

The Impact of Digital Identity on Consumer Behaviour among Youth Subculture Users on Xiaohongshu

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ABSTRACT

With the rapid development of digital media, the construction of our individual identity has gradually expanded from physical space to virtual world, forming the so-called digital identity. Based on the theory of social identity, this study focuses on the users of the Little Red Tree Blind Box Community to explore the influence of digital identity on consumer behavior. Data were collected by online questionnaire and analyzed by SPSS. Reliability analysis, factor analysis, correlation analysis and regression analysis were used. The results show that digital identity has a significant positive impact on consumers' paying more fees and participation. It also affects a wider range of behaviors, such as purchase intention and community interaction. These findings show that on the digital platform, consumer behavior is not only an economic activity, but also an important way for individuals to express their identity. This study enriches the application of social identity theory in the context of digital consumption, and provides practical insights for platform management and brand marketing.

Keywords: digital identity; youth subculture; Xiaohongshu; consumer behaviour; Social Identity Theory

1. INTRODUCTION

With the rapid development of digital technology, social networks have become an important space to express themselves and interact with others. In this process, our identity gradually expanded from the real world to the virtual environment, forming a system combining real-world identity with digital identity. On content platforms like Xiaohongshu, users constantly build their digital identities by creating content, interacting and consuming. This process not only shapes the way they look at themselves online, but also greatly affects their consumption attitudes and behavior choices.

Social identity theory helps us understand how our identity and behavior are related. She said that people define themselves by the groups they belong to, and they tend to act according to the standards of the groups ^[1]. When we shop, we usually see attachment to a particular brand, cultural symbol or interest community, which will affect our decision-making and actions. The existing research also shows that social identity not only affects consumers' attitudes, but also predicts their behaviours ^[2], such as brand loyalty, participation and purchase intention ^[3].

The rise of social media has further strengthened this mechanism. The interactivity and visibility of the platform enable people to enhance their identity by participating in and expressing themselves, thus forming a psychological path related to consumer behavior. Based on this, some studies apply social identity to online consumption situations to explain consumers' behavior on social media. For example, Jalilvand ^[4] found that social identity (including cognitive, emotional and evaluation dimensions) greatly affects purchase intention and consumption behavior, and through functions such as electronic word of mouth (eWOM) and brand loyalty. In addition, research shows that social identity can also greatly encourage participation and purchase intention in cultural and creative product communities ^[5].

This pattern is particularly evident in the youth subculture. Youth subculture refers to the values and lifestyles formed by young people in a specific cultural framework, emphasizing the establishment of identity through style and symbolic expression ^[6]. In the digital media environment, these sub-cultures have become highly divided, such as communities centered on the blind, Hanfu, JK and Lolita. Among these communities, the blind community provides a particularly suitable background for this study, because participation is closely related to consumer practice and continuous interaction, making it a clear and considerable framework for examining identity-driven consumer behavior. In these communities, consumer behavior is the key means to maintain and express group identification, transforming products from purely functional items into symbols with cultural significance and identity. Therefore, consumption is not only an economic activity, but also an important means to express identity. Previous studies show that consumers often express their social

identity through consumption, and tend to choose products that match their identity under the influence of reference groups^[7]. In this process, consumption not only has functional value, but also serves as an identity signal and a means to distinguish between groups^[8]. Therefore, in the interest-based community, individuals can participate in a higher level of consumption and participation to maintain their sense of belonging and identity consistency.

Although the existing research has established the theoretical relationship between identity and consumer behavior, there are still some limitations. First of all, most of the research is based on western platforms (such as Instagram and TikTok), while China platform has received relatively little attention. At the same time, the existing research tends to emphasize the brand or enterprise background, rather than focus on the interest-based subculture community. This leads to the lack of in-depth analysis of identity construction and consumption logic in these communities. Compared with the traditional consumption context, subculture consumption pays more attention to symbolic meaning and group identity, and its deep motivation may be different. In addition, although social identity is usually conceptualized as a multidimensional structure, its structure in a specific digital environment still needs further study. In a highly homogeneous interest-based community, it is not clear whether different dimensions of identity can be distinguished through experience.

According to the above research background and gap, the focus of this study is the young subculture users on Little Red Tree, especially in the “blind box” community. The purpose of this study is to study the influence of digital identity on consumer behavior. Therefore, the following assumptions are put forward:

H1: Digital identity has a significant positive effect on willingness to pay a premium.

H2: Digital identity has a significant positive effect on consumer involvement.

In addition, in order to explore the wider impact of digital identity, this study includes purchase intention and community interaction as other variables. Therefore, the following assumptions are put forward:

H3: Digital identity has a significant positive effect on purchase intention.

H4: Digital identity has a significant positive effect on community interaction.

Through empirical analysis, this study seeks to further uncover the role of digital identity in youth subcultural consumption, thereby extending the application of Social Identity Theory in digital consumption contexts.

2. METHOD

2.1 Participants

These data were collected through an online questionnaire aimed at young users of the small red tree subculture, especially those who belong to the blind community. After data filtering, there are 244 valid answers. Participants are mainly users of the community related to the blind. They have rich experience in community participation and consumption, which enables them to demonstrate the relationship between digital identity and consumer behavior.

The sample is mainly composed of women (69.26%) and men (30.74%). The participants are mainly young people. People aged 23-26 are the largest group (39.75%), followed by those aged 18-22 (29.92%) and 27-30 (21.31%). The number of participants under the age of 18 (1.64%) and over the age of 31 (7.38%) is relatively small. For their monthly expenses, most participants spend an average amount: 34.43% spend 2001-4000 yuan, 25.00% spend 1001-2000 yuan, 20.49% spend 4001-6000 yuan, 15.57% spend more than 6000 yuan, and only 4.51% spend less than 1000 yuan. Generally speaking, the sample shows a good level of purchasing power and well represents the characteristics of young users of the small red tree subculture.

2.2 Measures

In order to measure, we used a structured questionnaire. All items were evaluated with a five-point Likert scale (1 = totally disagree, 5 = totally agree). The scale is adjusted according to the existing scale to match the subculture background of young people on the little red tree.

2.2.1 Digital Identity

Digital identity was treated as the independent variable and conceptualized into three dimensions: cognitive, affective, and evaluative identity, with 9 items in total. The scale was primarily developed based on the work of Ellemers and Kortekaas^[9], who conceptualized social identity as a multidimensional construct. Building on this, the items were further refined

based on Wang ^[10] and Sohler and Brée ^[11] to improve their suitability for measuring digital identity in a social media context. Modifications were made to improve the suitability of the items for the context of this research. Example items are presented in Table 1.

Table 1. Measurement Items for Digital Identity

Cognitive Identity	Affective Identity	Evaluative Identity
I believe that my personal identity overlaps greatly with the identity of this community.	I have a strong sense of belonging to this community.	I consider myself a valuable member of this community.
I have a clear understanding of my belonging to this community.	When others praise this community, it feels like they are praising me personally.	I feel respected by others within this community.
I feel a sense of identity within this community.	I would feel emotionally lost if I left this community.	I see myself as an “experienced” or “important” participant in this community.

Although the scale was theoretically divided into three dimensions, factor analysis in this study did not clearly distinguish them. Therefore, digital identity was treated as a single variable in subsequent analyses, and its mean score was calculated for statistical analysis.

2.2.2 Consumer Behaviour

Consumer behaviour was treated as the dependent variable and consisted of two dimensions:

(1) Willingness to Pay a Premium

This variable measures individuals’ tendency to pay higher prices for products related to their interest-based communities. The scale includes three items, and was adapted from the willingness to pay a premium scale developed by Netemeyer and Krishnan ^[12].

(2) Consumer Involvement

This variable measures the extent to which individuals are involved in consumption related to their communities. The scale includes five items and was adapted from the Personal Involvement Inventory developed by Zaichkowsky ^[13].

Example items are presented in Table 2.

Table 2. Measurement Items for Consumer Behaviour

Willingness to Pay a Premium	Consumer Involvement
I am willing to pay a higher price for products related to my community than for ordinary products.	I think purchasing and using products related to my community is important.
Even if these products are slightly more expensive than ordinary alternatives, I would still choose to purchase them.	I feel that these products are relevant to me.
I am willing to pay a premium to obtain desired or limited-edition products related to my community.	I believe that these products are valuable.
	I am interested in these products.
	I find these products appealing.

2.2.3 Extended Behavioural Intentions

To further examine the effects of digital identity, this research included additional variables, including:

(1) Purchase Intention

This variable measures individuals' future consumption tendencies and includes two items, adapted from Jalilvand ^[4].

(2) Community Interaction

This variable measures individuals' interaction and expression behaviours on the platform, such as browsing, liking, commenting, and sharing consumption experiences. The scale includes two items.

Example items are presented in Table 3.

Table 3. Measurement Items for Extended Behavioural Intentions

Purchase Intention	Community Interaction
I plan to increase my purchases of these community-related products in the coming year.	I often browse, like, or comment on posts or shared content from others in the community on Xiaohongshu.
If I need to purchase such products, I will prioritize those recommended within the community.	I am willing to share my consumption experiences and unboxing videos on Xiaohongshu.

In addition, the questionnaire included several items describing users' platform usage and community participation, such as participation frequency, purchase frequency, and user roles. These variables were used for sample description and were not included in the hypothesis testing. The questionnaire also collected basic demographic information, including gender, age, and monthly disposable spending (measured in RMB per month), to describe the sample characteristics.

2.3 Data Collection

Data were collected through an online questionnaire. The survey was distributed via social media platforms, primarily Xiaohongshu and Weibo, by posting recruitment messages with relevant hashtags to attract the target population. It was also shared in interest-based group chats on Xiaohongshu to further reach users within the blind box youth subcultural community.

All participants took part voluntarily and were informed of anonymity prior to completing the questionnaire. To ensure data quality, the collected responses were screened, and incomplete or patterned responses were excluded. A total of 244 valid responses were retained for analysis.

3. RESULTS

3.1 Reliability Analysis

Reliability analyses were first conducted for all variables. The results showed that the dimensions of digital identity and the consumer behaviour variables demonstrated internal consistency. Specifically, cognitive identity ($\alpha = 0.759$), affective identity ($\alpha = 0.802$), and evaluative identity ($\alpha = 0.821$) all exceeded the acceptable threshold. For consumer behaviour, willingness to pay a premium ($\alpha = 0.793$) and consumer involvement ($\alpha = 0.818$) both showed good reliability, while community interaction ($\alpha = 0.742$) was also within an acceptable range.

Purchase intention was measured using two items, with a Cronbach's alpha of 0.411, which is below the threshold. However, as this variable consists of only two items, Cronbach's alpha may underestimate its internal consistency. Therefore, the inter-item correlation was also examined. The results showed a significant correlation between the two items ($r = 0.259$, $p < .01$). Based on this, purchase intention was considered acceptable for exploratory analysis in this study.

3.2 Factor Analysis

To examine the structural validity of the digital identity scale, an exploratory factor analysis was conducted on the nine items. The results showed that the Kaiser–Meyer–Olkin (KMO) measure was 0.908, and Bartlett's test of sphericity was significant ($\chi^2(36) = 1275.216$, $p < .001$), indicating that the data were suitable for factor analysis.

The initial analysis did not clearly distinguish multiple factors but revealed a strong single-factor structure. Although the scale was originally designed based on three dimensions—cognitive, affective, and evaluative identity—the items showed high intercorrelations in this sample, with no clear differentiation among dimensions. Therefore, digital identity was treated as a unidimensional construct, and the overall mean score was calculated for further statistical analysis.

3.3 Correlation Analysis

Descriptive statistics demonstrated that the mean values of all variables were generally at a moderate to relatively high level, with reasonable standard deviations. Correlation analysis showed that all variables were significantly positively correlated ($p < .01$). Specifically, digital identity is strongly and positively related to willingness to pay premium ($r = 0.674$), consumer participation ($r = 0.698$), purchase intention ($r = 0.705$) and community interaction ($r = 0.686$).

In addition, we have observed that there is a very positive relationship between different parts of people's buying methods. For example, willingness to pay more money is strongly positively correlated with consumer participation ($r = 0.723$), and consumer participation is also positively correlated with purchase intention ($r = 0.676$). These connections are as expected in theory. The results are shown in Table 4.

Table 4. Descriptive Statistics and Correlation Analysis Results

Variable	M	SD	1	2	3	4	5
1. Digital Identity	3.664	.795	1				
2. Willingness to Pay a Premium	3.730	.809	.674**	1			
3. Consumer Involvement	3.973	.634	.698**	.723**	1		
4. Purchase Intention	3.801	.783	.705**	.663**	.676**	1	
5. Community Interaction	3.934	.830	.686**	.619**	.683**	.701**	1

Note. N = 244; ** $p < .01$

3.4 Regression Analysis

In order to better understand the influence of digital identity on consumer behavior and future intentions, we conducted a series of linear regression analysis. The results are shown in Table 5.

Table 5. Regression Analysis Results

Variable	Willingness to Pay a Premium	Consumer Involvement	Purchase Intention	Community Interaction
Digital Identity (β)	.674***	.698***	.705***	.686***
t	14.191	15.183	15.460	14.660
R ²	.454	.488	.497	.470
F	201.387***	230.523***	239.004***	214.916***

Note. N = 244; *** $p < .001$

The regression results show that digital identity has a significant positive impact on the willingness to pay premium ($\beta = 0.674$, $t = 14.191$, $p < 0.001$). The model has statistical significance ($F = 201.387$, $p < .001$), which explains 45.4% variance ($R = 0.454$). Similarly, digital identity display has a significant positive impact on consumer participation ($\beta = 0.698$, $t = 15.183$, $p < 0.001$), and the model explains 48.8% variance ($R = 0.488$). Compared with the willingness to pay a premium, digital identity shows more explanatory power and has a greater impact on consumers' participation, which shows that it has a greater impact on actual participation behaviours.

As for the extended behavior intention, digital identity significantly predicted the purchase intention ($\beta = 0.705$, $t = 15.460$, $p < 0.001$) and community interaction ($\beta = 0.686$, $t = 14.660$, $P < 0.001$), with r values of 0.497 and 0.470 respectively.

Generally speaking, digital identity not only affects consumers' behavior, but also has a lasting impact on subsequent consumption intentions and interactions.

4. DISCUSSION

Based on the social identity theory, this study examines the influence of digital identity on consumer behavior, and expands the behavioral intention under the specific youth subculture background, focusing on the community surprise box (blind box) on the little red tree. The results support the hypothesis to a great extent, indicating that digital identity has a significant positive impact on different consumption-related variables.

Digital identity greatly affects consumers' behavior, such as their willingness to pay premium and participate in consumption, thus supporting H1 and H2. These results show that people are more likely to express and strengthen their sense of belonging through consumption when they have a sense of identity with a particular community. Compared with the willingness to pay a premium, digital identity shows more explanatory power. This shows that identity is expressed more through daily participation behaviors, such as following, interaction and continuous participation, rather than direct money expenditure. This model is consistent with the social identity theory, which holds that individuals tend to keep their behavior consistent with the group to which they belong^[1].

In terms of long-term behavior intention, digital identity also has a significant impact on purchase intention and community interaction, supporting H3 and H4. This shows that identity will not only affect individuals' current consumption behavior, but also affect their future behavior trends and how they express themselves on digital platforms. On social media, these expressions are often seen by others, which makes consumption have social and performance dimensions. Through sharing and interaction, individuals not only strengthen their identity, but also help to establish group norms.

This study expands the application of social identity theory in consumer behavior by adopting digital platform and youth subculture. Although previous studies mainly focused on the brand or organizational background, this study emphasized the explanatory role of identity in the cross-context framework of combining adolescent subculture and social media. In addition, the research results show that digital identity is often analyzed empirically as a one-dimensional structure, rather than being clearly divided into cognitive, emotional and evaluation identities. This may indicate that in a highly subdivided digital media environment, different dimensions of identity are experienced in a more comprehensive way; In other words, in a relatively homogeneous interest-based community, individuals can regard identity as a unified experience rather than a clearly structured multidimensional structure. This discovery provides a new perspective for future research, indicating that identity structure may depend on context in digital environment. These findings are also important for platforms and brands. By making users pay more attention to their community and identity, we can encourage them to spend more and participate. For example, strategies such as content co-creation, community interaction and symbolic expression can strengthen the emotional connection between users and the community. This encourages them to participate and consume more.

Although the results are usually consistent, we should pay attention to several limitations. First, the use of cross-sectional data limits causal interpretation. At the same time, all variables are measured by self-report, which may introduce common method deviation. In addition, factor analysis does not explicitly support the three-dimensional structure of digital identity, which limits the deeper understanding of the concept. On the one hand, longitudinal or experimental design can be used to better check the causal relationship between variables. On the other hand, incorporating behavioral or multi-source data can improve the reliability of the results. This will also help to improve the stability of measurement scale and test identity structure in different situations, thus providing a more comprehensive understanding of its potential mechanism.

5. CONCLUSION

This study examines the role of digital identity in the behavior and decision-making of young people in the small red tree subculture community. The results show that digital identity has a strong and stable positive impact on paying more fees, consumer participation, purchase intention and willingness to interact in the community. These findings show that identity is very important for consumption and participation in the digital environment. The research results also show that digital identity is more reflected in daily participation than in direct money decision-making, and consumption under the background of subculture not only serves economic purposes, but also has significance related to identity and social life.

This study helps us to better understand how identity works in digital consumption. It also provides insights for future research and practice. By demonstrating the importance of identity to consumer behavior, these findings provide useful perspectives for academic research and platform marketing strategies.

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