Factors Influencing Sichuan Consumers' Purchase Intention on E-Commerce in the Apparel Industry

by Changhao Xiao

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Abstract: This study investigates the factors influencing Sichuan consumers' purchase intention on e-commerce in the apparel industry. The economic advantages of live streaming and e-commerce have attracted widespread attention, and researchers are particularly keen on delving into the psychological impact of these new channels on consumers' buying behavior. The emergence of new sales channels in the apparel sector is increasingly vital in stimulating sales growth. The number of respondents for this study was 395. The results of this study show that consumers' purchase intention for e-commerce in the apparel industry would be impacted by performance expectation, effort convenience, perceived usefulness, perceived behavior control expectation, and social impact. These findings have practical implications for marketers and e-commerce platforms, enhancing the consumer experience and increasing purchase intention.

Keywords: Consumer Purchase Intention, E-Commerce, Apparel Industry

1. INTRODUCTION

In 1998, E-commerce in China took a significant leap into the Internet e-commerce stage, propelling the industry's growth and opening up new business avenues (Wang et al., 2019). Over the years, the number of users and the scale of transactions have seen a consistent upward trajectory, marking the country's remarkable progress in online shopping. Online shopping has revolutionized the retail experience for consumers, offering unparalleled convenience, accessibility, and an extensive array of product choices compared to traditional brick-and-mortar stores. As a subset of e-commerce, online shopping has transformed the apparel industry, a fundamental sector of consumerism in China (Li et al., 2018). The apparel industry in China has cemented its position as a dominant force, establishing a mature industrial chain with a comprehensive structure integrating production and processing. The increasing pace of urbanization and economic development has elevated clothing to a symbol of social status, driving a surge in the demand for trendy attire. Owing to its vast consumer market of 1.4 billion people, the apparel industry in China consistently experiences high demand, catalyzed by the accessibility of online retail markets that offer clothing products at competitive prices (China Garment Association, 2022). The online marketplace boasts a diverse range of products with similar styles, providing consumers with many alternatives (Xu et al., 2020). However, the risk of customer churn looms due to potential dissatisfaction and low switching costs. This study explores the factors influencing customer purchase intention in China's online apparel retailing sector, addressing the current situation of the apparel industry in Sichuan.

Problem Objectives

This study investigates the factors influencing Sichuan consumers' intention to purchase apparel through e-commerce. The study has two main objectives:

1. To explore how perceived convenience, perceived usefulness, and perceived behavior control affect consumers' purchase intention of apparel through e-commerce channels.

2. To support e-commerce platforms with a better understanding of the mechanisms underlying customer purchasing behavior and formulate feasible strategies to contribute to the sustainable development of e-commerce on apparel sales.

This study will investigate how three key factors—perceived convenience, perceived usefulness, and perceived behavior control—influence Sichuan consumers' intention to purchase.

2. THEORETICAL FOUNDATION

Definition of The Technology Acceptance Model (TAM)

The TAM is the most influential and widely accepted model for explaining technology usage (Davis, 1986). The study delves into the intricate dynamics of social interactions and their impact on adopting technology within Chinese culture, specifically focusing on online clothing purchases. It introduces novel considerations, such as perceived convenience, usefulness, and ease of use, to analyze their influence on consumers' inclination to engage in online apparel shopping. Within Chinese e-commerce, factors like perceived convenience, cost-effectiveness, and time efficiency emerge as pivotal in shaping the overall perceived value of online shopping (Wei et al., 2018). The research also delves into the intricate interplay between cost-effectiveness and time efficiency, shedding light on their contribution to perceived convenience and elucidating the factors that draw consumers towards online shopping. Furthermore, the study investigates the roles of perceived risk, technology discomfort, and perceived self-efficacy as independent variables that influence perceived usefulness, offering invaluable insights into the impact of online technology on consumer shopping behaviors. Additionally, the study examines how personal fashion norms and societal norms shape personal fashion innovativeness, providing a comprehensive understanding of consumer responses to fashion choices that drive online clothing purchases (Clemes et al., 2014).

Definition of Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB) is a well-established psychological model used to predict and understand human behavior in various areas, such as consumer decision-making, environmental concerns, and behavioral intentions (George, 2004). This model has been invaluable in predicting consumer behavior and understanding the adoption of e-commerce services (Battacherjee, 2000). It has also been suggested that TPB can be applied to live e-commerce, which involves more dynamic media and real-time interactions than traditional e-commerce. Therefore, it is essential to use TPB to examine consumer behavioral intentions in live-streaming e-commerce (Ruangkanjanases et al., 2019). The variables leading to the TPB model's core factors significantly impact the behavioral intention of apparel sales.

Definition of Expectancy-Value Theory (EVT)

The Self-Determination Theory (SDT) (Deci & Ryan., 1985) is highly significant as it delves into the diverse types and sources of motivation that drive human behavior. This theory elaborates on how individuals form a complete sense of self by regulating their psychological needs for well-being and satisfaction. According to SDT, intrinsic motivation (enjoyment derived from the activity itself) and extrinsic motivation (based on social norms) are integral in steering overall behavior (Hwang, 2010). In online shopping, merchants utilize an array of cues and features to craft pleasurable shopping experiences and boost consumer satisfaction. This research further develops the model proposed by Hwang (2010), which posits that intrinsic and extrinsic motivations significantly influence intentions to participate in e-commerce (Hew & Kadir, 2017). Extrinsic motivation entails engaging in an activity because it is seen as instrumental in attaining valuable outcomes distinct from the activity. In contrast, intrinsic motivation involves participating in an activity purely to enjoy it without expecting external rewards.

Definition of Terms

1. In this study, the researchers examine how customers' perceptions of convenience, usefulness, and behavior control affect their purchase intention. According to a study by Wang et al. (2019), a customer's intention to purchase plays a crucial role in shaping their future buying behavior. This intention acts as a stand-in for actual behavior and enables companies to predict the likelihood of a customer purchasing within a specific period. Because there is a strong connection between a customer's purchase intentions and their actual behavior, businesses need to understand these intentions more (Hsu et al., 2012). Furthermore, continuous service quality enhancement is paramount for online platform

providers to meet customers' evolving demands in the e-commerce industry. Companies must gain insight into how customers perceive and evaluate online services to ensure exceptional service quality (Blut, 2016) and e-service quality.

2. In terms of perceived convenience, the fashion apparel and accessories industry is utilizing the power of the internet to enhance the efficiency and impact of marketing efforts (Delafrooz et al., 2010). This involves giving customers easy access to comprehensive product information, including pricing details, and strengthening brand awareness. In addition, it provides a convenient platform for customers to quickly and seamlessly make purchases online. Familiarity with brand-name products simplifies the selling process. Moreover, cutting-edge technologies like virtual fitting rooms are being developed to diminish the need for physical product inspection, assisting consumers in purchasing decisions (Shah, 2023).

3. The concept of perceived usefulness examines the extent to which customers believe purchasing clothing from online platforms offers them significant advantages. Previous research has demonstrated that customers' attitudes toward purchasing can be swayed by their perceptions of the benefits they gain from the services. For instance, a study by Yang et al. (2015) focused on Chinese consumers, a key demographic for online purchases, and found that the perceived usefulness of online services notably boosted their willingness to conduct online transactions. Furthermore, Renny & Siringoringo., (2013) suggested that perceived usefulness substantially shapes customers' attitudes toward online shopping.

4. Perceived behavioral control is ascertained by amalgamating all accessible control beliefs. A heightened level of perceived behavioral control among consumers ensues when they are apprised of a product's environmentally friendly attributes, resulting in an increased propensity to purchase environmentally sustainable products. Intention, denoting an individual's preparedness to undertake a specific action, is a direct antecedent to behavior. In this investigation, intention is operationally defined as the inclination of consumers to procure apparel items via an e-commerce platform (Cai & Wohn, 2019).

Conceptual Framework

This study is based on the Technology Acceptance Model (TAM). It introduces new elements such as perceived convenience, usefulness, and ease of use to explore their impact on consumers' tendency to purchase clothing online (Xu, 2020). In China's online shopping environment, research shows that perceived convenience, cost-effectiveness, and time efficiency significantly contribute to the perceived value of online shopping. The study also

examines the impact of cost-effectiveness and time efficiency as independent variables that influence perceived convenience (Rita et al., 2019), revealing what makes online shopping attractive to consumers. Furthermore, perceived risk, technology discomfort, and perceived self-efficacy were considered independent factors influencing perceived usefulness (Wilson & Keni, 2021), providing insights into the impact of online technology on consumers' shopping intentions. Additionally, autonomy and self-determination were studied as independent factors influencing perceived behavior control (Wang & Yin, 2021), aiming to understand consumer responses to clothing choices that drive online clothing purchases. Considering the importance of social relationships in the Chinese cultural context, this study also included the circle of friends as an extension of the TAM model.
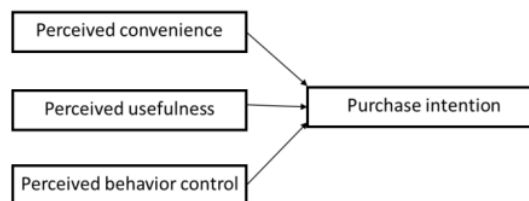

Figure 1. The Conceptual Framework

3. RESEARCH HYPOTHESIS

The Impact of Perceived Convenience on Purchase Intention

The role of convenience in influencing consumer purchase decisions is significant. According to Jayawardhena et al. (2007), convenience shapes consumer attitudes and willingness to purchase. Recent research by Hong et al. (2021) has also demonstrated a positive relationship between convenience and the intention to use e-commerce services. On the other hand, Rao & Patro (2017) emphasized the substantial impact of convenience on online shopping purchase intentions. This study explores how customers' perceptions of convenience affect their intention to purchase apparel through e-commerce, explicitly focusing on cost-effectiveness and time efficiency as mediating factors.

H1 Perceived convenience does not significantly impact consumers' purchase intention in e-commerce apparel purchases.

The Impact of Perceived Usefulness on Purchase Intention

The term 'perceived usefulness' refers to the extent to which users believe technological assistance can enhance their overall performance. On the other hand, 'usability' indicates how adopting a new tool can expand or improve its performance. It is important to note that the perception of perceived usefulness is a critical factor in predicting user acceptance of

information technology and significantly influences decisions made in online shopping (Hsu et al., 2013). Furthermore, Luthfihadi & Dwanto (2013) discovered that adopting e-commerce technology in the Kaskus buying and selling forum was influenced by perceived risk, technology discomfort, and perceived self-efficacy, which collectively influence user interest in purchasing decisions.

H2 Perceived usefulness does not significantly impact consumers' purchase intention in e-commerce apparel purchases.

The Impact of Perceived Behavior Control on Purchase Intention

Many studies have extensively explored the impact of behavioral control on the adoption of online shopping in China, explicitly focusing on e-commerce adoption in Sichuan. In addition to assessing behavioral control in online shopping, researchers have also investigated its relationship with autonomy, self-determination, and consumers' intentions to make apparel purchases through e-commerce channels (Przymuszala et al., 2023). This research endeavor seeks to gain insights into how consumers' behavioral control and self-control affect their decisions when purchasing apparel through e-commerce platforms.

H3 Perceived behavior control does not significantly impact consumers' purchase intention in e-commerce apparel purchases.

4. RESEARCH METHODS

Population and Sample

For this research study, 403 Sichuan consumers were collected in June 2024 through the WeChat Survey Platform. The study aimed to analyze the consumers' usage of e-commerce for apparel purchases, specifically the corresponding platform involved with convenience and usefulness. The minimum research sample size is calculated using the following formula for the standard deviation of 0.5, which is widely accepted for analysis (Kadam & Bhalerao., 2010).

- The margin of error (confidence interval) – 95%

- Standard deviation 0.5

- 95% - Z Score = 1.96

- Sample size formula = (Z-score) ^{2} * Std Dev*(1-StdDev) / (margin of error) ^{2}

- (1.96) ^{2} x 0.5(0.5) / (0.05) ^{2}

- (3.8416 x 0.25) / 0.0025

- 0.9604 / 0.0025 = 385

- 385 respondents would be needed for this study based on a confidence level of 95%

Research Model

Correlation Analysis

Correlation analysis is commonly used to investigate the relationship between two variables. The Pearson correlation coefficient assesses the strength of this relationship. The correlation coefficient (r) value indicates the strength of the relationship, while the P-value indicates the significance level of the correlation.

Table 1. Correlation Coefficient Classification

Correlation coefficient r	Degree of relevance
$|r| = 1$	Fully Correlated
$0.70 \leq |r| < 0.99$	Highly correlated
$0.40 \leq |r| < 0.69$	Moderately correlated
$0.10 \leq |r| < 0.39$	Low correlation
$|r| < 0.10$	Weak or unrelated

Correlation Analysis of Perceived Convenience and Purchase Intention

The correlation coefficient r between perceived convenience and purchase intention is 0.668, and P=0.011 is less than 0.05, showing a significant relationship.

Table 2. Correlation analysis results between perceived convenience and purchase intention

	Perceived convenience
Purchase Intention	1
Sig. (1-tailed)	
Perceived Convenience	.668*
Sig. (2-tailed)	(.011)

Correlation Analysis of Perceived Usefulness and Purchase Intention

The correlation coefficient r between perceived usefulness and purchase intention is 0.532, and P=0.018 is less than 0.05, showing a significant relationship.

Table 3. Correlation analysis results between perceived usefulness and purchase intention

	Perceived usefulness
Purchase intention	1
Sig. (1-tailed)	
Perceived usefulness	.532*
Sig. (2-tailed)	(.018)

Correlation Analysis of Perceived Behavior Control and Purchase Intention

The correlation coefficient r between perceived behavior control and purchase intention is 0.713, and P=0.002 is less than 0.01, showing a significant relationship.

Table 4. Correlation analysis results between perceived behavior control and purchase intention

	Perceived behavior control
Purchase intention	1
Sig. (1-tailed)	
Perceived behavior control	.713**
Sig. (2-tailed)	(.002)

Regression Analysis

Regression analysis is a general statistical tool for analyzing the relationship between multiple independent variables of a hypothesis and a set of dependent variables. It also assesses the strength of relationships between variables and models future relationships between them. SPSS23.0 was used to include the test of correlations coefficient of determination, multiple linear regression, and testing this study's hypotheses.

Regression analysis of various variables on purchase intention

The model summary is R=0.902, R2=0.913, and the adjusted R2 is 0.919. This indicates that the model can explain 91.9% of the relationship between perceived convenience, perceived usefulness, perceived behavior control, and purchase intention. Additionally, the Durbin-Watson test result is 1.986≈2, meaning that the residuals are independent and the model has shown a significant correlation.

Table 5. Summary of the regression analysis model of constructs and purchase intention

Model	R	R ^{2}	Adjust R Square	Standard estimate error	Durbin-Watson
1	0.902a	0.913	0.919	0.94437	1.986

This analysis shows significant differences between the independent and dependent variables. The regression sum of squares is 2238.897, and the residual sum is 113.445, with a significance of 0.000, which is lower than the significance level of 0.01. This indicates a substantial effect in the study between perceived convenience, perceived usefulness, perceived behavior control, and purchase intention.

Table 6. ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2238.897	3	448.221	3380.221**	0.000ᶜ
	Residual	113.445	399	.469		
	Total	2352.342	402			

**p ≤ .01

a. Dependent variable: Purchase intention

b. Predictor variables: Perceived convenience, perceived usefulness, and perceived behavior control

Table 7. Multiple Linear Regression Analysis Test

	Unstandardized coefficient		Standardization factor	t	Sig
Model	B	Standard error	Beta		
1 (Constant)	2.668	2.236		6.224	.032
Perceived convenience	.256*	.033	.269.	1.558	.019
Perceived usefulness	.338*	.016	.354	2.449	.027
Perceived behavior control	.527*	.028	.541	2.893	.036

*p ≤ .05

a. Dependent variable: Purchase intention

b. Predictor variables: Perceived convenience, perceived usefulness, and perceived behavior control

The regression equation of the multiple linear regression analysis

Y = α+ ßX1+ ßX2+ ßX3+ e

Y = 2.668+0.256X1+0.338X2+0.527X3

Description:

Y = Purchase Intention

α = Constant

X1 = Perceived convenience

X2 = Perceived usefulness

X3 = Perceived behavior control

e = Error

ß1 = First Regression Coefficient Number

ß2 = Second Regression Coefficient Number

ß3 = Third Regression Coefficient Number

The coefficient table shows perceived convenience, usefulness, behavior control, and purchase intention after adding constants to the inequality. It can be concluded that there is a significant influence between these levels.

Interpretation of Research Results

Consumers' participation is crucial in determining the use of e-commerce to purchase their apparel choices through different variables of perceived convenience, perceived usefulness, and perceived behavior control under the speedy development and trend of B2C business mode.

The Effect of Perceived Convenience on Purchase Intention

The test results of the first hypothesis show the relationship between perceived convenience and consumers' purchase intention of e-commerce selection in apparel selection. This is based on the standard regression coefficient of the perceived convenience level, 0.256, t=1.558, and a significance level of 0.019<0.05. These results clearly show that perceived convenience significantly impacts purchase intention.

H1 Perceived convenience significantly impacts consumers' purchase intention in e-commerce apparel purchases.

The Effect of Perceived Usefulness on Purchase Intention

The test results of the second hypothesis show the relationship between perceived usefulness and consumers' purchase intention of e-commerce selection in apparel selection. This is based on the standard regression coefficient of the perceived convenience level, 0.338, t=2.449, and a significance level of 0.027<0.05. These results clearly show that perceived usefulness significantly impacts purchase intention.

H2 Perceived usefulness significantly impacts consumers' purchase intention in e-commerce apparel purchases.

The Effect of Perceived Behavior Control on Purchase Intention

The test results of the third hypothesis show the relationship between perceived behavior control and consumers' purchase intention of e-commerce selection in apparel selection. This is based on the standard regression coefficient of the perceived convenience level, 0.527, t=2.893, and a significance level of 0.036<0.05. These results clearly show that perceived behavior control significantly impacts purchase intention.

H3 Perceived behavior control significantly impacts consumers' purchase intention in e-commerce apparel purchases.

5. CONCLUSIONS

Managerial Implications:

The research focuses on the correlation between service quality, behavioral control, and the likelihood of customers purchasing. It emphasizes the influence of customer satisfaction with their perception of e-commerce on this correlation. Providing exceptional services can improve customer satisfaction, ultimately increasing the probability of customers buying apparel. The study concentrates on comprehending customers' purchase intentions within China's online apparel retail sector. It aims to pinpoint the characteristics of e-service in the online clothing retail market by utilizing the TAM, TPB, and EVT models. The study delves into the factors that impact purchasing intentions from both psychological and practical standpoints, such as convenience, utility, and behavior control. The anticipated outcomes will provide valuable insights into the importance of customer purchase intentions in the Chinese electronic apparel market. The findings reveal that customers' attitudes and perceived behavioral control significantly influence their purchase intentions in the Chinese electronic clothing market. Furthermore, website responsiveness, reliability, and design indirectly shape these intentions.

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