

The Relationship Between Precision Marketing Characteristics and Precision Marketing Strategies Affect Consumer Purchase Intention: An Exploratory Study on Taobao Users

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Received : 31/08/2024

Revised : 21/10/2024

Accepted : 14/11/2024

Abstract

This study investigated the relationship between precision marketing characteristics, precision marketing strategies, and consumer purchase intentions, focusing on Taobao users. The research employed a mixed-method approach, using 20 in-depth interview samples for qualitative analysis and 304 samples for quantitative research. The interview results revealed key precision marketing strategies such as dynamic pricing, personalized product recommendations, and targeted promotions, which significantly influenced consumer purchase behaviors. Furthermore, the quantitative analysis explored how factors such as immediacy, targeted ness, and interactivity impacted purchasing behavior. The findings showed significant positive correlations between precision marketing strategies, precision marketing characteristics, and consumer purchase intentions, with demographic factors like age, gender, education, occupation, and income playing a critical role. This study contributes academically by providing empirical evidence to enrich the understanding of precision marketing's impact, and offers actionable recommendations for companies to design personalized marketing campaigns that enhance consumer engagement, loyalty, and sales in a competitive digital landscape.

Keywords: Precision Marketing, Consumer Purchase Intention, Taobao

Introduction

With the rapid development of technology, modern marketing strategies have undergone profound changes, among which precision marketing has become a key component. With the help of advanced data analysis tools and algorithms, companies now have unprecedented opportunities to target consumers accurately, predict demand, and develop customized marketing strategies (Chen et al., 2021). Despite its increasing prominence, there remains a significant gap in the literature regarding how precision marketing impacts consumer behaviour, particularly in large e-commerce ecosystems

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such as Taobao. Most existing studies have focused on general marketing strategies or platform-based data analytics, but little focus has been on understanding how consumers perceive and respond to precision marketing efforts (Varadarajan, 2020). Therefore, this study aims to develop and validate a new scale that measures the effectiveness of precision marketing specifically for Taobao users, filling a critical gap in both academic research and practical application.

Taobao, with over 800 million active users, was chosen as a case study for its sheer market presence and because it serves as a model for how precision marketing can be applied in large-scale e-commerce ecosystems (Guo, 2022). Taobao's use of big data, artificial intelligence, and machine learning algorithms to target consumers with personalized recommendations makes it an ideal platform for studying precision marketing (Guo, 2022). By focusing on Taobao users, this research seeks to understand how the relationship between purchasing behaviour, consumer satisfaction, and brand loyalty in a highly competitive digital marketplace.

Precision marketing, which involves leveraging consumer data such as preferences, purchasing habits, and social media activities, has proven to be an effective strategy for increasing brand awareness and driving sales (Chatzopoulou & Kiewiet, 2021). However, despite its growing importance, existing scales do not adequately capture consumer perspectives on precision marketing strategies, particularly in digital marketplaces like Taobao, where the interaction between consumers and algorithms is a key factor (Wu & Monfort, 2022). This highlights the need for a more nuanced understanding of how precision marketing strategies impact consumer behaviour and decision-making.

The relationship between precision marketing characteristics, precision marketing strategies, and consumer purchasing behaviour is a topic worthy of in-depth research, especially given the evolving role of big data and artificial intelligence (Wu & Monfort, 2022). By developing a new scale tailored to Taobao users, this research will contribute to academic theory and offer practical insights for businesses seeking to enhance their marketing strategies. Ultimately, understanding consumer responses to precision marketing will enable companies to better meet consumer needs, improve satisfaction, and strengthen brand loyalty in the increasingly competitive digital economy.

Research Objective

1. To develop reliable and valid scales for precision marketing strategies and precision marketing characteristics.
2. To analyze the impact of demographic variables (such as gender, age, degree, occupation, monthly income) on precision marketing strategies, precision marketing characteristics and consumer purchase intention.

3. To examine the relationship between precision marketing strategies, precision marketing characteristics and consumer purchase intention.

Literature Review

Precision marketing used big data and modern technology to accurately target and effectively communicate with specific target markets or consumer groups (Liu, 2021). The key features of precision marketing included selecting marketing goals, implementing cost-effective communication strategies, establishing measurable communication structures, and maintaining dynamic adjustment accuracy (Ren & Liu, 2021). The theoretical foundation of precision marketing was grounded in data-driven decision-making models, which relied heavily on consumer data to optimize marketing strategies (Wedel & Kannan, 2016). This aligned with theories of personalized marketing, where the effective communication of value propositions was contingent on understanding individual consumer preferences and behaviors. Companies created detailed consumer portraits by collecting and analyzing consumers' browsing records, purchase history, social interactions, and other real-time data. These portraits included basic demographic information and consumers' interests, preferences, and potential needs, helping companies push the most relevant products or services to the right consumers at the right time (Wedel & Kannan, 2016). In precision marketing, implementing strategies relied on big data analysis and machine learning technology. Personalization recommendation was one of the important strategies in precision marketing. The system analyzed consumers' historical behaviour data to provide customized recommendation content for each consumer, thereby improving conversion rates. This customized product strategy could attract target customers and improve customer satisfaction (Liu, 2021).

Consumers' purchasing decisions were deeply influenced by personal characteristics and psychological factors, among which psychological characteristics played a particularly critical role (Boerman et al., 2017). Consumer behavior theory suggested that psychological characteristics, including self-perception, emotional state, and brand loyalty, significantly influenced purchasing decisions (Bairrada et al., 2019). These intrinsic motivations could be leveraged in precision marketing to align product offerings with consumer desires. The use of personalized marketing strategies was also explained through the theory of planned behavior, which posited that consumers' attitudes, perceived control, and subjective norms influenced their intention to purchase (Ajzen, 2020). Psychological characteristics occupied a core position in consumer behaviour. They covered the deep cognition of brands, such as positive attitudes, high trust, and unique preferences, as well as the intrinsic motivations and multiple personality traits that drove purchasing decisions (Bairrada et al., 2019).

In the study of the impact of e-commerce precision marketing on consumer purchasing behaviour, consumers' potential psychological changes were affected by

corporate precision marketing. Zabin et al. (2004) believed that if e-commerce companies wanted to encourage more consumers to tend to buy, they needed to provide consumers with reliable product information through precision marketing to influence their purchasing behaviour. Precision marketing could create profits for enterprises by collecting customer consumption behaviour and preferences based on big data, providing customers with more accurate product information, and increasing their willingness to buy (Idemudia & Jones, 2015). Research from the two aspects of precision marketing and consumer behaviour showed that with the development of the Internet, consumer purchasing behaviour tended to be digitalized and informationized, and precision marketing was also evolving. Enterprises could locate consumers from multiple angles and implement precision marketing through big data analysis (Liu, 2021). Precision marketing could more accurately locate target consumers, promote purchases, and bring profits to e-commerce companies (Jiang et al., 2020). Ouyang et al. (2021) collected information from consumers on the TikTok platform, and empirical research confirmed that the precision marketing model of online shopping platforms could further stimulate shoppers' purchasing behaviour.

More recent studies extended this analysis to the specific context of Taobao, a leading e-commerce platform in China. Research by Guo (2022) highlighted how Taobao's use of precision marketing, driven by artificial intelligence and big data, allowed for highly personalized consumer experiences through product recommendations, targeting specific consumer needs and preferences. Based on users' purchase history, browsing patterns, and even interactions within the platform's social media features, Taobao's recommendation system enhanced consumer engagement and purchase intention (Guo, 2022). Moreover, recent empirical research by Shi (2021) confirmed that precision marketing strategies employed by Taobao significantly increased consumer retention and satisfaction by continuously adapting to changes in consumer behavior, making it a model for e-commerce platforms globally. These findings underscored the importance of real-time data processing and personalized marketing strategies that went beyond traditional demographic targeting. Taobao's success with precision marketing provided further validation of the role of immediacy, targetedness, and interactivity in influencing consumer behaviour, as demonstrated by the platform's growing influence in China's e-commerce ecosystem (Dong et al., 2020).

Based on the theoretical foundation established in the literature, the following hypotheses are developed for empirical testing in this study:

H1: Precision marketing characteristics significantly positively affects consumer purchase intention.

H2: Precision marketing strategies significantly positively influences consumer purchase intention.

H3: Demographic factors such as gender, age, education level, and income affect precision marketing and consumer purchase intention.

Research Framework

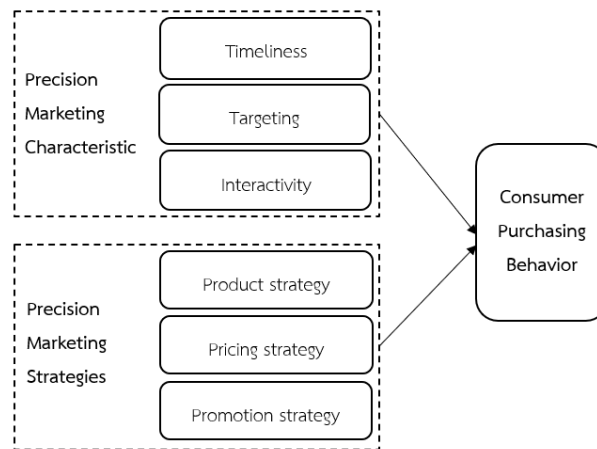


Figure 1 Research Framework

Research Methodology

Population and Sample

This study includes two groups of samples: in-depth interview samples (Table 1) and quantitative research samples (Table 2). This study focuses on Taobao registered users of the e-commerce platform in mainland China. The in-depth interview research sample (Table 1) includes 20 respondents, 10 males and 10 females, aged 21 to 39. The respondents have diverse educational backgrounds, a wide range of occupations, and a large difference in income levels. Overall, such a sample provides a comprehensive analytical basis for the research, contributing to the generalizability and applicability of the results.

Table 1 The In-Depth Interview Samples

No.	Name*	Gender	Age	Degree	Occupation	Monthly Income
1	B.Y.	Male	21	Undergraduate	Student	<2000
2	B.Z.	Female	30	Master	Engineer	12000-18000
3	C.X.	Male	28	Undergraduate	Teacher	8001-12000
4	D.W.	Female	22	Undergraduate	Engineer	10000-15000
5	F.L.	Male	35	Ph.D.	Researcher	12001-20000
6	F.N.	Female	27	Master	Doctor	12001-20000
7	G.T.	Male	32	Master	Lawyer	>20000
8	H.R.	Female	22	Undergraduate	Student	<2000
9	H.S.	Male	29	<Undergraduate	Engineer	2001-5000
10	J.Q.	Female	26	<Undergraduate	Nurse	5001-8000
11	K.P.	Male	31	Master	Manager	8001-12000
12	L.L.	Female	33	Ph.D.	Researcher	12001-20000

13	M.N.	Male	21	Undergraduate	Student	<2000
14	N.T.	Female	37	Ph.D.	Doctor	>20000
15	T.X.	Male	39	<Undergraduate	Manager	>20000
16	T.Y.	Female	25	Undergraduate	Teacher	2000-5000
17	S.D.	Male	27	Undergraduate	Teacher	2000-5000
18	W.L.	Female	38	Undergraduate	Manager	12001-20000
19	Z.J.	Male	26	Master	Designer	8001-12000
20	Z.Z.	Female	32	<Undergraduate	Nurse	5001-8000

Note: * The in-depth interview samples of this study were anonymous

The quantitative research sample (Table 2) includes 304 respondents, including 160 males (52.63%) and 144 females (47.37%), with a relatively balanced gender distribution. The age is mainly between 18 and 34 years old, totalling 227 people (74.69%), reflecting the young characteristics of the user groups of major e-commerce platforms. In terms of education, 151 respondents with a bachelor's degree or above (49.67%) show a high level of education. In terms of occupational distribution, students account for 42.11%, the largest group, followed by corporate staff (18.09%) and self-employed (21.71%). Monthly income is concentrated between 5001-8000 yuan (35.2%) and 8001-12000 yuan (29.61%), indicating that the respondents are mainly middle-income. The sample is diverse and representative, covering consumers of different genders, ages, education, occupations, and income backgrounds, and it can provide solid data support for the research of precision marketing strategies and characteristics.

Table 2 The Quantitative Research Samples

Variable		n	%	Variable		n	%
Gender	Male	160	52.63	Occupation	Public official	30	9.87
	Female	144	47.37		Corporate worker	55	18.09
Age	<18	67	22.04		Self-employed	66	21.71
	18-24	70	23.03		Students	128	42.11
	25-34	87	28.62		Freelancers	14	4.61
	35-44	64	21.05	Monthly Income	Others	11	3.62
	45-55	12	3.95		<2000	46	15.13
Degree	>55	4	1.32		2000-5000	49	16.12
	<College	80	26.32		5001-8000	107	35.2
	College	73	24.01		8001-12000	90	29.61
	Undergraduate	133	43.75		12001-20000	7	2.3
	Graduate	18	5.92		>20000	5	1.64

Research Instrument

In qualitative study, semi-structured in-depth interviews were used as a research instrument for the pilot study to obtain detailed information about precision

marketing. At the initial stage of the interview, the researcher asked the interviewee open questions, such as: "What aspects do you pay most attention to when using the e-commerce platform?", "What aspects do you think the platform's products and services need to be improved?". These questions were intended to guide the interviewee in sharing their comprehensive views and experiences. As the interview progressed, the researcher asked follow-up questions based on the interviewee's answers, such as: "Can you specifically describe the impact of a promotion on your shopping decision?", "What do you think of the platform's pricing strategy?", "What do you think of the platform's user interaction experience?" These follow-up questions were intended to explore the interviewee's detailed feelings and specific cases and enrich the interview content.

The quantitative study used the precision marketing questionnaire and consumer purchase intention scale obtained from the pilot study as research tools for the pre-study and main study. The entire questionnaire had three parts. The first part was related to the consumer's personal information. It included the consumer's gender, age, education, occupation, income, whether there was an online shopping experience, and the most commonly used e-commerce platform to screen the target objects of the survey accurately. The second part was a survey on the characteristics of precision marketing, with 7 items. The third part was a survey on precision marketing strategies, with 9 items. The second and third parts used the Likert five-point scale, where 1 point meant strongly disagree, and 5 points meant strongly agree.

The fourth part was a survey on the purchasing behaviour of online consumers on e-commerce platforms. With reference to the consumer online purchasing behaviour and purchasing intention survey scale designed by Yu (2016), appropriate modifications were made according to the specific scenario. The online purchasing behaviour of consumers affected by precision marketing and other information during online shopping was measured. There were 4 items in total. The Likert five-point scale was used, where 1 point meant strongly disagree, and 5 points meant strongly agree. After the reliability test, Cronbach α was 0.930.

Data Collection

The purposive sampling method was used to conduct online interview samples during the holidays in January 2024, and each interview lasted about 30 minutes. The interviews were recorded throughout and transcribed verbatim after the interviews. The total text records of the 20 interviewees for 20 hours amounted to 125,740 words. In order to ensure the validity of the data, invalid words (such as modal particles, filler words) were deleted. After removing invalid words, the remaining valid data was 102,551 words.

After the in-depth interview analysis was completed, the cluster sampling method was used to collect data from the selected e-communities from February to March 2024, and 530 questionnaires were collected. Excluding invalid questionnaires

with completely consistent answers, questionnaires filled in less than 60 seconds, and non-Taobao users and people who do not shop online, 304 valid questionnaires were collected, with an effective recovery rate of 57.36%.

Research Analysis

This study adopted an exploratory research approach, beginning with qualitative research followed by quantitative analysis. The qualitative phase focused on in-depth interview analysis, utilizing a coded analysis method to categorize and interpret the data gathered from Taobao users. This coding process allowed for the identification of key themes and patterns related to precision marketing characteristics and strategies, forming a strong conceptual foundation for the subsequent quantitative research.

The quantitative phase involved comprehensive statistical analysis to explore the relationships between precision marketing characteristics, precision marketing strategies, and consumer purchase intention. Inferential statistics, including regression analysis, were applied to examine the direct effects of precision marketing on consumer behavior. Difference analyses, such as t-tests and ANOVA, were used to assess variations in purchase behavior across different demographic groups. These analyses helped identify statistically significant differences, offering insights into how precision marketing strategies affected various segments of Taobao users.

Research Result

This study employed a qualitative research design using semi-structured in-depth interviews as The first stage of research analysis. The aim was to explore and understand the perceptions and experiences of consumers regarding various aspects of precision marketing strategies and features. Through the coding and analysis of the interview content, the study gradually identified some key strategies and features, such as price strategy, product strategy, promotion strategy, as well as Immediacy, targeting, and Interactivity. Finally, 16 codes that affected consumer shopping behavior were identified, involving 97 reference points (Table 3).

Table 3 Distribution of Coding Nodes for the Precision Marketing

Open coding (Reference Points)	Axial coding	Selective coding
Dynamic pricing (8)	Price Strategy	
Discount strategy (9)		
Price rationality assessment (7)		
Personalized product recommendation (10)	Product Strategy	Precision
High-quality product guarantee (5)		Marketing
Product diversity (6)		Strategy
Coupon distribution (8)	Promotion Strategy	
Limited time promotion (4)		
Social media promotion (5)		

Real-time updates (6)	Immediacy	Precision Marketing Characteristics
Quick response (4)		
Targeted push (6)	Targetedness	
User demand analysis (4)		
User participation (5)	Interactivity	
Social interaction (4)		
User feedback (4)		

The coding nodes in Table 3 provided a structured analysis framework for the study, helping to identify the importance of different strategies and features in precision marketing. In order to gain a deeper understanding of the performance of these strategies and features in actual applications, Table 4 listed specific interview examples of precision marketing. These interviews provided participants' real feelings and feedback on various marketing strategies on the Taobao platform, further verifying and supplementing the coding results.

Table 4 Precision Marketing Interview Examples

VAR	Examples
1	Male: Taobao often has discounts, especially during holidays I usually wait until there are promotions before buying, which can save much money. Female: Taobao not only has regular discounts, but also discounts for purchases above a certain amount I also use Taobao's price comparison function to find the most cost-effective products.
2	Male: Taobao has a wide variety of products, which I am very satisfied with and they will recommend products that I may be interested in based on my browsing and purchase history, which saves me a lot of searching time. Female: Taobao now not only has a wide variety of products, but also has guaranteed quality Every time I log in to Taobao, I will see many new products that suit my taste The detailed description of the products and user reviews allow me to better understand the products before purchasing.
3	Male: For big sales like Double Eleventh Day, I will make a shopping list in advance and then make a big purchase during the event Taobao's points and coupon system also allows me to enjoy more discounts in my daily shopping. Female: Taobao's limited-time sales and member-only discounts These make me feel that I can get special discounts... Taobao will remind me of promotions through push messages So I will not miss any discount opportunities.
4	Male: After I add items to my cart, I can check the price history if there are any price changes or promotions The real-time customer service is also very responsive, allowing me to solve problems promptly when shopping. Female: Taobao will notify me immediately when there are new activities for the products I follow Their logistics information is updated very quickly, and I can check the status of my packages in real time.
5	Male: Taobao will recommend products that I may be interested in based on my browsing and purchase history, so I do not need to spend too much time searching I will also receive some targeted coupons and promotional notifications, which are what I really

need. **Female:** Taobao will push relevant product information based on my shopping habits, and often the recommended products align with my needs Taobao will send targeted coupons based on my shopping history, allowing me to enjoy more discounts when I buy.

- 6 **Male:** In addition to real-time communication with customer service, I can interact with other buyers on the product page, view and post comments Taobao's live shopping is also exciting. I can interact with the streamer in real time and learn detailed information about the product. **Female:** I often participate in Taobao's interactive games and activities to get points and coupons By reading and participating in product reviews, I can better understand other buyers' usage experience It makes me more confident in the shopping process.

Note: 1= Price strategy, 2= Product strategy, 3= Promotion strategy, 4= Immediacy, 5= Targetedness, 6= Interactivity.

Based on the content of the in-depth interviews, a precision marketing strategy scale and a precision marketing characteristic scale were generated, and the reliability and validity of the two scales were tested. Table 5 presents the precision marketing strategy as three factors, with factor loadings ranging from 0.892 to 0.915. The Kaiser-Meyer-Olkin (KMO) measure for a precision marketing strategy is 0.764, and Bartlett's test of sphericity is significant ($p < 0.001$). The total variance explained is 87.075%. The reliability of the precision marketing strategy scale is also high, with a Cronbach's alpha of 0.855. The factor loadings range from 0.887 to 0.913 for precision marketing characteristics, with a KMO measure of 0.833 and a significant Bartlett's test ($p < 0.001$). The total variance explained is 86.283%, and Cronbach's alpha of 0.875. The KMO value of these results is over 0.5, the significance level for Bartlett's test is below 0.05, the factor loadings are above 0.4, and the Cronbach's alpha is greater than 0.8 (Ho, 2014). These results suggested that the scales used for both constructs are reliable and valid for measuring the intended variables.

Table 5 Exploratory Factor Analysis and Reliability Analysis Results

	Items*	λ	h^2	
1	Taobao product information is updated very quickly.	0.892	0.871	
	Taobao can push promotions, new products and other information on time.	0.898	0.874	KMO=0.764 $\chi^2=1307.725$ p=0.000
2	The information pushed to me by Taobao is what I am interested in.	0.915	0.892	
	Taobao platform can push the product information I need most to me in the most timely and appropriate way.	0.893	0.882	Total variance =87.075%
3	You can participate in activities such as receiving points, shopping coupons or red envelopes through Taobao.	0.894	0.850	Cronbach's alpha=0.855

	You can interact and consult with sellers anytime through the Taobao platform.	0.890	0.867	
	You can browse other consumers' comments on products through Taobao and communicate with them.	0.900	0.860	
4	The prices of products on the Taobao platform are not high.	0.902	0.859	
	The prices on the Taobao platform are reasonable.	0.894	0.862	
	The prices of products the Taobao platform provides are within my acceptable range.	0.913	0.879	KMO=0.833
5	The products provided by the Taobao platform are of good quality.	0.891	0.860	$\chi^2=2106.045$
	I need the products pushed by the Taobao platform.	0.904	0.870	p=0.000
	The products pushed by the Taobao platform align with my consumption capacity.	0.887	0.865	Total variance =86.283%
6	Platform promotions will save me money.	0.898	0.862	Cronbach's
	Promotional activities can bring me fun.	0.898	0.850	alpha=0.875
	Because of platform promotions, I can try to buy different products.	0.903	0.859	

Note: * The items shown are translated from Chinese into English for better presentation to readers.;1= Price strategy, 2= Product strategy, 3= Promotion strategy, 4= Immediacy, 5= Targetedness, 6= Interactivity.

The analysis revealed significant demographic differences in responses to precision marketing characteristics, strategies, and consumer purchase behaviour. Males consistently scored higher than females ($p<0.001$), with mean scores for precision marketing characteristics, strategies, and consumer behaviour of 3.70, 3.03, and 4.02, respectively, compared to females who scored 3.27, 3.94, and 2.93. The 25-34 age group showed the highest engagement across these categories, while those over 55 had the lowest scores, indicating reduced effectiveness of precision marketing with older adults. Education level also influenced perceptions, with undergraduates scoring highest and those with less than a college degree scoring lowest ($p<0.001$). Occupational differences showed that students and self-employed individuals were more engaged with precision marketing, whereas public officials and freelancers were less so. Income levels further highlighted disparities, with higher income groups (8001-12000) scoring significantly higher ($p<0.001$) than those earning less than 2000. These findings suggested that demographic factors such as gender, age, education, occupation, and income significantly impacted the effectiveness of precision marketing, emphasizing the need for tailored strategies to enhance consumer engagement.

Table 6 The Results of the Difference Analysis

Variable	Precision Marketing Characteristics		Precision Marketing Strategy		Consumer Purchase Behaviour	
	M±SD	t/F	M±SD	t/F	M±SD	t/F
Gender						
Male	3.27±1.05	3.894	3.03±1.00	9.276	2.93±1.26	8.266
Female	3.70±0.91	***	3.94±0.70	***	4.02±1.03	***
Age						
<18	3.49±0.99		3.64±0.88		3.54±1.28	
18-24	3.32±1.05		2.94±0.96		3.31±1.28	
25-34	3.55±0.84	0.931	3.71±1.04	6.259	3.74±1.23	2.922
35-44	3.57±1.13		3.44±0.84	***	3.20±1.29	*
45-55	3.48±1.23		3.75±0.98		3.21±1.21	
>55	2.75±1.13		3.19±0.98		1.94±0.31	
Degree						
<College	2.94±1.04		2.85±0.98		2.48±1.07	
College	3.54±0.87	12.098	3.54±1.04	18.639	3.68±1.22	26.466
Undergraduate	3.75±0.92	***	3.80±0.81	***	3.88±1.11	***
Graduate	3.52±1.19		3.26±0.70		3.50±1.33	
Occupation						
Public official	2.92±1.14		3.13±0.99		2.54±1.15	
Corporate worker	3.19±1.07		2.89±0.99		2.70±1.19	
Self-employed	3.67±0.99	5.205	3.38±0.91	19.879	3.67±1.20	16.037
Students	3.69±0.89	***	3.98±0.73	***	3.98±1.06	***
Freelancers	3.12±1.00		2.91±0.96		2.71±1.29	
Others	3.20±0.76		2.35±0.70		2.91±1.29	
Monthly income						
<2000	2.54±0.77		2.52±0.73		2.13±0.80	
2000-5000	3.63±1.09		3.35±0.90		3.22±1.22	
5001-8000	3.55±0.95	11.267	3.70±0.99	14.169	3.71±1.22	17.837
8001-12000	3.74±0.89	***	3.73±0.82	***	3.94±1.07	***
12001-20000	3.73±1.10		3.72±0.76		3.39±1.41	
>20000	3.77±0.72		2.78±1.38		2.95±1.45	

Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

The analysis of the correlation between consumer purchasing behaviour and precision marketing characteristics and precision marketing strategies (Table 7) revealed significant positive correlations. Precision marketing characteristics ($r=0.578$, $p<0.001$) and precision marketing strategies were significantly positively correlated with consumer purchasing behaviour ($r=0.587$, $p<0.001$). The sub-dimensions of precision marketing characteristics and the sub-dimensions of precision marketing strategies were also positively correlated with purchasing behaviour ($p<0.001$).

Table 7 Correlation Analysis Results

	1	2	3	4	5	6	7
1	1						
2	0.338 ^{***}	1					
3	0.362 ^{***}	0.341 ^{***}	1				
4	0.392 ^{***}	0.353 ^{***}	0.332 ^{***}	1			
5	0.285 ^{***}	0.385 ^{***}	0.264 ^{***}	0.301 ^{***}	1		
6	0.334 ^{***}	0.326 ^{***}	0.253 ^{***}	0.257 ^{***}	0.337 ^{***}	1	
7	0.408 ^{***}	0.493 ^{***}	0.466 ^{***}	0.406 ^{***}	0.466 ^{***}	0.395 ^{***}	1

Note: *** $p < 0.001$; 1= Immediacy, 2= Targetedness, 3= Interactivity, 4= Price strategy, 5= Product strategy, 6= Promotion strategy.

This study used gender, age, education, occupation, and monthly income as control variables, Immediacy, Targetedness, Interactivity, Price strategy, Product strategy, and Promotion strategy as independent variables, and purchasing behaviour as the dependent variable for regression analysis (Table 8).

Table 8 Regression Analysis Result

	Beta	t	p	VIF	Tolerance
1	0.153	3.193	0.002 ^{**}	1.499	0.667
2	0.193	4.01	0.000 ^{***}	1.522	0.657
3	0.192	4.153	0.000 ^{***}	1.397	0.716
4	0.144	3.056	0.002 ^{***}	1.449	0.69
5	0.219	4.605	0.000 ^{***}	1.479	0.676
6	0.148	3.287	0.001 ^{***}	1.333	0.75
R ²			0.547		
ΔR^2			0.538		
F		F (6,297) = 59.763, $p = 0.000$ ^{***}			
D-W			0.984		

Note: *** $p < 0.001$; 1= Immediacy, 2= Targetedness, 3= Interactivity, 4= Price strategy, 5= Product strategy, 6= Promotion strategy.

Table 8 showed that all independent variables significantly positively influenced the purchase behaviour ($p < 0.01$). The impact of product strategy was the greatest (Beta=0.219), followed by targetedness (Beta = 0.193). VIF values ranged from 1.333 to 1.522, and tolerance levels ranged from 0.657 to 0.75, indicating no severe multicollinearity issues among the independent variables. The model's R-squared value was 0.547, and the adjusted R-squared was 0.538, demonstrating a good fit. F (6,297)=59.763, $p = 0.000$, showed that the overall model was significant. The Durbin-Watson statistic was 0.984, suggesting minimal autocorrelation among residuals. In summary, Immediacy, targetedness, Interactivity, pricing strategy, product strategy, and promotion strategy had significant positive effects on purchase behaviour, and the model was stable and reliable.

Conclusions and Discussions

The results of this study showed that the Immediacy, Pertinence, and Interactivity of precision marketing characteristics had a significant positive impact on consumer purchasing behaviour. Specifically, timely product and service information pushes significantly increased consumers' purchase intention. This conclusion was supported by the qualitative findings from the in-depth interviews, where participants consistently emphasized the value of real-time updates and personalized recommendations, enhancing their shopping experiences on Taobao. These qualitative insights were validated quantitatively through the survey data, where significant positive correlations were observed between Immediacy, Targetedness, and Interactivity, and consumer purchasing behaviour. This result was consistent with the research of Lee et al. (2022), which showed that consumers valued the latest market dynamics and product updates, and instant information could satisfy their sense of urgency and demand for new products, thereby triggering impulse buying behaviour.

In terms of pertinence, the research found that the more marketing information targeted consumers' personalized needs, the higher consumers' purchase intention was. From the qualitative perspective, many interview participants described how personalized recommendations made them feel understood and valued, which increased their motivation to purchase. This finding was reinforced by the quantitative analysis, where Targetedness showed a statistically significant positive correlation with purchase intention. Interactivity also showed a significant positive impact, indicating that through interaction with consumers, companies could better understand consumer needs, provide attractive products and services, and build trust by responding to consumer feedback and loyalty. These findings highlighted the theoretical contribution of the study by showing how precision marketing features, when implemented effectively, enhanced consumer decision-making processes. The dual approach of qualitative and quantitative analysis ensured that these findings were both rich in detail and statistically validated, offering a comprehensive view of consumer responses to precision marketing.

In addition, the commodity strategy, price strategy, and promotion strategy in precision marketing also significantly positively impacted consumer purchasing behaviour. The qualitative interviews revealed that participants often highlighted price and promotional strategies as key factors influencing their purchase decisions. The quantitative analysis further confirmed this, as price and promotion strategies showed strong correlations with consumer purchase behaviour. Research showed that strategies to provide products that matched consumers' needs and abilities could effectively promote purchasing behaviour. This was consistent with Pallant et al. (2020), which emphasized that precision marketing should focus on core product categories and provide personalized products and services. Reasonable price strategies were also

proven to stimulate consumers' purchasing intentions. Dynamic and differentiated pricing could set different price levels according to consumers' purchasing power and needs, attracting more consumers.

The combination of qualitative and quantitative data in this research strengthened the validity of these findings. While the qualitative phase offered deep insights into individual consumer experiences, the quantitative phase allowed for generalising these insights across a broader population, ensuring that the data's quality (detailed, personal experiences) and quantity (large-scale validation) were addressed. This comprehensive approach ensured that the study's findings were rich in detail and robust in statistical reliability.

In the analysis of demographic characteristics, the study found that age, education level, and gender significantly impacted the effectiveness of precision marketing features and strategies. Qualitative interviews suggested that younger consumers, especially those familiar with internet technologies, were more receptive to precision marketing strategies. This was confirmed by the quantitative results, where the 18-34 age group showed the highest engagement with precision marketing. Young consumers responded positively to precision marketing strategies and features (Guan et al. 2022), which may have been because they were more familiar with Internet technology and e-commerce and had higher acceptance and adaptability. Consumers with higher levels of education were more sensitive to precision marketing, which may have been attributed to their stronger cognitive abilities and information processing capabilities, as well as higher income levels, which enabled them to understand and evaluate precision marketing better.

This research made several important theoretical contributions to the field of precision marketing. First, it developed and validated a new scale for measuring the effectiveness of precision marketing strategies and characteristics. This scale could be applied in future research to explore consumer behaviour in other similar digital ecosystems, further extending its theoretical relevance. Additionally, the research enhanced understanding of how precision marketing features—such as Immediacy, Targetedness, and Interactivity—interacted to influence consumer decision-making. By integrating demographic variables such as age, education, and income, the study highlighted the need to tailor marketing strategies to specific consumer groups, an area that had been under-explored in prior research. This research bridged the gap between qualitative insights and quantitative validation, offering a more holistic approach to the study of precision marketing. The mixed-method design, combining rich qualitative data with robust quantitative analysis, provided a comprehensive model that future research could build upon.

Suggestion

Taobao should continue to utilize real-time information to meet consumers' demand for the latest products and services. The results demonstrated that Immediacy significantly enhances purchase intentions, as consumers value timely product updates and notifications. Therefore, leveraging big data and artificial intelligence technologies allows the platform to analyze consumers' browsing and purchase history to push product information that aligns with their interests and needs in real time. Personalized, immediate product and service recommendations will enhance purchase intentions and meet unique consumer demands, which was shown to increase consumer engagement and loyalty in the findings. Moreover, as Interactivity was found to positively influence consumer trust and satisfaction, engaging with consumers through online customer service, community interactions, and social media channels will help Taobao maintain close contact with consumers, respond promptly to their inquiries and feedback, and foster a sense of connection and loyalty.

Taobao should optimize its product and pricing strategies by aligning offerings with consumers' needs and purchasing power. The analysis indicated that product strategy had the strongest impact on purchase behaviour, followed by pricing strategy, emphasizing the importance of matching products and prices to consumer expectations and purchasing capabilities. Insights from market research and consumer behaviour analysis can inform adjustments in product design, functionality, and packaging to match consumer preferences. Precision marketing strategies, such as introducing innovative products that cater to diverse needs and using dynamic pricing, can further enhance appeal, especially for younger consumers and those in higher income brackets, as highlighted in the demographic analysis. Taobao should also tailor promotional activities to different consumption scenarios, as the study found that promotional strategies significantly influenced purchase behaviour, particularly among younger and female consumers. Offering discounts, gifts, and loyalty points, while considering demographic factors such as age, education level, and gender, will help Taobao develop more targeted marketing strategies that effectively engage various consumer segments.

Reference

- Ajzen, I. (2020). The theory of planned behavior: Frequently asked questions. *Human Behavior and Emerging Technologies*, 2(4), 314-324.
- Bairrada, C. M., Coelho, A., & Lizanets, V. (2019). The impact of brand personality on consumer behaviour: The role of brand love. *Journal of Fashion Marketing and Management*, 23(1), 30-47.
- Boerman, S. C., Kruikemeier, S., & Zuiderveen Borgesius, F. J. (2017). Online behavioural advertising: A literature review and research agenda. *Journal of Advertising*, 46(3), 363-376.
- Chatzopoulou, E., & Kiewiet, A. (2021). Millennials' evaluation of corporate social responsibility: The wants and needs of the largest and most ethical generation. *Journal of Consumer Behaviour*, 20(3), 521-534.
- Chen, W., Liu, X., & Zhang, M. (2021). The evolution of e-commerce marketing: Big data and ai application in precision marketing. *Journal of Business Research*, 124(1), 234-245.
- Dong, B., Meng, P., & Zhou, L. (2020). Research on retail enterprise marketing models in the context of social e-commerce. *Business Economics Research*, 6(1), 56-59.
- Guan, J., Lau, Y., Yang, H., & Ren, L. (2022). To buy or not to buy: How young consumers approach new smart products in the social media context. *Young Consumers*, 23(1), 90-111.
- Guo, Q. (2022). *Research on the mechanism of the impact of interactive information in live-streaming e-commerce on consumer behavior* [Doctoral dissertation, Shanghai University of Finance and Economics]. Wanfang Data.
- Idemudia, E., & Jones, D. R. (2015). An empirical investigation of online banner ads in online marketplaces: The cognitive factors that influence intention to click. *International Journal of Information Systems and Management*, 1(3), 264-293.
- Jiang, Z., Dan, W., & Jie, L. (2020). Distinct role of targeting precision of internet-based targeted advertising in duopolistic e-business firms' heterogeneous consumers market. *Electronic Commerce Research*, 20(2), 453-474.
- Lee, V., Park, S., & Lee, D. (2022). The effect of e-commerce service quality factors on customer satisfaction, purchase intention, and actual purchase in Uzbekistan. *Global Business & Finance Review*, 27(3), 56-74.
- Liu, H. (2021). Big data precision marketing and consumer behaviour analysis based on fuzzy clustering and PCA model. *Journal of Intelligent & Fuzzy Systems*, 40(4), 6529-6539.

- Ouyang, Y., Huang, L., & Wei, Z. (2021). Research on the influence mechanism of precision marketing on online consumer behaviour based on the 'S-O-R' paradigm and eroglu's (2001) online shopping response model: Take the Tiktok platform as an example. In *2021 2nd International Conference on E-Commerce and Internet Technology* (pp. 218-223). IEEE.
- Pallant, J., Sands, S., & Karpen, I. (2020). Product customization: a profile of consumer demand. *Journal of Retailing and Consumer Services*, 54, 1-10.
- Ren, D., & Liu, X. (2021). Precision marketing model based on big data – Taking Xiaohongshu app as an example. In J. Abawajy, Z. Xu, M. Atiquzzaman, & X. Zhang (Eds.), *2021 International Conference on Applications and Techniques in Cyber Intelligence (ATCI 2021)*, Advances in Intelligent Systems and Computing (Vol. 1398). Springer.
- Shi, P. (2021). The impact of precision marketing strategies on online consumer purchasing behavior in the digital era: A case study of personalized recommendations on Taobao. *Journal of Brand Research*, 11(1), 254-257.
- Wu, C., & Monfort, A. (2022). Role of artificial intelligence in marketing strategies and performance. *Psychology & Marketing*, 40(3), 484-496.
- Varadarajan, R. (2020). Customer information resources advantage, marketing strategy and business performance: A market resources based view. *Industrial Marketing Management*, 89(1), 89-97.
- Wedel, M., & Kannan, P. K. (2016). Marketing analytics for data-rich environments. *Journal of Marketing*, 80(6), 97-121.
- Yu, R. (2016). *An empirical study on the impact of precision marketing on consumer online purchasing behaviour* [Master's Thesis]. Guizhou University, Guiyang, China.
- Zabin, J., Brebach, G., & Kotler, P. (2004). *Precision marketing: The new rules for attracting, retaining, and leveraging profitable customers*. Wiley.