

# Risk and Liability Analysis on Alipay Payment Model E-Commerce Platform

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**Abstract:** The growth of e-commerce has made Internet payment popular. Alipay, a leading provider, is popular among users due to its security, convenience, and innovation. However, as usage has increased, the risk and liability issues associated with Alipay payments become more prominent. This study aims to explore these issues in depth, providing a reference for the sustainable development of e-commerce platforms. This study employs literature review, case analysis, and in-depth interviews to investigate the capital risk and liability issues of Alipay payment. The research reveals that Alipay payment's capital risk primarily stems from technical, credit, and legal risks. Additionally, Alipay faces challenges such as unclear rights and responsibilities and difficulties in pursuing liability issues. The presence of these issues has an adverse effect on the sustainable development of e-commerce platforms. E-commerce platforms must enhance risk management and define the correlation between rights and responsibilities to safeguard the lawful rights and interests of users and foster the sound development of the e-commerce sector.

**Keywords:** Alipay Payments; E-Commerce Businesses; Funding Risk; Holding Liability.

## 1. Introduction

### 1.1 Alipay Payments Overview

Mobile payment is a method of electronic payment that uses cell phones and other electronic devices. It is convenient and personalized, making it a popular choice among users. Mobile payment tools, such as Alipay, have driven its widespread use in e-commerce[1], making it an important payment method for such transactions. Mobile payment improves the convenience of life by facilitating

users to pay various living expenses. Prior to using mobile payment services, users must complete real-name authentication to ensure the authenticity of their identity.

### 1.2 Overview of E-commerce Platforms

Since the turn of the 21st century, digital technology has rapidly developed, and the digital economy has emerged as a new engine of global economic growth. E-commerce platforms play an essential role in our daily lives by displaying and selling products through the internet, reducing intermediate links, and enabling direct transactions between producers and consumers. E-commerce platforms provide convenience to users and merchants and promote positive interaction within the industry. The role of e-commerce platforms in leading future economic growth will continue to be significant with the development of digital technology.

## 2. Funding risks of E-commerce Platforms

Internet finance is a new financial business model in which traditional financial institutions and Internet enterprises use Internet technology and information and communication technology to realize fund financing, payment, investment and information intermediary services[2]. In the context of the rapid development of the internet, e-commerce and mobile payments have merged to form a new development mode. E-commerce platforms rely on the network to complete third-party payments, often using Alipay. Despite the increased transparency and availability of information, there are still risks associated with relying solely on Alipay for payments.

### 2.1 Collection Risk

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### **2.2 Risk of Return for Refund**

In addition to the risk of collection, there is also the risk of returns and refunds. Due to differences in customer preferences and rapidly changing information, refund and return issues inevitably arise in the course of conducting transactions on online platforms. Such issues can pose a financial risk to an e-commerce business.

The merchants' methods of carrying goods and the variety of goods can be potential causes of online purchase returns and refunds. To protect the reputation and word of mouth of merchants and avoid negative impact on the e-commerce platform, major e-commerce platforms actively safeguard consumer rights and interests. E-commerce platforms offer consumers peace of mind by providing reasonable return and refund services, and refunds are directly issued from the platform account to encourage consumer spending. If no additional restrictions are added, e-commerce companies may face a low reputation, decreased sales, and financial risk.

## **3. The E-commerce Platform Capital Risk Response Measures**

The ongoing growth of e-commerce has provided consumers with great convenience, but it has also presented significant challenges for e-commerce management, particularly with the rise of financial risk factors associated with mobile payment methods. This has had a considerable impact on the development of e-commerce enterprises. Controlling and preventing financial risks in mobile payments is crucial for e-commerce enterprises to achieve healthy and stable development.

### **3.1 Strengthening Financial Management**

In the context of the mobile Internet era, the emergence of mobile payment has brought significant convenience to consumers. This means of payment is user-friendly and easy to use. In order to provide users with a positive transaction experience and facilitate quick transactions, fast login methods are often used during the payment process. However, this can lead to potential risks in customer information verification and cash transactions.

To achieve fund diversion and prevent all transaction funds from being in the same bank account, e-commerce enterprises should establish separate bank accounts on different e-commerce platforms. Small and micro enterprises that have just started must allocate sufficient resources for fund management and ensure accurate reconciliation of income and expenditure bills. This is a prerequisite for the sustainable development of e-commerce enterprises. Simultaneously, attention should be given to the arrangement of personnel positions. Incompatible positions should be separated to prevent misunderstandings and conflicts.

### **3.2 Enhanced Returns Management**

The challenge of processing returns and issuing refunds is a significant issue for e-commerce businesses in the rapidly evolving online landscape. Given the abundance of information available on the internet and the diverse range of consumers, it is crucial to have practical solutions in place to address delays in the refund process that may arise during e-commerce transactions. Addressing these issues requires a multifaceted approach. Given the abundance of information available on the internet and the diverse range of consumers, it is crucial to have practical solutions in place to address delays in the refund process that may arise during e-commerce transactions[3].

For orders that have not yet shipped, refunds will not have an irreversible impact on the business. Contact the logistics channel to negotiate the interception of the shipment. Once it is confirmed that the goods have been successfully intercepted, refund the consumer. In situations where orders have already been shipped, the logistics department plays a crucial role in ensuring that goods are successfully returned before issuing refunds. This not only prevents losses for the enterprise

but also helps maintain its reputation.

#### **4. Alipay Payment Security Crisis**

##### **4.1 Technology Risk**

Internet financial products, such as Alipay, rely on the operation of the internet system. Technical loopholes and network risks, such as security vulnerabilities and insufficient technical capabilities, may threaten the security of user data. Therefore, internet financial companies must establish effective internal control measures to safeguard customer information security[4].

##### **4.2 Credit risk**

Credit risk is a concern for both traditional and new financial industries. It refers to the risk of default, where the entrusted party fails to fulfill its commitments and obligations. In the online environment, credit risk is influenced by both human and objective factors, such as those found in e-commerce platforms and consumer markets. Information leakage presents a challenge to payment security and can impact consumer confidence. Due to the virtual and time-lagged nature of the Internet, Alipay payments are subject to credit risk. This may lead to a crisis of consumer confidence. Therefore, e-commerce companies should take measures to address credit risk to ensure consumer trust and payment security[5].

#### **5. Suggested Improvements to Paypal Payment Issues**

##### **5.1 Improvement of the Credit Evaluation System**

The internet financial industry requires a standardized credit guarantee system and credit evaluation grading to reduce illegal behaviors and eliminate the fluke mentality of certain lawbreakers. In perfecting mobile payment, it is important to perfect the credit evaluation system of Alipay to avoid illegal investments and reduce the behavior of unlawful elements who obtain and sell customer information through bad channels. At this moment, it is crucial to regulate the trading environment of e-commerce platforms on the internet. This is one of the solutions for credit risk. It is important to pay special attention to and strictly regulate the monitoring of Alipay payments. Alipay is an e-commerce platform

that plays a crucial role in guaranteeing the safety of enterprise funds and can effectively ensure the security of the payment platform.

##### **5.2 Increased Regulation of E-commerce Platforms**

To enhance standardization of the e-commerce platform, it is necessary to establish a dedicated department to regulate and intervene in the Internet payment system. Additionally, big data tools can be utilized to evaluate business effectiveness. This approach can effectively reduce credit risk associated with Internet payments, thereby addressing issues arising from improper transaction supervision.

To comprehensively supervise Internet finance, it is necessary to standardize the rights and obligations of each party involved. This includes clarifying the specific business operations that Internet financial institutions are authorized to conduct. An effective and feasible management mechanism should be established to ensure proper oversight [6]. When conducting trading activities on the Alipay platform, it is crucial to maintain detailed and accurate cash flow records. Additionally, it is important to display information for each individual transaction, including payment and payee details. To ensure the accuracy of this information, the Alipay account platform strictly enforces a real-name payment method. Real-name registration is significant for standardizing market transactions. It effectively regulates the behavior of both parties during the transaction process and assists with query authentication in the latter part.

##### **5.3 Securing the Alipay Payment System**

The development of information technology has increased opportunities for automated processing of financial information, but it has also brought corresponding risks [7]. As Alipay relies on the internet for transactions, ensuring the security of the payment environment is crucial. To provide consumers with a more secure payment environment, it is important to actively protect the health of the internet network environment to prevent hackers from invading the data background. To increase the frequency and stability of maintenance for customer data, and to improve the overall stability of the internet structure, e-commerce platforms should

prioritize the security of the payment environment while also improving the quality of goods. Ensuring the security of the payment environment is crucial for the effective conduct of internet financial business. In this context, it is important to constantly analyze sensitive data links, identify security loopholes, visualize potential risks, and proactively address emerging problems to maintain a secure Internet payment environment. Additionally, offline factors that may threaten payment security should be controlled and restrained to ensure comprehensive security improvements.

#### **5.4 Improvement of Legal Regulation**

Efforts should be increased to promote awareness of the legal framework for Alipay payments. It is important to emphasize that the internet is not exempt from the law and that all online transactions must comply with relevant laws and regulations, just like traditional offline transactions. Both consumers and e-commerce platform operators should be aware of their legal obligations and work towards maintaining a favorable legal environment on the internet. In the field of internet finance, it is important for all parties to stay up-to-date with the latest developments. Operators and consumers should also familiarize themselves with the laws and regulations governing e-commerce payments, in order to improve their legal awareness and comply with the law as responsible citizens. Additionally, it is crucial to enhance supervision and establish a reporting system involving all stakeholders, in order to minimize legal risks.

Expanding the channels for defending rights is an effective way to protect the interests of consumers. The government should broaden the channels for consumers to protect their rights and improve the quality of consumer rights by including internet financial consumer protection-related behavior in legislative conditions. This can be achieved through means such as business negotiation, criminal reports, and lawsuits [8]. The government should broaden the channels for consumers to protect their rights and improve the quality of consumer rights by including internet financial consumer protection-related behavior in legislative conditions. Due to information asymmetry, the operator and the user may be in an unequal position of information mastery,

with the user often having less information. Therefore, it is important to prioritize transparency, openness, and timely information. Operators should strictly adhere to their responsibilities and regulate transaction behavior for legality. Regulating the behavior of both parties can significantly reduce legal risks.

### **6. Suggestions for Improvement of Alipay Payment Problems**

#### **6.1 Reasons for E-commerce Platforms to Assume Safeguard Obligations**

An e-commerce platform's guarantee of payment is a guarantee of security within the e-commerce premises.

The concept of the duty to safeguard is developed by German courts from jurisprudence. This duty is expressed as 'the obligation of the person who opens or continues a particular danger to take the necessary precautions in light of the specific circumstances, with the possibility of anticipation, in order to protect third parties from damage' [9]. E-commerce platforms have a responsibility to ensure the safety and security of Alipay payments.

Article 30 of the E-Commerce Law requires e-commerce platforms to take technical and other necessary measures to ensure network security, stable operation, and prevent illegal and criminal activities. This requirement emphasizes the need for e-commerce platforms to safeguard payment behavior in e-commerce practices. Regarding the introduction of the norms, Article 30 was influenced by the 2014 Jingdong Mall crash and the public sale of personal information. The legislator is justified in requiring e-commerce platforms to assume their corresponding obligations. In the age of the internet, information is readily available to everyone. E-commerce platforms can avoid payment security issues faced by consumers by fulfilling their due diligence obligations.

The e-commerce platform and Alipay payment service providers are responsible for ensuring security during e-commerce transactions. This is reasonable as they both benefit from e-commerce consumption. As Alipay payment services continue to develop, e-commerce will become smoother. Additionally, the e-commerce platform should bear responsibility for any security hazards it creates when

generating profits. As long as the service platform exists, the person who benefits from the danger should be held responsible for eliminating the associated risks.

E-commerce enterprises that use mobile payment methods, such as Alipay, have a responsibility to protect consumer payment security. This includes the obligation to address hidden risks that may arise.

In addition to payment service providers, e-commerce platforms must also bear responsibility for ensuring security. This is supported by legal requirements.

In summary, the e-commerce platform should take on the responsibility of ensuring safety and security in the payment process for both the initiator and the profit maker. Therefore, it is reasonable for the e-commerce platform to assume corresponding responsibility for e-commerce payments in addition to the payment service provider's guarantee.

## 6.2 Specific Content of Payment Security Obligations

Article 38 of the E-commerce Law does not include any provision on the burden of proof. This omission increases the difficulty of defending consumers' rights and promotes a negative trend of e-commerce platforms avoiding responsibility [10].

From the perspective of consumer protection law, the safety and security obligations of e-commerce platforms are subject to the consumer protection law, and the consumer is the subject of these rights. During the testing of the payment environment, the e-commerce platform should enhance the security requirements for account protection and strengthen the protection of payment security. However, it is unrealistic to expect the e-commerce platform to assume the safety and security obligation for any consumer's use of Alipay payment. If abnormal payments are found on the e-commerce platform, it is the platform's obligation to investigate and verify the issue. The e-commerce platform and the Alipay payment service provider may have different responsibilities in such cases due to varying usage habits among consumers.

E-commerce platforms should intervene and issue early warnings for abnormal accounts that do not conform to general consumer trading habits. They should also promptly assume the necessary obligations. Transaction

habits refer to the consumer's name, contact information, and trading address, which rarely change. Any abnormal changes in this information must be promptly verified. Additionally, each type of e-commerce platform has its own user profile to analyze consumer preferences. The assumption is that these profiles are highly accurate and can be used to verify abnormalities. It is important to pay attention when these profiles undergo significant changes.

## 7. Payment Security Obligations

### 7.1 Liability for Payment Protection

E-commerce platforms may offer user balances and red packets that can be used for consumption promotions.

These funds are held directly by the platform, and therefore, the platform must ensure the security of user account information.

Through the e-commerce platform, users can complete payments directly without the need for fast or secret-free payment behavior. However, this process is subject to contractual constraints between the e-commerce platform and the payment method service provider. This approach offers convenience to consumers while also relieving them of any responsibility. In this type of payment, both the e-commerce platform and the payment service provider share responsibility. However, the e-commerce platform bears a heavier responsibility for payment security.

### 7.2 Modalities for the Realization of the Responsibility for Security of Payments

E-commerce platforms can provide a certain level of payment security by verifying the customary elements of the paying consumer. The verification method adopted by the e-commerce platform for payment security achieves better results by using specific elements in personal information to detect abnormal payment situations. E-commerce platforms can collect user information, including transaction content, address, and contact information, as well as device usage, network location, and other related data. By verifying this information, the e-commerce platform can use the user's data to confirm the account owner's identity during authorization of operations, providing effective payment security. Platforms like Taobao have measures

in place to detect abnormal login behavior, such as account switching, and require users to verify past shopping records to confirm their identity. The likelihood that the user's account belongs to them increases when there is a wide range of information types and a high level of consistency with the consumer information stored in the e-commerce platform's back office. E-commerce platforms use this method to verify general static factors and may use biological identification methods when there are insufficient elements to effectively deal with the risk of information leakage.

## 8. Conclusions

In recent years, Internet payment has brought into the consumer's field of vision at a robust pace from its inception to its development, while occupying the heights of major e-commerce platforms. Mobile payment, as a major branch of Internet payment, has become popular in the eyes of the public. Mobile payment can be found everywhere in life, among which, there are countless e-commerce platforms that use Alipay payment means to make payments. The traditional offline payment competition is already in a white-hot state, and the upside is far less than that of mobile payment. However, with the continuous superiority of China's e-commerce environment and the continuous enrichment of the payment scene, the Alipay payment business has also achieved rapid growth, and the problem has also arisen. In the field of Internet finance, where new things are emerging, there is still a need for constant capital risk monitoring. Effective risk assessment of Alipay's payment process and e-commerce platforms' clear perception of their own responsibilities will promote the prosperous development of Internet finance.

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