Understanding the Drivers of College Students' Attitudes and Intentions Towards Online Shopping in China

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Abstract

Purpose: This study aims to explore the factors that influence the purchase intention of online shopping among college students in Zhanjiang, China. The conceptual framework comprises subjective norm, trust in online shopping, convenience of online shopping, customer service offered by online shopping, value motive, attitude, and purchase intentions. **Research design, data, and methodology:** The sample data was collected using a quantitative method and a questionnaire as a tool. Before distribution, the questionnaire's content validity and reliability were tested using Item-Objective Congruence and a pilot test. The data was then analyzed using Confirmatory Factor Analysis and Structural Equation Modelling to validate the model's goodness of fit and confirm the causal relationship among variables for hypothesis testing. **Results:** The conceptual model effectively predicted purchase intention (PI) for online shopping among college students. Two key prerequisites for BI are attitude and value motive. **Conclusions:** ATT was the strongest predictor of PI to use both directly and indirectly, which ATT was driven significantly by subjective norm, trust in online shopping, the convenience of online shopping (COS), and customer service offered by online shopping (CSOS). Therefore, this study suggests that online purchasing platforms and merchants should improve the attitudinal factor of purchase intention so that students will find the system useful and develop a good attitude and purchase intention towards online shopping.

Keywords: Online Shopping, Attitude, Purchase Intention, College Students, China

JEL Classification Code: E44, F31, F37, G15

1. Introduction

The concept of online shopping was introduced as early as 1967, although the commercialization of the Internet made it more realistic and even became a commonplace way of life (Doody & Davidson, 1967). AcNielsen (2007) points out that the Internet has developed rapidly in recent years and has become an important means of transmitting information, services and commerce. It is reported that in 2006, according to global Internet user statistics, about 627 million people shopped online. Venkatesh et al. (2012) and Weltevreden (2008) pointed out that more and more consumers, with the popularity of the Internet and the gradual maturity of the e-commerce industry, are joining the online shopping craze,

online shopping has become a contemporary way of life, there is no doubt that the online shopping cannot be divorced from our lives. Haque et al. (2006) argued that attitudinal issues play a vital role in e-commerce environments, and then attitudes are formed through motivation and perception, and conversely, attitudes directly influence consumer purchasing decisions. As of 2022, 3 billion consumers in emerging markets will be engaged with the Internet, and the success of online shopping is expected to continue (ET Bureau, 2018). For hundreds of millions of current and future consumers, the convenience of online shopping offers new gains for both developed and emerging markets (Duarte et al., 2018).

Cramer-Flood (2020) states that global e-commerce sales

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are expected to exceed $4 trillion over the next 20 years, an 18 percent increase year-on-year, driven by the global epidemic. The development of the Internet and e-commerce and the development of the social economy play an obvious role in promoting network-shopping as an emerging mode, causing a subtle change in how people consume. Hongfei (2017) points out that in recent years, China's e-commerce industry has been on track with rapid development due to innovations brought about by the application of technology. Motaword (2022) suggests that the size of China's e-commerce market has grown rapidly over the past few years, with an annual growth rate of 22.5 percent, and that the total market size has reached $1.8 trillion, with a market growth rate of 20.1 percent in 2020 (E-commerce Agency, 2020). Covid-19 has led to significant changes in the Chinese e-commerce industry and the Chinese e-commerce market. During the flu pandemic, people's shopping behavior changed dramatically. More consumers participated in online shopping, and a large amount of shopping behavior shifted from offline to online (Meyer, 2020). This phenomenal change results from e-commerce companies adapting and innovating their e-services to the new market environment.

Conversely, how consumers perceive the quality of e-services and purchasing behavior is constantly evolving (Koch, 2020; McCabe, 2021; Nurhayati, 2021). In the digital age, understanding and continuously improving the quality of e-services is key to gaining a competitive advantage if a company is to grow rapidly and become a force in the industry. In addition, service quality determines a company's ability to attract and retain customers (Oliveira et al., 2002). Acheampong et al. (2016) discovered that vendor services, including the store's physical presence, the store's reputation, the store, the size of the store, reliability, guarantees, and the use of recommendations or references, were significantly associated with Millennials' purchase intentions.

College students are among the most important internet users in China. They are in a special environment where they can control their money freely. They also shop online more frequently than others. Their online consumption behavior shows the consumption characteristics of online groups. With the rapid development of the Internet, the consumption concept and structure of college students have also changed (Tao & Wang, 2020). There were about 30.18 million college students in China in 2017, according to the annual consumption report of Chinese college students in 2018. The average monthly consumption is about 1,400 yuan, the required expenditure is about 800 yuan, and the amount of autonomous control is about 600 yuan. The average annual consumption of Chinese college students in online shopping is about ¥1,100, and the average express delivery is about 6.2 per capita, which indicates that the amount and quantity of consumption is huge. In 2018 and 2019, with the increase in college entrance exam enrollment and the people's

livelihoods in China, the number of college students and online students and the online shopping consumption of Chinese college students may have increased (Zhu, 2019). As an important consumer group in online shopping, college students have a strong consumption demand and have become the target consumers of online merchants. The reason for this is that, on the one hand, the Internet platform provides convenience for releasing commodity information.

On the other hand, online shopping meets the needs of college student groups. Many scholars have also researched the characteristics and influencing factors. Satisfaction of college students' online shopping, aiming to understand better and meet the needs of college students as a consumer group and to clarify the direction for the optimization of e-commerce websites and online shops to promote the healthy and sustainable development of the e-commerce industry.

With the rapid social and economic development of the web, online shopping has become a vital part of human life, and college students are the major force of online shopping. Although online shopping has gradually matured, there are still many problems that are worthy of discussion. Few studies are related to online shopping for college students in this complex context. Therefore, there is a need for a comprehensive study of online shopping among college students. The purpose of this study was to examine the impact of subjective norms, trust in online shopping, convenience of online shopping, and customer service offered by Online Shopping on the attitudes towards online shopping of university students in Zhanjiang, China, the impact of attitude on purchase intention, and the impact of value motive on purchase intention.

2. Literature Review

2.1 Subjective Norm

Fishbein and Ajzen (1975) suggest that subjective norms are defined as the constraint that an individual feels when performing an action and the motivation that motivates the individual to comply with the constraint. Chang (1998), Shimp and Kavas (1984), Vallerand et al. (1992), and Tarkiainen and Sundqvist (2005) found in their research that There is a significant relationship between subjective norms and attitudes that lead to behavioral intention to buy. Tarkiainen and Sundqvist (2005) found that subjective norms are important for consumers' attitudes toward purchasing goods. According to TPB research, subjective norms significantly impact a person's willingness to act in a particular way (Basha & Lal, 2019; Cai et al., 2019; Zhao et al., 2019).

Some other studies have been found to prove that subjective norms have a positive impact on consumers'

attitudes toward buying Islamic products. This is because consumers believe that the products are suitable for their needs and also conform to their sense of identity in the social circle composed of family, colleagues, friends, and peer groups so that they will have a positive attitude towards the demands of the products (Charag et al., 2019; Garg & Joshi, 2018). So, in order to test the argument of the above researchers, the following hypothesis was proposed:

H1: Subjective norm has a significant impact on attitude.

2.2 Trust in Online Shopping

Trust has been categorized into many different types. The two most prominent types are trust in the website (Seckler et al., 2015) and trust in the seller (Oghazi et al., 2018). Al-Debei et al. (2015) stated that in online shopping, trust helps consumers engage in transactional behavior with online retailers and creates a positive attitude toward consumers' consumption behavior. Trust in an online retailer positively correlates with people's attitudes towards that online retailer (Lo et al., 2016). Trust, closely linked to risk, is based on consumer perceptions (Chen et al., 2017). While some risks are inevitable, there is a general belief that the other participants will not engage in fraudulent activity (Celik, 2016). Therefore, trust creates a positive towards the seller and reduces the consumer's perception of risk (Lo et al., 2016).

Consumers who display higher levels of trust have positive attitudes and behavior (Al-Debei et al., 2015). Therefore, it is hypothesized that trust as a behavioral belief will influence a consumer's attitude toward online shopping

H2: Trust in online shopping has a significant impact on attitude.

2.3 Convenience of Online Shopping

Anesbury et al. (2016) point out that many studies on online shopping show that convenience is the most important motivation for consumers to shop online. Cho and Sagynov (2015) argued that their study showed that as consumers' perceptions of the convenience of online shopping increased, their attitudes and willingness to shop online increased. Anesbury et al. (2016) further investigated the convenience of shopping online compared to having to travel to find a brick-and-mortar store in order to find the desired product. A study by Tandon et al. (2016) mentions that the consumer's intention to shop online is dependent on the convenience of ordering a product from the convenience of product ordering from the website. Korgaonkar et al. (2014) concluded that convenience-oriented consumers positively impact online purchase attitudes and intentions. In addition to influencing consumers' behavioral intentions, convenience is also recognized as a means of shaping consumers' attitudes

toward online shopping (Al-Debei et al., 2015). Farhana et al. (2017) state that convenience, as perceived by consumers, is one of the main benefits of online shopping, which has a significant positive effect on attitudes towards online shopping. Al-Debei et al. (2015) argue that past studies of online shopping have shown that the core motivation for consumers to use the Internet for shopping is the convenience of choosing from a large number of brands and the ability to compare products and prices in one place, which is difficult to do in a traditional shop.

The convenience of saving time, the 24/7 availability of the online store, and the ability to access the online store from virtually any location also create a positive attitude toward online shopping (Clemens et al., 2014; Tingchi Liu et al., 2012). Therefore, the following hypothesis is proposed for the study:

H3: Convenience of online shopping has a significant impact on the attitude.

2.4 Customer Service offered by Online Shopping

Morganti et al. (2014) and Xu et al. (2015) state that both consumer attitudes and willingness to shop online are significantly influenced by the customer service provided by online vendors. Customer service, including order tracking, fast delivery, and easy return policy, plays an important role in online shopping. When shopping online, consumers attach great importance to the online transaction and delivery of products for online shopping (Slabinac, 2015). Because of the distance between the consumer and the retailer in the online arena, the money paid, the product paid, and the product received are separate; therefore, the consumer is concerned about the timely delivery of the product (Sinha & Singh, 2014). Janakiraman et al. (2016) suggested that simple, hassle-free return policies offered by online vendors increase consumer attitudes and willingness to purchase. Pei et al. (2014) and Minnema et al. (2018) argued that an effective return policy significantly impacts consumers' perceptions of the fairness of the return policy, which leads to a positive purchase attitude. Lo et al. (2016) and Clemens et al. (2014) argued that consumers, in the context of online shopping, quickly form attitudes toward online suppliers and immediately share their opinions with others. Therefore, online suppliers need to provide good customer service. Otherwise, consumers are likely to switch their loyalty to other competitors. Failure to provide adequate customer service, such as updating order status, delivery schedules, and return processes, will result in poor perceptions of customer service quality and contribute to shoppers' negative attitudes toward online shopping. For example, a return policy that is difficult or ambiguous for the consumer to understand will result in a positive perception of the online retailer (Kaur & Quareshi, 2015). Thaichon and Quach

(2015) argue that the quality of delivery services, including fast delivery and returns, significantly influences consumer attitudes towards online shopping.

Previous research has shown that fast product delivery and easy product returns significantly increase the positive increase a consumer's positive experience (Chiu et al., 2014). Minnema et al. (2018) state that this positive experience helps retain customers and indirectly creates a positive attitude toward online shopping. Giovanis and Athanasopoulou (2014) concluded after many past studies on online shopping that superior customer service to provide superior value is one of the most important factors in developing positive attitudes towards online shopping. Therefore, the following hypothesis is proposed for the study:

H4: Customer service offered by online shopping has a significant impact on attitude.

2.5 Value Motive

Kamakura and Novak (1992) pointed out that many studies have fully confirmed that the theoretical value motivation system influences online shopping consumers' decision-making. Parks and Guay (2009) argue that there is a close relationship between personal values and motivation and that value motivation for online shopping is a guideline for individual behavior that is guided by consumers' values. Consumers' value motivation and perception constitute their willingness and main motivation to purchase luxury goods in studies of developed countries in the West and emerging markets in the East (Shukla, 2012). Nia and Lynne Zaichkowsky (2000) see consumers' online purchases of luxury brands as individuals' desire to remain in the upper class of society, to strengthen their sense of self-existence, and to package themselves by purchasing luxury brands to achieve their ideal image. This is the brand's motivation to serve consumers' needs and the realization of self-esteem. In the study of value motivation theory, the study of social motivation shows that consumers' purchase decisions, consumers hope to achieve higher social value and become the elite class in society, is a trend of value motivation (Vigneron & Johnson, 1999). Hill et al. (2013) divided the study of value motivation into prosocial motivation and escapist motivation and analyzed them in detail, believing that the value motivation of online shopping for the younger generation is influenced by escaping from reality and fantasy.

Clary et al. (1998) argues that in value motivation theory, prosocial action may convey the value of humanitarian concern between the individual consumer and another, thereby conveying symbolic meaning to the consumer. This value motivation in relation to prosocial behavior suggests that consumers' individual prosocial behavior should be an expression of altruistic and humanitarian values of concern. They have unique values and characteristics (such as the desire to be accepted and self-control), leading them to form specific value motivations, thus influencing their behavioral intention to shop online (Lissitsa & Kol, 2016). Therefore, the following hypothesis is proposed for the study:

H5: Value motive has a significant impact on purchase intentions.

2.6 Attitude

Ajzen and Fishbein (1972) proposed the Theory of Reasoned Action (TRA), which describes how individual consumers' subjective norms and attitudes influence behavioral intentions and how behavioral intentions control individual behavior. According to Ajzen and Madden (1986), attitude is the degree of positive or negative evaluation of the relevant behavior of an individual. In contrast, intention is the decision of the individual to act in a certain way and with a certain attitude. The more a consumer performs a certain activity, the more positive and optimistic he or she is about the activity (Hwang & Kim, 2021). Madden et al. (1992) found that research based on TRA theory demonstrated that consumer attitude positively affects purchase intention. Lutz (1991) believes that TRA provides a method for predicting consumers' purchase behavior, which plays a very important role in judging consumers' attitudes toward purchase behavior, and it is not only the presentation of typical attitudes toward things surrounded by shopping behavior. For example, an online consumer has a positive attitude toward buying fashion products online, But online consumers do not necessarily buy these fashion products. However, some scholars applying TRA, such as Mbumbwa and Chigada (2018), noted that the theory of planned behavior extension found that online shoppers' attitudes positively and optimistically influence their purchase intentions and behavior.

Siswomihardjo et al. (2019) think that although online shopping is not specifically studied in hijab fashion research, an important factor influencing hijab purchase intention is attitude. Charag et al. (2019) found that attitude is an important predictor that influences the intention of Muslim shoppers to purchase Islamic products other than the hijab. Shoppers' attitude was also seen as a mediating variable, interfering with the link between the dependent variable and Islamic product purchase intention. Accordingly, Phau and Teah (2009) proposed that online shoppers' attitudes regulate their purchase intention, and their satisfaction with the products during the shopping process may influence them to purchase the same products again and form a habit of using the products. Therefore, the following hypothesis is proposed for the study:

H6: Attitude has a significant impact on the purchase intentions.

2.7 Purchase Intention

Ajzen and Fishbein (1972). The earliest definition of purchase intention is the subjective likelihood that users will perform a certain behavior. Morwitz and Schmittlein (1992) showed that purchase intentions could be a measure to predict the behavior of consumers in making a purchase decision. Purchase intention is an individual's willingness to buy something. Several factors can influence purchase intention. Brand familiarity and trust in a brand are some of the most important factors influencing a customer's purchase intention (Laroche et al., 1996). Consumer intention to purchase is defined as 'the buyer's self-directed intention to purchase the brand (or take some other relevant action related to the purchase)' (Rossiter & Percy, 1998). Purchase intention is the decision-making process consumers go through before making a purchase transaction for a particular product they need (Anoraga, 2000). "Intention is a person's immediate behavioral orientation towards the performance of a particular behavior, and it reflects the person's motivation towards that behavior" (Hagger et al., 2002). Purchase intention is a type of decision-making that examines why a consumer would purchase a particular brand (Shah et al., 2016). Purchase intention is a complex process linked to customer behavior, perceptions, and attitudes, making it an excellent tool for predicting the purchase process. Purchase intention is based on a consumer's willingness to purchase a product or service under certain conditions (Budur, 2018). Purchase intention is influenced by various external and internal factors, such as price, quality perception, and value (Rashid et al., 2020).

3. Research Methods and Materials

3.1 Research Framework

The research model is also adopted from three theoretical frameworks of previous studies; the first theoretical framework was proposed by (Sumarliah et al., 2021). The framework provides research on Subjective norms (SUBJEC), Shoppers' attitudes (ATTITU), and Online Hijab purchase intention (ONLINE). The second theoretical framework was presented by (Dharmesti et al., 2021). The framework studies Attitude, Value Motive, and Purchase Intentions. The third theoretical framework Figure was presented by (Raman, 2019). The theoretical framework presents a study of Trust in Online Shopping, Convenience of Online Shopping, Customer Service offered by Online Shopping, Attitude towards Online Shopping, Subjective

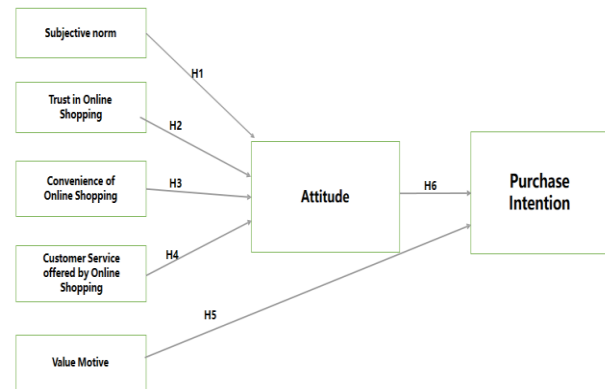Norms, and Intention to Shop Online. The research conceptual framework is proposed as follows: Figure 1.

Figure 1: Conceptual Framework

H1: Subjective norm has a significant impact on attitude.
H2: Trust in online shopping has a significant impact on attitude.
H3: Convenience of online shopping has a significant impact on the attitude.
H4: Customer service offered by online shopping has a significant impact on attitude.
H5: Value motive has a significant impact on purchase intentions.
H6: Attitude has a significant impact on the purchase intentions.

3.2 Research Methodology

In this study, empirical analysis and quantitative methods were adopted. Sample data were collected from the target population by using a questionnaire as a tool. The Item-Objective Consistency Index (IOC) and Cronbach's Alpha were used to test the content validity and reliability prior to data collection. After reliability testing, the questionnaire was distributed online to undergraduate students in five secondary colleges of Zhanjiang University of Science and Technology, China. Respondents must be students inclined to shop online and have experience in online shopping. After collecting the data, the structural equation modeling (SEM) was examined to confirm the factor structure of the relationship among constructs in a conceptual framework, which are Subjective norm, Trust in Online Shopping, Convenience of Online Shopping, Customer Service offered by Online Shopping, Attitude, and Purchase Intention.

Structural equation modeling (SEM) has been explained as "a multivariate statistical method involving the estimation of the parameters of a system of simultaneous equations," and SEM includes regression analysis, path analysis, factor analysis, etc. (Bollen, 1989). The two-step approach to

structural equation modeling (SEM), as proposed by Anderson and Gerbing (1988), was adopted in this study to analyze the sample data. The initial stage of the analysis involved utilizing the SPSS and AMOS software to conduct a Confirmatory Factor Analysis (CFA). This was employed to examine the convergent validity of the model. Subsequently, a Structural Equation Model (SEM) was employed to explore the causal relationships between all of the constructs within the conceptual model. This was done to test the impact's significance and the proposed hypotheses. Williams et al. (2003) argued that the study model describes the process of assumptions as the basis for obtaining values through the sample data, where the assumptions affect the measures of association between the variables in the model. Burnette and Williams (2005) state that structural equation modeling (SEM) is a statistical modeling technique that provides a comprehensive approach to research questions and is becoming increasingly popular in the behavioral sciences.

3.3 Population and Sample Size

The target population of this study was Zhanjiang, five secondary school students at the Institute of Technology, the College of Fine Arts and Design, School of Music and Dance, School of Foreign Languages, School of Economics and Finance, School of Management the students of grade one, two, three, four, 18 and older to be fulfilled at the same time, live in Zhanjiang has a steady source of the cost of living, And have certain online shopping experience and is an undergraduate student of Zhangjiang University of Science and Technology.

This was done to guarantee that all participants were adequately acquainted with online shopping and had gained considerable experience in this domain. Hair et al. (2007) argued that correlation coefficients in multivariate studies are reliable only if the sample size is 100 or more. Gill et al. (2010) argued that in data analysis, the size of the sample size could determine the bias of the data; the larger the sample size, the smaller the bias of the data, and vice versa. According to Soper (2006) SEM a priori sample size calculator, the recommended minimum sample size was 425. A sample size of 425 was calculated with a probability level of 0.5% based on the parameters of 7 latent variables and 26 observed variables. The probability level was 0.05. Therefore, in this study, questionnaires were distributed to 500 respondents, and after screening all the responses to the questionnaires, 425 questionnaires should be eligible to be used in the study.

3.4 Sampling Technique

This study employed a multi-stage sampling technique to extract the sample. This involved the use of three distinct sampling methods: purposive sampling, stratified random sampling, and convenient sampling. Accordingly, the study employed purposive sampling to select five secondary colleges within the Zhanjiang University of Science and Technology, China. Stratified random sampling was utilized to ascertain the sample size for each college or sample stratum, as illustrated in Table 1.

Table 1: Sample Units and Sample Size

Five Main Colleges	Population Size	Proportional Sample Size
College of Fine Arts and Design	2250	104
School of Music and Dance	1100	51
School of Foreign Languages	3000	138
School of Economics and Finance	2500	115
School of management	2000	92
Total	**10850**	**500**

Source: Constructed by author

4. Results and Discussion

4.1 Demographic Information

Demographic information collected from the respondents included gender, age, cost of living, comparison of online and offline shopping, and the safety or otherwise of online shopping. The questionnaire survey was selected among 500 students from five Zhanjiang College of Science and Technology secondary colleges. Respondents included 294 females and 206 males, accounting for 58.8% and 41.2%, respectively. There were 102 aged 18-20 years old, accounting for 20.40%; 197 aged 21-22 years old, accounting for 39.40%; 156 aged 23-24 years old, accounting for 31.20%, and 45 aged above 24, accounting for 9%. There are 24 students whose average monthly living expenses are less than RMB 1,000, accounting for 4.8%, 267 students whose average monthly living expenses are between RMB 1,000-2,000, accounting for 53.4%, and 209 students whose average monthly living expenses are more than RMB, 2,000 accounting for 41.8%. The advantages of online shopping compared with offline, 146 students think it is convenient to buy, accounting for 29.2%; 242 students think there are more products, accounting for 48.4%; 97 students think the price of goods is affordable accounting for 19.4%, and 15 students think they do not know much about it accounting for 3%. 456, or 91.2%, thought online shopping was safe, 32 students, or

6.4% thought online shopping was unsafe, and 12 students, or 2.4% , did not know whether online shopping was safe.

Table 2: Demographic Profile

Demographic and General Data (N=500)		Frequency	Percentage
Gender	Male	206	41.2%
	Female	294	58.8%
age	18-20 years old	102	20.40%
	21-22 years old	197	39.4%
	23-24 years old	156	31.2%
	More than 24 years old	45	9%
average monthly living expenses	Less than 1000 RMB	24	4.8%
	1000-2000 RMB	267	53.4%
	More than 2000 RMB	209	41.8%
Advantages of online shopping	Convenient to buy	146	29.2%
	More commodities	242	48.4%
	Goods at affordable prices	97	19.4%
	Don't know much about it	15	3%
The safety of online shopping	security	456	91.2%
	unsafe	32	6.4%
	Don't know	12	2.4%

4.2 Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis (CFA) represents a fundamental preliminary step in the structural equation modeling (SEM) process (Hair et al., 2010). The reliability and validity of both variables can be evaluated using a Confirmatory Factor Analysis (CFA) (Byrne, 2010). The statistical measurement of convergent validity is achieved through the utilization of several key indicators, including Cronbach's Alpha reliability, factor loading, average variance extracted (AVE), and composite reliability (CR) (Fornell & Larcker, 1981).

Factor loading is the coefficient among a group of constructs (O'Rourke & Hatcher, 2013). The larger the value of factor loading, the higher the reliability of items (Hair et al., 2010). The acceptable threshold of factor loading is 0.5 or higher (Hair et al., 1998). In this study, factor loadings of all individual items were greater than 0.50 and mostly were above 0.70, ranging from 0.571 to 0.894, as presented in Table 3. The reliability of a scale can be assessed using two additional metrics: composite reliability (CR) and average variance extracted (AVE). These indicate the consistency and reliability of the scale items (Peterson & Kim, 2013). By the recommendations set forth by Fornell and Larcker (1981), the values of CR and AVE are considered acceptable at 0.7 or higher for CR and 0.4 or higher for AVE, respectively. The results of CR in this study were all higher than the threshold. Composite reliability values are ranged from 0.719 to 0.909. AVEs were also greater than 0.4, ranging from 0.463 to 0.713.

Cronbach's alpha (CA) represents a statistical test used to ascertain the extent to which items within a construct are internally consistent (Killingsworth et al., 2016). A higher value of Cronbach's alpha indicates greater reliability of the items. Cronbach's alpha value ranges from 0 to 1, with a value of 0.7 to 0.8 indicating an acceptable or good level of reliability. A value between 0.8 and 0.9 is deemed an excellent standard, while a value of 0.9 or above is considered outstanding (Hair et al., 2013). Cronbach's alpha values of all constructs presented in Table 3 were all greater than 0.7. Therefore, the internal consistency of the items was affirmed and reliable for questionnaire distribution.

Table 3: Confirmatory Factor Analysis Result, Composite Reliability (CR) and Average Variance Extracted (AVE)

Variables	Source of Questionnaire (Measurement Indicator)	No. of Item	Cronbach's Alpha	Factors Loading	CR	AVE
Subjective norm (SN)	Sumarliah et al. (2021)	3	0.771	0.623-0.793	0.780	0.544
Trust in Online Shopping (TOS)	Raman (2019)	4	0.772	0.650-0.722	0.775	0.464
Convenience of online shopping (COS)	Raman (2019)	4	0.836	0.659-0.795	0.837	0.564
Customer Service offered by Online Shopping (CSOS)	Raman (2019)	4	0.784	0.662-0.766	0.785	0.479
Attitude (ATT)	Dharmesti et al. (2021)	3	0.710	0.571-0.730	0.719	0.463
Purchase Intention (PI)	Dharmesti et al. (2021)	4	0.908	0.804-0.894	0.909	0.713
Value Motive (VM)	Dharmesti et al. (2021)	4	0.803	0.674-0.731	0.804	0.506

All variables were found to be statistically significant, with the AVE square roots exhibiting a greater value than the factor correlations. Table 4 presents the results of the goodness-of-fit indicators. The statistical values of the indices were CMIN/DF = 1.408, GFI = 0.945, AGFI = 0.931, NFI=0.933, CFI = 0979, TLI = 0.976, and RMSEA = 0.029. The fitness of the structural model is confirmed. All the statistical values derived from the CFA were greater than the acceptable values, thereby substantiating the goodness of fit for the measurement model.

Table 4: Goodness of Fit for Measurement Model

Fit Index	Acceptable Criteria	Statistical Values
CMIN/DF	≤ 5.0 (Wheaton et al., 1977)	391.367/278 or 1.408
GFI	≥ 0.85 (Sica & Ghisi, 2007)	0.945
AGFI	≥ 0.80 (Sica & Ghisi, 2007)	0.931
NFI	≥ 0.80 (Wu & Wang, 2006)	0.933

Fit Index	Acceptable Criteria	Statistical Values
CFI	≥ 0.80 (Bentler, 1990)	0.979
TLI	≥ 0.80 (Sharma et al., 2005)	0.976
RMSEA	< 0.08 (Pedroso et al., 2016)	0.029
Model Summary		Acceptable Model Fit

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, NFI = normalized fit index, CFI = comparative fit index, TLI = Tucker Lewis index, and RMSEA = root mean square error of approximation

The discriminant validity of a construct is confirmed when the square root of the average variance extracted (AVE) is larger than the coefficient of any intercorrelated construct (Fornell & Larcker, 1981). As demonstrated in Table 5, the square root of the average variance extracted (AVE) for all constructs at the diagonal line was greater than the inter-scale correlations. Therefore, Discriminant validity appeared satisfactory.

Table 5: Discriminant Validity

	SN	TOS	COS	CSOS	ATT	PI	VM
SN	0.737						
TOS	0.513	0.681					
COS	0.293	0.228	0.750				
CSOS	0.156	0.222	0.088	0.692			
ATT	0.497	0.551	0.371	0.222	0.680		
PI	0.428	0.579	0.286	0.285	0.558	0.844	
VM	0.434	0.543	0.145	0.216	0.405	0.471	0.711

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

4.3 Structural Equation Model (SEM)

This study employed a structural equation model (SEM) to analyze the collected data. SEM could explore dependent relationships (Hair et al., 2010). Secondly, SEM examined the causal relationships among latent and observed variables. Thirdly, random error in the observed variables was used to provide more accurate measurement results. Fourthly, it used multiple indicators to measure latent variables. Lastly, it could also test hypotheses at the construct level, not only at the item level (Hoyle, 2011). The model fit was evaluated by comparing the statistic value from indices against the acceptable values of goodness-of-fit in Table 6. The statistical values of indices were CMIN/DF = 2.863, GFI = 0.881, AGFI = 0.857, NFI=0.855, CFI = 0.900, TLI = 0.889, and RMSEA = 0.061.

Table 6: Goodness of Fit for Structural Model

Fit Index	Acceptable Criteria	Statistical Values
CMIN/DF	≤ 5.0 (Wheaton et al., 1977)	838.990/293 or 2.863
GFI	≥ 0.85 (Sica & Ghisi, 2007)	0.881
AGFI	≥ 0.80 (Sica & Ghisi, 2007)	0.857
NFI	≥ 0.80 (Wu & Wang, 2006)	0.855
CFI	≥ 0.80 (Bentler, 1990)	0.900
TLI	≥ 0.80 (Sharma et al., 2005)	0.889
RMSEA	< 0.08 (Pedroso et al., 2016)	0.061
Model Summary		Acceptable Model Fit

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, NFI = normalized fit index, CFI = comparative fit index, TLI = Tucker Lewis index, and RMSEA = root mean square error of approximation

4.4 Research Hypothesis Testing Result

The correlation magnitude among the independent and dependent variables proposed in the hypothesis is measured by regression coefficients or standardized path coefficients—table 7 shows that the assumptions are supported. Purchase intention (PI) received a strong influence from attitude towards online Shopping (ATT), followed by trust in online Shopping (TOS) on attitude towards online Shopping (ATT). The attitude was significantly driven by subjective norms, trust in online Shopping, the convenience of online Shopping, and customer service offered by online Shopping, respectively.

Table 7: Hypothesis Results of the Structural Equation Modeling

Hypothesis	(β)	t-value	Result
H1: SN→ATT	0.333	5.583*	Supported
H2: TOS→ATT	0.604	7.698*	Supported
H3: COS→ATT	0.302	5.548*	Supported
H4: CSOS→ATT	0.180	3.472*	Supported
H5: VM→PI	0.238	5.120*	Supported
H6: ATT→PI	0.637	8.614*	Supported

Note: * p<0.05
Source: Created by the author

Attitude has the biggest impact on purchase intention. The standardized path coefficient of the path relationship between attitude and purchase intention in H6 is 0.637, with a t-value of 8.614. This supports the previous studies of Ajzen and Fishbein (1972), Ajzen and Madden (1986), Mbumbwa and Chigada (2018), Siswomihardjo et al. (2019), Charag et al. (2019), and Phau and Teah (2009).

The results indicated that subjective norm significantly impacted attitude, with a standardized path coefficient of 0.333 and a t-value of 5.583(H1). This supports the previous studies of Fishbein and Ajzen (1975), Chang (1998), Shimp and Kavas (1984), Vallerand et al. (1992), Tarkiainen and Sundqvist (2005), Judge et al. (2019), Basha and Lal (2019), Zhao et al. (2019), Cai et al. (2019), Charag et al. (2019),

Garg and Joshi (2018).

The results indicated that trust in online Shopping significantly impacted attitudes, with a standardized path coefficient of 0.604 and a t-value of 7.698 (H2). This supports the previous studies of Seckler et al. (2015), Oghazi et al. (2018), Al-Debei et al. (2015), and Chen et al. (2017).

Another significant factor impacting attitude is the convenience of online Shopping, with a standardized path coefficient of 0.302 and a t-value of 5.548 (H3). Therefore, it is evident that the convenience of online Shopping is a significant factor for students to consider when forming their attitudes toward it. This supports the previous studies of Anesbury et al. (2016), Cho and Sagynov (2015), Tandon et al. (2016), Korgaonkar et al. (2014), Al-Debei et al. (2015), Farhana et al. (2017), Al-Debei et al. (2015), Clemens et al. (2014) and Tingchi Liu et al. (2012).

Customer Service offered by online Shopping has a significant impact on the attitude towards online Shopping; the direct impact of customer service offered by online Shopping on attitudes is significant at a standardized path coefficient of 0.180 and t-value of 3.472 in H4, which is supported by the study of Morganti et al. (2014), Xu et al. (2015), Slabinac (2015), Janakiraman et al. (2016), Pei et al. (2014) and Minnema et al. (2018), The better the Customer Service offered by online Shopping is perceived to be, the greater the likelihood of positive interest in online Shopping.

Value motive has a significant impact on purchase intention. The direct impact of value motive on purchase intention is significant at a standardized path coefficient of 0.238 and a t-value of 5.120 in H5. Individuals possess distinctive values and attributes, including a proclivity for acceptance and self-regulation. These characteristics shape their value motivations, influencing their behavioral intention to shop online (Lissitsa & Kol, 2016; Parks & Guay, 2009; Shukla, 2012).

5. Conclusion and Recommendation

5.1 Conclusion and Discussion

The purpose of this study is to comprehensively analyze the important factors that influence online shopping intention among college students in Zhanjiang, China. The researcher proposed six hypotheses in the conceptual framework to explore the factors influencing shopping intention. After developing the questionnaire and verifying its reliability, the researcher distributed it via the Internet to undergraduate students from five secondary colleges of Zhanjiang University of Science and Technology, China, who have experience in online shopping. Based on the collected data,

the CFA method was used to measure and test the validity and reliability of the research conceptual model. In addition, the SEM method was used to analyze and discuss the factors influencing students' intention to shop online. Of the six hypotheses formulated, all of them were supported and proved to be able to achieve the research objectives.

The findings of this research can be summarized as follows:

Attitude was the strongest predictor of students' purchase intention compared to value motivation. Phau and Teah (2009) proposed accordingly that the attitude of online shoppers regulates their purchase intention, and their satisfaction with the products during shopping may influence them to buy the same products again in the future and form the habit of using the products. Moreover, students' attitudes towards online shopping are largely influenced by TRUST in online shopping. Therefore, creating awareness of trust in online shopping and its advantages is essential to motivate shopping intention.

Secondly, the antecedents were ranked in terms of subjective norm, convenience of online shopping, and value motivation, contributing significantly to purchase intention. The concept of subjective norm has been identified as a significant factor influencing purchase intention. Slade et al. (2015) attempt to define subjective norms as consumers who are influenced by important reference factors such as friends, colleagues, families, and online forums and can feel the influence of these factors on these consumers. Psychological research has proven subjective norms to be the key factor in determining consumers' behavior intentions (Joshi & Rahman, 2015; Montano & Kasprzyk, 2015).

5.2 Recommendation

The researchers identified the subjective norm (SN), trust in online shopping (TOS), convenience of online shopping (COS), customer service offered by online shopping (CSOS), attitude (ATT), and value motive (VM) impacting Purchase Intention (PI) are the key factors of online shopping among college students at Zhanjiang University of Science and Technology, China. The above key factors should be developed and promoted to obtain the willingness of college students to buy online in Chinese colleges and universities. In this study, attitude was the strongest predictor of students' purchase intention to shop online. It is, therefore, important to emphasize the effectiveness of promoting this factor. This means that college students are willing to shop online if they perceive that online merchants have good integrity and offer easy and quick return and exchange policies and excellent customer service as a useful strategy to boost their enthusiasm for purchasing. Top managers of online shopping

merchants, customer service departments, courier operations, logistics companies, etc. It should ensure subjective norms, trust in online shopping, convenience of online shopping, customer service provided by online shopping, attitudes, and value-motivated attributes. Some traditional companies need help achieving significant results in today's marketplace using traditional marketing tools. They need to introduce new thinking and methods to open up sales channels. Online shopping offers a good opportunity and platform for today's traditional companies. By using third-party platforms and building their platforms, traditional enterprises can build reasonable online shopping platforms, integrate channels, and improve the industrial layout to become the focus and way out for the future development of traditional enterprises. The characteristics of online marketing should be technical, convenient, service-oriented, and flexible. Its characteristics should include high-quality technical support, so sufficient training should be carried out to improve the service level of e-commerce technicians and service managers, solve the problem of college students' online shopping more reasonably and efficiently, and increase the acceptance of students' online shopping intentions. Once the technical and service quality features have been ensured, the advantages of trust, attitude, and convenience that online purchasing can bring should be promoted to students to increase their awareness and recognition. These can stimulate or increase positive attitudes toward online purchasing and the likelihood of making online purchases in their future lives.

In summary, this study explains in detail the factors affecting the online purchase intention of college students in Zhanjiang, China, and provides the variables affecting the online purchase intention of college students for online shopping merchants and college administrators, which, on the one hand, can enable merchants to understand the needs of college students and better manage the online shopping platform, On the other hand, it can provide college administrators with a better understanding of students' economy, consumption level, and motivation, and put forward reasonable suggestions and methods for college students online shopping consumption.

5.3 Limitation and Further Study

Firstly, the study was conducted at Zhanjiang University of Science and Technology for data collection, so the scope and sample size were limited. Second, the determinants influencing students' online shopping may change over time, so this study may only apply to a specific period. Thirdly, the conceptual framework may cover only some relevant variables and factors of online shopping. Further research may include students from other colleges and universities to join the respondents to understand their perceptions of online shopping intentions. In future studies, researchers could use

experimental methods to control for other variables that may confound causality, such as defining a specific quality factor to observe this independent variable's effect on the dependent purchase intention variable. In addition, qualitative research could be added to understand university students' purchase intentions better.

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