pISSN: 1906 - 3296 © 2020 AU-GSB e-Journal. eISSN: 2773 – 868x © 2021 AU-GSB e-Journal. http://www.assumptionjournal.au.edu/index.php/AU-GSB/index

Factors Impacting Online Consumers' Attitude and Purchase Intention Via Online Shopping Platforms in China

Jueran Yang*

Received: July 11, 2023. Revised: October 2, 2023. Accepted: October 7, 2023

Abstract

Purpose: From statistical data, 33.57 million Chinese people shopped online. Therefore, understanding the purchase intention of customers is crucial for all businesses. This research aims to investigate the determinants influencing Chinese online shoppers' attitudes and purchase intention toward online shopping in China. The Theory of Reasoned Action (TRA) and the Technology Acceptance Model (TAM) were used to build a conceptual framework. The variables contained in the conceptual framework are perceived usefulness, perceived ease of use, attitude, trust, perceived risk, subjective norms, price, and purchase intention. **Research design, data, and methodology:** The target population and sample size are 476 online consumers between 18 to 30 years old in China. The validity and reliability are measured by Item-Objective Congruence (IOC) and Cronbach's Alpha. The sampling procedure comprises judgmental, stratified random, and convenience sampling. Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM) were employed for data analysis. **Results:** Perceived usefulness and perceived ease of use significantly impact on attitude. Attitude, subjective norms, and price significantly impact purchase intention. Trust and perceived risk have no significant impact on purchase intention. **Conclusion:** The findings imply that regarding online shopping operations, it is critical to consider the functionality of the website and the real online shopping experience.

Keywords: Attitude, Purchase intention, Online shopping, E-Commerce, China

JEL Classification Code: E44, F31, F37, G15

1. Introduction

Online shopping is a subset of E-commerce, which enables customers to buy products or services directly from a vendor through the Internet. In this way, customers can find the best deals on various items (Koyuncu & Bhattacharya, 2004). On the other hand, the advent of the Internet has allowed businesses to gain profit and remain competitive by giving online shoppers an easier, quicker, and less expensive purchasing option.

Because of its widespread availability, consumers increasingly turn to the web for inquiry and purchasing. As science and technology have advanced rapidly since the turn of the millennium, the network's prevalence and applicability

^{1*}Jueran Yang, College of International Studies, Sichuan University, China. Email: jueran54@163.com

[©] Copyright: The Author(s)

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (http://Creativecommons.org/licenses/by-nc/4.0/) which permits unrestricted noncommercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

have grown to include every facet of modern life. Additionally, e-commerce has developed and is flourishing. E-commerce includes online shopping as a significant component. More than 2 billion people across the globe now use the Internet to purchase goods and services, from vehicles to paper clips. The popularity of this easy-to-use purchasing approach has been on the rise.

In 2006, 33.57 million Chinese people shopped online. This figure increased dramatically over the following five years, reaching 193.95 million in 2011. As of 2021, 842.1 million people were shopping online in China (Ma, 2021). According to Ma (2021), 24.9% of all retail sales in China were made online. In addition, because of the major online shopping events, it often peaks in June and November. Ecommerce in China has greater untapped potential than in any other country.

E-commerce businesses in China have benefited from the emergence of online consumers, who have increased both the size of the market and the intensity of competition. However, only some website viewers convert to a customer, making it crucial for online sellers to understand what makes a viewer a customer (Chen & Teng, 2013). Therefore, understanding the purchase intention of customers is crucial for all businesses. This research aims to investigate the determinants influencing Chinese online shoppers' attitudes and purchase intention toward online shopping in China. The variables contained in the conceptual framework are perceived usefulness, perceived ease of use, attitude, trust, perceived risk, subjective norms, price, and purchase intention.

2. Literature Review

2.1 Theory of Reasoned Action (TRA)

The Theory of Reasoned Action (TRA) is a popular framework for understanding consumer purchase intention. The theory of reasoned action relies on four components: attitude, subjective norm, behavioral intention, and behavior. Considering that an individual's intention is the primary factor that predicts volitional behavior, TRA aims to investigate user behaviors to understand such behaviors. According to the TRA, a person's behavioral intention is mutually determined by the attitude toward the conduct and subjective norms, and this intention directly affects that person's actual behavior (Ajzen, 1985). The TRA theory has garnered considerable interest in economics, public administration, and sociology. Different researchers have conducted numerous empirical evaluations based on the TRA model in many spheres of social life to assess its applicability. Several research has shown how the TRA theory may explain a variety of social behaviors as well as

the role that customers play in purchase decisions (Wu, 2003; Wun, 2021).

2.2 Technology Acceptance Model (TAM)

Based on the Theory of Reasoned Action (TAM), Fred Davis created the Technology Acceptance Model (TAM) in 1985 (Davis, 1985). The Technology Acceptance Model (TAM) is widely regarded as the most popular theory for determining the extent to which the theory of rational behavior influences individuals' propensity to use information systems.

Perceived usefulness and perceived ease of use are the two components that compose TAM. These two factors were the primary determinants of behavioral intention, and it was supposed that they played a role in mediating the relationship between internal and external variables. Consumers are more likely to adopt a new information system technology if they have a favorable impression of its usefulness. When customers consider an information system or technology user-friendly (ease of use), they are more likely to adopt and use it regularly (Davis, 1985). Consequently, individuals might be intrinsically motivated to undertake an activity without establishing an attitude toward it (Davis et al., 1989). In conclusion, it can be said that the TAM model aims to understand users' specific acceptance of information systems after interacting with them in order to explain the relationship between users' perceptions of the usefulness and usability of information systems, behavioral intentions, and actual computer usage behaviors (Davis, 1985).

2.3 Perceived Usefulness

The degree to which customers feel that utilizing a certain technology would improve their performance is perceived usefulness (Lee, 2009). In online buying, perceived usefulness refers to customers' perceptions of utilizing electronic devices to increase their purchasing efficiency. Customers would assess the usefulness of online shopping based on its ability to help them find information, compare prices across several vendors, make orders, and track their deliveries. Perceived usefulness will play a role in the system's adoption and deployment. Enhancing online shopping's utility may also account for its increased productivity or efficiency (Celik, 2011). This is because shoppers find it easier to make informed judgments when armed with the improved technology of information and price searches made available by online retailers (Chin & Goh, 2017). In other words, perceived usefulness has emerged as the primary driver of online purchases (Chiu et al., 2009).

Several studies found a positive correlation between perceived usefulness and attitude toward online shopping or purchase propensity. At the same time, others found that attitude mediates between perceived usefulness and behavioral intention (Bigné-Alcañiz et al., 2008; Singh & Srivastava, 2018). According to extensive empirical research, perceived usefulness strongly impacts behavioral intentions to use technological gadgets and is closely related to perceived benefits and convenience (Aldhmour & Sarayrah, 2016). Thus, a hypothesis is indicated:

H1: Perceived usefulness has a significant impact on attitude.

2.4 Perceived Ease of Use

Perceived ease of use is also an important factor in determining consumer attitudes. The term "perceived ease of use" relates to a customer's anticipation that utilizing an online purchasing platform would be simple (Fan et al., 2021). It is the consumer's perception of the purchasing platform's user-friendliness, such as their perception of the mobile terminal's technical features. It was first proposed under the Technology Acceptance Model by (Davis et al., 1989). According to Davis et al. (1989), one measure of the ease of use of a system is how quickly and effortlessly its users adapt to using it.

Numerous studies have examined whether behavioral intention was impacted by perceived ease of use directly or indirectly. Several studies have shown that perceived ease of use positively influences perceived usefulness. Nevertheless, other articles found no relationship between perceived ease of use and perceived usefulness. According to past research, a system or technology may become a barrier if the consumer feels online buying is a difficult and unsatisfied experience. Chin and Goh (2017) also supported the idea that simplicity influences how consumers behave while making purchases. Therefore, this study proposes a hypothesis:

H2: Perceived ease of use has a significant impact on attitude.

2.5 Trust

Trust is a psychological state in which one feels positive about the attitudes or actions of another (Rousseau et al., 1998). In online shopping, trust is the customer's faith in the online merchant's ability to conduct business equitably (Carter et al., 2014). The concept of trust in marketing is centered on the characteristics of the merchant and the customer and their interaction. According to Morgan and Hunt (1994), trust is the perception of the counterparty's honesty and reliability. Doney and Cannon (1997) also defined trust as the credibility and benevolence perceived by the principal in the object of trust. Consequently, understanding the hazards and benefits of Internet transactions is necessary for building trust (Teo & Liu, 2007). Customers were more wary of making purchases online due to the increased risk of fraud, decreased trust in the retailer, and lack of direct interaction between the vendor and the customer. Consequently, consumers' trust in the online experience may diminish, leading reduction in customers' purchase intention (Cho & Sagynov, 2015). According to Jarvenpaa et al. (2000), there is a negative relationship between perceived risk and trust; higher customers' perceptions of risk would lead to lower trust from customers. In addition, the findings of Al-Debei et al. (2015) stated that a positive attitude towards online shopping is also linked to a sense of trust. Accordingly, a hypothesis is developed: **H3:** Trust has a significant impact on purchase intention.

2.6 Attitude

Fishbein and Ajzen (1975) presented attitude as one of the two main determinants of voluntary behavior for the first time. According to the theories of reasoned action (TRA) and planned behavior (TPB) (Ajzen, 1991), attitude is the outcome of a subject's perceptions of the positive or negative aspects of behavior.

Attitude also describes how a person's thoughts, emotions, and behavioral intention change in response to pleasure or discontent with the external environment. In online shopping, the term "attitude" describes an individual's favorable or unfavorable evaluations of online shopping. Alternatively, an attitude toward online purchasing is characterized by a person's inherent feelings toward online shopping.

Based on Singh and Srivastava (2018) finding a positive attitude about online buying motivates one to seek out and take advantage of online purchasing possibilities actively. According to Howard and Bray (1994), buyers with a more favorable attitude about a product or brand are more inclined to purchase it. Another research also found that customers' attitudes toward online purchasing influenced their likelihood of embracing a website (Jiang et al., 2016; Zhou, 2011). Moreover, Wang et al. (2009) concluded from their research that a multichannel retailer's dominant attitude toward its physical store significantly impacts its customers' perceptions of the online store. Hence, a hypothesis is set: **H4:** Attitude has a significant impact on purchase intention.

2.7 Perceived Risk

Perceived risk is predicated on anticipations and dread of the unknown (Bhattacherjee, 2000; Ha & Nguyen, 2016). Numerous dangers are posed by the ambiguity surrounding online sales. For instance, data may be accessed and utilized improperly, and information might be gained dishonestly (Pavlou, 2003). Consumers must assume inevitable risks while making consuming choices since no amount of behavior can guarantee that the consequences will be optimal. Regarding online shopping, perceived risk is constitutive of financial and non-financial risks. Credit card fraud, failed transactions, and money waste are some causes of monetary loss (Singh & Srivastava, 2018). Waste of time and frustration are examples of non-monetary loss (Cox & Rich, 1964).

It is riskier to purchase online than at a physical store. This is because buyers are required to view or assess the products physically (Mitchell, 1999). To be specific, buyers may discover that the item can be different from what was advertised online. Some consumers may hesitate to adopt new technology because of the lack of personal interaction in Internet commerce (Lee et al., 2011; Miyazaki & Fernandez, 2000; Wang et al., 2003). As the last research shows, the perceived risk level is inversely related to the consumer's intent to buy. Customers are less inclined to do business with online retailers if they have doubts about the safety of their personal information or the security of their goods. Therefore, a high level of risk perception influences customer purchase intention positively (Agag & El-Masry, 2017; Harridge-March, 2006). Based on the assumptions, this study can hypothesize that:

H5: Perceived risk has a significant impact on purchase intention.

2.8 Subjective Norms

Subjective norms were defined as the social pressure that causes a person to behave in a certain way (Fishbein & Ajzen, 1975). A person's normative value strongly influences whether that person endorses or disapproves of a certain action (Ajzen, 1991). In the words of Suntornpithug and Khamalah (2010), the subjective norm is also perceived pressure from influential members of the online buying community, particularly the social pressure from the seller and other buyers, to engage in or abstain from online purchases. Because customers want the opinions of individuals around them to follow their suggestions to obtain social status. As a result, Ajzen (1991) and Laohapensang (2009) concluded that people's behaviors are influenced by their social circles.

Based on previous studies, Ajzen (1991) found an indirect relationship between subjective norms and consumer behavior. However, subjective norms have a direct link to national cultures, as George (2002) emphasized that individuals were more susceptible to the influence of their peers in collectivist societies. However, an individual's subjective norm may change over time due to continuing interaction with merchants and peers (Suntornpithug & Khamalah, 2010). In terms of online shopping, the mass media had a greater impact on online purchase intentions than acquaintances, and the effect of subjective norms on females was stronger than on males (Garbarino & 163

Strabilevitz, 2004). Consequently, a hypothesis is shown per below:

H6: Subjective norms have a significant impact on purchase intention.

2.9 Price

The price is the rate the buyer pays while purchasing the goods or service. Usually, sellers would ask for the highest possible price that buyers are willing to pay for a given product or service (Expert Program Management, 2018). In order to make a purchase, customers must invest time, effort, and money. When customers pay a premium price for a thing, it demonstrates that they place a high value on the acquisition of the goods. Price is a key factor in persuading more consumers to buy online (Kotler & Keller, 2006). For online customers, they often do price comparisons across several sites. Especially for price-conscious consumers, they would spend the least amount feasible for the greatest value.

People in South Africa pay greater attention to prices than they do in other countries. Consumers will be more cautious and ready to spend more time and effort looking for relevant information and analyzing before making an expensive purchase. This is because they want to reduce the risk of making errors and avoid losses due to inadequate information. Customer loyalty, as identified by Jiang and Rosenbloom (2005), clearly influenced by the price. In addition to cheaper prices, people's preferences for internet shopping were mostly influenced by other benefits it offered: convenience and more selection. Furthermore, lower prices led to customers' favorable attitude (Delafrooz et al., 2010). Based on previous evidences, a hypothesis is suggested: H7: Price has a significant impact on purchase intention.

2.10 Purchase Intention

In the beginning, psychologists like Eagly and Chaiken (1993) defined intention as a psychological concept that represents a person's desire to implement a plan and try to attempt it for a particular purpose. A person's actual consumption behavior may be predicted by their stated behavioral intention, which is their purpose to engage in a certain activity throughout the consuming process. Based on the findings of Ajzen (1985), people's behavior in the future can be predicted based on their intentions. Later, Ajzen (1991) also defined intentions as indications of the time and frequency with which an individual is willing to engage in a particular behavior. In the context of online shopping, behavior intention is called purchase intention, which is the propensity of a shopper to make purchases through the Internet or the shopper's stated intent to purchase from a particular online retailer (Singh & Srivastava, 2018; Suntornpithug & Khamalah, 2010).

The intention of online shopping drives customers to make online purchase decisions as more orders would be placed due to increased buying intention. In contrast, consumers are less likely to purchase while facing difficulties. Jarvenpaa et al. (2000) evaluated the intent of consumers to purchase online by inquiring about the likelihood of repurchasing during a specified time frame. He et al. (2008) argued that barriers to internet usage (financial, legal, and educational) are the main causes of consumers' lack of intent to shop online. Much previous research has investigated the influence of purchase intention as a direct predictor or dependent variable on online purchasing behavior. Sheppard et al. (1988) claim that it was discovered that purchasing intention might be utilized to predict behavioral outcomes. This follows the TRA (The Theory of Reasoned Action), which claims that consumers' purchase intentions predict their future conduct based on that behavior (Fishbein & Ajzen, 1980).

3. Research Methods and Materials

3.1 Research Framework

A framework is a cognitive tool used to simplify the A conceptual framework is a collection of concepts, theories, goals, and viewpoints that serve as the foundation for research. It could be built using a qualitative analytical technique. According to Ravitch and Riggan (2012), a conceptual framework is an argument. It supports academic research by facilitating the formulation of queries and the development of investigation strategies. The conceptual framework of Jabareen (2009) research is a group of concepts that work together to provide an in-depth understanding of a topic or sequence of events. The conceptual framework for this study is shown below (Figure 1).

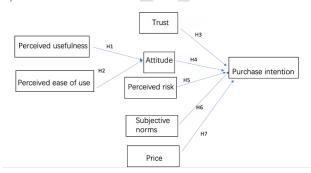


Figure 1: Conceptual Framework

H1: Perceived usefulness has a significant impact on attitude. **H2:** Perceived ease of use has a significantly impacts on attitude.

H3: Trust has a significant impact on purchase intention.

H4: Attitude has a significant impact on purchase intention. **H5:** Perceived risk has a significant impact on purchase intention.

H6: Subjective norms have a significant impact on purchase intention.

H7: Price has a significant impact on purchase intention.

3.2 Research Methodology

In order to analyze customers' attitudes and purchase intentions empirically, a questionnaire is developed based on a quantitative approach. So, quantitative research was the primary method employed in this investigation. It is used to analyze the connections between the variables.

The questionnaire is separated into three sections-a screening section, a section for collecting demographic data, and a section for measuring variables- to collect thorough and accurate responses. Questionnaires are among the most popular social and scientific research measurement instruments. It is a tool used to gather data consisting of a sequence of questions or statements the responder must answer. Designing a questionnaire logically and scientifically is a good way to ensure that research goals are met. The questionnaire is also a technique for explicitly questioning individuals about their perspectives, experiences, and behaviors. One way was to have people fill out forms. Another was to have conversations where questions were asked, and people's answers were written down (McDonough & McDonough, 1997). In this study, the questionnaire started with two screening questions and one demographic question.

Moreover, 33 scale items were designed based on the adoption of established research. The questionnaire consisted of 8 variables, including perceived usefulness, perceived ease of use, attitude, trust, perceived risk, subjective norms, pricing, and purchase intention; each variable consisted of 3-6 questions. When designing a questionnaire, the researcher employed one of the popular rating interval scales-five-point Likert Scale to assess a particular issue in context with a given factor.

To ensure the questionnaire's reliability, a pilot test involving 50 participants (n=50) was carried out in conjunction with an Index of Item-Objective Congruence (IOC) assessment. The IOC, evaluated by three experts, demonstrated that all scale items received a score rating of 0.6 or higher, indicating satisfactory congruence. Additionally, the pilot test employed the Cronbach alpha coefficient reliability test, which confirmed strong internal consistency of all items, with values equal to or exceeding 0.7 (Sarmento & Costa, 2016).

3.3 Population and Sample Size

This study's target population consisted of Chinese consumers aged 18-30 years old who had utilized the top three online purchasing platforms in China. Faber and Fonseca (2014) argued that samples ought to be controllable due to the constraints that can influence research findings. Therefore, minimum sample size should be at least 200. After calculating by structural equation model (SEM), the total proportional sample size was set at 500 customers.

3.4 Sampling Technique

The sampling procedure comprises judgmental, stratified random, and convenience sampling. Judgmental sampling was implemented to select Chinese consumers aged between 18-30 years old, who had utilized the top three online purchasing platforms in China. Because of the large population size, stratified sampling was used to proportionate the sample size in subgroups. Convenience sampling was conducted by questionnaires those were sent out through Wenjuanxing online during the coronavirus outbreak. After the screening, 476 surveys were valid.

Table 1:	Sample	Units and	Sample	Size
----------	--------	-----------	--------	------

Shopping platform	Population Size	Proportional Size
Taobao	4,074,030,000	198
Pingduoduo	3,629,840,000	176
Jingdong	2,585,766,000	126
Total	10,289,636,000	500

Source: Constructed by author

4. Results and Discussion

4.1 Demographic Information

The researcher can determine how well the survey sample represents the target population by asking appropriate demographic questions (Peterson, 2000). In this study, 45.8 percent is male whereas female enquires 54.2 percent. Most respondents are between 26-30 years old of 44.5 percent and 57.4 percent shop online between four to six days a week.

Table 2: Demograph	hic Profile
--------------------	-------------

	and General Data (=476)	Frequency	Percentage
Gender	Male	218	45.8
Genuer	Female	258	54.2
	18-20-Years Old	123	25.8
Age	21-25 Years Old	141	29.6
	26-30 Years Old	212	44.5
Frequency of	1-3 Days Per Week	58	12.2
Online	4-6 Days Per Week	273	57.4
Shopping	7 Days Per Week	145	30.5

Source: Constructed by author

4.2 Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis, which evaluates a created and theoretically-based latent structure, was also widely recognized as a method for testing theories (Byrne, 1998). To evaluate the fitness of the measurement model, seven measurements were employed. Based on the results in Table 3, Cronbach's alpha coefficient reliability test confirmed strong internal consistency of all items, with values equal to or exceeding 0.7 (Sarmento & Costa, 2016), the values of factor loadings were all above 0.5, and the composite reliability (CR) values were greater than 0.7, all satisfying minimum requirements. Regarding the average extracted variance (AVE), values were lower than 0.5 but higher than 0.4. Therefore, it is acceptable if the composite reliability (CR) values are higher than 0.6 (Fornell & Larcker, 1981).

Variables	Source of Questionnaire (Measurement Indicator)	No. of Item	Cronbach's Alpha	Factors Loading	CR	AVE
Perceived usefulness (PU)	Chin and Goh (2017)	5	0.798	0.505-0.742	0.805	0.456
Perceived ease of use (PEOU)	Chin and Goh (2017)	5	0.788	0.622-0.714	0.794	0.436
Attitude (ATT)	Singh and Srivastava (2018)	4	0.756	0.569-0.763	0.757	0.440
Trust (TR)	Rehman et al. (2019)	3	0.784	0.534-0.874	0.802	0.585
Perceived risk (PR)	Singh and Srivastava (2018)	6	0.817	0.569-0.752	0.820	0.434
Subjective norms (SN)	Hsu and Lu (2004)	3	0.796	0.691-0.835	0.805	0.581
Price (PRC)	Bringula et al. (2018)	4	0.789	0.603-0.777	0.792	0.489
Purchase Intention (PI)	Singh and Srivastava (2018)	3	0.858	0.782-0.851	0.859	0.671

The Goodness of Fit Index (GFI), the Adjusted Goodness of Fit Index (AGFI), the Normed Fit Index (NFI), the Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and roots-mean-square error of approximation (RMSEA).

In conclusion, all the fit indexes meet the criteria, indicating a model fit. The result of the model fit is shown in Table 4.

 Table 4: Goodness of Fit for Measurement Model

Fit Index	Fit Index Acceptable Criteria			
CMIN/df	< 5.00 (Hooper et al., 2008)	3.314		
GFI	≥ 0.80 (Hu & Bentler, 1999)	0.834		
AGFI	\geq 0.80 (Hu & Bentler, 1999)	0.800		
RMSEA	< 0.08 (Kelley & Lai, 2011)	0.068		
CFI	≥ 0.80 (Bentler, 1990)	0.854		
NFI	≥ 0.80 (Hooper et al., 2008)	0.804		
TLI	\geq 0.80 (Sharma et al., 2005)	0.834		
Model Summary		In harmony with empirical data		

Remark: CMIN/DF = The ratio of the chi-square value to degree of freedom, GFI = Goodness-of-fit index, AGFI = Adjusted goodness-of-fit index, RMSEA = Root mean square error of approximation, CFI = Comparative fit index, NFI = Normed fit index, and TLI = Tucker–Lewis index.

To assess the discriminant validity, the correlation of latent variables was compared to the square root of the average variance extracted. Table 5 shows the results of discriminant validity.

Table	 1 71	SCETTE	шаш	va	

	PU	PEOU	ATT	TR	PR	SN	PRC	PI
PU	0.675							
PEOU	0.579	0.660						
ATT	0.557	0.549	0.663					
TR	0.297	0.368	0.340	0.765				
PR	0.140	0.092	0.086	0.093	0.659			
SN	0.228	0.242	0.137	0.224	0.473	0.762		
PRC	0.452	0.428	0.376	0.354	0.258	0.369	0.699	
PI	0.526	0.510	0.510	0.330	0.259	0.402	0.630	0.819

Note: The diagonally listed value is the AVE square roots of the variables **Source:** Created by the author.

4.3 Structural Equation Model (SEM)

SEM is a multidimensional method that incorporates measurement variables and a latent variable that reflect measurement errors and relates to establishing research models (Suhr, 2010). By using Amos, all statistical values (CMIN/DF, GFI, AGFI, CFI, NFI, TLI, and RMSEA) met the eligibility criteria.

Table 6: Goodness of Fit for Structural Model

Fit Index	Acceptable Criteria	Statistical Values
CMIN/df	< 5.00 (Hooper et al., 2008)	3.075
GFI	≥ 0.80 (Hu & Bentler, 1999)	0.848
AGFI	≥ 0.80 (Hu & Bentler, 1999)	0.800
RMSEA	< 0.08 (Kelley & Lai, 2011)	0.064
CFI	≥ 0.80 (Bentler, 1990)	0.880
NFI	\geq 0.80 (Hooper et al., 2008)	0.834

Fit Index	Acceptable Criteria	Statistical Values
TLI	\geq 0.80 (Sharma et al., 2005)	0.851
Model Summary		In harmony with empirical data

Remark: CMIN/DF = The ratio of the chi-square value to degree of freedom, GFI = Goodness-of-fit index, AGFI = Adjusted goodness-of-fit index, RMSEA = Root mean square error of approximation, CFI = Comparative fit index, NFI = Normed fit index, and TLI = Tucker–Lewis index.

4.4 Research Hypothesis Testing Result

Table 7 provides the significance of each variable based on its standardized path coefficient (β) and t-value. which shows the relationships between the constructs, wherein a pvalue of <0.05 is required to support each hypothesis. A solid line depicts the validity of the premise, while a dashed line proves otherwise

Table 7: Hypothesis Results of the Structural Equation Modeling

Hypothesis	(β)	t-Value	Result
H1: $PU \rightarrow ATT$	0.629	7.447***	Supported
H2: PEOU→ATT	0.233	8.213***	Supported
H3: TR→PI	-0.093	1.306	Not supported
H4: $ATT \rightarrow PI$	0.472	7.890***	Supported
H5: PR→PI	0.017	0.758	Not supported
H6: $SN \rightarrow PI$	0.235	4.269***	Supported
H7: $PRC \rightarrow PI$	0.635	12.859***	Supported

Note: *** p<0.001

Source: Created by the author

The results of the structural model are provided in Table 7.

H1: Perceived usefulness positively influences customers' attitudes toward online shopping (β =0.629). The result is consistent with Chin and Goh (2017) research findings.

H2: Previous studies and this study also show that perceived ease of use and attitude were related positively and significantly (β =0.233). The same logic was demonstrated by Chin and Goh (2017), showing that perceived ease of use positively impacted customers' attitudes regarding online purchasing.

H3: Contrary to the hypothesis, trust and purchase intention were unrelated (β =-0.093). This is in line with the study of Singh and Srivastava (2018), which discovered that trust does not determine intention to use online shopping.

H4: Attitude toward online shopping and purchase intention were positively related (β =0.472). The same result was discovered by Taylor and Todd (1995), who found that attitude positively impacted online shopping intention.

H5: The results show no relationship between perceived risk and customers' online buying intention (β =0.017). For younger customers, perceived risk in online shopping is not

an important factor in determining customer purchase intention; this is contrary to the expectation.

As proposed in **H6**, subjective norms affect purchase intention in a positive manner (β =0.235). A similar finding was supported by other research, showing the significance of subjective norms on online shopping intentions (Sekaran & Bougie, 2016).

In H7, the price directly impacts online shopping intention (β =0.635). These findings are reaffirmed in a previous study, which found that price influences the intention to shop online in a positive manner (Kotler & Keller, 2006).

5. Conclusion and Recommendation

5.1 Conclusion and Discussion

This research investigates the factors influencing Chinese customers' attitudes and purchase intentions toward online shopping platforms in China. The conceptual framework of this research includes one dependent variable: purchase intention, and six independent variables are perceived ease of use, perceived usefulness, trust, perceived risk, subjective norms, and price. In order to analyze the seven hypotheses based on the variables, 476 qualified questionnaires were analyzed using Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM) to test the degree to which a researcher's hypothesized pattern of factor loadings on preset constructs matches the actual data and determine the correlations between different variables, respectively.

Based on the findings of this research, it was found that perceived usefulness and perceived ease of use are the main determinants of customers' attitudes, and attitude towards online shopping mediates the relationship between perceived usefulness, perceived ease of use, and purchase intention. Subsequently, subjective norms and price are other critical factors of online shopping use intention.

5.2 Recommendation

The findings imply that regarding online shopping operations, it is critical to consider the functionality of the website and the real online shopping experience. Consequently, if Web vendors want to attract more online shoppers and gain economic excellence, they must create an enjoyable customer purchasing experience. To succeed, online business owners must cater to their customers' individual preferences. They may improve their purchasing experience by giving customers access to novel goods. On top of that, provide in-depth product information and visuals to potential buyers; this way, businesses have a better chance of attracting people to purchase from them if they focus on enhancing the customer experience from the beginning.

Second, websites should establish closeness, timeliness, or shared values with customers by talking to them online through chat boxes or help centers to make customers feel more emotionally linked to online retailers. Thereby, customers can get suggestions better suited to their wants, and online sellers can get return business from customers.

Lastly, online shoppers usually seek goods and services that save them money compared to brick-and-mortar stores. Therefore, consumers should be able to purchase products or services quickly, with various options, and get the best deal when they browse online. Based on the low cost, the marketers could employ a low-cost strategy to gain market share.

5.3 Limitation and Further Study

In order to study the factors that affect online shopping behavior intention, the research investigated seven independent variables and one dependent variable. However, some variables related to online shopping behavior intention have yet to be considered due to a lack of research resources and the constraints of data processing ability. Future studies should explore critical elements affecting consumers' online purchase intention, such as perceived enjoyment, selfefficacy, and other variables.

References

- Agag, G. M., & El-Masry, A. A. (2017). Why do consumers trust online travel websites? Drivers and outcomes of consumer trust toward online travel websites. *Journal of Travel Research*, 56(3), 347-369. https://doi.org/10.1177/0047287516643185
- Ajzen, I. (1985). From Intentions to Action: A Theory of Planned Behavior. In J. Kuhl & J. Beckmann (Eds.), *Action-Control: From Cognition to Behavior* (pp. 11-39). Springer-Verlag. http://dx.doi.org/10.1007/978-3-642-69746-3_2
- Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50(2), 179-211. https://doi.org/10.1016/0749-5978(91)90020-t
- Al-Debei, M. M., Akroush, M. N., & Ashouri, M. I. (2015). Consumer attitudes towards online shopping. *Internet Research*, 25(5), 707-733. https://doi.org/10.1108/IntR-05-2014-0146
- Aldhmour, F., & Sarayrah, I. (2016). An investigation of factors influencing consumers' intention to use online shopping: An empirical study in South of Jordan. *Journal of Internet Banking* and Commerce, 21(2), 1-48.
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107(2), 238-246. https://doi.org/10.1037/0033-2909.107.2.238

- Bhattacherjee, A. (2000). Acceptance of e-commerce services: The case of electronic brokerages. *IEEE Transactions on Systems Man and Cybernetics - Part A Systems and Humans*, 30(4), 411-420. https://doi.org/10.1109/3468.852435
- Bigné-Alcañiz, E., Ruiz-Mafé, C., Aldás-Manzano, J., & Sanz-Blas, S. (2008). Influence of online shopping information dependency and innovativeness on internet shopping adoption. *Online Information Review*, 32(5), 648-667.
- Bringula, R. P., Moraga, S. D., Catacutan, A. E., Jamis, M. N., & Mangao, D. F. (2018). Factors influencing online purchase intention of smartphones: A hierarchical regression analysis. *Cogent Business & Management*, 5(1), 1496612. https://doi.org/10.1080/23311975.2018.1496612
- Byrne, B. A. (1998). Structural equation modeling with LISREL, PRELIS, and SIM- PLIS: Basic concepts, applications, and pro-gramming (1st ed.). Erlbaum.
- Carter, M., Wright, R., Thatcher, J. B., & Klein, R. (2014). Understanding online customers' ties to merchants: the moderating influence of trust on the relationship between switching costs and e-loyalty. *European Journal of Information Systems*, 23(2), 185-204.

https://doi.org/10.1057/ejis.2012.55

- Celik, H. (2011). Influence of social norms, perceived playfulness, and online shopping anxiety on customers' adoption of online retail shopping: An empirical study in the Turkish context. *International Journal of Retail & Distribution Management*, 39(6), 390-413.
- Chen, M. Y., & Teng, C. I. (2013). A comprehensive model of the effects of online store image on purchase intention in an e-commerce environment. *Electronic Commerce Research*, 13(1), 1-23. https://doi.org/10.1007/s10660-013-9104-5
- Chin, S.-L., & Goh, Y.-N. (2017). Consumer purchase intention toward online grocery shopping: View from Malaysia. *Global Business and Management Research: An International Journal*, 9(4), 221-238.
- Chiu, C.-M., Chang, C. C., Cheng, H. L., & Fang, Y. H. (2009). Determinants of customer repurchase intention in online shopping. *Online Information Review*, 33(4), 761-784. https://doi.org/10.1108/14684520910985710
- Cho, Y. C., & Sagynov, E. (2015). Exploring factors that affect usefulness, ease of use, trust, and purchase intention in the online environment. *International Journal of Management & Information Systems*, 19(1), 21-36. https://doi.org/10.19030/ijmis.v19i1.9086
- Cox, D. F., & Rich, S. U. (1964). Perceived risk and consumer decision-making: The case of telephone shop- ping. *Journal of Marketing Research*, 1(4), 32-39. https://doi.org/10.2307/3150375
- Davis, F. (1985). A technology acceptance model for empirically testing new end-user information systems: theory and results (1st ed.). MIT Sloan School of Management.
- Davis, F., Bagozzi, R. P., & Warchaw, P. R. (1989). User acceptance of computer technology: a comparison of two theoretical models. *Management Science*, 35(8), 982-1003. https://doi.org/10.1287/mnsc.35.8.982
- Delafrooz, N., Paim, L. H., & Khatibi, A. (2010). Students' online shopping behavior: an empirical study. *Journal of American Science*, 6(1), 137-147.

- Doney, P. M., & Cannon, J. P. (1997). An examination of the nature of trust in buyer–seller relationships. *Journal of Marketing*, 61(2), 35-51. https://doi.org/10.2307/1251829
- Eagly, A., & Chaiken, S. (1993). *The Psychology of Attitudes* (1st ed.). Harcourt Brace Jovanovich College Publishers.
- Expert Program Management. (2018, March 12). Service Marketing Matrix: The 7P's of Marketing. https://expertprogrammanagement.com/2018/03/servicesmark eting-mix-7-ps/
- Faber, J., & Fonseca, L. M. (2014). How sample size influences research outcomes. *Dental Press Journal of Orthodontics*, 19, 27-29. https://doi.org/10.1590/2176-9451.19.4.027-029.ebo
- Fan, X., Duangekanong, S., & Xu, M. (2021). Factors Affecting College Students' Intention to Use English U-learning in Sichuan, China. AU-GSB E-JOURNAL, 14(2), 118-129. https://doi.org/10.14456/augsbeir.2021.20
- Fishbein, M., & Ajzen, I. (1975). Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research (1st ed.). Addison-Wesley Publishing
- Fishbein, M., & Ajzen, I. (1980). Understanding attitudes and predicting social behavior (1st ed.). Prentice-Hall.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50. https://doi.org/10.1177/002224378101800104
- Garbarino, E., & Strabilevitz, M. (2004). Gender Differences in the Perceived Risk of Buying Online and the Effects of Receiving a Site Recommendation. *Journal of Business Research*, 57, 768-775. https://doi.org/10.1016/s0148-2963(02)00363-6
- George, F. (2002). Influences on the Internet to make purchases. Internet Research, 12(2), 165-180. https://doi.org/10.1108/10662240210422521
- Ha, N. T., & Nguyen, T. D. (2016). Factors affecting online shopping intention of Vietnamese consumers: Extensive study of planned behavior theory. *Science Journal of Ha Noi National University*, 32(4), 21-28.
- Harridge-March, S. (2006). Can the building of trust overcome consumer perceived risk online?. *Marketing Intelligence & Planning*, 24(7), 746-761. https://doi.org/10.1108/02634500610711897
- He, D., Lu, Y., & Zhou, D. (2008). Empirical Study of Consumers' Purchase Intentions in C2C Electronic Commerce. *Tsinghua Science & Technology*, 13(3), 287-292.
- Hooper, D., Coughlan, J., & Mullen, M. R. (2008). Structural equation modeling: Guidelines for determining model fit. *Electronic Journal of Business Research Methods*, 6(1), 53-60.
- Howard, A., & Bray, D. W. (1994). Predictions of Managerial Success over Time. Lessons from the Management Progress study. In K. E. Clark & M. B. Clark (Eds.), *Measures of Leadership* (pp. 113-130). Leadership Library of America.
- Hsu, C. L., & Lu, H. P. (2004). Why do people play online games? An extended TAM with social influences and flow experience. *Information and Management*, *41*, 853-868. https://doi.org/10.1016/j.im.2003.08.014
- Hu, L.-T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1-55. https://doi.org/10.1080/10705519909540118

- Jabareen, Y. (2009). Building a Conceptual Framework: Philosophy, Definitions, and Procedure. International Journal of Qualitative Methods, 8(4), 49-62. https://doi.org/10.1177/160940690900800406
- Jarvenpaa, S. L., Tractinsky, N., & Vitale, M. (2000). Consumer trust in an Internet store. Information Technology and Management, 1, 45-71.

https://doi.org/10.1111/j.1083-6101.1999.tb00337.x

Jiang, P. J., & Rosenbloom, B. (2005). Customer intention to return online: Price perception, attribute-level performance, and satisfaction unfolding over time. European Journal of Marketing, 39, 150-175.

https://doi.org/10.1108/03090560510572061

- Jiang, Z., Wang, W., Tan, B. C., & Yu, J. (2016). The determinants and impacts of aesthetics in users' first interaction with websites. Journal of Management Information Systems, 33(1), 229-259
- Kelley, K., & Lai, K. (2011). Accuracy in parameter estimation for the root mean square error of approximation: sample size planning for narrow confidence intervals. Multivariate Behavioral Research, 46(1), 1-32.

https://doi.org/10.1080/00273171.2011.543027

- Kotler, P., & Keller, K. (2006). Marketing Management (12th ed.). Pearson Education Inc.
- Koyuncu, C., & Bhattacharya, G. (2004). The impacts of quickness, price, payment risk, and delivery issues on on-line shopping. Journal of Behavioral and Experimental Economics (formerly The Journal of Socio-Economics), Elsevier, 33(2), 241-251. https://doi.org/10.1016/j.socec.2003.12.011
- Laohapensang, O. (2009). Factors influencing internet shopping behaviors: A survey of consumers in Thailand. Journal of fashion marketing and management: An international journal, 13(4), 501-513. https://doi.org/10.1108/13612020910991367
- Lee, K. W., Tsai, M. T., & Lanting, M. C. L. (2011). From marketplace to marketspace: investigating the consumer switch to online banking. Electronic Commerce Research and Applications, 10(1), 115-125. https://doi.org/10.1016/j.elerap.2010.08.005
- Lee, M.-C. (2009). Factors influencing the adoption of internet banking: An integration of TAM and TPB with perceived risk and perceived benefit. Electronic Commerce Research and Applications, 8(3), 130-141.

https://doi.org/10.1016/j.elerap.2008.11.006

- Ma, Y. (2021, July 13). Tmall's GMV growth rate FY 2017-FY 2021. https://www.statista.com/statistics/1024171/china-tmallgross-merchandise-volume-growth-rate/
- McDonough, J., & McDonough, S. (1997). Research Methods for English Language Teachers (1st ed.). Arnold.
- Mitchell, V. (1999). Consumer perceived risk: conceptualizations and models. European Journal of Marketing, 3(1/2), 163-195. https://doi.org/10.1108/03090569910249229
- Miyazaki, A. D., & Fernandez, A. (2000). Internet privacy and security: an examination of online retailer disclosures. Journal of Public Policy & Marketing, 19(1), 54-61. https://doi.org/10.1509/jppm.19.1.54.16942
- Morgan, R. M., & Hunt, S. D. (1994). The Commitment-Trust Theory of Relationship Marketing. Journal of Marketing, 58, 20-38. http://dx.doi.org/10.2307/1252308

Pavlou, P. A. (2003). Consumer Acceptance of Electronic Commerce: Integrating Trust and Risk with the Technology Acceptance Model. International Journal of Electronic Commerce, 7, 101-134.

https://doi.org/10.1080/10864415.2003.11044275

- Peterson, R. A. (2000). Constructing effective questionnaires (1st ed.) Sage.
- Ravitch, S. M., & Riggan, M. (2012). Reason & Rigor: How Conceptual Frameworks Guide Research (2nd ed.). SAGE.
- Rehman, S. U., Bhatti, A., Mohamed, R., & Ayoup, H. (2019). The Moderating Role of Trust and Commitment between Consumer Purchase Intention and Online Shopping Behavior in the Context of Pakistan. Journal of Global Entrepreneurship Research, 9(43), 1-10. https://doi.org/10.1186/s40497-019-0166-2
- Rousseau, D., Sitkin, S., Burt, R., & Camerer, R. (1998). Not so different after all: a cross discipline view of trust. Acad Manag Rev, 23(3), 393-404. https://doi.org/10.5465/amr.1998.926617
- Sarmento, R., & Costa, V. (2016). Comparative Approaches to Using R and Python for Statistical Data Analysis (1st ed.). IGI Global Press.
- Sekaran, U., & Bougie, R. (2016). Research Methods for Business: A Skill Building Approach (8th ed.). John Wiley & Sons, Chichester.
- Sharma, G. P., Verma, R. C., & Pathare, P. (2005). Mathematical modeling of infrared radiation thin layer drying of onion slices. Journal of Food Engineering, 71(3), 282-286. https://doi.org/10.1016/j.jfoodeng.2005.02.010
- Sheppard, B. H., Hartwick, J., Warshaw, P. R., & Hartwick, J. O. N. (1988). The theory of reasoned past action: Meta-analysis of with modifications for recommendations and. Journal of Consumer Research, 15(3), 325-343. https://doi.org/10.1086/209170
- Singh, S., & Srivastava, S. (2018). Moderating effect of product type on online shopping behavior and purchase intention: An Indian perspective. Cogent Arts & Humanities, 5(1), 1-27. https://doi.org/10.1080/23311983.2018.1495043
- Suhr, D. (2010, August 21). The basics of structural equation modeling.

http://www.lexjansen.com/wuss/2006/tutorials/TUT-Suhr.pdf

- Suntornpithug, N., & Khamalah, J. (2010). Machine and person interactivity: the driving forces behind influences on consumers' willingness to purchase online. Journal of Electronic Commerce Research, 11(4), 299-325.
- Taylor, S., & Todd, P. A. (1995). Assessing IT usage: The role of prior experience. MIS Quarterly, 19(4), 561-570. https://doi.org/10.2307/249633
- Teo, T. S. H., & Liu, J. (2007). Consumer trust in e-commerce in the United States, Singapore, and China. Omega, 35(1), 22-38. https://doi.org/10.1016/j.omega.2005.02.001
- Wang, S., Beatty, S. E., & Mothersbaugh, D. L. (2009). Congruity's role in website attitude formation. Journal of Business Research, 66(6), 609-615.
- Wang, Y.-S., Wang, Y.-M., Lin, H.-H., & Tang, T.-I. (2003). Determinants of user acceptance of internet banking: an empirical study. International Journal of Service Industry Management, 14(5), 501-519. https://doi.org/10.1108/09564230310500192

Wu, I.-L. (2003). Understanding senior management's behavior in promoting the strategic role of it in process reengineering: Use of the theory of reasoned action. *Information & Management*, *41*, 1-11.

https://doi.org/10.1016/s0378-7206(02)00115-5

- Wun, M. (2021). Factors Influencing Consumer Purchase Behavior towards Locally Manufactured Vehicles (Proton and Perodua). *Swinburne University of Technology*, 1(2), 1-142.
- Zhou, T. (2011). Examining the critical success factors of mobile website adoption. *Online Information Review*, *35*(4), 636-652.

170