Exploring Determinants of Information and Commodity Consumption in TikTok E-commerce: From a Circle Theory Perspective

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1. INTRODUCTION AND RESEARCH QUESTIONS

Many consumers have changed the consumption concept that they not only focus on purchasing basic necessitates but are also willing to purchase hedonic products based on their personal interests. This type of interest-based purchasing is also gaining popularity because of the application of personalized recommendation in e-commerce. As the mainstream short video platform, TikTok employs short videos as an information propagation carrier to display the multi-dimensional attributes and personalized uses of products in various scenes. This approach can effectively stimulate the consumption desire of enthusiasts in relevant fields and significantly boost the sales of interest-based products through leveraging the influence of social networks. The success in selling Chinese traditional outfits and Japanese-style high school (JK) uniforms serves as typical cases. A report from TikTok e-commerce shows that within a year of the interest-oriented e-commerce pattern being applied, the total amount of commodity transactions brought by short videos increased by 161% year-on-year, of which the JK-related goods sales increased by 34%.

With its robust communication capabilities and extensive user base, TikTok has demonstrated its great potential as a social commerce platform. However, previous studies on interest-oriented e-commerce have only focused on the effects of content factors of videos [1], with little attention paid to the role that individuals' social needs play in promoting consumer consumption. In addition, consumer engagement is not only a basic indicator of the daily active users of a social commerce platform, but also reflects the lasting emotional incentives users get from platform content[2], which is an important reference variable in brand marketing. This research assumes that a distinctive feature of TikTok consumers is that they spontaneously form and maintain diversified social groups based on the same interests or attributes [3], namely interest-based network circles. Close social interactions and interest communications between members in the interest-based circle can better magnify the manifestation of group identity in purchasing interest-based products in two ways. First, the strong interpersonal connections within the circle and the constant sense of being indispensable serve as powerful motivators for individuals to actively engage in circle activities through continuous consumption. Second, the interest attribute of the circle promotes the consumption psychology of manifesting oneself with unique products, more and more consumption has gone beyond the purely material level, evolving into a way of self-extension [4]. Therefore, this paper tries to solve the following question: How does different factors of interest-based network circle affect users' engagement and consumption intention?

This paper examines this research question by integrating the network circle theory and social capital theory. We propose that circling and hierarchizing factors of interest-based circles exert different roles on influencing consumers' information and commodity consumption. Moreover, we introduce need for uniqueness (NFU) as the moderator to moderate the effects of circling and hierarchizing, given that NFU represents individuals' emphasis on individuality and distinctiveness, while interest-based circle often represents distinct personality labels. The consumer psychology of self-expression through the consumption of unique goods is also worthy of attention.

2. THEORY AND RESEARCH MODEL

Based on the network circle theory [3] and social capital theory [5], this study divides the user attributes in TikTok's interest-based network circle into circling and hierarchizing. Specifically, circling mainly emphasizes the degree of connection and emotional bounds between individuals in social capital, while hierarchizing focuses on the position of individuals in the organization and the possession of social capital in structural, relational, and cognitive dimensions. In addition, we use consumer engagement as a mediating variable in the model. Different from previous studies that only regard engagement as an individual's instantaneous action, we refer to Brodie et al. 's definition that consumer engagement is an individual's psychological state in three dimensions: cognition, emotion and behavior [6]. As for the moderating variable, the need for uniqueness is a personal trait that refers to the extent to which an individual values his or her uniqueness [7]. The hypotheses and research framework are proposed in Figure 1.
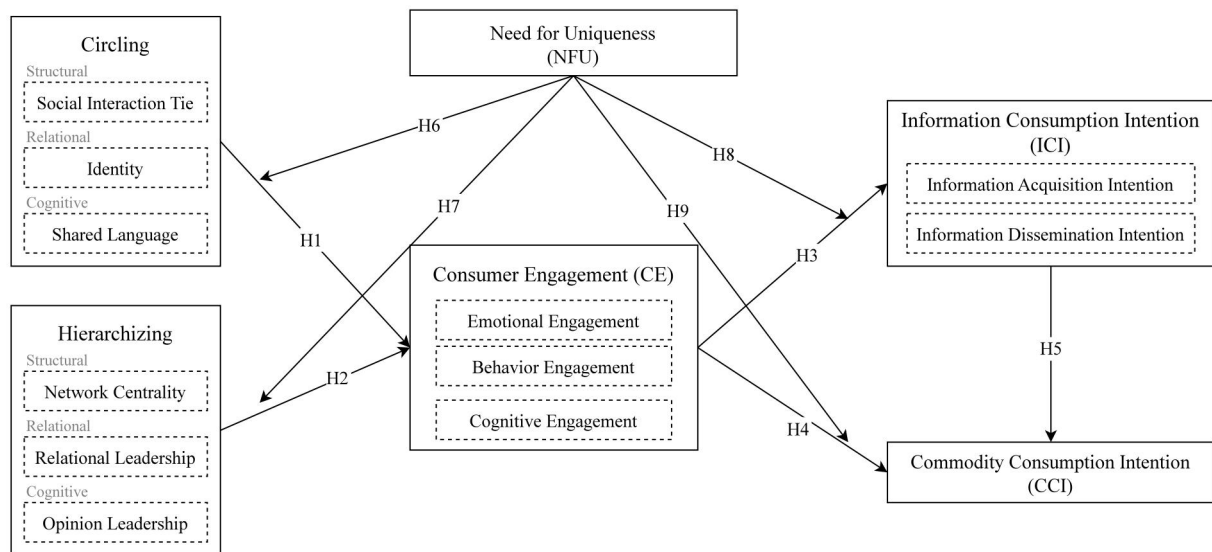

Figure 1. Research model

3. MATERIALS, RESULTS AND MAJOR FINDINGS

The questionnaire was measured using a seven-point Likert scale structure. From April 3 to April 9, 2023, a total of 841 questionnaires were collected, a total of 525 valid questionnaires were obtained. Table 1 shows the path coefficient calculated by structural equation model method, which verifies the model hypothesis of this study.

Table 1. Results of Path Coefficient Analysis.

Hypothesis and path	Coefficient	T-values	Conclusion
H1: Circling → CE	0.526***	11.900	Support
H2: Hierarchizing → CE	−0.034	0.749	–
H3: CE → ICI	0.713***	19.040	Support
H4: CE → CCI	0.320***	5.825	Support
H5: ICI → CCI	0.306***	4.773	Support
H6: Circling × NFU → CE	−0.072	1.202	–
H7: Hierarchizing × NFU → CE	0.075*	2.210	Support
H8: CE × NFU → ICI	0.101**	2.913	Support
H9: CE × NFU → CCI	−0.055*	2.130	Support

This study observed some valuable and interesting findings: (1) The deepening of circling can positively affect consumer engagement, thus increasing user's information and commodity consumption intention in

interest-based circle. (2) The effect of hierarchizing on consumer engagement will change from a negative to a positive effect under the regulation of need for uniqueness. (3) Higher consumer engagement implies higher information and commodity consumption intention. Compared to individuals with low need for uniqueness, individuals with high need for uniqueness will have higher willingness to continuously browse, access, and disseminate content related to their interest in TikTok, while the trend of increasing willingness to consume goods in circles will slow down as consumer engagement increases.

4. MAIN CONTRIBUTIONS

This research makes three main theoretical contributions. First, we extend the network circle theory to empirical research, emphasize the key role of interest-based network circles in the emerging interest-oriented e-commerce pattern. Second, we emphasize the critical role of consumer engagement as an integrated, long-term psychological state in interest-related consumption. Both the desire for interaction and the persistence of capital dominance are crucial factors binding individuals to interest-based circles, which influence users' engagement in these circles across cognition, emotion, and behavior dimensions. Finally, the important moderating role of need for uniqueness in TikTok interest-based circle brought about by the pursuit of unique cultures discloses a different mechanism of action in this study.

Based on the findings, this study provides some practical guidance. For short video creators, shaping a positive, healthy, and stable circle culture could help potential groups quickly understand the circle culture, which in turn realizes the revenue generation of the circle promotion. Besides, more life-oriented and real video content can more easily obtain the resonance of the audience, so that the language of the circle is more accessible to people outside the circle, thus promoting the related culture out of the circle. For business marketers, the power of highly hierarchized members should be harnessed, guiding them to introduce the unique cultural aspects and personal use of commodities. Marketers can organize online and offline circle communication activities with specific themes, or link with other circles and IPs to develop innovative products, enhance the consumer participation experience, strengthen the interactions within the circle to promote mass consumption.

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