



**THE INFLUENCING FACTORS OF CONSUMERS' PURCHASE
INTENTION ON THE TIAN MALL INTERNATIONAL
CROSS-BORDER E-COMMERCE PLATFORM**

**CHEN LINGLI
6617195007**

**AN INDEPENDENT STUDY SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS
ADMINISTRATION
GRADUATE SCHOOL OF BUSINESS
SIAM UNIVERSITY
2024**



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This Independent Study has been Approved as a Partial Fulfillment of the
Requirements for the Degree of Master of Business Administration

Advisor: Jidapa C.
(Dr. Jidapa Chollathanrattannapong)

Date: 7 / Nov / 2024

J.P. J
(Associate Professor Dr. Jomphong Mongkhonvanit)
Dean, Graduate School of Business

Date: 4 / Feb / 65

Title: The Influencing Factors of Consumers' Purchase Intention on the Tian Mall International Cross-Border E-Commerce Platform
By: Chen Lingli
Degree: Master of Business Administration
Major: International Business Management

Advisor: 
(Dr. Jidapa Chollathanrattannapong)

Date: 7 / NOV. / 2024

ABSTRACT

Tian Mall international cross-border e-commerce platform, a leading e-commerce platform in China, is grappling with customer retention challenges due to the shift from traditional offline stores to online sales. The company needs to improve consumer purchase intention and promote products and services.

The objectives of the study were: 1) To explore whether perceived usefulness affects consumers' purchase intention on the Tian Mall international cross-border e-commerce platform; 2) To explore whether perceived ease of use affects consumers' purchase intention on the Tian Mall international cross-border e-commerce platform; 3) To explore whether perceived safety affects consumers' purchase intention on the Tian Mall international cross-border e-commerce platform.

This study adopted the quantitative research method. The population was the consumers of Tian Mall international's cross-border e-commerce platform. In this study, a total of 440 questionnaires were distributed, with 408 valid questionnaires and the validity rate was 92.9%. Based on the technology acceptance model, and the perceived risk theory, this study found that: 1) Perceived usefulness has a significant positive effect on consumers' purchase intention on the Tian Mall international cross-border e-commerce platform; 2) Perceived ease of use has a significant positive effect on consumers' purchase intention on the Tian Mall international cross-border e-commerce platform; 3) Perceived safety has a significant positive effect on consumers' purchase intention on the Tian Mall international cross-border e-commerce platform. For recommendations, the Tian Mall

international cross-border e-commerce platform should focus on the following aspects: 1) Optimizing perceived usefulness; 2) Improving perceived ease of use; 3) Enhancing perceived safety.

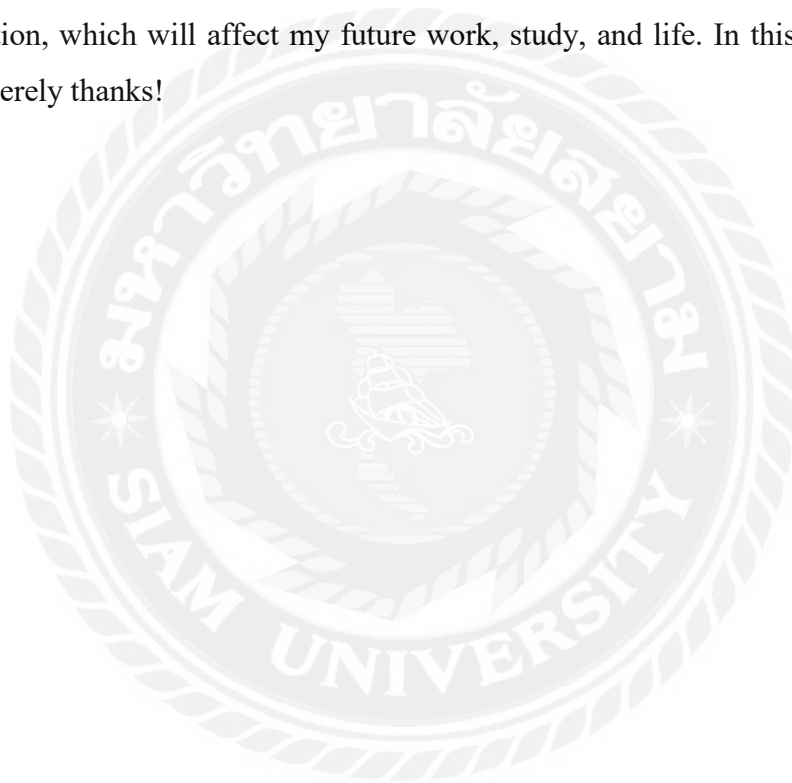
Keywords: consumers' purchase intention, Tian Mall, international cross-border e-commerce platform



ACKNOWLEDGEMENT

On the occasion of the completion of my master's study, I would like to extend my high respect to my teachers who have guided me, the leaders who care for me, those who care about me, and all the people who have helped me in the process of studying for my master degree.

This study was completed under the careful guidance of the supervisor. The teacher's profound knowledge contains a rigorous scholarly research attitude, seeking truth from scientific research, work enthusiasm, a combination of theory and practice, and innovation, which will affect my future work, study, and life. In this respect, the teacher sincerely thanks!



DECLARATION

I, Chen Lingli, hereby certify that the work embodied in this independent study entitled “The Influencing Factors of Consumers' Purchase Intention on the Tian Mall International Cross-Border E-Commerce Platform” is a result of original research and has not been submitted for a higher degree to any other university or institution.

Chen Lingli

Chen Lingli



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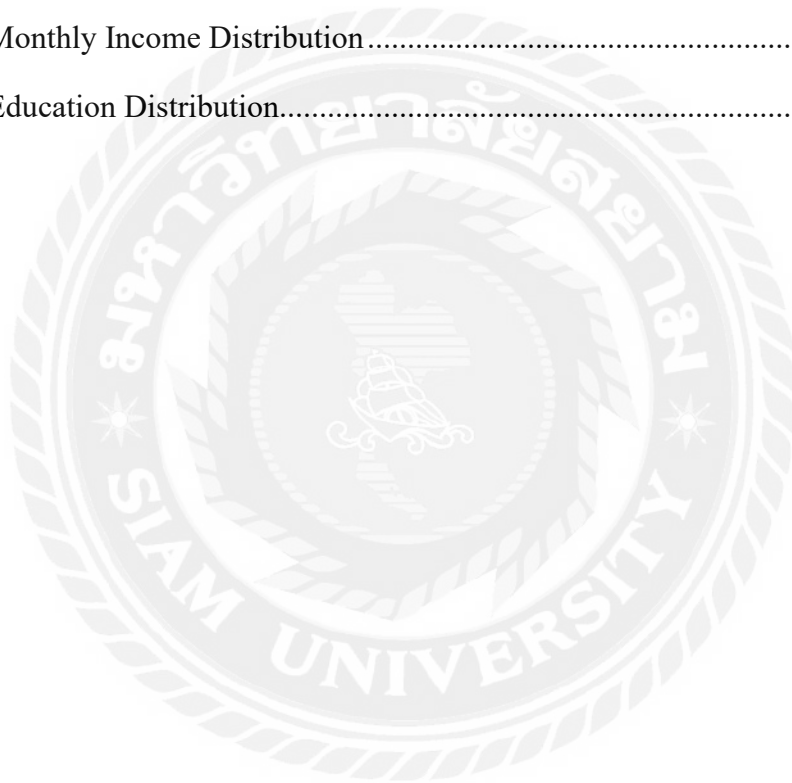


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Chapter 1 Introduction

1.1 Background of the Study

With e-commerce booming in China, companies' competition for customer resources is no longer limited to offline. In recent years, there has been a shift in customers' consumption habits. Consumers used to learn about products from advertisements and brochures, but now the internet has become the main channel for collecting information. Consumers used to pay for their purchases in offline stores, but online sales are increasingly eating into traditional sales (Qian, 2021). As a result, more and more companies are getting involved in e-commerce and opening their e-commerce websites, hoping to capitalize on the e-commerce trend, provide products and services to customers through the combination of e-commerce and offline entities, and enhance the core competitiveness of enterprises. However, looking at the current successful e-commerce companies, from foreign Amazon and eBay to China's Tao Bao and Jing Dong, they are from scratch from the newly created technology companies, the transformation of traditional enterprises into e-commerce, but there are few leading benchmarks. E-commerce has gradually become the contact channel for customers, even more important than offline services (Balassa, 2020).

Driven by the national strategy, cross-border e-commerce has become an important way to promote the expansion of domestic consumption and consumption structures. In 1999, China began to appear as a cross-border e-commerce business, and in 2013, cross-border e-commerce began to transition into a rapid development stage. In 2021, China's cross-border e-commerce market size reached 15.03 trillion yuan, a year-on-year growth of 16.35% compared with 3.98 trillion yuan in 2014, an increase of 28 times, and the market is expected to grow by 20% (Bouckaert et al., 2020). In 2015, the Chinese government first set up cross-border e-commerce comprehensive service zones in Hangzhou and Tianjin, and by March 2022, a total of 132 service zones had been established, which strongly promoted the development of cross-border e-commerce. The cross-border e-commerce industry is categorized into B2B and B2C modes, with B2B targeting business-to-business cross-border e-commerce, while the B2C mode is for businesses to provide cross-border e-commerce services to retail customers. Among them, B2C accounts for 23.5% of the overall cross-border e-commerce market size, and through the B2C model, Chinese consumers are provided with better quality product services, and the number of consumers is rising. By the end of 2021, China's cross-border e-commerce B2C platform consumers reached 161 million, a year-on-year growth of 10.82%, and the cross-border e-commerce B2C industry has maintained its growth even as the 2020

epidemic affects China's consumption (Jin, 2022).

However, in the rapid development of cross-border e-commerce, it also faces problems. The traffic of cross-border e-commerce has declined, with the traffic of mainstream cross-border e-commerce platforms declining by 23.47% year-on-year in the first half of 2022, while the rate of customer complaints about cross-border e-commerce goods rose by 27.65% year-on-year (Jin, 2022). Meanwhile, due to intensified competition in the industry and further homogenization of products and services, the customer retention rate of cross-border e-commerce platforms declined by 19.78% year-on-year in 2021 (Jin, 2022). The rise in the customer complaint rate and the decline in the retention rate of cross-border e-commerce platforms directly affect the development of cross-border e-commerce platforms and are affected by the policy environment, such as by the impact of Amazon's "blocking incident," resulting in the loss of nearly 100 billion yuan of the transaction scale of the cross-border e-commerce platforms, which has brought enormous pressure on the cross-border e-commerce platforms.

On a small international cross-border e-commerce platform, there is a rise in customer complaints and a decline in customer retention. Small international cross-border e-commerce platforms need to pay further attention to consumers' purchase intention and take effective measures to enhance consumers' purchase intention to maintain development in the fierce market competition. To this end, the study examines the factors affecting consumers' intention to buy on the Tian Mall international cross-border e-commerce platform and puts forward relevant suggestions to improve the development of cross-border e-commerce platforms and to promote the improvement of cross-border e-commerce platforms to provide reference for their products and services.

1.2 Questions of the Study

In recent years, with the rapid development of internet technology, the convenience of the means of payment is getting better and better. Cross-border e-commerce, with its rich variety and ease of operation, is not subject to the time and space geographical limitations of the rapid development of the characteristics that the majority of consumers quickly favored, and the cross-border online shopping boom gradually attacked (Baker et al., 2020). China's cross-border e-commerce platform giants such as Tian Mall, Jing Dong, Su Ning, etc. have launched cross-border e-commerce shopping boards, taking advantage of the wave of cross-border

e-commerce development to occupy the market. Cross-border e-commerce has only been in the public eye for the last few years, and the industry is small and not well accepted in China. In the process of development, how to enhance consumer trust and broaden market share is a problem that cross-border e-commerce enterprises need to solve. The study of the influencing factors of consumers' intention to buy on cross-border e-commerce platforms can help the cross-border industry develop better and step into a new stage, which is of great practical significance. Therefore, this study proposes a study on the influencing factors of consumers' purchase intention on the Tian Mall international cross-border e-commerce platform.

1. Does the perceived usefulness affect consumers' purchase intention on the Tian Mall international cross-border e-commerce platform?

2. Does the perceived ease of use affect consumers' purchase intention on the Tian Mall international cross-border e-commerce platform?

3. Does the perceived safety affect consumers' purchase intention on the Tian Mall international cross-border e-commerce platform?

1.3 Objectives of the Study

In the international environment of the storm clouds, competition between enterprises has intensified, and customer's intention to buy has become the focus of attention for enterprises. With the development of Internet technology, the initiative and influence of the users have never been higher; they get more channels of information, click to view each other's sales information, and exchange ideas. Although companies will have product innovation, the products sold by different companies are not different. Consumers compare the price and service of the business before buying, which leads to increasingly fierce competition between enterprises, and then the consumer's intention to buy continues to change. Cross-border e-commerce platforms that fail to provide a superior shopping experience and rely solely on low prices will only attract poor-quality customers who will not be of any value to the company. Due to the impact of the international environment, the enterprise production cycle becomes longer, the production cost increases, and it is difficult to ensure that the export time will not be delayed. Coupled with the rise in export freight costs, the transportation time limit is affected, the customs policy changes in various countries, and so on. All of these will lead to a loss of confidence in the consumer. The Tian Mall international's cross-border e-commerce platform as a

cross-border e-commerce enterprise needs to improve the customer's intention to buy.

1. To explore whether perceived usefulness affects consumers' purchase intention on the Tian Mall international cross-border e-commerce platform.

2. To explore whether perceived ease of use affects consumers' purchase intention on the Tian Mall international cross-border e-commerce platform.

3. To explore whether perceived safety affects consumers' purchase intention on the Tian Mall international cross-border e-commerce platform.

1.4 Scope of the Study

The research subjects of this study were the consumers of Tian Mall international cross-border e-commerce platform. Consumers of the Tian Mall international cross-border e-commerce platform have experience in platform consumption, can evaluate the platform shopping experience, and can explain the factors influencing the intention to buy. This study used a questionnaire survey, and the questions included basic information about consumers, and the influencing factors of consumers' intention to buy products. The period of the research survey was from January 1, 2024, to April 1, 2024.

1.5 Significance of the Study

This study not only has theoretical significance but also has practical significance for the development of cross-border e-commerce. This study can help the Tian Mall international cross-border e-commerce platform to implement targeted marketing strategies and contribute to the development of the cross-border e-commerce industry. The factors of cross-border e-commerce platform consumer acceptance and intention to use are the most urgent business wants to explore. Cross-border e-commerce enterprises are blossoming, the competition is extremely fierce, and enterprises are grabbing market share, on the premise of retaining existing consumers, and constantly attracting new consumers (Harper et al., 2020). Therefore, understanding the influencing factors of cross-border e-commerce consumers' intention to buy is important for companies to implement their business strategies. Cross-border e-commerce consumer-level research can help companies better understand consumer psychology. China's cross-border e-commerce industry

has developed rapidly in recent years, but it is still a new industry, and most consumers do not have a high level of acceptance of cross-border e-commerce platforms, which leads to the fact that cross-border e-commerce consumer-level research is still in its infancy.

This study refines the research on consumer purchase intention of cross-border e-commerce enterprises. There are differences between traditional e-commerce, cross-border e-commerce facing e-commerce platforms as well as offshore platforms, between the domestic and offshore in terms of purchase and payment, logistics and distribution are more complex than the e-commerce business platforms within China, and the factors affecting the consumers' intention to buy are also different. In existing research, it is more common to apply relevant theories to traditional e-commerce models, but the use of theoretical models to study the cross-border e-commerce consumer domain is rare, and even less literature on specific cross-border e-commerce websites. This study also has some references to the applied research of consumer behavior research) as well.

1.6 Definition of Key Terms

Perceived Usefulness: This refers to the perceived benefit or value of using the platform to make purchases. The operational definition includes the extent to which consumers perceive the platform to provide product information, price advantages, quality of service, etc.

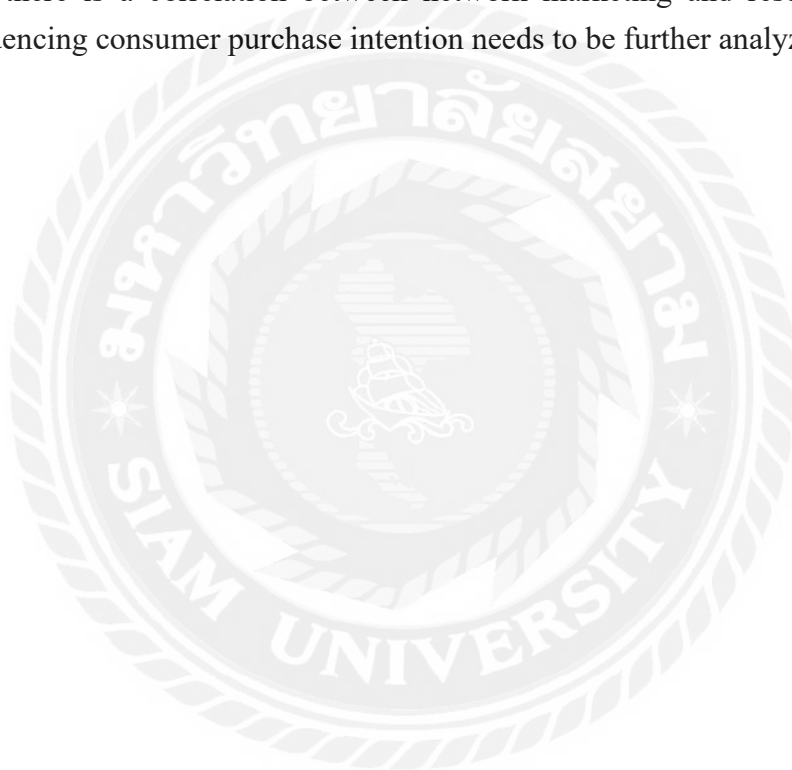
Perceived Ease of Use: This represents the consumer's perception of how easy or difficult it is to use the platform to make a purchase. The operational definition includes consumers' perceptions of the friendliness of the platform's interface, the simplicity of the shopping process, and the convenience of payment methods.

Perceived Security: This refers to the consumer's perception of the security of purchases made on the platform. The operational definition includes the extent to which consumers perceive the protection of personal information, payment security, and quality assurance of goods.

Consumer Purchase Intention: This measures the extent to which consumers are willing to purchase a product or service in a given context. The operational definition includes the consumer's explicit expression of intent to purchase a product or service.

1.7 Limitations of the Study

There are limitations to this study. According to the research objectives, the study designed a relevant questionnaire, analyzed the current factors affecting consumers' purchase intention, and obtained relevant conclusions. However, due to the lack of personal experience, this research has certain limitations. The recovered questionnaires were relatively concentrated in the region, and there were some limitations on the target of the survey. The limitation of data collection lead to the incompleteness of some key information. The research methodology used may have limitations that affect the understanding and interpretation of the questions. There is an interaction between perceived usefulness, perceived ease of use, and perceived safety, and there is a correlation between network marketing and research on the factors influencing consumer purchase intention needs to be further analyzed in depth.



Chapter 2 Literature Review

2.1 Literature Review

2.1.1 Technology Acceptance Model

(1) Definition of Technology Acceptance Model

Scholars proposed the Technology Acceptance Model (TAM) based on the Theory of Rational Behavior (TRA) for studying consumer acceptance when first exposed to novel technologies (Roberts & Henderson, 2000). In the TAM model, the variables behavioral attitudes and subjective norms, which have been used in the TRA model, are deleted and replaced by two core variables, perceived usefulness and perceived ease of use. Consumer purchase intention is explained through these two variables. Scholars extend the model by selecting external variables to study the model, and there are various evaluation systems for external factors, and different scholars have different opinions (Taherdoost, 2018). External factors are the core variables of the TAM model, and thus the influence on purchase intention, the TAM model usually consists of the following factors:

- Behavioral intention. It refers to the positive or negative choices that users make when they are exposed to a novel technology.

- Attitude refers to the negative or positive feelings an individual exhibits when confronted with a novel technology, which is expressed as consumer trust when applied to the study of consumer behavior.

- Perceived usefulness. This is the key variable in the TAM model and refers to the degree of utility that users expect to increase when using the novel technology.

- Perceived ease of use. This is a key variable in the TAM model and refers to the degree of ease with which users use the new technology.

See Figure 2.1 for details.

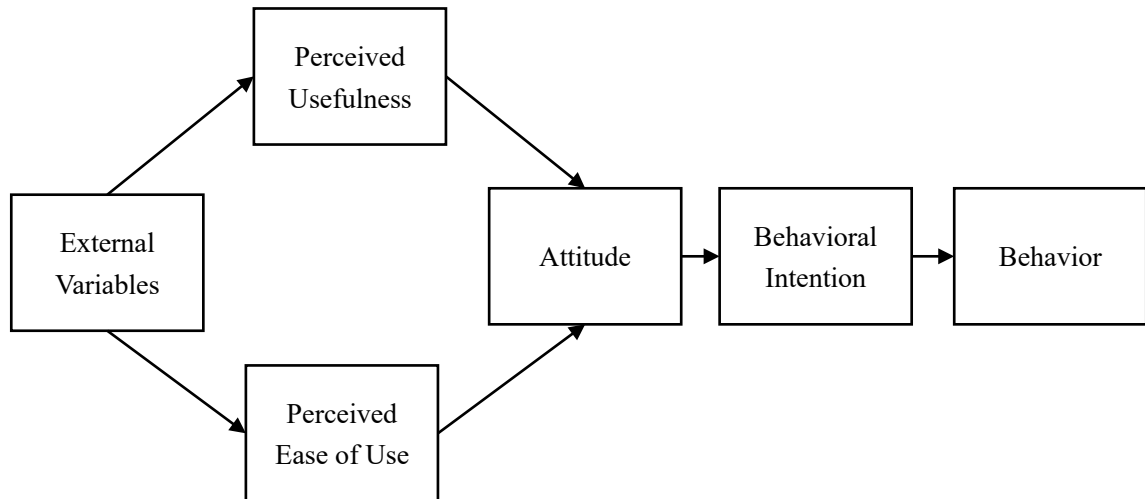


Figure 2.1 Technology Acceptance Model

To improve the application of the TAM model to different products, the model can be extended to apply to different scenarios by introducing other factors as well as external factors. For cross-border e-commerce, the TAM model applies to the research of cross-border e-commerce platforms (Tarhini et al., 2016). The TAM model is used to analyze the attitudes of consumers' choices of different cross-border e-commerce companies, and the research shows that the model can explain the behavioral characteristics of consumers better. The TAM model investigates the moderating effect of different ages on the factors, and it can explain the degree of acceptance of cross-border e-commerce platforms by consumers better. The TAM model analyzes consumers' intention to use cross-border e-commerce, through which the model can better explain consumer choice behavior. Consumers' intention to buy on the e-commerce platform can be better explained by the factors that contribute to consumers' intention to buy (Mohammad Ali et al., 2014).

Upon analysis of the aforementioned content, it becomes clear that the Technology Acceptance Model (TAM) is a superior explanation for a consumer's inclination to make purchases on e-commerce platforms. This model has been effectively utilized in studies about cross-border e-commerce. The external extension presented by the TAM model offers an ideal framework for comprehending a consumer's intention to engage in cross-border e-commerce, given its distinctive attributes (Mohammad Ali et al., 2014; Taherdoost, 2018; Tarhini et al., 2016). Hence, this study adopted the TAM model as a foundation and expanded upon it to reflect the particulars of cross-border e-commerce.

(2) Perceived Usefulness

In the Technology Acceptance Model (TAM), perceived usefulness refers to a person's subjective assessment of the expected benefits of using a particular technology or system. This concept was developed by scholars in the field of information systems research to explain an individual's attitude and behavior toward the adoption of a particular technology. Whether the technology or system will meet the specific needs of the user, solve the user's problem, or provide the desired functionality. Whether the use of the technology or system leads to positive changes or improvements that enhance work efficiency or quality of life (Saadé, 2007). The perceived usefulness is often considered an important influence in TAM and plays an important role in predicting an individual's intention to accept new technology. In practice, researchers and practitioners use questionnaires and user interviews to assess users' perceptions of the usefulness of technologies and optimize product design and promotion strategies accordingly.

When it comes to cross-border e-commerce consumers' intention to buy, perceived usefulness plays a crucial role in their purchase decisions. Cross-border e-commerce platforms typically offer more variety and a wider range of choices, and consumers evaluate the quality, features, and usability of cross-border products to determine whether they are worth purchasing. Perceived usefulness is influenced by product quality and variety, and consumers are more likely to be willing to purchase a cross-border product if they perceive it to be of higher quality or greater variety (Denaputri & Usman, 2019). Consumers will consider the price of the cross-border product as well as the cost of currency conversion. They will be more inclined to purchase if they perceive that cross-border purchases can result in better prices or more favorable currency exchange rates.

Consumers will assess the logistics efficiency and delivery reliability of cross-border e-commerce platforms to determine the convenience and practicality of the purchase. Consumers are more confident in making purchases if they perceive that the cross-border e-commerce platform provides fast and reliable logistics and delivery services. Cross-border shopping involves merchants and payment systems in different countries and regions, and consumers will be concerned about trust and security. Perceived usefulness is affected by the reputation and security measures of the cross-border e-commerce platform if consumers perceive that the platform has a good reputation and security measures (Elango & Kulcharatyothin, 2018). Cross-border e-commerce consumers' purchase intention is influenced by perceived usefulness. Therefore, cross-border e-commerce platforms need to focus on product quality, price

competitiveness, logistics and distribution, trust, and security to enhance consumers' perceived usefulness, thereby promoting the development of cross-border e-commerce and increasing purchase intention (Elango & Kulcharatyothin, 2018).

(3) Perceived Ease of Use

In the Technology Acceptance Model (TAM), perceived ease of use refers to an individual's subjective assessment of how easy it is to learn and understand the interface and operation of using a particular technology or system. Perceived ease of use relates to the user's perception that the technology or system is easy to learn, use, and operate. A technology or system is perceived as easy to use when users can master its operation without excessive training or learning. Perceived ease of use is also critical to cross-border e-commerce consumers' purchasing decisions. The interface design of a cross-border e-commerce platform is critical to the user experience. If the interface design is simple and easy to navigate, consumers will find it easier to find the products they want, and the browsing and shopping process will be more enjoyable and smooth. On the contrary, if the interface design is complex and confusing, consumers will feel confused and dissatisfied, thus reducing their intention to buy. The more intuitive the shopping process on a cross-border e-commerce platform, the easier it is for consumers to complete their purchases. If the shopping process is cumbersome and complex, requiring filling out a lot of information or going through multiple steps, consumers may feel impatient or give up the purchase. Therefore, perceived ease of use affects consumers' satisfaction and intention to purchase.

Consumers will pay attention to whether the payment methods and settlement processes provided by cross-border e-commerce platforms are convenient, fast, safe, and reliable. If the payment process is straightforward, supports multiple payment methods, and provides a secure payment environment, consumers will be more willing to purchase on the platform. With the popularization of mobile devices, more and more consumers use cell phones or tablets for cross-border shopping. Therefore, the mobile experience of a cross-border e-commerce platform is also crucial to consumers' intention to buy. If the interface design of the mobile application or website is well adapted and operates smoothly, consumers will be more willing to complete their purchases on mobile. Perceived ease of use has an impact on cross-border e-commerce consumers' purchase intention. Therefore, cross-border e-commerce platforms need to focus on interface design, payment methods, and settlement processes to enhance consumers' perceived ease of use, increasing their intention to buy and improving the user experience.

2.1.2 Diversification Perceived Risk Theory

(1) Definition of Perceived Risk Theory

The perceived risk theory suggests that consumers experience subjective uncertainty during the consumption process, with concerns and doubts about the process of purchase as well as the consequences of the purchase. Similarly, perceived risk is the consumer's subjective risk perception, not necessarily the risk itself. However, perceived risk can have a greater impact on consumer decision-making, and an increase in perceived risk may cause consumers not to continue to choose a product or to hesitate for a period. In any purchase behavior, consumers may not be sure whether the result meets psychological expectations or is a kind of unpleasant emotion (Elango & Kulcharatyothin, 2018; Falode, 2018). This is manifested in two ways: first, consumers do not know whether the outcome of the purchase is in line with expectations; second, consumers consider that the wrong purchase choice may lead to a series of unfavorable matters, which may harm their interests. Scholars define it as a perceived risk with a strong subjective will. Perceived risk is generally subjective and is related to the psychology of the consumer (Falode, 2018). Perceived risk is the feeling of uncertainty that arises from the fact that consumers cannot predict whether the purchase will be satisfactory or not in the process of purchasing a product.

Consumers' acceptance of cross-border e-commerce is not high, and many people still harbor concerns about cross-border e-commerce and are unwilling to try this new type of shopping. Research related to consumer purchase intention on cross-border e-commerce platforms (Ismail, 2016). In the consumption process of cross-border e-commerce, as the goods are purchased from abroad and logistics transportation is a transnational behavior, the intermediate links are more complex and face the impact of customs, logistics efficiency, payment, and other uncertainties, which may lead to differences in the perceived risk of different consumers, and different perceived risks may have an impact on the consumer's intention to buy. For this reason, this paper extends the TAM model by combining the perceived risk theory with the subsequent research (Jeong, 2016).

(2) Perceived Safety

In the perceived risk theory, perceived safety refers to an individual's subjective assessment of the potential risk of participating in an activity or adopting a technology. Perceived security involves the degree to which an individual perceives whether he or

she is at risk from an action. In the context of cross-border e-commerce consumers' intention to buy, perceived safety refers to consumers' perceptions and assessments of the risks that may be involved in purchasing products on cross-border e-commerce platforms (Falode, 2018; Jeong, 2016).

Cross-border e-commerce involves cross-border transactions and currency conversions, and consumers will be concerned about the security of the payment process. Perceived safety can be influenced by the credibility of the payment platform and the safety assurance of the payment system. If consumers perceive that the cross-border e-commerce platform provides a safe and secure payment system and payment environment, they are more confident in making a purchase. In the cross-border shopping process, consumers need to provide personal information such as their name, address, and credit card information (Gillen et al., 2002). Perceived safety is affected by the platform's measures and privacy policies for personal information protection. Consumers are more likely to make purchases on a cross-border e-commerce platform if they believe that the platform can protect their personal information from disclosure or misuse. Consumers may be concerned about the quality, authenticity, and after-sales service of goods purchased across borders, and perceived safety will be affected by the platform's quality control and authenticity verification of goods. If consumers perceive that the cross-border e-commerce platform provides authentic and trustworthy commodity information, quality assurance, and sound after-sales service, they are more confident to make purchases (Patwardhan et al., 2020).

Therefore, perceived safety has an important impact on the purchase intention of cross-border e-commerce consumers. To enhance consumers' perceived safety, cross-border e-commerce platforms need to strengthen payment safety, protect the safety of personal information, provide truthful and trustworthy product information and advertisement content, and effectively regulate merchant behavior, to enhance consumers' confidence, promote the development of cross-border e-commerce, and increase the intention to purchase (Zhang et al., 2017).

2.2 Research Relevant

Cross-border e-commerce belongs to a form of e-commerce that refers to the electronicization of activities in the flow of commodities through the Internet and other information technologies to improve the efficiency of commodity circulation. Cross-border e-commerce mainly refers to the technology of e-commerce as the basis,

through the electronic solution to the circulation of cross-border commodities as well as payment and other issues, and around the cross-border commodities, the organization of logistics, consumption, and other behaviors. The basis of cross-border e-commerce is the internet; through the internet, information flow and other global sharing are realized, and through the financial system, cash flow is transferred (Hong et al., 2018).

Cross-border e-commerce has the characteristics of globalization; theoretically, cross-border e-commerce can be connected to global commodities through the Internet, through the organization of sellers, platforms, and consumers to form a supply chain, which is conducive to the circulation of global commodities in the cross-border e-commerce network (Kim, 2018). Cross-border e-commerce is organized through the Internet, and various commodities, logistics, capital, and other information are circulated in the network of cross-border e-commerce through digitalization. After consumers' place orders through the cross-border e-commerce platform, all kinds of order information are also fed back to the consumer in the form of digitization. Through digitization, the different parties involved in cross-border e-commerce are organized, effectively improving the efficiency of information interaction. Through the cross-border e-commerce platform, based on the Internet and the digitization of information, the purchase of cross-border goods can be realized efficiently. In the traditional cross-border business model, the interaction of commodity information and order information has a high time cost, but in the cross-border e-commerce platform, the information is processed in a very efficient way (Zhen, 2018).

Intention to buy is used to portray the subjective intention of consumers to purchase a commodity, reflecting the possibility of consumers purchasing the commodity, and is a subjective measure of consumers before specific purchasing behavior occurs. For cross-border e-commerce consumers' intention to buy, consumers choose cross-border goods on cross-border e-commerce platforms, and after comparing the various goods as well as the platforms, they are willing to make purchases on the cross-border e-commerce platforms with their subjective intention (Anson et al., 2018). Factors affecting consumers' intention to purchase online shopping include residents' income, education level, and occupation, all of which have different impacts on intention to purchase (Leppaniemi & Karjaluoto, 2005). The scholars' survey on consumers' intention to purchase online found that product content, product price, transaction safety, and supplier visibility have a significant impact on Singaporeans' intention to purchase online. Scholars surveyed 214 online shoppers by questionnaire to study the key influencing factors of consumer acceptance of

e-commerce sites (Alfnes et al., 2006). Empirical analysis of information safety, payment security, and website design has a higher degree of influence, of which security is the most concerned about consumers but also the most influential factor (Wertenbroch & Skiera, 2002). In the study of cross-border e-commerce consumers, the results show that product quality, logistics efficiency, and merchant service level are the key influence factors of the model.

2.3 Conceptual Framework

The TAM model not only has a good application in the field of consumer behavior research but also has a wide range of applications in the field of cross-border e-commerce users' intention to use. Scholars usually improve the model by adding model variables. In this study, based on the Tian Mall international cross-border e-commerce platform, the model is constructed by combining the TAM model. Perceived usefulness, perceived ease of use, perceived safety are independent variables. Consumers' purchase intention is the dependent variable. The model framework is shown in Figure 2.2.

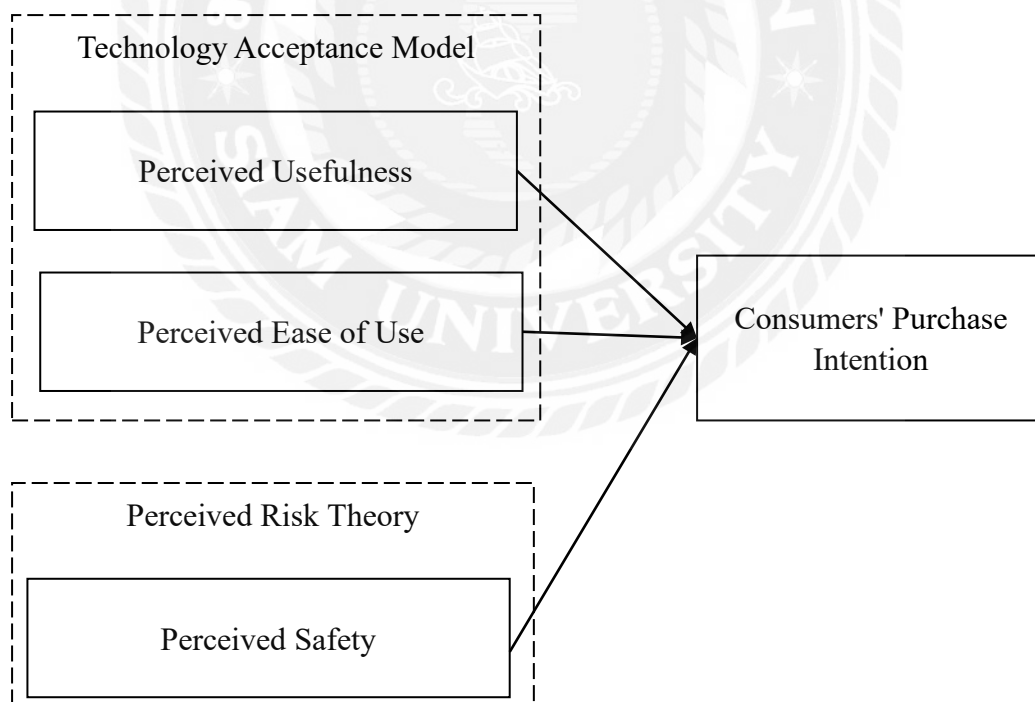


Figure 2.2 Conceptual Framework

Chapter 3 Research Methodology

3.1 Research Design

The study examined the factors that influence consumers' purchase intention on the Tian Mall international cross-border e-commerce platform. The variables proposed in the study include consumers' purchase intention, perceived usefulness, perceived ease of use, perceived safety. A questionnaire was created using traditional scales from the study literature. Each variable's reliability and validity were assessed, and correlation analysis was performed. The study draws on the technology acceptance model, and the perceived risk theory. The questionnaire uses a five-point Likert scale, with results ranging from 5 to 1, representing strongly agree, agree, neutral, disagree, and strongly disagree. There are 12 questions on the study variables.

3.2 Questionnaire Design

The consumers' purchase intention consists of three questions. The dimensions of purchase intention are measured by the intention to purchase through the cross-border e-commerce platform and the intention to recommend this shopping method to others. In this paper, purchase intention is measured in three dimensions: "I am willing to shop through Tian Mall international's cross-border e-commerce platform"; "I will use Tian Mall international's cross-border e-commerce platform to buy more products in the future"; and "I will recommend Tian Mall international's cross-border e-commerce platform to my family and friends.". I will recommend Tian Mall international cross-border e-commerce platform to my family and friends".

The perceived usefulness consists of three questions. Perceived usefulness is the degree of utility that a technology or experience can increase. According to the definition of perceived usefulness, the measures of perceived usefulness for cross-border online shoppers are: "Tian Mall international cross-border e-commerce platform has enough goods or services for me to choose from"; "Shopping through Tian Mall international cross-border e-commerce platform can improve my purchasing efficiency."; and "I prefer Tian Mall international cross-border e-commerce platform to other shopping methods.".

The perceived ease of use consists of three questions. The dimensions of perceived ease of use are measured as: "I can quickly find the goods or services I want"; "The page of Tian Mall international cross-border e-commerce platform is

simple and The operation process is very convenient"; "The payment process of Tian Mall international cross-border e-commerce platform is fast and convenient".

The perceived safety consists of three questions. Measuring the perceived safety includes: "There is no quality risk for the goods purchased on the Tian Mall international cross-border e-commerce platform"; "Purchasing goods through the Tian Mall international cross-border e-commerce platform, there is no leakage of personal information"; "The payment process of the Tian Mall international cross-border e-commerce platform is risk-free and protects the safety of users' funds", as shown in Table 3.1.

Table 3.1 Measurement Items

Variable	Measurement item	NO.
Perceived Usefulness	Tian Mall international's cross-border e-commerce platform has enough goods or services for me to choose from.	Q1
	Online shopping through Tian Mall international's cross-border e-commerce platform can improve my purchasing efficiency.	Q2
	I prefer Tian Mall international's cross-border e-commerce platform to other shopping methods.	Q3
Perceived Ease of Use	I can find the goods or services I want quickly.	Q4
	The page of Tian Mall international's cross-border e-commerce platform is simple, and the operation process is very convenient.	Q5
	The payment process on Tian Mall international's cross-border e-commerce platform is fast and convenient.	Q6
Perceived Safety	There is no quality risk for the goods purchased online on Tian Mall international's cross-border e-commerce platform.	Q7
	Online shopping through Tian Mall international's cross-border e-commerce platform will not leak personal information.	Q8
	The payment process on Tian Mall international's cross-border e-commerce platform is risk-free and protects the safety of users' funds.	Q9
Consumers' Purchase Intention	I am willing to shop through Tian Mall international's cross-border e-commerce platform.	Q10
	I will use Tian Mall international's cross-border e-commerce platform to buy more goods in the future.	Q11
	I will recommend Tian Mall international's cross-border e-commerce platform for shopping to my family and	Q12

Variable	Measurement item	NO.
	friends.	

3.3 Hypothesis

The independent variables in this study are perceived usefulness, perceived ease of use, and perceived safety. The dependent variable is consumers' purchase intention, and the model is constructed based on the analysis and the relationship between the variables. The relationship between variables is set through hypotheses:

H1: Perceived usefulness has a significant positive effect on consumers' purchase intention on the Tian Mall international cross-border e-commerce platform.

H2: Perceived ease of use has a significant positive effect on consumers' purchase intention on the Tian Mall international cross-border e-commerce platform.

H3: Perceived safety has a significant positive effect on consumers' purchase intention on the Tian Mall international cross-border e-commerce platform.

The hypothetical model of the influencing factors of consumers' purchase intention on the Tian Mall international cross-border e-commerce platform, and the interrelationships among the variables is shown in Figure3.1.

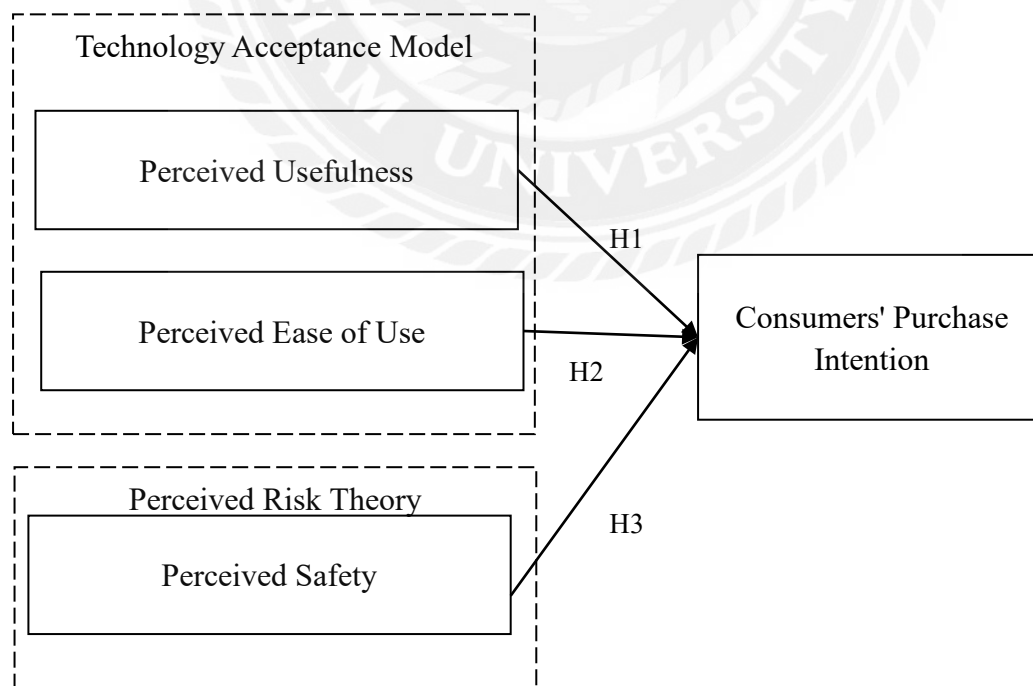


Figure 3.1 Hypotheses

3.4 Population and Sampling

The research population was the consumers of the Tian Mall international cross-border e-commerce platform. Consumers of the Tian Mall international cross-border e-commerce platform have platform consumption experience, can evaluate the platform shopping experience, and can explain the content of the influence of purchase intention. The number of consumers on the Tian Mall international cross-border e-commerce platform was high. The sample size was calculated with a reliability of 99.9%.

$$N = \frac{r^2 * \rho(1 - \rho)}{\beta^2}$$

The calculation gives the sample size for this sample survey as 439.81, so the number of people to be sampled is 440.

3.5 Data Collection

The questionnaire in this study adopted the form of online survey, using the Questionnaire Star online questionnaire link, and collected relevant data through the backstage organization. The questionnaires were collected from January 1, 2024, to April 1, 2024.

A total of 440 questionnaires were distributed in this study, and there were three criteria to determine whether the questionnaires were valid. The questionnaires were screened according to the scale, and the questionnaires that did not select the specified answers. The questionnaires that took less than 30 seconds to complete, and the questionnaires with almost the same score for each question were invalid. According to the above three criteria, 408 valid questionnaires were collected and 32 invalid questionnaires were deleted, resulting in a response rate of 92.9%.

3.6 Data Analysis

3.6.1 Reliability

The questionnaire used in this study is an adaptation of a mature questionnaire that was slightly adjusted and integrated into the study, as well as tested for reliability and validity. The dependability was determined using SPSS reliability analysis, with a

focus on the Cronbach's Alpha reliability coefficient. If the difference between Cronbach's Alpha reliability coefficient and 1 is minimal, the data's reliability is high; otherwise, the reliability is low. The Cronbach's Alpha for the test in this study is 0.8 or higher, indicating that the questionnaire meets the inherent reliability criteria. As show in Table 3.2.

Table 3.2 Variate Reliability Test

Variable	Cronbach's Alpha	N of Items
Perceived Usefulness	0.851	3
Perceived Ease of Use	0.870	3
Perceived Safety	0.897	3
Consumers' Purchase Intention	0.860	3

The Cronbach's Alpha coefficient for perceived usefulness is 0.851, the Cronbach's Alpha coefficient for perceived ease of use is 0.870, the Cronbach's Alpha coefficient for perceived safety is 0.897, and the Cronbach's Alpha coefficient for consumers' purchase intention is 0.860. All of them are in the range of 0.8~0.9, which indicates that the reliability of this study's questionnaire is better, and then the validity can be further analyzed. This indicates that the reliability of the questionnaire of this study is very good, as shown in Table 3.2.

Table 3.3 Item-Total Statistics

Item-Total Statistics			Cronbach's Alpha
Item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	
Q1	0.725	0.787	0.851
Q2	0.722	0.790	
Q3	0.714	0.798	
Q4	0.726	0.840	0.870
Q5	0.801	0.770	
Q6	0.730	0.837	
Q7	0.778	0.868	0.897
Q8	0.784	0.863	
Q9	0.827	0.825	
Q10	0.751	0.788	0.860
Q11	0.739	0.799	
Q12	0.714	0.822	

The results showed that Cronbach's alpha of the deleted question items for each question item is less than Cronbach's alpha coefficient for that dimension. These indicate that each item has good reliability and does not need to be deleted. The overall reliability of the questionnaire is good.

3.6.2 Validity

The questionnaire's validity was tested using the KMO and Bartlett's Test of Sphericity. A KMO value of less than 0.5, which is the test standard, indicates poor questionnaire validity. When the KMO value approaches one, it implies that the questionnaire items share more factors, making each element easier to examine and evaluate. The results of the validity of this questionnaire are shown in Table 3.4; the overall KMO value of the questionnaire reaches 0.916, and Bartlett's Test of Sphericity earns a significance value of 0.000, therefore this questionnaire has good validity.

The influencing factors of consumers' purchase intention on the Tian Mall international cross-border e-commerce platform were explored using principal component analysis to determine the rationality of the scale dimension setting. The investigation identified components with Eigen roots bigger than one, which accounted for 77.729% of the total variance. Table 3.5 presents the results of factor analysis after rotation with the maximum variance approach. The Rotated Component Matrix calculation results show that each factor has a high question-item differentiation validity (see Table 3.6).

Table 3.4 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.916
Bartlett's Test of Sphericity	Approx. Chi-Square	3286.780
	df	66
	Sig.	0.000

Table 3.5 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		Rotation Sums of Squared Loadings	
	Total	% of Variance	Cumulative %	% of Variance	Cumulative %	% of Variance	Cumulative %
1	7.176	47.841	47.841	47.841	47.841	23.381	23.381
2	1.570	10.467	58.307	10.467	58.307	22.269	45.651
3	1.413	9.422	67.729	19.422	77.729	32.079	77.729
4	0.600	3.998	71.727				
5	0.570	3.801	75.529				
6	0.392	2.611	87.622				
7	0.339	2.260	92.432				
8	0.321	2.141	94.574				

9	0.246	1.642	100.000				
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The results of the study showed that the rotated principal component matrix revealed that the first factor ranged from Q 1 to Q3; the second factor ranged from Q4 to Q4; the third factor ranged from Q7to Q9. Through the results of Table 3.6, it can be learned that a total of three factors were extracted, and each variable has a large loading on only one common factor, while the loadings on the other common factors are small, indicating that each variable has a better but differentiated validity.

Table 3.6 Rotated Component Matrix

	Component		
	1	2	3
Q1	0.883		
Q2	0.749		
Q3	0.817		
Q4		0.776	
Q5		0.758	
Q6		0.781	
Q7			0.719
Q8			0.718
Q9			0.771

Chapter 4 Findings

4.1 Introduction

The study collected 408 valid questionnaires, with a validation rate of 92.9%. The collected data was analyzed using descriptive statistics and Pearson correlation analysis was used to determine the relationships between the variables.

4.2 Description of Statistical Variables

Table 4.1 indicates that the proportion of male and female respondents was fairly balanced, with 44.1% and 55.9%, respectively, and the number of females is somewhat higher than the overall number of males; the age distribution of the sample consists of individuals in the range of 18–25 years old and 36–45 years old, with proportions of 41.9% and 28.4%, indicating young people, as well as middle-aged and older people. The survey sample's principal income groups were classified as 2001–4000 yuan and more than 10,000 yuan, accounting for 23.5% and 32.6% of the entire sample, respectively. Bachelor's and master's degree account for the majority of educational attainment (30.9% and 28.7%, respectively), as shown in Figure 4.1,4.2,4.3,4.4.

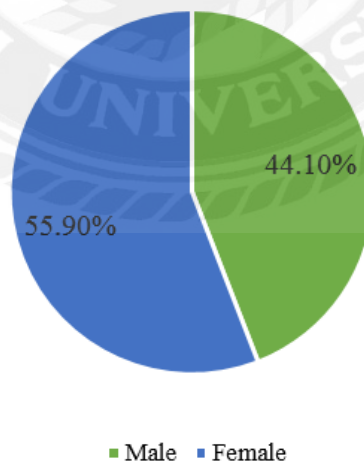


Figure 4.1 Gender Distribution

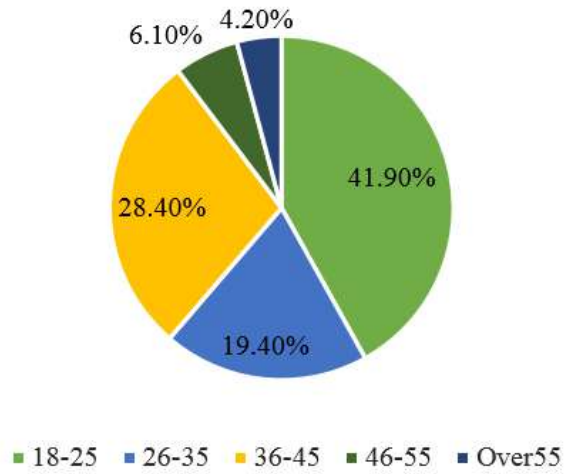


Figure 4.2 Age Distribution

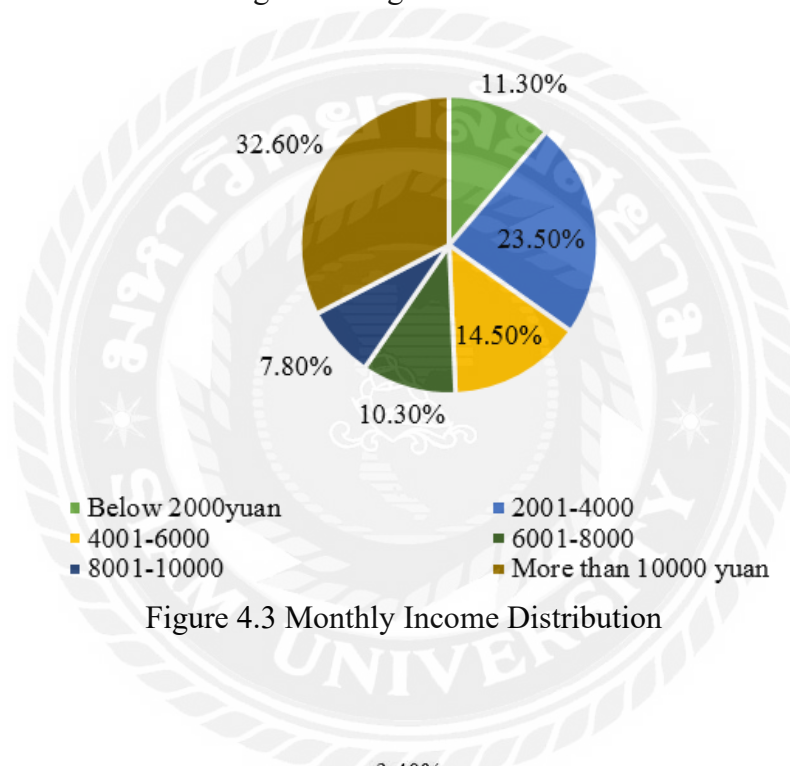


Figure 4.3 Monthly Income Distribution

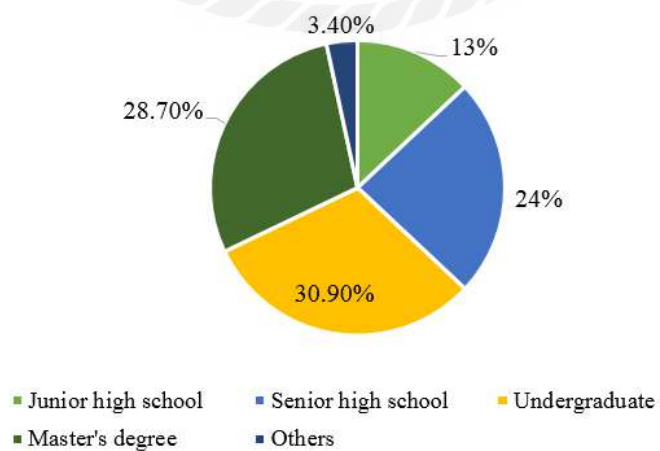


Figure 4.4 Education Distribution

Table 4.1 Distribution of Samples (N = 408)

Item	Characteristic	Frequency	Percent%
Gender	Male	180	44.1
	Female	228	55.9
Age	18-25	171	41.9
	26-35	79	19.4
	36-45	116	28.4
	46-55	25	6.1
	Over55	17	4.2
Monthly Income	Below 2000yuan	46	11.3
	2001-4000	96	23.5
	4001-6000	59	14.5
	6001-8000	42	10.3
	8001-10000	32	7.8
	More than 10000 yuan	133	32.6
Education	Junior high school	53	13.0
	Senior high school	98	24.0
	Undergraduate	126	30.9
	Master's degree	117	28.7
	Others	14	3.4
Total		408	100.0

Table 4.2 Descriptive Statistics of Variables

Various	N	Minimum	Maximum	Mean	Std. Deviation
Q1	408	1	5	4.31	0.993
Q2	408	1	5	4.20	0.984
Q3	408	1	5	4.26	1.013
Q4	408	1	5	4.33	0.956
Q5	408	1	5	4.26	1.023
Q6	408	1	5	4.28	1.001
Q7	408	1	5	4.30	0.935
Q8	408	1	5	4.26	0.979
Q9	408	1	5	4.25	0.985
Q10	408	1	5	4.41	0.848
Q11	408	1	5	4.40	0.849
Q12	408	1	5	4.38	0.829

As seen in Table 4.2, all the key variables are at a high level (mean = 4.20 - 4.41). These indicate that the respondents' perceptions of all the factors in this study are at a high level. Consumers' purchase intention, perceived usefulness, perceived ease of use, perceived safety are at a high level. Next, the data were normalized before correlation.

The data showed skewness and kurtosis for each measurement question item, and according to the requirement of a normal distribution, the data conformed to the normal distribution when the absolute value of the skewness coefficient of the data was within 3 and the absolute value of the kurtosis coefficient was within 8. The results indicate that the absolute values of skewness and kurtosis of the data for each dimension meet the criteria.

4.3 Results of the Study

Correlation analysis tests the linear relationship between two or more variables. The range of Pearson's correlation coefficient lies between -1 and 1. The correlation coefficient demonstrates directionality.

- If the correlation coefficient is close to 1, it indicates a high positive correlation between the two variables.

- If the correlation coefficient is close to -1, there is a high negative correlation between the two variables.

- If the correlation coefficient is close to 0, the two variables are independent of each other, and there is no correlation between them.

The result of Pearson's correlation consists of two values, the correlation coefficient and the p-value. In correlation analysis, the p-value represents whether two variables are significantly correlated or not. Correlation analysis of the data gives an idea of the strength of the correlation, which ranges from -1 to 1. The closer the r value is to 1 or -1, the stronger the correlation, and the closer it is to 0, the weaker the correlation. According to Table 4.3, the correlation coefficient, r, ranges from 0 to 1 and is significantly correlated at the 0.01 level and there is a significant correlation between the two variables ($P < 0.01$).

Table 4.4 Correlation Between Variables (Pearson Correlation Matrix)

Variable	Perceived Usefulness	Perceived Ease of Use	Perceived Safety	Consumers' Purchase Intention
Perceived Usefulness	1	.630**	.604**	.596**
		0.000	0.000	0.000
	408	408	408	408
Perceived Ease	.630**	1	.663**	.656**

of Use	0.000		0.000	0.000
	408	408	408	408
Perceived Safety	.604**	.663**	1	.600**
	0.000	0.000		0.000
	408	408	408	408
Consumers' Purchase Intention	.596**	.656**	.600**	1
	0.000	0.000	0.000	
	408	408	408	408

NOTE: *. Correlation is significant at the 0.05 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation coefficient between perceived usefulness and consumers' purchase intention is 0.596, and $P < 0.01$, indicating that there is a correlation between perceived usefulness and consumers' purchase intention, and it is a general correlation.

The Pearson correlation coefficient between perceived ease of use and consumers' purchase intention is 0.656, and $P < 0.01$, indicating that there is a correlation between perceived ease of use and consumers' purchase intention, and it is a general correlation.

The Pearson correlation coefficient between perceived safety and consumers' purchase intention is 0.600, and $P < 0.01$, indicating that there is a correlation between perceived safety and consumers' purchase intention, and it is a general correlation.

From the analysis, the correlation coefficient between each variable is between 0.5 and 0.7. There is no coefficient of more than 0.8 or less than 0.5, indicating no linear correlation between the variables in the research model. At the same time, a suitable correlation aligns with the requirements. The correlation between the variables indicates that each variable plays a specific role in the model, reflecting the rationality of the model construction. Therefore, according to the results of the data analysis, perceived usefulness has a significant positive effect on consumers' purchase intention on the Tian Mall international cross-border e-commerce platform. Hypothesis H1 holds. Perceived ease of use has a significant positive effect on consumers' purchase intention on the Tian Mall international cross-border e-commerce platform. Hypothesis H2 holds. Perceived safety has a significant positive effect on consumers' purchase intention on the Tian Mall international cross-border e-commerce platform. Hypothesis H3 holds.

Chapter 5 Conclusion and Recommendation

5.1 Conclusion

A total of 408 valid questionnaires were collected in this study, with a response rate of 92.9%. This study analyzed the influencing factors of consumer purchase intention on the Tian Mall international's cross-border e-commerce platform. First, it theoretically categorized the influencing factors of consumer purchase intention on the Tian Mall international cross-border e-commerce platform, taking perceived usefulness, perceived ease of use, and perceived safety as the factors affecting consumer purchase intention on the Tian Mall international cross-border e-commerce platform. Then, through correlation analysis, the degree of influence of each of the above factors on the Tian Mall international cross-border e-commerce platform was analyzed. The results show that each influencing factor has a significant impact on the consumer purchase intention of the Tian Mall international cross-border e-commerce platform. The study on the influencing factors of consumer purchase intention on the Tian Mall international cross-border e-commerce platform provides a basis for the countermeasures and management suggestions of the Tian Mall international's cross-border e-commerce platform.

5.1.1 Perceived Usefulness Has a Significant Positive Effect on Consumers' Purchase Intention on the Tian Mall International Cross-Border E-Commerce Platform

The Pearson correlation coefficient between perceived usefulness and consumers' purchase intention is 0.596, and $P < 0.01$, indicating that there is a correlation between perceived usefulness and consumers' purchase intention, and it is a general correlation. When the Pearson correlation coefficient is 0.596, it indicates that the linear relationship between perceived usefulness and consumer purchase intention is quite close to a perfect positive correlation. This means that as perceived usefulness increases, consumer purchase intention increases accordingly. A p-value less than 0.01 indicates that the finding of this correlation is highly statistically significant, as there is a small probability that it is due to random factors. Therefore, it can be said with a fair amount of confidence that there is a correlation between perceived usefulness and purchase intention. This result has far-reaching implications for business and marketing strategy development. It implies that improving the perceived usefulness of a product or service can directly enhance consumers' purchase intention, thereby

increasing sales and market share. Therefore, companies can enhance the perceived usefulness of their products by improving their functionality, performance, and ease of use to attract more consumers and increase market competitiveness. Moreover, this result emphasizes the importance of market research and consumer insights. Understanding how consumers' perceived usefulness of a product or service affects their purchasing decisions can provide companies with valuable information to help them better understand market demand and develop targeted marketing strategies.

5.1.2 Perceived Ease of Use Has a Significant Positive Effect on Consumers' Purchase Intention on the Tian Mall International Cross-Border E-Commerce Platform

The Pearson correlation coefficient between perceived ease of use and consumers' purchase intention is 0.656, and $P < 0.01$, indicating that there is a correlation between perceived ease of use and consumers' purchase intention, and it is a general correlation. This result suggests a strong positive correlation between perceived ease of use and consumer purchase intention. The Pearson correlation coefficient (0.656) is close to 1, and the linear relationship between the two is strong. A p-value of less than 0.01 suggests that this correlation is found to be highly statistically significant and that there is a small probability that it is due to a random factor. When a product or service is perceived to be easier to use, there is a corresponding increase in consumer purchase intention. This is because ease of use directly affects consumers' experience of use and satisfaction, which affects their attitudes towards the product or service and their intention to purchase it. If a product or service is perceived to be easy to use, consumers are more likely to choose to buy it, not just because of its features or performance, but because it provides a pleasant, smooth experience of use. Research demonstrates the importance of emphasizing ease of use in a product or service. By improving the product interface design, simplifying the operation process, and providing clear instructions, the perceived ease of use can be enhanced, thereby increasing consumer purchase intention and loyalty. This result also highlights the importance consumers place on the experience of use. Enterprises need to gain an understanding of consumers' needs and preferences and continuously optimize their products or services to meet their pursuit of easy-to-use and pleasant experiences.

5.1.3 Perceived Safety Has a Significant Positive Effect on Consumers' Purchase Intention on the Tian Mall International Cross-Border E-Commerce Platform

The Pearson correlation coefficient between perceived safety and consumers' purchase intention is 0.600, and $P < 0.01$, indicating that there is a correlation between perceived safety and consumers' purchase intention, and it is a general correlation. This result suggests a strong positive correlation between perceived safety and consumer purchase intention. The Pearson correlation coefficient (0.600) is close to 1, suggesting a linear relationship. A p-value of less than 0.01 suggests that this correlation finding is highly statistically significant and that there exists a small probability that it is due to a random factor. Consumers are more inclined to purchase a product or service when they perceive it to have a high level of safety. This is because safety is a factor in consumers' purchasing decisions, and they trust the product or service they purchase to avoid potential risks and problems. Therefore, when consumers perceive a higher level of safety in a product or service, their purchase intention increases accordingly. The study demonstrates the importance of emphasizing security in product or service promotion. By providing security guarantees, reinforcing the transmission of security information, and adopting effective security measures, the perceived security of a product or service can be enhanced, thereby increasing consumers' purchase intention and trust. This result also emphasizes the need for companies to pay attention to security issues in product or service design and operation. Not only to meet the requirements of laws and regulations to fulfill consumers' needs and expectations for safety, but by establishing a good image of safety, enterprises can gain more advantages and trust in market competition.

Table 5.1 Hypothesis Test Results

NO.	Hypothesis	Result
H1	Perceived usefulness has a significant positive effect on consumers' purchase intention on the Tian Mall international cross-border e-commerce platform.	Established
H2	Perceived ease of use has a significant positive effect on consumers' purchase intention on the Tian Mall international cross-border e-commerce platform.	Established
H3	Perceived safety has a significant positive effect on consumers' purchase intention on the Tian Mall international cross-border e-commerce platform.	Established

5.2 Recommendation

5.2.1 Optimizing Perceived Usefulness

The Tian Mall international cross-border e-commerce platform can effectively enhance users' perception of and satisfaction with its perceived usefulness. The strategies to optimize perceived usefulness of the Tian Mall international cross-border e-commerce platform are as follows:

(1) Promote the development of the platform. The user experience is improved by optimizing the interface design of the website, increasing the page loading speed, and streamlining the shopping process to make it easier for users to browse products and complete purchases. The Tian Mall international cross-border e-commerce platform adds product information and reviews. (2) Provide rich product information, including detailed product descriptions, pictures, specification parameters, etc., and user ratings, to help consumers understand the products more comprehensively and enhance their perceived usefulness. The Tian Mall international's cross-border e-commerce platform provides personalized recommendations. Based on the user's browsing history, purchasing behavior, and preferences, personalized products are recommended to the user to enhance the user's perceived usefulness of the platform and purchase intention. The Tian Mall international cross-border e-commerce platform strengthens after-sales service. (3) Provide fast and efficient after-sales service, including return and exchange policies, customer service support, etc., to help consumers feel at ease and satisfied after purchase and enhance their trust and recognition of the platform. (4) Cooperate with well-known brands and introduce high-quality goods to increase the credibility and reputation of the platform so that consumers are more willing to shop on it and increase their perceived usefulness. (5) Organize various promotional activities regularly, such as limited-time discounts and full-price offers, to attract consumers' attention and participation and increase their awareness of the platform and purchase intention. (6) Provide convenient and reliable cross-border logistics services to shorten the delivery time of goods, and safe and diversified payment methods to enhance consumers' confidence and convenience in cross-border shopping.

5.2.2 Improving Perceived Ease of Use

The strategies to improve the perceived ease of use of the Tian Mall international's cross-border e-commerce platform are as follows:

(1) Simplify the user interface. Optimize the user interface design of the website or mobile application and simplify the page structure, navigation bar, and button layout so that users can find the information and functions they need more quickly

and intuitively. (2) Provide a clear and concise display of product information, including product name, price, inventory status, etc. (3) Multiple high-definition pictures; and video displays to help users fully understand product features. (4) Simplify the shopping process, reduce the number of user operation steps and fill-out forms, and adopt one-click ordering and quick payment functions to improve users' shopping efficiency and experience. (5) Ensure that the website or mobile application has a responsive design that can adapt to different devices (e.g., PC, tablet, cell phone) and screen sizes to ensure users can use the platform smoothly on any device. (6) Provide user guidance and help functions, such as shopping guides, FAQs, online customer service, etc., to help users quickly solve problems, get help, and increase their satisfaction with the platform. (7) Provide personalized product recommendations and search results based on user's preferences and historical behaviors, making it easier for users to find products that meet their needs and improving shopping efficiency. (8) Provide a variety of payment methods and delivery options, including Alipay, credit cards, PayPal, etc., as well as different delivery speeds and methods to meet different needs and preferences.

Through the comprehensive implementation of the above strategies, the Tian Mall international cross-border e-commerce platform can effectively enhance users' perception and satisfaction of its perceived ease of use, improve users' shopping experience and loyalty, and promote the platform's sustainable development.

5.2.3 Enhancing Perceived Safety

The research findings show that perceived safety positively affects purchase intention and is the most influential factor. The strategies to improve the perceived safety of the Tian Mall international cross-border e-commerce platform are as follows:

(1) Strictly control the quality of products. The quality of the product itself is the most critical factor for consumers to choose cross-border online shopping, and it is also the fundamental guarantee for the long-term development of the platform. Although many well-known big-brand stores are stationed on the Tian Mall international cross-border e-commerce platform, the quality of products can be guaranteed, but there are still many countries with small brands and small stores to join, and the supervision of such stores is the platform manager's difficult task. (2) The platform should cooperate with reliable stores to ensure that the source of the product is accurate and do a good job of store credit rating assessment. Sold fake

products should immediately shut down and reorganize. (3) In addition, the platform should also do a good job of product auditing, testing, and other aspects of quality control to assist stores in doing a good job of perfecting their after-sales service systems, not only for the store's regulator but also for the consumer rights and interests of the protector to increase the supervision of logistics and transportation links. (4) Due to the distribution of long distances, and most of the way through the cruise ship shipping, which is more demanding on the packaging of the courier, most courier companies have been exposed to violent sorting behavior, seriously harming the rights and interests of consumers.



References

- Alfnes, F., Guttormsen, A. G., Steine, G., & Kolstad, K. (2006). Consumers' intention to pay for the color of salmon: A choice experiment with real economic incentives. *American Journal of Agricultural Economics*, *88*(4), 1050–1061. <https://doi.org/10.1111/j.1467-8276.2006.00915.x>
- Anson, J., Boffa, M., & Helble, M. (2018). Consumer arbitrage in cross-border e-commerce. *SSRN Electronic Journal*, *34*(33). <https://doi.org/10.2139/ssrn.3157534>
- Baker, S. R., Bloom, N., Davis, S. J., Kost, K., Sammon, M., & Viratyosin, T. (2020). The unprecedented stock market reaction to COVID-19. *The Review of Asset Pricing Studies*, *10*(4), 742–758.
- Balassa, B. (2020). The purchasing-power parity doctrine: A reappraisal. *Journal of Political Economy*, *72*(6), 584–596. <https://doi.org/10.1086/258965>
- Bouckaert, G., Galli, D., Kuhlmann, S., Reiter, R., & Van Hecke, S. (2020). European coronationalism? A hot spot governing a pandemic crisis. *Public Administration Review*, *80*(5), 765–773. <https://doi.org/10.1111/puar.13242>
- Denaputri, A., & Usman, O. (2019). Effect of perceived trust, perceived security, perceived usefulness and perceived ease of use on customers' intention to use mobile payment. *SSRN Electronic Journal*, *23*(22). <https://doi.org/10.2139/ssrn.3511632>
- Elango, D., & Kulcharatyothin, C. (2018). A study on perception of perceived ease of use towards perceived usefulness on SMART education. *SSRN Electronic Journal*, *56*(66). <https://doi.org/10.2139/ssrn.3284358>
- Falode, O. (2018). Pre-service teachers' perceived ease of use, perceived usefulness, attitude and intention towards virtual laboratory package utilization in teaching and learning of physics. *Malaysian Online Journal of Educational Technology*, *6*(3), 63–72. <https://doi.org/10.17220/mojet.2018.03.005>
- Gillen, M., Baltz, D., Gassel, M., Kirsch, L., & Vaccaro, D. (2002). Perceived safety climate, job demands, and coworker support among union and nonunion injured construction workers. *Journal of Safety Research*, *33*(1), 33–51. [https://doi.org/10.1016/s0022-4375\(02\)00002-6](https://doi.org/10.1016/s0022-4375(02)00002-6)
- Harper, C. A., Satchell, L. P., Fido, D., & Latzman, R. D. (2020). Functional fear predicts public health compliance in the COVID-19 pandemic. *International Journal of Mental Health and Addiction*, *19*(5). <https://doi.org/10.1007/s11469-020-00281-5>
- Hong, A., Sallis, J. F., King, A. C., Conway, T. L., Saelens, B., Cain, K. L., Fox, E. H., & Frank, L. D. (2018). Linking green space to neighborhood social capital in older adults: The role of perceived safety. *Social Science & Medicine*,

- 207(45), 38–45. <https://doi.org/10.1016/j.socscimed.2018.04.051>
- Ismail, H. A. (2016). Intention to use smartphone through perceived compatibility, perceived usefulness, and perceived ease of use. *Jurnal Dinamika Manajemen*, 7(1), 1. <https://doi.org/10.15294/jdm.v7i1.5748>
- Jeong, B. (2016). Effects of perceived usefulness, perceived ease of use and perceived enjoyment on intention to use tourism application: Moderating effects of demographic characteristics. *International Journal of Tourism and Hospitality Research*, 30(1), 101. <https://doi.org/10.21298/ijthr.2016.01.30.1.101>
- Jin, D. Y. (2022). E-Tax or e-commerce: The debate on taxing electronic commerce transactions. *Journal of Internet Commerce*, 2(1), 65–87. https://doi.org/10.1300/j179v02n01_06
- Kim, C.-H. (2018). A study on the laws and regulations related B2C cross-border e-Commerce. *Journal of Korea Research Association of International Commerce*, 18(4), 17–36. <https://doi.org/10.29331/jkraic.2018.08.18.4.17>
- Leppaniemi, M., & Karjaluoto, H. (2005). Factors influencing consumers' intention to accept mobile advertising: A conceptual model. *International Journal of Mobile Communications*, 3(3). <https://doi.org/10.1504/ijmc.2005.006580>
- Mohammad Ali, O., Al-Qudah, A.-Q., & Ahmad, K. (2014). Cultural technology acceptance model for consumers' acceptance of Arabic e-commerce websites. *Research Journal of Applied Sciences, Engineering and Technology*, 7(8), 1622–1632. <https://doi.org/10.19026/rjaset.7.441>
- Patwardhan, V., Ribeiro, M. A., Payini, V., Woosnam, K. M., Mallya, J., & Gopalakrishnan, P. (2020). Visitors' place attachment and destination loyalty: Examining the roles of emotional solidarity and perceived safety. *Journal of Travel Research*, 59(1), 3–21. <https://doi.org/10.1177/0047287518824157>
- Qian, L. (2021). Experiencing develop mentalism: The state(s), grassroots traders and the e-commerce boom in a Chinese city. *China: An International Journal*, 19(1), 68–89. <https://doi.org/10.1353/chn.2021.0004>
- Roberts, P., & Henderson, R. (2000). Information technology acceptance in a sample of government employees: A test of the technology acceptance model. *Interacting with Computers*, 12(5), 427–443. [https://doi.org/10.1016/s0953-5438\(98\)00068-x](https://doi.org/10.1016/s0953-5438(98)00068-x)
- Saadé, R. G. (2007). Dimensions of perceived usefulness: Toward enhanced assessment. *Decision Sciences Journal of Innovative Education*, 5(2), 289–310. <https://doi.org/10.1111/j.1540-4609.2007.00142.x>
- Taherdoost, H. (2018). Development of an adoption model to assess user acceptance of e-service technology: E-Service technology acceptance model. *Behaviour & Information Technology*, 37(2), 173–197. <https://doi.org/10.1080/0144929x.2018.1427793>

- Tarhini, A., Elyas, T., Akour, M. A., & Al-Salti, Z. (2016). Technology, demographic characteristics and e-learning acceptance: A conceptual model based on extended technology acceptance model. *Higher Education Studies*, 6(3), 72-89. <https://doi.org/10.5539/hes.v6n3p72>
- Wertenbroch, K., & Skiera, B. (2002). Measuring consumers' intention to pay at the point of purchase. *Journal of Marketing Research*, 39(2), 228–241. <https://doi.org/10.1509/jmkr.39.2.228.19086>
- Zhang, L., Wu, X., Zhu, H., & AbouRizk, S. M. (2017). Perceiving safety risk of buildings adjacent to tunneling excavation: An information fusion approach. *Automation in Construction*, 73(33), 88–101. <https://doi.org/10.1016/j.autcon.2016.09.003>
- Zhen, L. (2018). The significance of Chongqing cross-border e-commerce in promoting regional economic development. *Science Innovation*, 6(4), 240-244. <https://doi.org/10.11648/j.si.20180604.21>



Appendix

Dear Sir/Madam,

Thank you for your participation in this questionnaire survey. The survey will be conducted anonymously, and your relevant information will be kept confidential. Thank you again for your cooperation.

Part I :

1. Gender? A Male B Female
2. Age? A 18-25 B26-35 C36-45 D46-55 E above 55
3. Monthly income?
A Below 2000yuan B 2001-4000 C 4001-6000 D 6001-8000
E 8001-10000 F More than 10000 yuan
4. The highest education? A Junior high school B Senior high school C Undergraduate D Master's degree E Others

Part II: Please judge to what extent you agree with the following statement, please choose the most appropriate option, and mark the corresponding number "√". The questionnaire used Likert scale, ranging from 1 to 5 in which 1 indicates strongly disagree (or strongly disagree), 2 indicates relatively disagree (or relatively disagree), 3 indicates neutral, 4 indicates relatively agree (or relatively agree), and 5 indicates strongly agree (or strongly agree)

Measurement item	1	2	3	4	5
Perceived Usefulness					
Tian Mall international's cross-border e-commerce platform has enough goods or services for me to choose from.					
Online shopping through Tian Mall international's cross-border e-commerce platform can improve my purchasing efficiency.					
I prefer Tian Mall international's cross-border e-commerce platform to other shopping methods.					

Perceived Ease of Use					
I can find the goods or services I want quickly.					
The page of Tian Mall international's cross-border e-commerce platform is simple, and the operation process is very convenient.					
The payment process on Tian Mall international's cross-border e-commerce platform is fast and convenient.					
Perceived Safety					
There is no quality risk for the goods purchased online on Tian Mall international's cross-border e-commerce platform.					
Online shopping through Tian Mall international's cross-border e-commerce platform will not leak personal information.					
The payment process on Tian Mall international's cross-border e-commerce platform is risk-free and protects the safety of users' funds.					
Consumers' Purchase Intention					
I am willing to shop through Tian Mall international's cross-border e-commerce platform.					
I will use Tian Mall international's cross-border e-commerce platform to buy more goods in the future.					
I will recommend Tian Mall international's cross-border e-commerce platform for shopping to my family and friends.					