

The Influence of the Centralized Purchasing Clothing Pre-sale Model on Consumers' Purchase Intention

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Abstract—The pre-sale model reduces the risk by predicting the market demand, but there lacks theoretical support and empirical research on the impact of this model on consumers' purchase intention. The centralized purchasing pre-sale model of clothing is the research object, and the theoretical model of S-O-R is built as the basic framework, discussed the influence and action mechanism on consumers' purchase intention, collected data through questionnaire survey, and the empirical analysis was conducted through the structural equation model. Research found that centralized purchasing clothing pre-sale model situation factors by improving consumers' expected regret and perceived value to strengthen the consumer purchase intention, also can increase consumer perception of risk, thus inhibiting consumers' purchase intention, but improve the reservation quantity, information quality and business reputation level can to a certain extent, weaken consumers' perception of risk.

Keywords—pre-sale mode; clothing e-commerce; purchase intention; S-O-R model

I. INTRODUCTION

In the context of the digital era, the traditional sales model of the clothing industry is facing major challenges. The increasing diversification and personalization of consumer needs has prompted clothing brands and retailers to seek more flexible and interactive sales strategies. Pre-sale mode, as a sales method that allows consumers to buy products before production or market, has been adopted by more and more enterprises because of its unique market prediction and risk management capabilities. In particular, the collective purchase type pre-sale mode, through the formation of the purchase force, provides consumers with the price advantage, but also brings pre-advance market feedback and capital flow to the brand. However, research on the impact of pre-sale model on consumers' purchase intention is relatively limited, especially from the perspective of psychology. This study takes the centralized purchasing apparel pre-sale model as the research object, constructs the research theoretical model with the S-O-R theoretical model as the basic framework, explores the influence on the consumer's purchase intention and the role of the mechanism, provides useful insights for the apparel enterprises to fully utilize the pre-sale mode to obtain more benefits, enhance the value of the brand and the competitiveness of the market, and can also provide theoretical

support for the study of apparel pre-sale mode and purchase intention.

A. Centralized purchasing pre-sale model

In 2001, Lee and Ng defined presale as a sales model that allows consumers to make advance purchases of goods before they are available or even produced [1]. Sun (2017) classified the online presale model into crowdfunding, scarcity, centralized purchasing and customization, in which the collection presale model refers to the way of obtaining lower prices by rapidly aggregating consumers to form a powerful purchasing group in a short period of time through the Internet, and purchasing a single item at a wholesale price [2]. In Tmall's apparel pre-sale branch, in addition to a part of the big brands for scarcity-type pre-sale, the vast majority of them are using the collector-type pre-sale mode.

B. Purchase intention

Willingness to buy is a key predictor of consumer purchasing behavior, directly reflecting preference for a product or brand and propensity to buy, thus guiding consumption decisions. Psychological and economic studies have shown that factors such as perceived price, product quality, and brand awareness significantly influence willingness to buy.

II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

A. The impact of the centralized purchasing apparel pre-sale model on purchase intention

Centralized purchasing apparel pre-sale models are characterized by price promotions and time constraints. The greater the price promotion, the higher the consumer's willingness to buy is likely to be; while time constraints force the consumer to make a purchase decision as soon as possible. Kim (2012) showed that offering price discounts to potential consumers and repeat buyers can promote willingness to buy [3]. Kauffman et al. (2001) had investigated group-buying websites in their country and concluded that time constraints would have an effect on the consumer's willingness to participate in the purchase willingness [4]. In the case of the pre-sale model, where it is difficult to accurately assess its value, the number of pre-ordered items becomes an important indicator for consumers to make decisions. The quality of

information affects consumers' perception and trust in products and merchants. By online reputation system helps to build trust between consumers and merchants, and high level merchant reputation can enhance consumers' purchase intention. Therefore, the research hypotheses of this paper are as follows: H1: Price discounts, time pressure, number of reservations, information quality, and merchant reputation have a significant positive effect on purchase intention.

B. The impact of the centralized purchasing apparel pre-sale model on expected regret, perceived risk, and perceived value

John (2006) verified the significant influence of shopping environment on consumers' sensory, emotional, and cognitive experiences by empirically analyzing the relationship between shopping environment and consumer experience [5]. Expected regret in consumer's emotional experience refers to an individual's feeling of concern about a potential loss before making a decision, which can lead to hesitation and skepticism [6]. For the same pre-sale situation, the degree of expected regret experienced by an individual may vary greatly due to differences in factors such as value preferences and economic strength. Therefore, the research hypotheses of this paper are as follows:

H2: Price promotion, numbers of reservations, time pressure, information quality and merchant reputation have a significant positive effect on expected regret in the centralized purchasing apparel pre-sale model.

Perceived risk refers to the degree of subjective probabilistic uncertainty that a consumer has about an event, or the danger that the outcome of that event, should it occur, may pose to the consumer. Regardless of whether consumers buy clothes in physical stores or through the pre-sale mode, the stimulation of situational factors and consumer-perceived risk are phenomena of universal nature. Therefore, the research hypotheses of this paper are as follows:

H3: Price promotion, numbers of reservations, time pressure, information quality and merchant reputation have a significant

negative effect on perceived risk in the centralized purchasing apparel pre-sale model.

Perceived value is the overall evaluation of the utility of a product or service when the perceived benefits are weighed against the cost that the consumer pays in acquiring the product or service. Changes in purchasing scenarios also stimulate changes in consumers' perceived value, e.g., a large number of purchasers also further reduces consumers' concerns and enhances their value perceptions. Therefore, the research hypotheses of this paper are as follows:

H4: Price promotion, number of reservations, time pressure, information quality and merchant reputation have a significant positive effect on perceived value in the centralized purchasing apparel pre-sale model.

C. The impact of expected regret, perceived risk, and perceived value on purchase intention

Loomes et al. (1982) confirmed that the emotion of anticipated regret plays an important role in consumer buying behavior [7]. Consumers anticipate possible regret after considering different situations before making a decision and try to minimize the possibility of regret thus reinforcing their purchase intention. Meanwhile, Liao and Cheung (2001) also argued that when customers perceive high risk in online transactions, their willingness to hold in the online purchasing process may be weakened or abandoned [8]. Perceived value related studies show that when consumers shop, they usually consider different goods from multiple perspectives, in which perceived value is regarded as one of the main drivers of consumer purchasing behavior, which in turn contributes to consumers' willingness to buy. Therefore, the research hypotheses of this paper are as follows:

H5: Anticipated regret and perceived value have a significant positive effect on purchase intention in the centralized purchasing apparel pre-sale model, and perceived risk has a significant negative effect on purchase intention.

D. Theoretical model

In this study, a theoretical model is constructed using the S-O-R theoretical model as a framework, as shown in Fig.1.

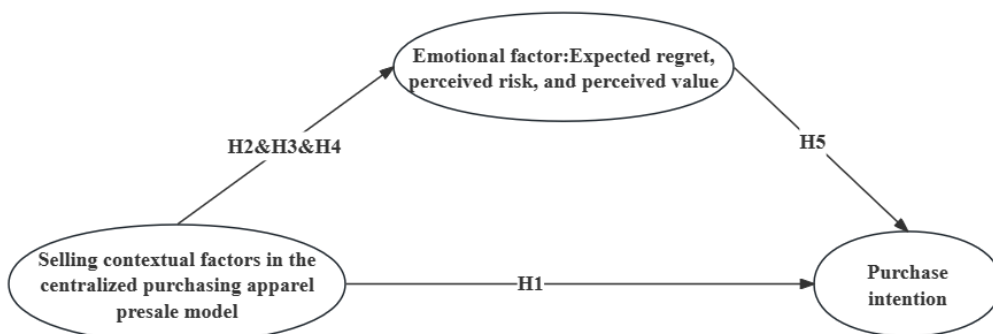


Fig.1. The Theoretical Model

III. EXPERIMENTAL DESIGN

A. Variable design and measurement

1) Price promotions, booking quantities and time pressure Referring to Kalwani (1992) [9] divided price promotion into high and low levels based on the level of 10% and 50% of the price of the goods, set two levels of these three factors and scenarios were described to the consumers in the questionnaire design in order to examine the level of their perceptions of these variables and used separate questionnaire items to measure the level of the perceptions of these variables.

TABLE I. MEASUREMENT OF SITUATIONAL FACTORS QUESTION ITEMS

Variant	Measurement item
Price promotions	This is a great price promotion for the pre-sale event
Booking quantities	A lot of people have already pre-ordered the pre-sale item
Time pressure	The time remaining for this pre-sale is tight

2) Information quality and merchant reputation

This study utilized a scale designed by Reibstein (2002) to provide a comprehensive measure of information quality in a presale situation [10].

TABLE II. MEASUREMENT OF INFORMATION QUALITY QUESTION ITEMS

Variant	Measurement item
Information quality	The store's pre-sale product information is clearly expressed
	The store was able to provide complete information to facilitate my accurate judgment
	The store's pre-sale product information is easy to understand

The merchant reputation measure in this study was borrowed from Koufaris' (2004) [11] scale.

TABLE III. MEASUREMENT OF MERCHANT REPUTATION QUESTION ITEMS

Variant	Measurement item
Merchant reputation	This pre-sale product brand is the famous
	The store has a good reputation
	The store has a good merchant credit rating

3) Expected regret, perceived risk, and perceived value

The measure of expected regret draws on the scale developed by Abraham and Sheeran (2003)[12].

TABLE IV. MEASUREMENT OF EXPECTED REGRET QUESTION ITEMS

Variant	Measurement item
Expected regret	If I don't buy it now, I will regret it
	If I don't buy it now, I'll feel uneasy
	If I don't buy now, I'll experience regret and loss the next time I see the price increase

The Perceived Risk Scale designed by Murray & Schlacter (1990) was used in this study and fine-tuned for this study [13].

TABLE V. MEASUREMENT OF PERCEIVED RISK QUESTION ITEMS

Variant	Measurement item
Perceived risk	I'm concerned that this pre-order may take me a long time to wait and not end up meeting my needs
	I'm concerned that the pre-sale is overpriced
	I am concerned that the pre-sale garment is not as described

This study referred to the findings of Sirdeshmukh (2002) [14] and adapted the perceived value scale for the characteristics of the apparel pre-sale model.

TABLE VI. MEASUREMENT OF PERCEIVED VALUE QUESTION ITEMS

Variant	Measurement item
Perceived value	You get what you pay for when you buy this pre-sale item
	Save money by purchasing this pre-sale item
	The time and effort spent on this pre-sale was worth it
	This pre-sale stimulated my curiosity
	This pre-sale made my day
	This pre-sale has made me feel very valued

4) Purchase intention

In order to measure willingness to buy, this paper uses the relevant scale indicators proposed by Gefen (2003) and others [15].

TABLE VII. MEASUREMENT OF PURCHASE INTENTION QUESTION ITEMS

Variant	Measurement item
Purchase intention	I would like to buy this dress.
	I think this dress is worth buying
	I would recommend this dress to a friend
	There's a pretty good chance I'll go for the pre-sale option again

B. Method

Taking the centralized purchasing apparel pre-sale as a scenario, a 2 (price discount: high and low) × 2 (reserved quantity: high and low) × 2 (time pressure: high and low) three-factor between-groups experimental design was used to investigate the influence of situational factors on consumers' purchase intention under the collection-based apparel pre-sale model.

The factors examined in this study contain five variables: price discount, pre-order quantity, time pressure, information quality, and merchant reputation; in addition, expected regret, perceived risk, and perceived value are used as mediating variables. The definition and application of these variables are based on existing research results, and their concepts are clearly defined in the literature review section, and they are all measured on a 7-point Likert scale, with 1 to 7 representing strongly disagree to strongly agree, and the degree of agreement increasing in order.

IV. RESULTS

A. Structural equation model fitting results

By using AMOS software to build the structural equation model, this calculates the path coefficients between the variables, verifies the main effects in the model and derives the model results. First, the structural equation model was constructed according to the construction method in Fig.2, and then the questionnaire data were imported and the model results were run.

Secondly, by examining the fitting effect of the model, the results of the various fitting indicators meet the requirements of the study, in which the chi-square to degrees of freedom ratio is 2.88, which is in line with the ideal range between 1 and 3; the

value of the RMSEA is also less than 0.08; and the values of the NFI, IFI, TLI, RFI, and CFI are all greater than 0.09. This indicates that the model bias is relatively small, and can be accepted.

B. Hypothesis testing

Fig. 3 illustrates the main effects path coefficients and their significance levels in the model. All five hypotheses proposed in this study passed the significance test. According to Fig.3, the paths of the five situational factors of the centralized purchasing apparel pre-sale model on purchase intention passed the significance test, with price promotion ($\beta = 0.27$, $p < 0.001$) having the greatest impact, quantity of reservations ($\beta = 0.370$, $p < 0.01$) having the second greatest impact, and merchant reputation ($\beta = 0.27$, $p < 0.05$), information quality ($\beta =$

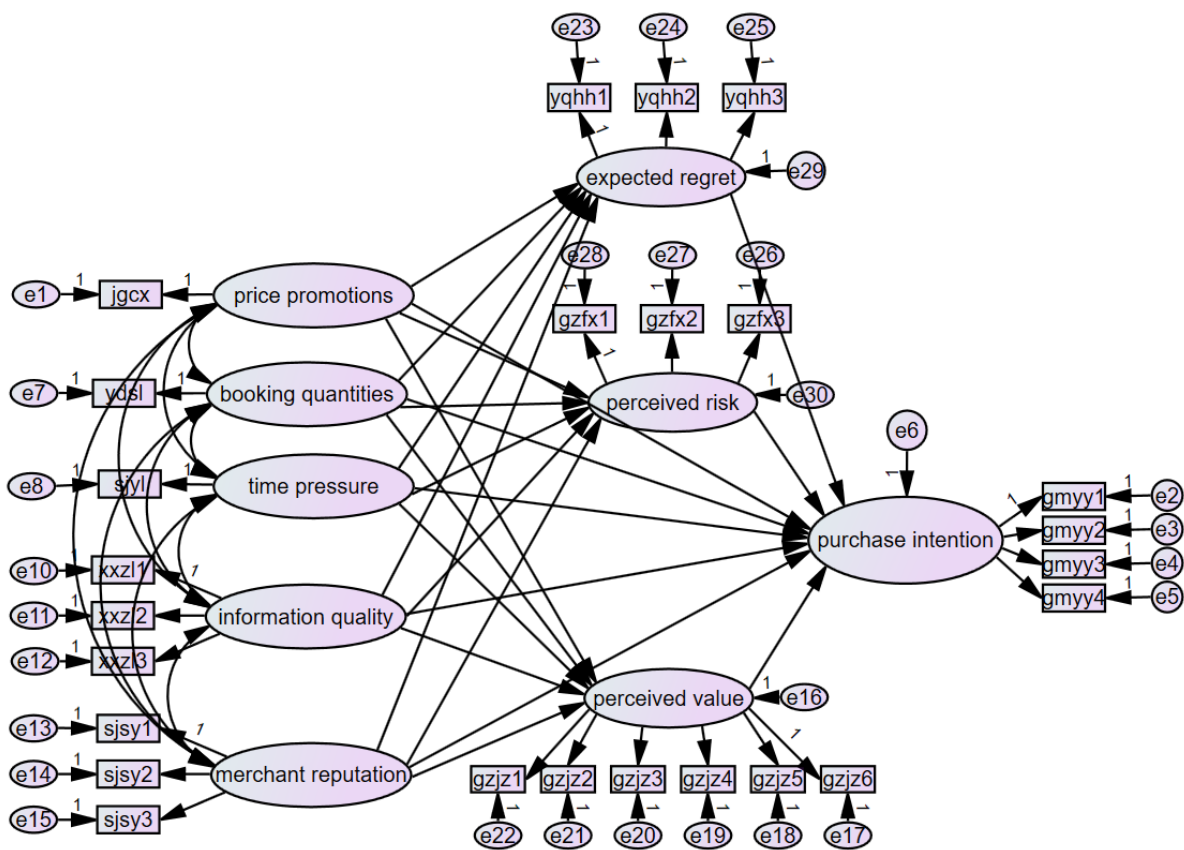


Fig. 2. Structural equation model

0.054, $p < 0.05$) and time pressure ($\beta = 0.032$, $p < 0.05$) had the smallest effect, and hypothesis H1 holds. In the influence path of situational factors on expected regret in the centralized purchasing apparel pre-sale model, price promotion ($\beta = 0.693$, $p < 0.001$) and time pressure ($\beta = 0.679$, $p < 0.001$) passed the significance test, whereas the number of pre-orders, the quality of information, and merchant reputation did not have a significant effect on expected regret, and Hypothesis H2 was partially established. The path of the influence of situational factors on perceived risk in the centralized purchasing apparel

pre-sale model in merchant reputation ($\beta = -0.562$, $p < 0.001$), information quality ($\beta = -0.558$, $p < 0.001$), pre-order quantity ($\beta = -0.558$, $p < 0.001$), and time pressure ($\beta = 0.013$, $p < 0.05$) passes the test of significance, whereas price promotion has no significant influence on the perceived risk has no significant effect, and hypothesis H3 is partially valid. In the path of the influence of situational factors on the perceived value of the centralized purchasing apparel pre-sale model, merchant reputation ($\beta = 0.487$, $p < 0.001$), information quality ($\beta = 0.482$, $p < 0.001$), price promotion ($\beta = 0.478$, $p < 0.001$), and the number of pre-orders ($\beta = 0.476$, $p < 0.05$) passed the significance test,

and time pressure did not have a significant impact on the perceived value, and hypothesis H4 was partially established. There is no significant effect and hypothesis H4 is partially valid.

Expected regret and perceived value will all have a positive effect on purchase intention, and perceived risk will have a negative effect on purchase intention. Hypothesis H5 is established.

V. GENERAL DISCUSSION

A. Conclusions

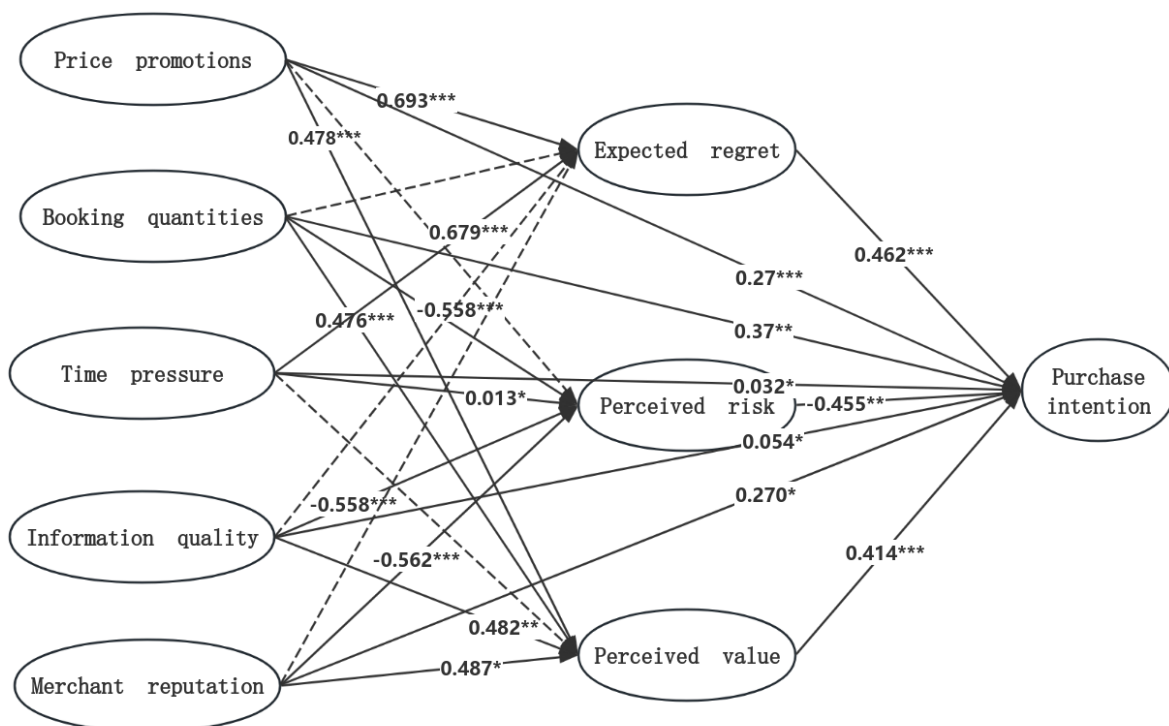
The five contextual factors in the centralized purchasing apparel pre-sale model include: price promotion, time pressure, pre-order quantity, information quality, and merchant reputation. This study examines the effects of these contextual

factors on consumers' purchase intention, and the conclusions of the study are as follows:

(1) All five factors can have a significant positive effect on purchase intention. Among them, the effects of price promotion and time pressure are more significant, followed by the effects of information quality and merchant reputation, and the effects of reservation quantity are relatively small.

(2) Price promotion enhances consumers' perceived value and expected regret. Time pressure increases consumers' expected regret but also increases consumers' perceived risk. The number of reservations, information quality, and merchant reputation reduce consumers' perceived risk and increase consumers' perceived value.

(3) Consumers' expected regret and perceived value increase when stimulated by the pre-sale scenario, and perceived risk increases when stimulated by the pre-sale scenario.



Note: * indicates significant at 0.05 level of significance.
 ** indicates significant at 0.01 level of significance.
 *** indicates significant at 0.001 level of significance.
 Solid line indicates significant and dotted line indicates not significant.

Fig. 3. Standardized path coefficients and significance levels

B. Managerial implication

On the apparel e-commerce platform, different categories of apparel brands develop different marketing programs and contents according to their own marketing cost budgets when developing their marketing strategies. This paper investigates the impact of the collection-based apparel pre-sale model on consumers' purchase intention from the aspects of external situational factors and consumers' affective cognition. The results of the study show that price promotion is the main

external driver of consumers' purchase intention, and the number of pre-orders can be regarded as a representative variable of the reference group, which has an impact on consumers' perceived risk and perceived value. Merchants and platforms can utilize the pre-sale mechanism to set up substantial preferential policies and vigorously publicize to attract a large number of consumers to place orders in advance during the pre-sale period. At the same time, they can make the warning words of the reserved quantity more eye-catching to reduce the perceived risk of consumers and attract more

consumers to participate in the pre-sale, so as to expand their influence and popularity, and gain more revenue. In addition, many merchants and platforms also set time limits in their pre-sale promotion strategies to create an imbalance between supply and demand, which encourages hesitant consumers to place orders quickly and attracts the participation of a wider group of consumers. Higher time pressure can raise consumers' expectation of regret and stimulate their willingness to buy, but it can also raise consumers' perceived risk and reduce their willingness to buy. Therefore, it is not better for merchants to set the time pressure as high as possible, but to set the time pressure at a moderate level in order to fully utilize the commercial value of this sales strategy.

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