



A Study on the Relationship between Online Shopping Consumers' Values and Consumer Engagement

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Abstract. In the era of economic globalization, buying and selling globally has become an important way to promote economic development. Online shopping is not only a way of shopping but also a form of entertainment for consumers. This study examines the impact and mechanism of consumer values on consumer engagement from the perspective of consumer values and consumer engagement. Empirical evidence shows that functional value directly affects consumer engagement, social value directly affects consumer engagement, and emotional value directly affects consumer engagement. Based on this, it is recommended to continuously improve the functional value, social value, and emotional value of online shopping platforms, optimize the functionality of online shopping platforms, and enhance consumers' willingness to participate.

Keywords: values; engagement; online shopping

1 Introduction

Online shopping is not only a way of life for people today, but also a mode of consumption. Internet shopping platforms have solved the various needs of daily life for people without leaving their homes, which not only improves the convenience of life, but also meets the needs of different consumer groups and personalities. However, consumers' values for online shopping vary, leading to different consumer orientations when facing the same products and platforms. This provides guidance for internet companies to formulate corresponding marketing strategies. This study focuses on three aspects of consumer values: functional value, social value, and emotional value. It emphasizes researching the impact of these different value orientations on consumer engagement and their interrelationships.

2 Literature Review

2.1 Consumer Values

Scott (1973)^[1] defined the meaning of consumer values as the relatively constant choices and preferences of individuals in actual consumption behavior, that is, the

process by which individuals select their preferred product characteristics from a variety of products and services during the actual consumption process. Through an analysis of the relationship between virtual tactile fit, perceived value, and consumer loyalty, it is concluded that e-commerce companies should provide information that matches consumers' informed needs, focus on honesty and commitment, establish a database matching consumer needs to enhance consumer loyalty [2]. In order to gain consumers' trust, e-commerce companies need to understand consumers' values and provide goods and services that match them in order to gain consumers' trust and loyalty. Research on customer perceived value, customer satisfaction, product involvement level, and willingness to spread positive word-of-mouth shows that customer perceived value directly affects customer satisfaction and ultimately influences consumers' willingness to spread positive word-of-mouth [3].

With the development of the Internet, higher perceived quality and value of online products can promote higher levels of consumer satisfaction. However, consumer expectations have little impact on consumer satisfaction; although consumer satisfaction cannot directly influence levels of consumer loyalty, it will affect it through influencing website trust; consumer complaints will affect levels of customer satisfaction, which in turn affects levels of customer loyalty [4]. The individual's evaluation of the value of goods based on their personal consumption values plays a crucial role in determining consumer behavior. Therefore, it is important to explore the relationship between personality types, consumer values, and online shopping decisions in order to guide individuals scientifically in establishing correct consumption values based on their psychological characteristics so as to provide enterprises with valuable scientific marketing strategies [5].

2.2 Consumer Engagement

Consumer engagement refers to the willingness of online consumers to participate in related activities, including before, during, and after online shopping. Lovelock and Young (1979)^[6] were among the first to formally propose the concept of consumer engagement, suggesting that it can enhance productivity. Early research on consumer engagement primarily focused on offline environments, with scholars arguing that consumer engagement is a form of broadening product development efforts and aiding brands in creating innovative products that align with market trends [7]. Wang and Li (2021) proposed that consumer engagement in online shopping refers to determining one's role in the shopping process and harboring expectations for a satisfactory shopping experience. They also highlighted a strong correlation between consumer engagement in online services and satisfaction with online shopping [8]. Dong Zheyi (2014) proposed that the purposes of customer participation include economic, material, psychological, and social aspects. The economic and material motivations refer to customers' desire to participate in order to obtain personal economic benefits and reduce time and energy costs. On the other hand, the psychological and social motivations include customers seeking psychological states such as respect, communication, harmony, satisfaction, as well as social benefits. [9]

He et al. (2022)^[10] suggested that the breadth of consumer engagement plays a significant role in influencing consumer satisfaction mechanisms and should guide businesses in actively engaging consumers through various activities. Specifically, they found that broader consumer engagement significantly enhances perceived quality which subsequently increases consumer satisfaction; perceived quality fully mediates the relationship between breadth of consumer engagement and customer satisfaction while perceived control partially mediates the relationship between breadth of consumer engagement and perceived quality.

3 Research Design

3.1 Hypothesis

The Relationship between Functional Value and Consumer Engagement.

The functional value of online shopping refers to the unique value that online shopping has compared to offline shopping. From the perspective of consumers, when purchasing a product, they will weigh the pros and cons of online and offline purchases. If the benefits of online shopping outweigh those of offline shopping, consumers will choose to shop online, thus demonstrating the functional value of online shopping. Online shoppers can gain a clearer understanding of how different consumers experience and participate in using a product, as well as their real feelings after purchasing it from different countries and regions. This enhances consumer participation, especially for novel products which can stimulate consumer desire to participate.

Zheng et al. (2018)^[11] proposed in their research that e-commerce logistics operations require consumer participation in communication with logistics personnel, generating order information, choosing logistics methods, providing feedback during transportation process, and receiving goods feedback etc. Consumer participation not only facilitates information transmission but also deepens understanding of logistics and e-commerce service quality and behavior by businesses. Due to the different experiences provided by online shopping for consumers which strengthen communication between consumers and merchants promote consumer participation in corresponding service activities thereby improving merchant management. Tan et al. (2022)^[12] pointed out in their study that enterprises co-create value by providing customers with personalized experiences environment while continuously interacting with them. Customer engagement not only directly or indirectly strengthens customer-brand relationships but also improves business performance results. Therefore, it is hypothesized that enterprises offering certain functional values through online shopping enhance customer engagement in various activities ultimately improving business management efficiency.

H1: The functional value positively influences consumer engagement

The Relationship between Social Value and Consumer Participation.

The social value refers to the positive impact that consumers bring to society through online shopping. In the Internet era, the economy has shifted from a regional focus to

a global one, and buying and selling globally has provided opportunities for the development of the entire world economy. During the process of online shopping, if consumers can strengthen their connection with the world and enhance their association with different regions and cultures, it can enable each consumer to increase their interaction with people and cultures in society during the shopping process, as well as enhance consumer participation. The increased participation of online shoppers can also promote their sense of identification with online shopping.

Yang (2007)^[13] found in his study on customer perceived value of virtual goods on the internet that emotional value, functional value, and hedonic value have a positive impact on purchase intention, among which hedonic value has the greatest impact on purchase intention, while corresponding social value does not have a particularly large influence. Liu (2021)^[14] believes that for consumers participating in co-creation value, their experience positively influences their willingness to co-create value; emotional and social experiential values from consumer interaction have a positive effect on co-creation willingness; e-commerce companies' interactive ability with consumers positively affects consumers' willingness to co-create value, and service experience plays an intermediary role. Therefore, we propose the following hypothesis:

H2: The Positive Influence of Social Value on Consumer Engagement

The Relationship between Emotional Value and Consumer Engagement.

Online shopping is not only a way of shopping, but also a way of leisure and relaxation. Nowadays, many young people use their spare time to browse products online and alleviate the pressure from work and life through this method. Some even develop an emotional dependence on online shopping. According to Tian (2010)^[15], emotions are the most vivid organic part of human life. Only by perfectly combining emotion with brand can customers be strongly touched, forming the best emotional brand, which requires realization through brand benefit positioning. It is precisely because of this emotional need that consumer participation is stimulated under the drive of emotional value. Liu et al. (2022)^[16] pointed out that emotional inclination reflects users' attitudes and behaviors, while perceived value preference is the basis for judging users' focus on sharing platform. Based on text mining of user comments on sharing platforms, the correlation between users' emotional inclination and perceived value in each dimension was examined. The weight of each perceived factor was calculated separately to determine the perceived value preference of different groups of users with different emotional inclinations in both supply-side market and demand-side market. These different perceived value preferences and emotion-driven factors directly affect consumers' enthusiasm for participation. Therefore, it is hypothesized as follows:

H3: Emotional value positively influences consumer engagement

3.2 Data Collection

This study utilized the online questionnaire platform to collect survey data. The target population for the online survey was individuals who have experience with online shopping, primarily consisting of young people. The questionnaires were distributed from September to October

2023, with a total of 420 questionnaires distributed. After excluding invalid responses, 392 valid questionnaires were collected, resulting in an effective response rate of 93.3%.

"Descriptive statistics of consumer values and consumer engagement in 392 survey questionnaires were examined using SPSS 25.0 software, as shown in Table 1."

Table 1. Descriptive Statistics of Consumer Values and Consumer Engagement

	N	Minimum value	maximum value	Mean value	Standard Deviation
Your gender	392	1	2	1.77	.419
Your age	392	1	8	2.83	1.374
Your marital status	392	1	2	1.77	.423
Your occupation	392	1	8	3.62	2.657
Your education level	392	1	5	2.61	.915
Your monthly income	392	1	6	2.94	1.608
How much time you spend on the network	392	1	5	4.18	.953
Your online shopping history	392	1	5	3.67	.999

4 Empirical Analysis

4.1 Reliability Test

The reliability of the survey questionnaire was tested using Cronbach’s α coefficient. A Cronbach’s α greater than 0.8 indicates satisfactory reliability. In this study, SPSS 25.0 software was utilized to test the reliability of 392 survey questionnaires. As shown in Table 2, the Cronbach's α coefficients for each variable were all greater than 0.8, indicating a high level of reliability. Therefore, it can be concluded that the scales used in this study demonstrated good internal consistency and reliability.

Table 2. Analysis of Consumer Values and Consumer Engagement Credibility

Variable	Cronbach's Coefficients	Number of items
Functional Value	0.927	5
Social Value	0.875	5
Emotional Value	0.892	5
Consumer Values	0.941	15
Pre-sales Stage	0.922	5
Sales Stage	0.870	5
Post-sales stage	0.944	5
Consumer Engagement	0.965	15

4.2 Model Fit Test

Model Fit Assessment.

The data was analyzed and statistically processed using AMOS 25.0 software, as shown in Table 3. The results of the structural equation modeling fit test indicate that

CMIN/DF (chi-square degrees of freedom ratio) = 6.493 and RMSEA (root mean square error of approximation) = 0.119, which are not very optimistic. However, the test results for IFI, GFI, and CFI all exceed 0.9. Therefore, based on a comprehensive analysis of the results, it can be concluded that the consumer values CFA model has good fit adequacy.

Table 3. Model Fit Test

Indicator	Results of the actual measurement
CMIN/DF	6.493
RMSEA	0.119
IFI	0.981
GFI	0.957
CFI	0.981
NFI	0.978
RFI	0.959

Convergent Validity Test.

Under the premise of good fit of the Consumer Values Scale CFA model, the convergent validity (AVE) and composite reliability (CR) of each dimension of the scale will be further tested. The testing process involves calculating the standardized factor loadings of each measurement item on its corresponding dimension using the established CFA model, and then calculating the convergent validity values and composite reliability values for each dimension using the formulas for AVE and CR. According to standards, the AVE value should reach a minimum of 0.5, and CR value should reach a minimum of 0.7 in order to indicate good convergent validity and composite reliability. The calculation formulas are as follows:

$$CR = (\sum \lambda_i)^2 / (\sum \lambda_i)^2 + \sum \theta_i \quad AVE = \sum \lambda_i^2 / n$$

Table 4. Convergence Validity and Composite Reliability Test of Consumer Values Scale in Various Dimensions

	Path relations	Estimate	AVE	CR
GN1	<--- Functional Value	0.912		
GN2	<--- Functional Value	0.922		
GN3	<--- Functional Value	0.938	0.749	0.937
GN4	<--- Functional Value	0.851		
GN5	<--- Functional Value	0.676		
SH1	<--- Social Value	0.752		
SH2	<--- Social Value	0.75		
SH3	<--- Social Value	0.818	0.593	0.879
SH4	<--- Social Value	0.856		
SH5	<--- Social Value	0.659		
QG1	<--- Emotional Value	0.771		
QG2	<--- Emotional Value	0.807		
QG3	<--- Emotional Value	0.819	0.629	0.894
QG4	<--- Emotional Value	0.749		
QG5	<--- Emotional Value	0.814		

Discriminant Validity Test.

The discriminant validity test results for each dimension indicator are shown in Table 5. It can be seen that all variable coefficients are positive and less than the square root of their average value, indicating good overall discriminant validity.

Table 5. Discriminant Validity Test for Each Dimension

Variable	Functional Value	Social Value	Emotional Value
Functional Value	0.749		
Social Value	0.586	0.593	
Emotional Value	0.754	0.811	0.629
Square root of AVE value	0.87	0.77	0.79

4.3 Hypothesis Testing of Consumer Value and Consumer Engagement

The correlation analysis in Table 6 shows that there is a positive impact of functional value on consumer engagement (Pearson correlation coefficient = 0.763, $P < 0.01$). This indicates a significant relationship between the two, thus supporting the hypothesis H1.

Table 6. Correlation Analysis of Functional Value and Consumer Engagement (N=392)

		Functional Value	Consumer Engagement
Functional Value	Pearson correlation	1	.763**
	Sig. (two-tailed)		.000
Consumer Engagement	Pearson correlation	.763**	1
	Sig. (two-tailed)	.000	

** . At the 0.01 level (two-tailed), the correlation is statistically significant.

The correlation analysis of social value and consumer participation in Table 7 shows that social value positively influences consumer participation (Pearson correlation coefficient = 0.693, $P < 0.01$). It is found that the two are significantly correlated, therefore, the hypothesis H2 is established.

Table 7. Correlation Analysis of Social Value and Consumer Engagement(N=392)

		Social Value	Consumer Engagement
Social Value	Pearson correlation	1	.686**
	Sig. (two-tailed)		.000
Consumer Engagement	Pearson correlation	.686**	1
	Sig. (two-tailed)	.000	

** . At the 0.01 level (two-tailed), the correlation is statistically significant.

The correlation analysis in Table 8 shows that emotional value has a positive impact on consumer engagement (Pearson correlation coefficient = 0.842, $P < 0.01$). It is found that there is a significant correlation between the two, therefore, the hypothesis H3 is established.

Table 8. Correlation Analysis of Emotional Value and Consumer Engagement (N=392)

		Emotional Value	Consumer Engageme
Emotional Value	Pearson correlation	1	.842**
	Sig. (two-tailed)		0
Consumer Engage- ment	Pearson correlation	.842**	1
	Sig. (two-tailed)	0	

** . At the 0.01 level (two-tailed), the correlation is statistically significant.

5 Conclusion

This study empirically examines the impact of consumer value on consumer engagement from the perspective of consumer value. The validation is carried out through tests such as reliability and validity testing, and hypothesis testing for correlation. The results indicate that functional value has a positive correlation with consumer engagement, social value has a positive correlation with consumer engagement, and emotional value also has a positive correlation with consumer engagement. Due to this positive correlation, this provides some guidance for online businesses in formulating strategic marketing strategies.

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