

What makes people revisit e-commerce platform? A case study on Pinduoduo platform in China

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ABSTRACT

In recent years, China's e-commerce market has been growing very fast with many new platform companies are in fierce competition. However, there is not much research done previously which attempted to identify factors that contribute to the platform success in China. In view of this apparent shortage in the literature, this study aims to take a case approach to verify whether the characteristics of the Pinduoduo platform affect the platform attitude to enhance customers' revisit intention. With a view to confirming internal and external stimuli, this study adopted product satisfaction and social network services (SNS) utilization as mediator and moderator variables respectively. For this purpose, this study conducted an online survey on consumers who have purchase products from Pinduoduo platform in China. 253 questionnaires were used for analysis. The results of the study confirmed that both perceived price discounts and platform recognition have significantly affected platform attitude. In addition, the platform attitude had a significant impact on product satisfaction. Finally, SNS utilization played a significant moderating role in the relationship between platform attitude and revisit intention.

Keywords: Perceived price discount, Perceived scarcity, Platform awareness, Product satisfaction, Platform attitude, Reuse intention, SNS utilization

1. INTRODUCTION

With the rapid increase in the Internet users in China, e-commerce began to grow rapidly. According to the 47th Internet Development Statistics Report released by China Internet Network Information Center (CNNIC), the size of Chinese netizens was 989 million and the Internet penetration rate was 70.4 percent by December 2020. In addition, the number of Internet shoppers in China stood at 782 million, 79.1 percent of all netizens. In addition to the world's leading e-commerce platforms such as Taobao and Jingdong, many new e-commerce platforms have emerged. Since 2010, there has

been a rush in China for co-purchasing social commerce startups such as ZhuHuaXuan, DaZhongDianPin, Pinduoduo, NuoMiWang, and Meituan. The Pinduoduo Platform was established in April 2015 and was a huge success in a short span of time. In December 2018, Pinduoduo's new first-quarter transactions increased 586 percent and its revenue increased by 697 percent, securing 385.5 million users per year, becoming China's second-largest e-commerce platform, surpassing Jingdong's 352 million users. On June 11, 2019, it was named by Forbes China's Most Innovative Company. Currently, Pinduoduo Platform is China's No. 1 co-purchase platform. Currently, Pinduoduo platform has a near monopoly in China's co-purchase social commerce market with 780 million users. Therefore, a research that identifies management strategic success factors from a consumer's perspective is highly valuable. In particular, Pinduoduo was chosen for this study since it, compared with other comparable platforms receives distinct consumer recognition for its competitive strengths such as price competitiveness and group purchase feature. In addition, it is important to understand a conceptual mechanism that affects consumers' attitudes on collective purchase platform like Pinduoduo with the purpose of identifying the salient factors that impact the behavioral responses in a case approach.

In this study, we aim to verify the relationship between the characteristics of the Pinduoduo platform, platform attitude, product satisfaction, and reuse intention through an empirical research. Specifically, the purpose of this study is as follows. First, the study examines whether the characteristics of the Pinduoduo platform such as perceived price discount, perceived scarcity, and platform awareness have significant influence on attitudes toward the platform. Second, the study investigates whether the attitude toward the Pinduoduo platform impacts the satisfaction level of products sold on the platform. Third, the study finds out whether the reuse intention of the platform is affected by the attitude toward Pinduoduo platform. Finally, the study verifies the role of utilization level as a moderator between platform attitude and reuse intention. This study is significant in that it presents not only practical implications for the future directions of e-commerce industry in China but also theoretical implications to supplement existing literature on the consumers' decision making mechanism. In addition, the existing literature mainly focused on studies on the early stages of China's co-purchase platforms, and this study provides a more comprehensive framework compared to previous studies by investigating consumers' use of SNS as one of important personal characteristics and further introducing product satisfaction as an additional determinant.

2. LITERATURE REVIEW

2.1 Perceived price discount

Perceived price discount refers to the perceived short-term reduction in regular sales price that can boost purchases when using social commerce [1]. Previous studies on price discounts on the web have been conducted mainly in conjunction with variables such as the price discount rate, price discount, price discount method, price sensitivity, and price awareness [2]. <Table 1>below introduces the preceding literature which investigated the role of perception of price discounts on purchase decisions.

Table 1. Existing Studies on Price Discount

terature	Research type	Independent variable	Dependent variable	Research results
[2]	Survey (AMOS)	Interaction, order processing, Convenience, Satisfaction, Price, Positive feelings, attitudes	Site revisit, Intention	Among Online shopping attributes, price has a significant impact on user satisfaction.
	Survey & experimental study	Purchase ratio, priceDiscount ratio, Direction of comments	Product attitude, Intent to purchase	The effect of the price discount rate is significant, and the higher the discount rate, the higher the intention to purchase.
	Survey & 3-way ANOVA	Price discount rate, Social commerce. Beauty product type, Regulatory focus	Intent to purchase, Preference	The price discount rate significantly affects the intention to purchase and preference, and the intention of purchase increases when the price discount rate is high.
	Survey	Proce discount, Annual fee, Membership, Perceived trust Affection	Intent to buy luxury goods	In the case of online luxury goods, the higher the price discount, the lower the consumer's credibility, and the less significant the purchase intention is.
	Survey & Experimental Stimulation (price discount width)	Discount depth, Discount presentation method, Time limited message.	Perceived value, Intent to purchase	Consumers are more aware of discount information when presented at '%' rather than currency.

2.2 Perceived scarcity

The concept of scarcity refers to the extent to which people perceive that the supply of goods is limited due to a decrease in supply or an increase in demand, thus limiting the possibility of possessing goods [3]. Luo and Park. [1] defined perceived scarcity pressures as psychological pressures that consumers perceive on quantity-limited and time-limited messages presented in co-purchasing social commerce situations.

In addition, related prior studies showed that the pressure of scarcity messages has a positive (+) effect on impulse purchasing propensity. Zhang et al. [2] reported that scarcity has a positive impact on perceived value in terms of perceived product value and attitude changes in the event of web-based price discounts. Hwang and Han. [4] found that the effect of sports brand collaboration types on brand attitude varies depending on scarcity messages.

2.3 Platform awareness

Percy and Rossiter. [5] defined brand awareness as the consumer's ability to identify a brand under different conditions and related to the strength of the brand intersections in consumer's memory system. Aker. [6] established brand awareness in the 1990s as a concept that directly or indirectly reflects the consumer's understanding, recognition, degree of understanding, and deeper needs and values of the consumer. Kim. [7] defined brand awareness as "the ability of consumers to retrieve certain brands from their memory devices" in a study on brand awareness and the impact of brand image on brand attitudes.

In a platform study, Kim et al. [8] studied online used goods trading platforms to find relationships among platform recognition, perceived risk of used sports products, price benefits and purchase intentions. As a result, the brand recognition of online platforms was found to have a positive impact on consumers' intention to purchase used goods through the platform. And similarly Kim. [9] in a study on online shopping malls confirmed the effect of brand recognition on the purchase attitude of products as well as brand reliability.

2.4 Platform attitude

In an economic sense, a platform is defined as a means of intermediation for economic entities acting as an intermediary in the market. These platforms are mostly based on an extended network that can connect services, technologies, and real-life relationships in conjunction with Internet technologies, thus the platform is a very effective business strategy in the era of social media, and it is emerging as an indispensable key factor for companies to consider [10]. Platform attitude can be understood as the degree of favorable, unfavorable, positive or negative feelings that individuals feel about platforms that provide specific services [11].

Lee, Chun, & Kim. [12] studied the impact of sports O2O platform service quality on platform attitude, satisfaction, and behavior, and found that among the service quality factors of sports O2O platforms, information, design, safety and transaction are the

most important. Lee. [13] also suggested that there is a significant interaction between the attitude of consumers toward the platform and behavioral intention of the consumers. Gong, Yu, & Kim. [14] found that physical and functional risks of accommodation sharing platforms have a negative impact on platform attitudes.

2.5 SNS utilization

Social Network Service (SNS) is an online networking service that allows users to share useful information and manage networking by forming a human network [15]. Use of SNS can be divided into active and passive participation. Active participation mainly includes posting, sharing, tagging, comments, and passive participation mainly includes functions such as lurking, reading, viewing and searching [16]. WeChat and other social media that are used in China have four main functions of click on likes, comments, retweets, uploads.

In a study on university class satisfaction using SNS, Lee. [17] found the highest utilization and satisfaction came from sharing materials such as providing lecture materials and submitting online tasks. In another study on the impact of using SNS Facebook on trade marketing, Cho. [18] argued that the use of SNS Facebook has a significant impact on related information, reliability, and platform satisfaction. Further, Seo and Hwang. [19] found that use of Instagram contributes to brand loyalty through interaction between brands and consumers.

3. METHOD

3.1 Research model

Existing research on co-purchase behavior were mostly conducted using Chinese platforms. Studies on co-purchase in China have mainly focused on trust mechanism, values, service features, and platform characteristics [e.g., 1, 20]. What can be inferred from this is that the existing literature mainly focused on studies on the early stages of China's co-purchase platforms, and this study found the need for a more comprehensive framework compared to previous studies by investigating consumers' use of SNS as one of important personal characteristics and further setting product satisfaction as an additional determinant. In this study, we aim to empirically verify the structural causal relationships among the characteristics of the Pinduoduo platform, attitude toward the platform, product satisfaction, and the reuse intention through. It also seeks to confirm whether SNS utilization for the platform has a moderating influence between attitude and reuse intention. Based on the theoretical background, the conceptual framework of this study is shown in [Figure 1].

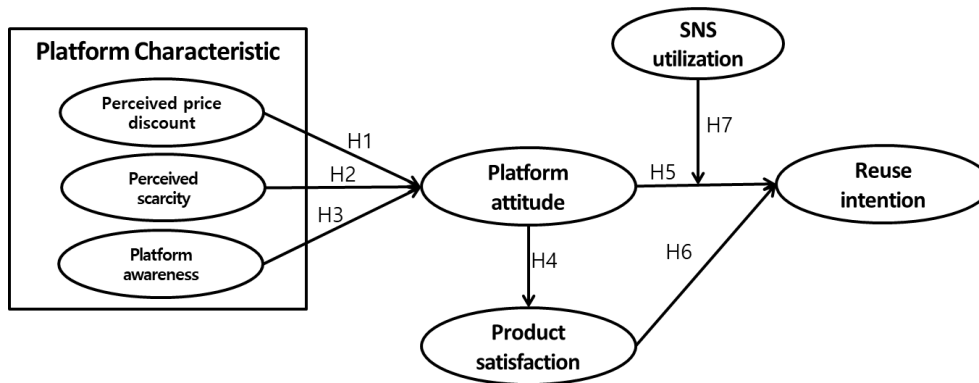


Figure 1. Research Model.

3.2 Hypothesis Development

Kim and Kim. [21] conducted a study on the effects of the type of value specific to the purchase behavior of consumers and the type of price discount on the attitude of products. The result showed that product attitudes are determined interactively depending on the type of value and the type of price discount. Zhang et al. [2] further explored perceived product values and attitude changes are determined by web-based price discounts and scarcity. They found that the higher the intensity of discount information presentation, the stronger the consumer's intention to purchase, and its effect was stronger when presented with the scarcity of products offered. Price discounts have been widely used by many of the co-purchasing social commerce companies in the past to attract consumers. Pinduodou platform as China's leading co-purchasing social commerce platform, the price discount to attract consumers is an important feature. In the case of China's co-purchasing social commerce, the products sold are mainly general fashion products and daily necessities, so price discounts provide economic benefits to consumers seeking product values, which will have a immediate impact on their intention to purchase [1].

Hwang and Han. [4] studied the effects of sports brand collaboration types on brand attitudes. to find that the effect varies depending on scarcity messages. Hwang et al. [22] also found that the scarcity of products information promotes consumer attitude and purchasing intentions because it creates positive feelings for consumers. In addition, the effectiveness of consumer attitudes contingent upon the type of scarcity message varies depending on the level of self-monitoring.

Brand recognition refers to the intensity of awareness of a particular brand that exists in the minds of customers [23]. Kim et al. [8] showed that the brand recognition of online second handed trading platforms has a positive impact on consumers' intention to purchase used goods through the platform. Kim. [9] similarly argued that brand recognition of the Internet shopping mall has a very big impact on perceived brand reliability. Cho. [24] also found that brand awareness had a significant impact on brand attitude of retail franchisors.

To sum up the results of the previous studies, the price discount, scarcity message, and

platform recognition introduced as characteristics of the Pinduoduo platform will increase users' attitude towards the platform. Accordingly, the following research hypotheses are proposed.

H1: Perceived price discounts will have a significant positive (+) effect on platform attitude.

H2: Perceived scarcity will have a significant positive (+) effect on platform attitude.

H3: Platform awareness will have a significant positive (+) effect on platform attitude.

Zheng. [25] studied the effects of self-beauty videos and perceptions of beauty influencer on brand satisfaction, brand attitude, and WOM intention and found that consumers can acquire on-time satisfaction through watching self-beauty videos on the platform sites to form a positive product attitudes. Using the concept of trust transfer, Choe et al. [26] explained that consumers' attitudes and trust toward shopping malls have a positive (+) impact on satisfaction with the products offered there. Park et al. [27] similarly argued that consumers' attitudes toward green products' properties and their attitudes toward shopping malls have a positive impact on customers' perceived product quality and satisfaction.

To sum up the results of the previous research reviewed above, positive attitude toward platform selling certain products can be transferred to satisfaction with products that are provided on the platform. Accordingly, the following research hypothesis is proposed.

H4: Platform attitude will have a significant positive (+) effect on product satisfaction.

Many previous studies have confirmed positive relationships among brand attitude, product satisfaction, and reuse intention. For instance, Lee et al. [28] investigated the impact of reuse intentions on retailers in their study on causal models between perceived service quality, consumer's brand attitude and reuse intention. They found that the more positive the attitude towards the retailers in patronage, the higher the intention to reuse them. On a similar note, Jung. [29] argued that a platform's brand attitude has a positive impact on reuse intentions in his study of O2O commerce's reuse intentions. Further, Kim and Cho. [30] studied the impact of domestic airline service quality on brand attitude and reuse intentions. The result confirmed that airline brand attitudes have a significant effect on reuse intentions. In other words, good brand attitude means higher reuse intentions.

Many of previous studies also confirmed the relationship between product satisfaction and reuse intention, For instance, Hwang. [31] showed that consumers' product satisfaction has a positive (+) impact on reuse intention of Vietnamese online shopping mall. Also, Lee. [32] conducted a study on the determinants of customer satisfaction and reuse intentions in high-speed Internet services. The results showed that customer

satisfaction of products in high-speed Internet services has a positive (+) effect on reuse intentions.

The results of the above previous studies suggest that the users' attitude towards the platform and satisfaction with the products provided on the platform will have a positive effect on the platform reuse intention, leading to the following research hypothesis.

H5: Platform attitude will have a significant positive (+) effect on reuse intention.

H6: Product satisfaction will have a significant positive impact on reuse intention.

It is not difficult to find previous research where social media changes the relationship between consumers' attitude and their future behavior. For instance, it was found that online fashion shopping mall CEO's use of SNS had changed the users' shopping mall's shopping mall with corresponding increase in revisit intention [33]. Park. [34] found that the relationship between usefulness/information provision of app characteristics and repurchase intentions was adjusted according to the magnitude of SNS utilization. Wang & Lee. [35] contended that two participant groups with high SNS utilization and low SNS usage have yielded significant differently impact on their fashion product attitudes and repurchase intention. Groups with high SNS utilization had a stronger impact than those with low SNS utilization, and the higher SNS utilization, the greater the impact.

Based on the previous results reviewed so far, SNS utilization can be predicted to control the relationship between platform users' attitude toward the platform and reuse intentions. Thus, the following hypothesis is proposed.

H7: SNS utilization will significantly affect the relationship in which platform attitude affects reuse intention.

3.3 Research Design and Measurements

Based on prior research, this study modified and supplemented the previously validated concepts to fit them with the current research purpose. The operational definitions of each variable are shown in <Table 2> below.

Table 2. Operational definition of Variables

Variables	Definition	Sources
Perceived price discount	On the Pinduoduo platform, sellers discount prices by a certain percentage from regular prices to allow consumers to buy more products, which is defined as a perceived price discount.	[1]
Perceived scarcity	It is defined as perceived psychological pressure on consumers to emphasize shortage of products on the Pinduoduo platform.	[1]
Platform awareness	It refers to consumers' ability to recall and recognize relevant information from their memory about the Pinduoduo platform.	[e.g., 7, 8]
Product satisfaction	Product satisfaction defines the overall satisfaction level of the products on a Pinduoduo platform.	[36]
Platform attitude	It refers to the degree to which individuals feel favorably/unfavorably, positively/negatively about the Pinduoduo platform.	[12]
Reuse intention	It refers to the extent to which consumers have a plan or intention to reuse the platform.	[37]
SNS utilization	The extent to which consumers use features such as reading, viewing, communicating, and publishing online information about the Pinduoduo platform.	[35]

The questionnaire to be used in this study was first completed in Korean, then translated into Chinese by four Chinese doctoral students who are fluent in Chinese and Korean. Each item of the questionnaire was measured on a five-point Likert scale (1=Strongly disagree, 2=Somewhat disagree, 3=Neutral, 4=Somewhat agree, 5=Strongly agree).

From October 29 to November 16, 2020, the researcher conducted an online survey of consumers on Pinduoduo platform usage through the convenience sampling method. This study distributed a total of 424 questionnaires, out of which 397 were recovered, and a total of 253 questionnaires were finally used for analysis, after removing questionnaires that were partially answered or answered in a random manner. The low salvage rate may be due to the voluntary nature of online survey lacking monetary incentive for participation. The number of samples required to achieve the purpose of this study was calculated using the G*power program 3.1.9.7. developed by Faul et al., 2007)[38]. As the result of calculating the effect size of .15, the significance level of .05, the power of .90, and five predictors with reference to previous studies, the minimum sample size required was 138. Thus, this result confirmed the appropriateness of sample size used for the study.

The study conducted statistical analysis using IBM SPSS Statistics 22 for data refinement and hypothesis verification of the study. <Table 3> shows actual questionnaire items used for the survey.

Table 3. Questionnaire Items

Variables	Questions	Sources
Perceived price discount	Price discount rate is high for products/services sold on Pinduoduo platform.	[1]
	Because Pinduoduo platform mainly sells products at discounted prices, it is economical in terms of price.	
Perceived scarcity	If you use the Pinduoduo platform, you can buy things very cheaply.	[e.g., 1, 39]
	Pinduoduo platform is a platform that has low product price.	
	Looking at time-limited information on the Pinduoduo platform makes me feel psychological pressure.	
	When I see the time limit information, I think I should buy it quickly.	
Platform awareness	I'm afraid I won't be able to buy what I want if I see time-limited information in "Cut the Price."	[e.g., 7, 8]
	I know about the Pinduoduo brand.	
	I can easily remember the Pinduoduo brand.	
	I can easily recall the logo or symbol of the brand Pinduoduo.	
Product satisfaction	I can easily come up with some characteristics of the brand Pinduoduo.	[36]
	I'm interested in the products sold on the Pinduoduo platform.	
	I like the products sold on the Pinduoduo platform.	
	I believe in the products sold on the Pinduoduo platform.	
Platform attitude	I think it will be useful to buy products on the Pinduoduo platform.	[12]
	I think the Pinduoduo platform is good.	
	I think the Pinduoduo platform is pleasant.	
	I trust the Pinduoduo platform	
Reuse intention	I think the Pinduoduo platform is familiar.	[e.g., 37, 40]
	I think the Pinduoduo platform is worthwhile.	
	I'll use the Pinduoduo platform again next time.	
	I'll recommend the Pinduoduo platform to someone else.	
SNS utilization	I believe that the use of the Pinduoduo platform will increase.	[1]
	Participation in online information on Pinduoduo platform is also high on SNS.	
	I deliver information about Pinduoduo platforms through SNS that is interested in them.	
	I frequently post information about Pinduoduo platform on SNS.	
	I want to act on the information I get about Pinduoduo platform through SNS.	

4. RESEARCH ANALYSIS

4.1 Characteristics of the sample

The result of the frequency analysis to explore the demographic characteristics of the 253 participants in this study is shown in <Table 4> below.

Table 4. Demographic Characteristics of the Sample

category		Frequency	%	category		Frequency	%
Gender	male	109	43.1		student	114	45.1
	female	144	56.9		teacher	42	16.6
Age	~20	59	23.3	Occupation	office worker	33	13.0
	21~30	114	45.1		civil servant	24	9.5
	31~40	69	27.3		self-employed	16	6.3
	41~50	9	3.6		freelance	20	7.9
	above 50	2	0.8		others	4	1.6
Monthly Income (RMB)	below 2,500 Yuan	106	41.9	Education	below high school	8	3.2
	2,500~4,000 Yuan	36	14.2		high school	11	4.3
	4,000~6,000 Yuan	35	13.8		university	171	67.6
	6,000~8,000 Yuan	37	14.6		graduate school	63	24.9
	above 8,000 Yuan	39	15.4	Total		253	100.0

4.2 Reliability and Validity of Measures

In this study, a factor analysis was conducted to verify reliability and validity of the configured parameters and the result is shown in <Table 5> and <Table 6>. Two invalid items for measurement variables were eliminated according to factor analysis for independent variables. The analysis result showed that the KMO value was 0.926. Factor analysis of parameters, dependent variables and moderating variables resulted in eliminating three invalid items for measurement variables. The analysis result showed that the KMO value was 0.952. Since the factor loading values for each factor were greater than or equal to 0.5, it can be considered that the construct validity is established. For the study, reliability test was performed on factors based on Cronbach alpha scores. Scale's reliability was established because the Cronbach alpha scores are 0.6 or higher for all factors (Noh, 2015).[41]

Table 5. Result of Reliability and Validity Test I

Variables	Items	Factor loading			Communality
		1	2	3	
Perceived price discount	PPD3	0.796			0.713
	PPD1	0.776			0.707
	PPD2	0.664			0.724
	PPD4	0.581			0.615
Platform awareness	PA4		0.828		0.729
	PA3		0.756		0.690
	PA1		0.649		0.699
Perceived scarcity	PS1			0.883	0.856
	PS3			0.629	0.656
Eigen Value		2.461	2.261	1.668	
Explained Variance(%)		27.343	25.120	18.530	
Cumulative Variance(%)		27.343	52.463	70.993	
Cronbach's Alpha		0.831	0.675	0.778	
KMO		0.926		Sig.	0.000

Table 6. Result of Reliability and Validity Test II

Variables	Items	Factor loading				Communality
		1	2	3	4	
SNS utilization	SNS4	0.828				0.801
	SNS3	0.764				0.826
	SNS1	0.762				0.783
	SNS2	0.754				0.749
Reuse intention	RI1		0.855			0.842
	RI3		0.746			0.786
	RI2		0.611			0.806
Product satisfaction	PSa3			0.794		0.821
	PSa2			0.633		0.831
	PSa4			0.618		0.812
Platform attitude	PAt2				0.851	0.883
	PAt5				0.579	0.746
	PAt1				0.505	0.723
Eigen Value		3.405	2.546	2.419	2.042	
Explained Variance(%)		26.190	19.585	18.607	15.711	
Cumulative Variance(%)		26.190	45.774	64.381	80.092	
Cronbach's Alpha		0.898	0.862	0.890	0.847	
KMO		0.952			Sig.	0.000

4.3 Correlation Analysis

The correlations among the extracted factors were analyzed as shown in <Table 7>. The analysis shows that the correlation coefficients between all factors yield significant scores and are consistent with the relationships between the factors presented in the study hypotheses in terms of directionality.

Table 7. Inter-Construct Correlation Matrix

	Perceived price discount	Perceived scarcity	Platform awareness	Platform attitude	Product satisfaction	Reuse intention	SNS utilization
Perceived price discount	1						
Perceived scarcity	.684**	1					
Platform awareness	.694**	.586**	1				
Platform attitude	.676**	.539**	.722**	1			
Product satisfaction	.636**	.545**	.666**	.800**	1		
Reuse intention	.626**	.491**	.596**	.775**	.765**	1	
SNS utilization	.636**	.562**	.592**	.698**	.752**	.636**	1

4.4 Multiple Regression Analysis

This study performed multiple regression analyses to verify the causal relationships and moderating relationship. The results of hypotheses tests are shown in <Table 8>.

First, multiple regression analyses were performed to verify the effect of the Pinduoduo platform characteristics on platform attitudes. The analysis found that the explanatory power of the regression model was 58.2%, and the regression model was statistically significant ($F=115.337$, $p<0.01$). Price Discount ($\beta=.350$, $t=4.866$, $p=.000$), platform awareness ($\beta=.524$, $t=8.218$, $p=.000$) had a significant impact, whereas perceived scarcity ($\beta=.039$, $t=0.749$, $p=.455$) showed insignificant effect ($p>0.05$).

Next, a simple regression analysis was performed to verify the effect of the Pinduoduo platform attitude on product satisfaction. The analysis demonstrates that the explanatory power of the regression model was 64.0%, and the regression analysis was statistically significant ($F=445.360$, $p<0.01$). Platform attitude ($\beta=.901$, $t=21.104$, $p=.000$) was found to have a significant effect ($p<0.05$).

Next, a simple regression analysis was conducted to verify the effect of Pinduoduo platform attitude and product satisfaction on reuse intentions. The analysis found that

the explanatory power of the regression model was 65.9%, and the regression model was statistically significant ($F=241.052$, $p<0.01$). Platform attitude ($\beta=.513$, $t=7.362$, $p=.000$), product satisfaction ($\beta=.404$, $t=6.532$, $p=.000$) were found to have a significant effect ($p<0.05$).

Finally, multiple regression analysis was conducted to determine the moderating effect of personal characteristics between platform attitude and platform reuse intention. First, the platform attitude was introduced into Model 1, followed by SNS utilization into Model 2, and lastly, hierarchical regression was performed by introducing platform attitude and SNS utilization variables into Model 3, with the result showing R^2 increased to 60.0%, Model 2 to 61.8%, and Model 3 to 62.9%. Finally, platform attitude*SNS utilization regression coefficient, which is the interactive term obtained in Step 3, showing $t=-2.677$, $p=.008$ indicating statistical significance of the moderating term, so it can be determined that it has an moderation effect ($p<0.05$).

Table 8. Result of Hypotheses Tests

Model		Unstandardized Coefficients		Standard ized Coefficients	t	p	F	R^2
		B	Std. error	Beta				
H1	Perceived discount → Platform attitude	0.350	0.072	0.315	4.866	0.000		
H2	Perceived scarcity → Platform attitude	0.039	0.053	0.043	0.749	0.455	115.337**	0.582
H3	Platform awareness → Platform attitude	0.524	0.064	0.479	8.218	0.000		
H4	Platform attitude → Platform satisfaction	0.901	0.043	0.800	21.104	0.000	445.360	0.640
H5	Platform attitude → Reuse intention	0.513	0.070	0.453	7.362	0.000	241.052	0.659
H6	Platform satisfaction → Reuse intention	0.404	0.062	0.402	6.532	0.000		
H7	SNS utilization ↓ Platform att → Reuse Int	-0.129	0.048	-0.771	-2.677	0.008	140.478	0.629

5. CONCLUSION

5.1 Summary of Study Results

In this study, the causal relationship between platform characteristics, platform attitude, product satisfaction, and reuse intention was verified on users of Pinduoduo platform. From October 29 to November 16, 2020, the researcher conducted an online survey of Chinese consumers who have previously used the Pinduoduo platform through the

convenience sampling method. 397 questionnaires were retrieved and a total of 253 questionnaires were finally used for analysis. The result of hypotheses testing revealed that all of the research hypotheses were supported except for H2 which proposed the effects of platform scarcity on platform attitude.

5.2 Discussion

Overall, the most significant finding of this study is that perceived price discounts, perceived scarcity, and platform awareness which constitute platform characteristics of Pinduoduo demonstrated different influences on attitude toward the platform. This means that the influence on attitude varies depending on how people perceive as the major characteristics of the Pinduoduo platform. This finding draws attention to developing more comprehensive set of antecedent factors that can address the holistic aspects of platform attributes. For instance, out of the three platform characteristics, platform awareness showed the biggest impact on platform attitude. This result finds support from the previous literature. For instance, Kim et al. [8] investigated online used goods platforms for the effects of platform recognition, perceived risk of used sports products, price benefits on purchase intentions. They found that brand recognition of online platforms showed the biggest positive impact on consumers' intention to purchase. Similarly, Kim [9] in a study on online shopping malls confirmed the effect of brand recognition on the purchase intention of products.

5.3 Theoretical Implications

The finding that perceived scarcity messages did not have significant effect on platform attitude raises the concern over the adequacy of employing perceived scarcity as a valid measure of platform attribute. It is possible that users of Pinduoduo platform are fully aware of the time pressure or quantity pressure such that they do consider such feature as something built in as a default feature, not as a purchase motivator. In this respect, future studies need to find more about how much platform customers consider such tactics as a viable measure. Future research may need to expand on this variable by adopting more refined approach to measuring the impact of perceived scarcity on revisit intention. One way to achieve this would be to conduct an experimentation where researchers manipulate the purchase situation where shoppers have to decide on purchase on a time-deprived manner. In other words, researcher could create a buying situation where customers are pressured into purchase decision by installing "limited time" option in the experimental design. This way, respondents will be give more realistic decision making, which will help researchers arrive at more accurate judgment on the outcome of time pressured decision.

Finally, the role of platform as proven in this study suggests the importance of expanding the focus to include other areas of brand building parameters such as brand image, brand reputation, or perceive product quality so that future studies can capture the specific effects of brand equity elements.

5.4 Practical Implications

As for practical implication, the following points may be taken into consideration. This finding on the scarcity perception as an ineffective source of platform attitude raises some practical implication as to not relying too much on fear tactics (i.e., time pressure as well as quantity pressure), which might have an adverse effect on turning current customers into loyal customers.

Another useful implication is that the brand recognition of the Pinduoduo platform proved to be an important influence on consumers' attitude toward Pinduoduo platform. For this, Pinduoduo needs to strengthen information delivery on the strong merit of perceived price discount on their products. However, some caution needs to be taken in that price discounts can give out the impression that may undermine the overall quality of the products offered there. Therefore, it is necessary to strengthen the post-purchase customer relationship that guarantees the quality of the products while maintaining low prices to prevent it from being a source of avoidance.

5.5 Limitations and Recommendations

As with many other research plans, this study is limited in generalizing the results because the sampling was confined to the current users of Pinduoduo platform without regard to the length of patronage. To avoid the bias arising from this, future research needs to segment the customers into subgroups based on the patronage duration. Second, the Pinduoduo platform has been widely recognized for providing products of high monetary value. But with the rapid increase in the social awareness among the contemporary consumers, future research on the platforms needs to consider social as well as economic value as a viable measure of platform evaluations. For instance, future studies may incorporate variables such as corporate social responsibility, sustainable management, or ethical management practices.

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