The influence of the perceived value of product pages information of online tea shop on consumers' purchase intention[*, **]

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Abstract

Nowadays, with the development of the internet and e-commerce, opening tea shops online has become an increasing choice for selling tea. However, the product page information of many online tea shops cannot effectively attract consumers, resulting in their profits being compromised. To investigate this, we conducted this paper and hope to provide effective suggestions. This paper is based on 229 questionnaires and selects the product page information of online tea shops as the research object. Using the four dimensions of perceived value theory as independent variables with consumer purchase intention as the dependent variable. A structural equation model was constructed to analyze the role of the perceived value of product page information in online tea shops how influencing consumers' purchase intentions. It was found that information on the perceived functional value of online tea shops did not have a significant positive effect on consumer purchase intentions. However, information on the perceived monetary value, perceived social value, and perceived emotional value of online tea shops had a significant positive impact on consumers' purchase intentions. Based on the above conclusions, online tea shops should focus on the expression of product page information to enhance the level of consumers' perceived value of tea products, thereby enhancing their intention to purchase tea products.

1. Introduction

With a long history and culture, China is the origin and largest producer and consumer of tea. With the development of the economy and the improvement of people's living standards, along with the spread of tea culture, drinking tea has gradually become a regular scene in people's lives. At the same time, along with the development of the Internet and consumer upgrading, traditional tea sales channels have been impacted to a certain extent. Therefore, the online tea shop sales model has brought a new development model for tea products. In recent years, Taobao as the representative of the e-commerce platform has gradually become an

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important way for consumers to buy tea. Tea companies have begun to get involved in e-commerce, and have seen rapid development. The operators of online tea shops, in the face of competitive pressure, have even introduced tea goods that can meet different needs. By improving the product itself and the external packaging information, the original life cycle of the tea product is changed. From there, consumers have more product choice, and when faced with a wide range of tea goods, they tend to buy according to the value they need. Merchants will design rich product information to express the value their products can offer, with the fundamental aim of attracting more attention and increasing the likelihood of purchase. Therefore, the value information perceived by consumers on the product pages of online tea shops may have an impact on their intention to purchase. Although there have been studies on consumer purchase intentions from the perspective of tea, they have been conducted in terms of brand image, product packaging, and geographical indications. Fewer studies have been conducted in detail from the perspective of product page information for online tea shops as the focus of research. A study is necessary in this field. Based on this, this study uses structural equation modeling (SEM), based on perceived value theory, to analyze the mechanism by which the perceived value of tea consumers' product page information on online tea shops affects their purchase intention, using data collected through a questionnaire. The influence relationship between the perceived value of product pages information of online tea shop and customer purchase intention is deeply researched, which provides theoretical support for improving customer purchase intention by enhancing the perceived value of product pages information of online tea shop.

2. Theoretical Assumptions and Models

2.1. Perceived value theory

The concept of "perceived value" is derived from the perceived quality of products and services, meaning the utility that customers perceive from the consumption process after paying a certain monetary cost for the products and services. Customer perception of product and service quality is the source of perceived value. Zeithaml (1988) uses the means-end chains method to study beverage products. Starting from the concepts of perceived quality and perceived price, it is argued that there is a more abstract concept than the external characteristics of a product, namely perceived value, which is "the overall measure between the consumer's perceived benefit and perceived loss of utility of a product." This is widely used in marketing

as a definition of perceived value. Zeithaml considers value as a utility and provides a detailed qualitative description of what perceived value is: Perceptual benefits include internal and external product attributes, quality, and other highly abstract characteristics that are more conducive to consumer perceptions of the product; perceived sacrifices are mainly reflected through monetary and non-monetary prices. Customer perceived value differs from the traditional concept of customer value in that they have different subjects of value understanding. The latter refers to the value that a company believes its products or services can provide to its customers, and belongs to the internal cognitive orientation of the company. Perceived value is multidimensional, and Sheth et al. (1991) systematically construct a framework for the study of perceived value, that includes five dimensions: social, emotional, functional, cognitive, and conditional values. Sweeney and Soutar (2001) developed a scale for measuring perceived value by modifying the value dimensions proposed by Sheth et al., and identified four dimensions of perceived value (quality, price, emotional, and social value) using durable consumer goods as the subject of their study.

Although the definition of customer perceived value varies among scholars, the key elements of customer perceived value are almost always centered on the trade-off between perceived benefits and perceived sacrifices, and this aspect is generally recognized by many scholars. Customer perceived value is part of a broader body of research that can be combined with different research directions to obtain different results and effects. Placing the relationship between perceived value and purchase intention in the context of product page information provided by online tea shops, this paper argues that consumers' perceived value is a trade-off between perceived benefits and perceived sacrifices based on their own experience of the product page information provided by online tea shops. Based on the research results of Sweeney and Soutar (2001) and Sheth et al. (1991), this paper deconstructs perceived value into four dimensions by combining the characteristics of online tea shops: perceived functional value, perceived monetary value, perceived social value, and perceived emotional value.

2.2. Customer's purchase intention

Customers purchase decision is a complex process. Purchase intention usually is related to the behavior, perceptions and attitudes of consumers. Purchase behavior is a key point for consumers to access and evaluate the specific product. Ghosh (1990) states that customer's purchase intention is an effective tool to predict buying

process. Purchase intention may be changed under the influence of price or perceived quality and value. In addition, consumers are affected by internal or external motivations during the buying process (Gogoi, 2013). Researchers have proposed six stages before deciding to buy the product, which are: awareness, knowledge, interest, preference, persuasion and purchase (Kotler & Armstrong, 2010; Kawa et al., 2013). Customers always think that purchase with a low cost, simple packaging and littleknown product is a high risk since they the quality of these products is not trustable (Gogoi, 2013)

2.3. Perceived value of product page information and consumers' purchase intention

2.3.1. Perceived functional value information

The functional dimension of perceived value concerns the utilitarian functions by which a product or service can satisfy a customer's practical needs (Lindgreen and Wynstra, 2005; Cheng et al., 2009; Khan, 2010). Perceived functional value refers to the functions and attributes of the product or service offered. It is considered to be the main driver of consumer choice and is central to consumer needs (Zeithaml, 1988). The perspective of perceived functional value is based on the assumption that customers are objective and rational, and their value perception are built on a product or service's composite attributes, such as qualities or features that can deliver the utilitarian performance. According to the first tea network, tea can be broadly divided into six categories: black tea, green tea, yellow tea, black tea, white tea, and oolong tea. Different types of tea have different benefits, and this is something that consumers tend to focus on when buying tea. Therefore, we believe that the functional value information contained in the product page information displayed by online tea shops will have some influence on consumers' purchasing intentions. Based on this, the following assumptions are made:

H1: Consumers' perceptions of functional value information on product pages of online tea shops have a significant positive impact on their purchase intention.

2.3.2. Perceived monetary value information

Monetary value is the price of a product or service. Perceived monetary value reflects the consumer's overall assessment of the utility of a product or service when the perceived benefit is weighed against the cost paid to obtain the product or service (Sweeney and Soutar, 2001). Consumer perceptions are subjective in nature, and specific costs include monetary and non-monetary items such as time and effort. For the consumer, the perception of the monetary cost paid is more precise and distinct. Consumers

weigh the information on the functional and cultural values of the tea against the expected price of the product by comparing it with the information on the online shop page. Based on this, the following assumptions are made:

H2: Consumers' perceptions of monetary value information on product pages of online tea shops have a significant positive impact on their purchase intention.

2.3.3. Perceived social value information

Social value is the ability of a product or service to reinforce a user's self-concept within a group or society (Sweeney and Soutar, 2001). Perceived social value is the satisfaction of social needs, such as social recognition and a good personal image, that the consumer receives when purchasing a product. When you want to make a social connection through tea, it is tea that is playing up its social value message. You can observe the characteristics of the people you want to meet, and you will find that most of them are in fact part of an informal group and have some kind of coincidental connection. It is actually by having the same preferences that relationships are started, and social values are created. The similar information they have is social value information, you can observe the characteristics of the community's product information to start a certain product, to meet the people you want to meet, and to accumulate resources and contacts. As a marketer, you can also use this information as a gimmick to market. Based on this, the following assumptions are made:

H3: Consumers' perceptions of social value information on product pages of online tea shops have a significant positive impact on their purchase intention.

2.3.4. Perceived emotional value information

Emotional value is defined as the benefit derived from the feelings or affective states (i.e. enjoyment or pleasure) that a product generates (Sweeney and Soutar, 2001). Emotional value is the benefit which one gets by experiencing something new or different. Dodds et al. (1991) are of the opinion that there is a positive impact of emotional value on consumer's purchase intention. Consumer perception towards a foreign brand versus a local brand also builds on affective components (Kumar et al., 2009). This includes the emotional value that consumers obtain from fun and enjoyable experiences. Moreover, Bagozzi et al. (1999) demonstrate that emotions related to consumption that are formed in response to a consideration made by the consumers.. Emotional value is the emotional utility that a product or service can bring to the table, stemming from the emotional element of the product. Emotional value information is the initial feeling about tea information and can be influenced by personal preferences, online reviews, merchant promotions, and other aspects. When the

emotional value pursuits of consumers are better understood, it will be easier to precisely position tea goods to the population, increasing the turnover of online tea shops. Based on this, the following assumptions are made:

H4: Consumers' perceptions of emotional value information on product pages of online tea shops have a significant positive impact on their purchase intention.

2.4. Construction of research models

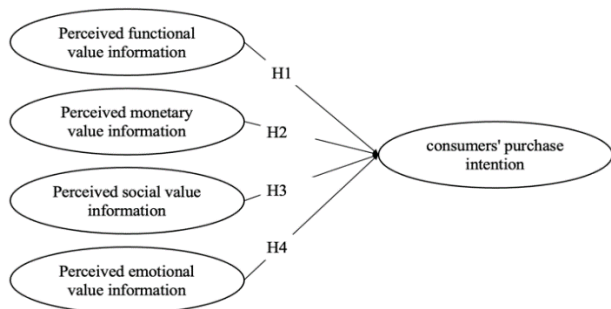Combined with the above theoretical background and hypotheses, the hypotheses model of this paper is shown in Figure1.

Figure 1: Hypotheses model

3. Research Design

3.1. Scale Design

After summarizing, modifying, and supplementing the related literature's measurement items, this paper's measurement scale is formed, as shown in Table 1. The scale consists of two parts. The first part is the survey of the perceived value of the product page information of an online tea shop, including perceived functional value information, perceived social value information, perceived monetary value information, and perceived emotional value information. corresponding to twelve items. The second part is the consumers' purchase intention survey, which includes three items. The measurement items are scored using the Likert 7-level measurement method, and the person filling out the questionnaire fills it in according to their actual perception.

Table 1: Measurement scale

Variable	Codes	Measurement items
Perceived functional value information	PFV1	Tea has an invigorating effect on the brain
	PFV2	Drinking tea can make me healthier
	PFV3	Tea has a digestive effect
Perceived monetary value information	PMV1	Great value for money on tea
	PMV2	The tea I was going to buy was less than the price I expected to pay for the tea
	PMV3	The overall value of the tea I like is higher than its price
Perceived social value information	PSV1	Through tea, you can meet new friends
	PSV2	Tea can help me expand my social circle
	PSV3	Tea represents one's status
Perceived emotional value information	PEV1	Drinking tea satisfies my psychological needs (e.g., happy mood)
	PEV2	My spiritual quest is somewhat fulfilled in the process of tasting tea
	PEV3	Making tea makes me feel good about myself
Customer purchase intention	CPI1	I am willing to buy tea from an online shop
	CPI2	When I buy tea, I give preference to online shops
	CPI3	A pleasant experience in a online tea shop will make me continue to buy tea

3.2. Data Collection

The questionnaires are all distributed online. After setting up the questionnaires through the survey platform, we sent the questionnaires to the customers of the online tea shop and provided an online lottery to attract customers to fill in the questionnaire. After a week of research, 243 questionnaires were finally recovered. After excluding 14 invalid questionnaires with no tea shopping experience on e-commerce platforms, 229 valid questionnaires were obtained, with an effective rate of 94.24%.

4. Results

4.1 Demographics

In the main study survey, 243 questionnaires have been collected, and 14 participants have reported no tea shopping experience on e-commerce platforms; these responses have been deleted. Thus, 229 responses have ultimately been collected for analysis. The results show that all of the respondents are from China, that 47.6% of them are men, that 60.5% of them are between the ages of 19 and 36, indicating that the majority of the respondents are young people, and that young people are the largest group of online shoppers, indicating that the tea drinking group is gradually becoming younger, and that the majority of them have monthly incomes above 3,000 yuan. The specific demographic results are listed in Table 2.

Table 2: Demographic characteristics of research participants.

Name	Category	Frequency	Percent
Gender	Male	109	47.6
	Female	120	52.4
Age	≤20	4	1.7
	21-30	80	34.9
	31-40	61	26.6
	41-50	51	22.3
	≥50	33	14.4
Monthly household income	≤3000	9	3.9
	3000-6000	36	15.7
	6000-9000	90	39.3
	9000-12000	64	27.9
	≥12000	30	13.1

4.2. Model

To verify the reliability and validity of the measurement scale, Cronbach's alpha and principal component analysis were used in the first step. The analysis results are listed in Table 3.

Table 3: Results of component analysis.

Construct	Item	Component 1	2	3	4	5	Cronbach'α
Perceived functional value information	PFV1			0.852			0.866
	PFV2			0.814			
	PFV3			0.804			
Perceived social value information	PSV1					0.815	0.865
	PSV2					0.821	
	PSV3					0.824	
Perceived monetary value information	PMV1	0.822					0.868
	PMV2	0.832					
	PMV3	0.828					
Perceived emotional value information	PEV1		0.840				0.883
	PEV2		0.833				
	PEV3		0.792				
Customer purchase intention	CPI1				0.813		0.867
	CPI2				0.796		
	CPI3				0.851		

Then, structural equation modeling (SEM) was employed to analyze the research data using Amos 24. In the measurement model, all the constructs were modeled as correlated, and it showed a good model fit for the sample data, with the values of $\chi2 = 101.993$, df = 80, $\chi2/df = 1.274$, p < .05, comparative fit index (CFI) = .989, normed fit index (NFI) = .953, Tucker–Lewis Index (TLI) = .986, root mean square error of approximation (RMSEA) = .035, and root mean residual (RMR) = .058.

The construct validity was then assessed using convergent and discriminant validity. All items demonstrate convergent validity, with statistically significant (p.01) factor loadings (Lu, 2013) and standardized factor loadings greater than 0.70 and critical ratios greater than 2.57 (Luo, 2018). The results of the measurement model are listed in Table 4.

Table 4: Results of measurement model.

Construct	Items	Estimate	S.E.	C.R.	P
Perceived functional value information	PFV1	1.000	N/A	N/A	N/A
	PFV2	1.238	0.094	13.183	***
	PFV3	1.389	0.102	13.591	***
Perceived social value information	PSV1	1.000	N/A	N/A	N/A
	PSV2	1.006	0.069	14.514	***
	PSV3	0.971	0.074	13.038	***
Perceived monetary value information	PMV1	1.000	N/A	N/A	N/A
	PMV2	1.050	0.072	14.585	***
	PMV3	1.082	0.082	13.169	***
Perceived emotional value information	PEV1	1.000	N/A	N/A	N/A
	PEV2	1.003	0.068	14.738	***
	PEV3	0.994	0.068	14.541	***
Customer purchase intention	CPI1	1.000	N/A	N/A	N/A
	CPI2	0.836	0.066	13.090	***
	CPI3	0.926	0.063	14.637	***

Note: SE, standard error; CR, critical ratio.

As suggested by Fornell and Larcker (1981), we assessed the discriminant validity of all the measured constructs. The results are presented in Table 5, which shows that the square root of the average variance extracted (AVE)

for each factor was greater than its correlations with other factors. Therefore, the results supported the discriminant validity of all pairs of constructs.

Table 5: Results of correlation analysis and discriminant validity assessment.

AVE	PFV	PSV	PMV	PEV	CPI
PFV	0.690				
PSV	0.541(0.293)	0.684			
PMV	0.526(0.277)	0.498(0.248)	0.695		
PEV	0.562(0.315)	0.563(0.317)	0.517(0.267)	0.717	
CPI	0.479(0.229)	0.545(0.297)	0.539(0.291)	0.552(0.305)	0.695

Note: The figures along the diagonal line mean AVE, and the figures in parentheses are the squares of the correlation coefficients.

4.3. Testing Hypotheses on Structural Model

The results of the test of the overall structural model are presented in Table 6 and Figure 2, and they indicate a good model fit with values of $\chi2 =101.993$, df = 80, $\chi2/df = 1.274$, p < .05, CFI = .989, NFI = .953, TLI = .986, RMSEA = .035, and RMR = .058. The results of testing the hypotheses are as follows.

The social (H2, C.R.=2.803, p=.005), monetary (H3, C.R.=3.083, p=.002), and emotional (H4, C.R.=2.773, p=.006) value information perceived by consumers in the product pages of online tea shops shows significant positive impacts on their purchase intention, with only functional (H1, C.R.=.963, p=.335) value information perceived by consumers having no such effect.

Table 6: Results of hypothesis testing.

Hypotheses	Path	Estimate	S.E.	C.R.	P	Results
H1	PFV→CRI	0.110	0.114	0.963	0.335	Rejected
H2	PSV→CRI	0.228	0.081	2.803	0.005	Accepted
H3	PMV→CRI	0.247	0.080	3.083	0.002	Accepted
H4	PEV→CRI	0.220	0.079	2.773	0.006	Accepted

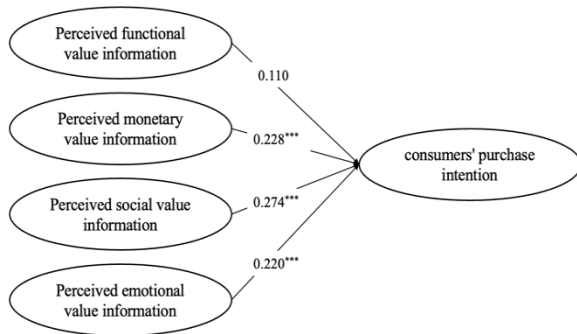Note. SE = standard error; CR = critical ratio.

Figure 2: The path model

Note: The numbers in the paths are the estimates of each path coefficient, and ***means p < .000, **means p < .01, and *means p < .05.

5. Discussion

5.1 Research Summary

In our study, we explored the impact of the perceived value of information on product pages of online tea shops on consumers' purchase intentions. This was tested through an empirical study. The results of the study are as follows.

Perceived social value information, perceived monetary value information, and perceived emotional value information on the product pages of online tea shops showed significant positive impacts on consumer purchase intention, while perceived functional value information did not show a significant impact on consumer purchase intention，this is because the interviewed tea consumers themselves are very aware of the functional value of tea, so when consumers see similar information on the product information page, their purchase intention will not be affected. The perceived social value information has the greatest influence on consumers' purchase intentions.

5.2 Managerial Implication

First, focus on the expression of information on the tea page and be innovative in your video content. The form of publicity for the online tea shop is unlimited, but most businesses' homepage publicity videos are just a single display of the tea making process, which does not capture the consumer's heart. The information contained on an online tea shop page should capture the consumer's pain points. Through this study, it was found that there is a significant positive impact on the psychological and social value messages and monetary value messages that capture the hearts and minds of consumers on the tea product pages. Businesses can design tea pages based on page color, atmosphere, and other aspects, and for promotional videos, they can include some interviews with tea buyers to arouse consumers' resonance with tea.

Second, comprehensive promotion of tea through tea information pages Tea is a potential red-sea market. Currently, most e-commerce platform merchants' product information pages for tea only contain some functional information or a few pictures of the product. Through this paper, we found that its functional information does not have a positive impact on consumers' purchase intentions, but the social value information, monetary functional value information, and emotional value information of online tea shops have a positive impact on consumers' purchase intentions. Therefore, its impact cannot be ignored. Businesses should be brave enough to break the mold and highlight the social value information, monetary value information, and emotional value information of tea on the commodity page. For example, tea can be shown on the home page to show some pictures of friends drinking tea to highlight the social value of information, or to show some words with monetary value to highlight the monetary value of information, or to show some pictures or text about the process of making tea to make me happy to highlight the psychological value, and so on.

Third, commodity information that reflects the monetary value of the tea by comparing the advantages and disadvantages of the two teas, businesses can highlight the characteristics of their own tea as well as their high-cost performance, thus creating an atmosphere of value for money or leveraging different aspects of price marketing campaigns with the help of different types of characteristics to give consumers the idea of buying.

Fourth, product information to hit the customer's mind Customers' psychological expectations include the pursuit of branding, page design, word of mouth, online reviews, etc. The visual impact of the page design is what makes consumers stay in the first place. Businesses can express the product information in such a way that we can particularly highlight the brand of the tea (indicating the detailed brand and category of the tea), the reputation of the tea (how the tea tastes, what color it presents, what its efficacy is), and the online comments (opening a fan group that can enable its fans who have bought it to discuss it online). The consumer's pain points are captured, which in turn gives the consumer a sense of psychological satisfaction that the product can bring. It gives the consumer a desire to buy.

5.3 Limitation and Future Research

5.3.1 Limitation

Tea itself has limitations. In this thesis, tea, a relatively unique agricultural product, is selected for investigation by combining the characteristics of tea itself with e-commerce platforms. However, although there is currently an increase

in the number of emerging tea consumers, mass tea consumption is more often found in tea cities and tea shops. Therefore, as consumer attitudes change, relevant research can be further developed.

5.3.2 Future Research

First, the sample size should be expanded. In this paper, only certain consumers are surveyed, but the quality of consumer perceptions will vary by product category, and the sample could be expanded to include other products or industries to make the findings more broadly applicable.

Secondly, adding variables to the study as well as the design of each dimensional topic External clues, such as advertising, certification marks, word of mouth, traceability, etc., are not represented in this paper.

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