alipay, requires buyers to confirm receipt before the withdrawal can be made.

#### 3.4.4 Fees

PayPal fees are complicated, cross-border transactions are up to 3.9% plus 0.3 U.S. dollars, not cross-border words 3% plus 0.3, in addition, PayPal for cross-border withdrawals are charged fees, domestic withdrawals are free. Alipay's collection is not subject to a handling fee.

## 4. INFLUENCE AND TREND ANALYSIS OF DIGITAL CURRENCY TO THIRD-PARTY PAYMENT PLATFORM

### 4.1 Influence of Digital Currency

The issuance of Digital Currency Electronic Payment may have a positive effect on third-party payment platforms, like WeChat pay and Alipay, if the Chinese government have the willingness to integrate

the Digital Currency Electronic Payment within those third-party payment platforms, allowing this, the influence of third-party payment platform for Chinese folks will be higher than ever, due to their number of users is immense. Because most people are using the third-party payment platform now, people are biased to use what they used before, so the old user will keep using what they used now. It may bring some new users to those third-party platforms with the popularity of Digital Currency Electronic Payment, due to some people who never used the payment platform, and maybe they will choose to use third-party payment platform. The third-party payment platform also provides some convenient payment services, booking train tickets, paying the fees, etc. And develop a new platform will cost a host of money, so the government may prefer to use existing platforms, rather than build a new one. The government's policy of Communication between platforms. WeChat and Alipay are financial infrastructures, like wallets, while digital RMB like payment tools and the contents of wallets.

Digital Currency Electronic Payment adopts a two-tier operating system. The People's Bank only issues Digital Currency Electronic Payments to banks, and ordinary users get it from commercial banks. The difference between traditional cash is that you can get Digital Currency Electronic Payment from a third-party payment platform. We can exchange Digital Currency Electronic Payment from that bank, the step is similar with current Alipay, WeChat account recharge, but the operation object changed from Alipay's balance account to Digital Currency Electronic Payment wallet. The source of funds for recharge is from your bank account, and it is the same as WeChat pay and Alipay.

The Chinese government does not allow the integration of the function of Digital Currency Electronic Payment with the third-party payment platform. The third-party payment platform will lose loads of users. Alipay and WeChat pay to lose their dominant position. The third-party payment platform maybe disappears, and it will become a period of history. And the third-party payment platform may become a total Life Service Platform to provide handy service for the public. Digital Currency Electronic Payment will replace Alipay and WeChat pay.

### 4.2 How third party payment platforms solve that problem

On May 8, 2021, the digital currency electronic payment App was updated and the Alipay in the wallet operator was available. At the same time, the six major state-owned banks under the digital yuan wallet have increased ELEME takeout, Freshippo, Tmall supermarket three sub-wallets, indicating that the digital currency electronic payment officially opened Alipay channels. Access Alipay is to speed up the promotion of

digital RMB, expand its application scenario because in the short term Alipay and WeChat have many advantages such as the convenience of payment, the company's promotion means, a large number of users, perfect facilities system such as electricity and water charges and other urban services, these are third-party payment platform in the face of digital currency electronic payment's biggest advantage.

At the same time, digital currency electronic payment access to Alipay and other third-party payment platforms to a certain extent will improve user activity, and digital currency electronic payment access Alipay and WeChat are conducive to these tripartite platforms to derive more business, promote the international development of Alipay and WeChat, and other tripartite platforms, because the digital currency electronic payment will inevitably develop towards internationalization, which requires the corresponding cross-border platform to cooperate with such as Ali's cross-border e-commerce business, and digital currency electronic payment combined in the internationalization process.

### **4.3 Risk and Supervision**

While with the growth of online e-commerce, digital currencies have brought great convenience to users, they are riskier than any traditional currencies. Although online payment platforms have security measures in place to protect users' information, there are still vulnerabilities. It remains a frequent occurrence that users' identity information is stolen or compromised by hackers in the course of digital currency transactions. According to statistics, one in ten adults worldwide has been a victim of online fraud on the Internet. Customers of online payment platforms are at high risk of identity breaches and credit card theft. Government regulators should monitor the adequacy of measures for cybersecurity of relevant enterprises and the digital currency market. Also, the government should actively support the development and application of network security technologies to address the vulnerabilities in online transactions for the companies or platforms responsible for digital currency trading to better protect the user's sense of experience and privacy. Companies also need to establish effective policies and systems in place at every step of the transaction to insure that user information is not compromised and that transaction data is not altered. More, online payment platform companies should enhance the training of their employees so that they can quickly identify possible fraudulent activity in user transactions and give appropriate methods to minimize the risk for their customers.

## **5. CONCLUSION**

This study reviews the driving factors of third-party payment platforms, such as the establishment of China UnionPay, convenience, advances in technology, cost, increment of cross-border businesses. Afterward, this paper makes a comparison with different well-known third-party payment platforms and finds that those Mainstream third-party payment platforms have the same range of applications, business models, custody. In the meanwhile, there is some difference among those third-party payment platforms: payment method, supported currencies, instant access, fees. After that, this paper analyzes the influence and the tendency of digital currency on third-party payment platforms, if governments are willing to integrate the digital currency into the third-party payment platforms, there will be a good effect on it. Then this paper gives some suggestions about how third-party payment platforms solve that problem that may happen. Therefore, The third-party payment platforms will become more standardized under the unified supervision of the state, more formal in personal privacy protection and payment management, and play a very important role in economic development.

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