

An Empirical Study on the Influence of Pop-Up Stores on Consumption Intention in the Digital Economy Mode

Siyu Guo^{1a}, Jian Xiao^{1b*}

^a1311693922@qq.com, ^bCorresponding author: *497524298@qq.com

¹Dalian Polytechnic University, Dalian, Liaoning, China

Abstract: Physical stores face intensified competition from online sales. With its distinctive marketing model, “pop-up stores” have become the trending retail format. This study develops a theoretical framework for the influence of customer consumption intentions, and creates a questionnaire based on a scale design. This study also analyzes the factors that influence the consumption intentions of pop-up stores by combining the two dimensions of the Technology Acceptance Model (TAM), namely perceived usefulness and perceived ease-of-use, with three stages of the AISAS model, namely interaction, consumer resonance and purchase decision, via constructing a model based on 10 consumption intention variables. The following conclusions are drawn: the atmosphere and scene of pop-up stores trigger consumption intention; pop-up stores meet the personalized demands of consumers; co-branding and idol effect have a moderating effect on consumption intention; consumer psychology and resonance influence consumption intention; therefore, improving the design of pop-up stores as well as diversifying and introducing novel marketing methods will increase purchase intention.

Keywords: Pop-up stores; consumption intention; TAM; AISAS model; consumers

1 Introduction

The concept of “new retail” was introduced by Mr. Jack Ma at the Apsara Conference in Hangzhou, in October 2016, and it has since gained considerable notice. Pop-up stores are an offshoot of experiential new retail, a trendy short-term business model that has acquired rapid traction among urban Chinese consumers ^[1]. The first pop-up store was opened in Berlin, Germany, transformed by the Japanese designer Rei Kawakubo, boasting an enormous success. The first Chinese pop-up store was constructed in 2012 and pop-up stores have since become an increasingly prominent new marketing model ^[2]. Currently, traditional stores require internet promotion to attract customers, whereas online sales incur expensive promotion costs, making pop-up stores a crucial promotional channel and monetization model ^[3]. Different from the conventional marketing model, pop-up stores underscore experiential marketing. In the era of the “experience economy”, experience consumption has already become a prevalent trend, since people are more likely to resonate with brands through their experiences ^[4]. As a promotional

tool, brands quickly realized the benefits of pop-up stores and began constructing them. This marketing approach influences consumers' consumption intentions.

This paper, with a focus on consumption intention, takes pop-up store consumers as its research object, creates a questionnaire based on the store's design and marketing model, and develops a research model. After collecting and analyzing data, conclusions are drawn regarding the elements that affect the consumption intentions of customers.

2 Theoretical research

From a commercial point of view, compared with traditional stores, flash stores have a shorter exhibition time. Generally, the displayed goods are presented in samples. Through a sales attempt, flash stores use the scene characteristics of flash stores to endow the brand with personality characteristics. Even well-known brands can inject young power into the brand by holding flash stores. Flash stores have a wide range of exhibits, ranging from cosmetics, clothing and electronic goods. Including online e-commerce, flash stores are gradually integrated into offline to narrow the relationship with consumers.

From the perspective of brands, the purpose of releasing new products, publicizing new styles and expanding consumers can be achieved by opening flash stores. Release new products through flash stores to obtain market feedback; Through the theme design of flash store, it presents consumers with a brand-new style and conveys the brand concept; Set up a flash store scene, expand the communication radius, expand the attention flow, and use the hunger marketing means of limited time and limited amount to attract consumers.

2.1 Consumption intention

Assel (1995) believes that a consumer will only make a purchase if they are aware of the product's details or understand the purchase circumstance^[5]. External stimuli, whether marketing stimuli or environmental stimuli, influence purchasing behavior (Kotler 2011)^[6]. According to American advertising expert E.S. Lewis (1998), consumers go through five psychological stages from exposure to information to final purchase: attention, interest, desire, memory and action.^[7] In 2005, Dentsu Inc., a Japan-based advertising company, proposed the AISAS model, which consists of five elements: attention, interest, search, action and share^[8].

2.2 Flow theory, perceived usefulness and perceived-ease-of-use

Flow theory in psychology refers to a unique mental state that occurs when an individual is totally immersed in an activity. In the flow state, individuals are entirely engrossed in the task at hand, and intense focus allows the brain to filter out irrelevant information.^[9] Perceived-ease-of use originates from Bandura's self-efficacy theory, the degree to which an individual believes a technology or thing to be useful to him or her. Perceived usefulness is derived from expectancy theory, the perceived degree to which an individual perceives a technology or thing to be easy to use. Davis introduced the TAM, a combination of expectancy theory models and theories such as self-efficacy theory, for the first time in 1986. Compared with the TAM, the TRA (theory of reasoned action) model discarded behavioral attitudes, dependent motivation and subjective norms. The TAM model was developed using perceived ease-of-use and perceived

usefulness as exogenous variables and attitudes toward technology, behavioral intentions, and ultimate impact as the transmission process. ^[10]

A questionnaire was formed based on the theory of consumption intention, the marketing model and the features of pop-up stores. The interview outline centered mostly on shop design, consumer psychology, behavior and moderating factors, in order to investigate the factors that influence consumers' purchase intention in the new retail mode. This study established a research model on the influence of consumption intention in pop-up marketing models based on the TAM and the AISAS model. What's more, we considered previous studies related to the marketing mode of pop-up stores. In addition, reliability and validity analysis, entropy analysis and other statistical methods were deployed to verify whether the hypothesis of the research model was correct. Finally, we summarized the impact of the factors affecting consumption intention, theoretical foundation and development direction.

3 Research methods

95% of the respondents were consumers of pop-up stores between the ages of 19 and 40. A total of 410 questionnaires were distributed. This paper developed a research model of the influence of consumption intention under the pop-up marketing model based on the TAM, AISAS model and characteristics of the pop-up store, using the aforementioned theories as a foundation. Due to its short-term nature, AISAS divides the shopping process into three stages: interaction, consumer resonance and purchase decision. The three dimensions of TAM include perceived usefulness, perceived ease-of-use and subjectively perceived trust. We established 10 variables in the research model: atmosphere and scene of pop-up stores, interactive experience, product price, brand love, self-association, co-branding and idle effect, novelty awareness, consumer expectation, product quality and satisfaction of after-sales service, as shown in Table 1.

Table 1. Research model of the influence of consumer intentions in Pop-Up Marketing models

Experience interactive	Perceived usefulness	Pop-up shop atmosphere scene
		Sense of interactive experience
		Price of commodities
Consumer resonance	sense of trust	Brands like
		Self-brand association
		The joint Love bean effect
		Innovation consciousness
		Consumer expectations
Buying decision	Perceived usefulness	Commercial quality
		After-sales satisfaction

4 Data analysis

4.1 Sample description

Questionnaires were given out by www.wjx.cn and a total of 410 questionnaires were collected, of which 298 were valid. SPSS21.0 was conducted for descriptive analysis of demographic variables to determine the sample structure. 60% of the respondents are female while 40% are male. The explanation for this disparity is that apparel pop-up stores are more appealing to women, whereas gaming and electronics pop-up stores are more appealing to men. The results of the questionnaire are generally in line with the interest of consumers in pop-up stores. Some of the 40% will go to pop-up stores to accompany their girlfriends. The results of the survey are generally consistent with the consumer interest in pop-up stores. Among the respondents, post-90s and post-00s young people accounted for the largest proportion (85.9%); college students accounted for 65%; In Hangzhou, Shanghai and other first-tier cities, 64.72% of people make purchases in pop-up stores, 40.83% of people have never bought goods from pop-up stores, and 10.3% of people have never seen a pop-up store. By analysis, conclusions are drawn: the buying force in pop-up stores is dominated by the post-90s and post-00s; the majority of people who visit the pop-up store are out of curiosity; the consumption intention is moderate.

Table 2. Basic information of interviewees

Name	Options	Frequency	Percent
Gender	Men	154	60%
	Women	246	40%
Age	After 90, 00	352	85.9%
Group	College students	267	65%
	First-tier cities fast Pop-Up store consumer groups	265	64.72%
	Not at the pop-up fee through the crowd	166	40.38%
	No fast Pop-Up store crowd	42	10.3%

Additional descriptive analysis was performed on the 298 valid questionnaires and can be summed up as follows: (1) Pop-up stores are mainly located in shopping malls in first and second-tier cities, and consumers are initially drawn by the design of the stores. (2) Most people are only intrigued by pop-up stores. Those who have never consumed and those who have once consumed in the pop-up stores are relatively balanced, with the former accounting for 56.83% and the latter 43.17%. (3) Pop-up stores specializing in cosmetics, clothing and food are more attractive. (4) Co-branding and idle effect have a greater influence on college students. 48.86% of consumers favour the stores and brands opened or endorsed by their idols and 28.02% of consumers are willing to spend on co-branded pop-up stores, according to the survey. Personalized pop-up stores are also the focus of the post-90s and post-00s.

4.2 Analysis of reliability and validity

Reliability Analysis: Cronbach α was computed using SPSS21.0 for ten variables, namely atmosphere and scene of pop-up stores, interactive experience, product price, brand love, self-association, co-branding and idle effect, novelty awareness, consumer expectation, product quality and satisfaction of after-sales service. The Cronbach α for variables listed above are 0.913, 0.802, 0.897, 0.845, 0.905, 0.957, 0.823, 0.933, 0.909 and 0.857. As the values all exceeded 0.7, the reliability of the variables in this study was good. The results are presented in Table 3.

Table 3 Results of the internal reliability analysis for each construct

Variables	Dimensional alpha factor
Pop-Up shop atmosphere scene	0.913
sense of interactive experience	0.802
Commodity prices	0.897
Brands like	0.845
Self-brand association	0.905
The joint love bean effect	0.957
Innovation consciousness	0.823
Consumer expectation	0.933
Product quality	0.909
After-sales satisfaction	0.857

Test on the validity: The test on the validity is divided into content validity test and construct validity test. The items in this paper are taken from well-developed scales. The scales are tested via previous studies and exploratory factor analysis (EFA). When designing the questionnaire and the scale, items were adapted accordingly to this research. Therefore, the content validity is good, as shown in Table 4.

This research does factor analysis to examine the construct validity of the questionnaire. The first step is to test the feasibility of factor analysis. SPSS23.0 is used as the test tool, which calculates the KMO value and performs Bartlett's test. The KMO value is employed to test the partial correlation between variables. The purpose of Bartlett's test is to verify the correlation between variables and extract common factors. Social studies require a KMO value of at least 0.5, and the data passes Bartlett's test. If the P-value is greater less than 0.05, it implies that the questionnaire data are appropriate for factor analysis.

Table 4 Global KMO and Sphericity tests

KMO		0.897
Bartlett Sphericity test	The approximate chi-square	10356.181
	df	3007
	Sig.	0.000

Table 5 Validity test of each factor

Variable dimension	KMO	Sig	Load range	The cumulative
Pop-up shop Atmosphere scene	0.765	0	0.533~0.813	78.566%
Commodity prices	0.725	0	0.534~0.895	75.663%
Sense of interactive experience	0.783	0	0.621~0.867	72.277%
Love beans, co-naming effect	0.715	0	0.711~0.845	66.663%
Innovation consciousness	0.710	0	0.521~0.915	71.268%
Self-brand association	0.817	0	0.740~0.870	70.329%
Consumer expectations	0.711	0	0.740~0.920	72.863%
Brands like	0.851	0	0.562~0.887	76.863%
The quality of your	0.758	0	0.539~0.898	66.849%
After-sales satisfaction	0.807	0	0.724~0.828	76.708%

As can be seen from the above Table 5, The KMO test yielded a KMO value of 0.897, which is greater than the minimum standard value of 0.7, as shown in the table above. In addition, the probability of the significant level of the result is 0.000, which is less than 0.001, therefore, the sample data is eligible for factor analysis. Principal component analysis (PCA) is mostly utilized in this study to extract factors with eigenvalues greater than 1. After doing factor analysis on the items corresponding to each variable, a factor is extracted from each variable, and the cumulative proportion of the extracted factors is greater than fifty percent, which adequately explains the variable. The factor loadings of all items are greater than 0.5, indicating that the sample data is appropriate for factor analysis.

Entropy method analysis: The entropy method can calculate the weight of each index, demonstrating the varying degrees of influence of each indicator on the consumption intention. Initially, data normalization should be performed. This study includes 298 samples and 10 indicators. The weight of each index can be determined by computing the information entropy value and the information utility value using SPSS software, as shown in Table 6.

Table 6 Results of the entropy method of analysis for each indicator.

Specific indicators	Corresponding weights	
Perceived usefulness (48.28%)	Pop-Up shop atmosphere scene	21.78%
	Commodity prices	15.18%
	Sense of interactive experience	11.3%
Perceived trust (40.8%)	The joint love bean effect	12.34%
	Innovation consciousness	8.33%
	Self-brand association	7.45%
	Consumer expectation	6.65%
Perceived ease of use (10.88%)	Brands like	6.07%
	Product quality	5.63%
	After-sale satisfaction	5.25%

According to the analysis of Table 2, it can be concluded that:

- (1) Consumers pay the greatest attention to the design of the stores and the price of the product, which account for the largest proportion of the factors affecting the consumption intention, with a total weight of 36.96. The price of the commodity has the biggest influence on the consumption intention. When consuming, the public focuses on commodity pricing, which is influenced by factors such as income level, values, etc. The majority of respondents in this study are college students whose primary source of income consists of living expenses and part-time employment. This is one of the reasons why product price is the most influential factor.
- (2) The interactive experience accounts for 11,3 percent of the total weight. The majority of consumers of pop-up stores are young adults. Young customers place a premium on customization and experience. Consequently, the interactive nature of pop-up stores makes them more appealing to young people, the largest customer demographic.
- (3) The majority of pop-up stores invite celebrities to draw customers. There are also many pop-up stores opened by celebrities. This marketing model attracts many young fans. The idol effect or co-branding with IP will win over consumers' trust, thereby promoting consumption intention. This is at the subjective level of consumer perceived trust.
- (4) Novelty awareness, self-association, consumer expectations, and brand love contributed 8.33%, 7.45%, 6.65%, and 6.07% of the weights, respectively. The pop-up store connected the brand with consumers, making the consumers resonate with the brands. The millennial generation is one that values novelty. Pop-up stores are different from traditional ones. These factors influence consumption intent from both the customer and pop-up store marketing perspectives.
- (5) Product quality and after sales satisfaction each contributed 5.63% and 5.25% respectively to the weighting. Although merchandise quality and after-sales satisfaction are important to most consumers, they do not account for a large proportion of the factors influencing consumption intentions, mainly because Pop-Up marketing is short-term and most consumers

do not think too much about ease of use when making their first purchase, however, although Pop-Up mob Stores are short-term operations, when there are problems with after-sales or quality, it is consumers' expectations and love for the brand that are affected, so quality and after-sales Quality and after sales are also factors that should be looked at in a Pop-Up shop. This can affect the consumer's willingness to buy again.

5 Conclusions

(1) Pop-up stores accommodate the meaning and needs of the experience economy and better accommodate the consumption habits of modern customers, which has become the general trend among brands and consumers.

(2) The commodity's pricing has the greatest influence on consumer purchasing decisions. Pop-up stores cater mostly to young consumers, the majority of whom are still in school or just beginning to work. They emphasize novelty and customization. They pay close attention to pricing as well. Therefore, pop-up marketing should focus more on balancing prices to increase consumption intention.

(3) The customization and trendy nature of products and pop-up stores can increase the propensity of young customers to consume. On the contrary, they are not particularly concerned about product quality. Product quality is the foundation of a brand's reputation and sales. In this study, customers pay less attention to product quality than to customization. However, this does not imply that consumers pay no attention to product quality. Therefore, the quality of products still needs improving.

(4) The idol effect and co-branding with IP are more appealing to fans, yet these techniques can boost customer trust and affection for the brand.

(5) Young people are the primary consumers of pop-up shops. In order for consumers and brands to have connections, pop-up stores should devote greater attention to innovation. Only by improving will consumers' consumption expectations be met, resulting in enhanced consumption intention. Consumption intention is moderated by consumers' association with the brand, novelty awareness, brand love, and consumer expectations.

(6) Although product quality and after-sales satisfaction do not influence purchase decisions, they are nevertheless important. Taking into account consumers' repurchase propensity and brand preference, pop-up retailers must continue to scrutinize the quality and after-sales service.

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