

The Construction and Representation of Digital Identities: The Impact of Social Media on Consumer Thinking

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Abstract: As social platforms grow and the number of users increases, users are forming unique digital identities on the platforms, while at the same time new trends in brand marketing strategies are changing consumer thinking. The aim of this study is to analyse the impact of social media on the construction and representation of consumers' digital identities and examine how it changes consumer thinking and behaviour. In this study, data were collected through a questionnaire, using methods such as descriptive statistics and cross-tabulation to classify and analyse the behavioural patterns of social media users from different backgrounds. The results of the study show that young users under the age of 18 are highly active on various social media platforms. They mainly focus on user reviews and brand storytelling. Meanwhile, users aged 26 to 34 showed a stronger interest in visual content. Generally speaking, consumers shape and present their digital identities through social media. This process not only reflects the differences in the concerns of different age groups, but also plays an important role in driving consumer behaviour.

1 INTRODUCTION

In the modern digital field, social platforms are growing rapidly and diversifying. Along with the popularity of mobile internet which has increased the number of users, social media has penetrated into people's daily lives. As of December 2023, the number of active users across the network has reached 1.438 billion, with a growth rate of between 2.4% and 3.4% over the past year. Billions of people use various social platforms for information exchange, social interaction, and entertainment. These platforms have not only become an important link for people to connect with each other, and even it has become a powerful hub for information dissemination.

These 'preferences' and 'habits' on social platforms gradually shape users' unique online "digital identities". Symbolic existence has become the dominant paradigm in the age of smart media, and mimetic spaces provide a place for anonymised identity interaction. Digital Identity as a Critical Infrastructure for Higher-Order Forms of Social Being Catalysed by Digital Technology, has the objective necessity of constructing and generating. Social media users display their personalities, values and lifestyles by posting content, engaging in interactions, etc. They

construct a digital image that is related to, but different from, the real self.

In the China Brand Marketing Innovation and Consumption Trend Insight Report 2024, it is mentioned that brand marketing is shifting towards segmented groups and precise targeting. The traditional one-way communication marketing model is gradually being replaced by interactive and personalised marketing. Brands are increasingly focusing on deeper engagement with consumers through social media, to understand their needs, preferences and consumption habits to develop more precise marketing strategies.

Looking at the evolving situation of today's social platforms and new trends in brand marketing, this study aims to analyse the impact of social media on the construction and performance of consumers' digital identities. And exploring how this influence changes consumer ideas and behaviour is important for both theory and practice.

Users shape their unique virtual selves through verbal actions and interactive exchanges on social media platforms. Social tools have a profound impact on users' perceptions, changing the way they view and evaluate products and brands, and this change in perception is directly related to purchasing behaviour, resulting in new characteristics and patterns of consumption. Focusing on this area, this paper

provides insights into how social media influences consumers' digital identity construction, cognitive processes, and purchasing activities, whether different types of platform content make a difference to users' consumer mindsets, and what is the correlation between the frequency and quality of online interactions and shifts in consumer mindsets. On a more granular level, delve into how the algorithmic recommendation models of different social platforms lead users to present specific areas of the self and how the social norms of these platforms limit or facilitate the development of digital identities. Also, to analyse the mechanisms by which social media influences consumer behaviour such as purchase decisions and consumption tendencies.

This study utilises the questionnaire method, a technique that has the advantage of being able to parse user groups on social media platforms. The questionnaire, which covered the frequency of social media use, preferences and ways of presenting digital identities, was disseminated through multiple platforms such as Weibo and Xiaohongshu to ensure a wide coverage of different groups of people. At the same time, descriptive statistical analysis was used to understand the basic behavioural characteristics of consumers on social media, and cross-tabulation statistics were used to explore the relationship between different variables, such as the link between different age levels and their consumption patterns, so as to examine the impact of social media on consumers in depth, which helped to carry out the study successfully.

2 LITERATURE REVIEW

2.1 Research Related to Digital Identity Construction

In the last two years, more research on digital identity construction has focused on how individuals shape and represent themselves in digital environments. Zhao Shuangge and Xunsha explored the wandering regulation of simulacra in the age of intellectual media, and the value definition and meaning reshaping of prosaic reality (Zhao & Xun, 2024). Their research highlights the fluidity and malleability of personal identity in the digital environment. Huang Jiakang, on the other hand, explores the logic of digital identity formation, the difficulties in constructing it and the ways to solve the difficulties from the perspective of youth, revealing that young people face the problems of losing themselves and the proliferation of false identities when constructing their identities in the

digital world (Huang, 2024). Zegang Liu's research focuses on the formation of digital identities in the age of artificial intelligence, emphasising the importance of technological advances to the identity building process (Liu, 2024). Yan Guohua and Han Shuo and Xu Qiang, on the other hand, explored the identity construction of youth groups in virtual existence from the perspective of semiotics and identity theory (Yan & Han, 2024; Xu, 2023). They see this development as encompassing multiple dimensions of self-expression and social recognition. However, they also pointed out that some young people may overly pursue online identity to the detriment of real-life issues. Zhang Zheng and Liu Chenxu's study focuses on the new identity practices of Generation Z youth in digital image consumption, emphasising the construction of digital self-consciousness (Zhang & Liu, 2023).

Masiero S and Bailur S examine the importance of digital identity in social development, analysing its role in promoting social inclusion, enhancing the efficiency of public services and fostering economic development. They provide an important perspective for understanding the value of digital identity plurality and contribute to emphasising the social benefits of digital identity (Masiero & Bailur, 2021). Contributed to this study in emphasising the social value of digital identity. However, the study discusses less about the specific implementation techniques and application environments, and thus appears to be less comprehensive.

These studies provide multi-layered insights into digital identity formation in the context of a combination of individual and societal factors, contributing to the understanding of the phenomenon. However, they often ignore individual differences across cultural and social contexts, as well as the long-term effects of technological advances on identity construction. Some studies have dealt less with the changes in digital identities as they are established; in fact, digital identities are constantly evolving and adapting to personal development and social contexts. This paper will analyse the age perspective and compare the different age groups in order to fill the current research gap.

2.2 Research Related to Algorithmic Intervention in Identity Classification

Along with the development of the Internet and computing tools, algorithms play an important role in digital identity. Hong Jiewen and Chang Jingyi constructed a digital identity for the youths of Station B by studying their algorithmic identity construction

by analysing and mining the user behavioural data and attaching specific labels to the users (Hong & Chang, 2023). This study reveals how platform algorithms affect individual identity presentation and self-identification. However, this study is less involved in exploring the potential risks posed by algorithmic categorisation and does not analyse in depth the issues of bias and discrimination that may arise. Lun Li and Yuying Sun fill this gap by pointing out that the design and operation of algorithms are often influenced by the developer's values, cognitive limitations, and data bias (Li & Sun, 2023). This can lead to unfairly categorised assessments of certain groups. This research makes an important contribution to shedding light on the problems of algorithmic discrimination, but specific options for addressing these problems are not explored in sufficient detail.

In addition, the opacity of the algorithms exacerbates the risk of bias and discrimination. Users are often unaware of how algorithms categorise and evaluate them, and it is difficult to monitor and intervene in the algorithms' decision-making process. Xu Qiang points out that this trait may make users feel that their digital identity is arbitrarily defined and manipulated, leading to confusion and anxiety about self-identity (Xu, 2023). When discussing psychological impacts, Xu Qiang's research is valuable, but improvements are still needed in terms of specific regulatory measures and increased transparency.

Frederico Schardon and Ricardo Custódio conducted a systematic review, mapping and categorisation study of Self-Sovereign Identity (SSI). They comprehensively sorted out the relevant literature on SSI and constructed a detailed classification system of SSI, which provided an important theoretical foundation and research framework for understanding the concepts, technical implementations, and challenges faced by SSI, and made important contributions to the theoretical construction of the SSI field (Schardong & Custódio, 2022). However, the study mainly focuses on the technical level and theoretical discussion of SSI, and involves less about the specific performance and mechanism of SSI's influence on consumer thinking in practical application scenarios, especially in the social media environment, and the content study is not comprehensive enough.

These studies emphasise the impact of algorithmic interventions on users' digital identities, while hinting at the problems of bias and injustice that can result from algorithms' lack of ethical journalistic awareness. There is still a lack of research on how to properly address these issues, especially in areas such

as enhancing algorithmic regulation and increasing algorithmic transparency. In this paper, we will conduct an in-depth discussion from the perspective of parsing algorithm intervention to complement the existing research deficiency and provide theoretical basis and practical guidance for the fair and reasonable construction of maintaining users' digital identities.

2.3 A Study of the Impact of Social Media on Consumer Philosophy

The impact of social media on consumer thinking and behaviors is multifaceted. Wang Yonggui et al. provided a macro perspective of social media marketing research by comprehensively analysing Web of Science core databases and CNKI databases (Wang et al., 2024). Chen Chong explored how social interactions influence residents' consumption from the perspective of demonstration and cognitive effects, highlighting the role of social media content dissemination in shaping consumption behaviors (Chen, 2023). Lu Xinyuan and other scholars have analysed how social comparisons in social media affect users' purchasing behaviors from the social consumption interpretation, and revealed its far-reaching effect on the complexity of shopping decisions (Lu et al., 2023).

Knoll J states that individuals are more favoured when they possess positive evaluative traits (e.g., good behaviors), display social or positive non-verbal actions (e.g., assisting others), and are perceived by consumers as being similar or meeting expectations (Knoll et al., 2015). JIN Fei proposed, suggesting that social media sharing cues play an important role in consumer decision making, influencing consumer judgement and choice (Jin, 2022). Such as adding sharing buttons to the product interface, adding themed hashtags on major social platforms, or just using advertising slogans with sharing incentives. Joy A and others discuss future trends in digital transformation for luxury brands, including the use of meta-universes, digital fashion and non-homogenised tokens NFT. The study states that these emerging technologies present new opportunities and challenges for luxury brands, and that brands need to continue to innovate to meet the needs of consumers in the digital age (Joy et al., 2022). This exploration provides forward-looking insights into marketing and digital strategies, but consumer acceptance and consumption habits of these emerging digital products and services remain under-analyses.

These studies provide this paper with a key insight into how social networks influence consumer behaviors. In addition, there is still a dearth of research

on how social media shapes consumer perceptions. Some studies ignore platform characteristics. For example, Xiaohongshu focuses on recommendation and sharing, while Weibo emphasises rapid information dissemination and topic discussion. This is an area that has been under-represented in existing research, as different features may create different feelings in consumers. From another perspective, the impact of social media on consumer perceptions ignores consumer group differences. Consumers of different generations, genders and economic status differ in their behavioural performance and purchasing philosophies on social platforms. However, most studies have failed to explore these differences in depth and their conclusions have limited applicability.

3 METHOD

This study used a questionnaire survey method, distributed questionnaires through microblogging,

the Rednote and WeChat platforms, and collected data on the questionnaire star platform, with a total of 106 valid questionnaires recovered. The questionnaire was designed to cover respondents' basic information (e.g., gender, age, education level, etc.), social media usage habits (e.g., frequency of use, purpose, content posting, etc.), and the impact of social media on consumption decisions. By analysing these data, this study aims to reveal the impact of social media on consumers' digital identity construction and consumer thinking through descriptive statistical analysis and cross-statistical analysis.

As shown in figure 1, heavy social media user groups were identified through cross-tabulation analysis based on the frequency of social media use and content posting habits of the respondents. Meanwhile, an in-depth analysis was conducted for the user groups under 18 and 26-34 years old to reveal the consumer thinking and behavioral patterns of their groups, and to explore whether they are representative and significant.

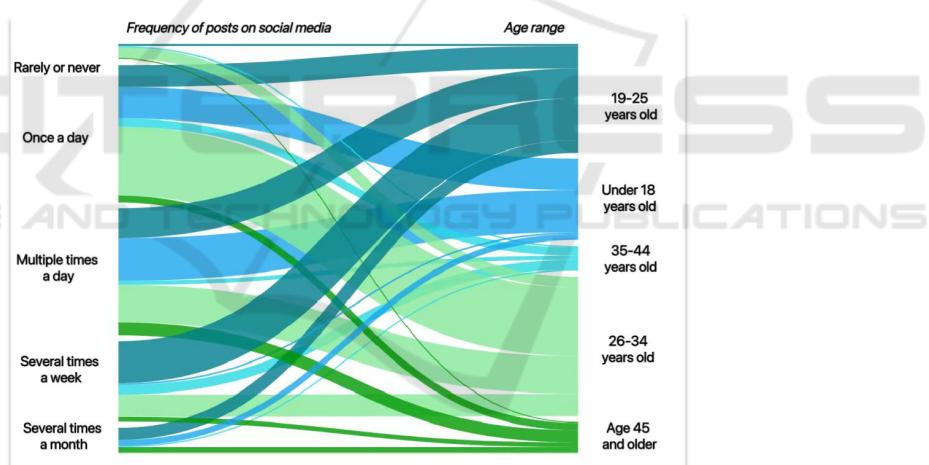


Figure 1. Social media posting frequency and age hierarchy. (Picture credit : Original)

4 RESULTS

For the young user group under the age of 18, as shown in Table 1. through cross-tabulation analysis, their behavioural patterns on social media are clearly characterised by heavy use. A high percentage of users in this group post content multiple times a day or at least once a day, showing how active they are on social media. When it comes to content publishing, this age group places a high value on user reviews/ratings, with the highest average score of 0.565. In addition, the

influence of KOL/Netflix recommendations on this group cannot be ignored, with an average score of 0.522. These findings suggest that targeting young users under the age of 18 on social media platforms, trend adjustments may influence consumer purchasing preferences to a certain extent, especially for fashion and trend-sensitive consumers. Adolescent self-presentation practices may be less guided by social feedback, as most adolescents do not care about the number of followers or likes, and they are increasingly inclined to be guided by creative tendencies towards authenticity (Hernández-Serrano et al., 2022). Brands

Table 1. Factors that attract attention to brands and products. (Under 18 years old).

Name	The mean ± standard deviation	Variance	Sum	25th percentile	Median	75th percentile	Standard error	Mean 95% CI(LL)	Mean 95% CI(UL)	IQR	Kurtosis	Skewness	Coefficient (CV)
User reviews/ratings	0.565±0.507	0.257	13.000	0.000	1.000	1.000	0.106	0.358	0.772	1.000	-2.113	-0.282	89.677%
KOL/influencer recommendation	0.522±0.511	0.261	12.000	0.000	1.000	1.000	0.106	0.313	0.730	1.000	-2.190	-0.093	97.895%
Offer/Discount Information	0.261±0.449	0.202	6.000	0.000	0.000	1.000	0.094	0.077	0.444	1.000	-0.709	1.167	172.108%
Engaging visual content (images, videos)	0.261±0.449	0.202	6.000	0.000	0.000	1.000	0.094	0.077	0.444	1.000	-0.709	1.167	172.108%
Brand Story/Values	0.391±0.499	0.249	9.000	0.000	0.000	1.000	0.104	0.187	0.595	1.000	-1.951	0.477	127.525%

should consider actively displaying user reviews and ratings on social media, as well as telling engaging and innovative brand stories, and actively communicating and collaborating with KOLs in order to strengthen their connection with young users.

For the 26-34 years old user group, as shown in Table 2, this study further reveals the unique behavioural patterns of this group on social media. Also for 'Factors that attract attention to a brand or product', this age group ranked first for 'User reviews/ratings' and 'KOL/Netflix recommendations', 'Attractive visual content (images, videos)', the three options tied for first place, also at 0.618, as important factors influencing their attention to a brand or product. As shown in Table 3, for further research, in terms of 'factors influencing consumer decision-making', the same group is more

favourable to recommendations from family and friends, with an average score of 0.735, and is less concerned about the social responsibility or value of the brand, and is less attracted to information about discounts than other factors. This suggests that for the 26-34 years old user group in the actual consumer decision-making, more reliance on positive reviews, price, product quality and other real factors, more inclined to use it for professional development or information acquisition, thus investing differently in image management, and not blindly pursuing fashion trends. Brands are able to continue to capture their attention through visual content and KOL partnerships, while enhancing community outreach to achieve the goal of influencing the consumer mindset of this group.

Table 2. Factors that attract attention to brands and products. (26-34 years old).

Name	The mean ± standard deviation	Variance	Sum	25th percentile	Median	75th percentile	Standard error	Mean 95% CI(LL)	Mean 95% CI(UL)	IQR	Kurtosis	Skewness	Coefficient (CV)
User reviews/ratings	0.618±0.493	0.243	21.000	0.000	1.000	1.000	0.085	0.452	0.783	1.000	-1.856	-0.507	79.863%
KOL/influencer recommendation	0.618±0.493	0.243	21.000	0.000	1.000	1.000	0.085	0.452	0.783	1.000	-1.856	-0.507	79.863%
Offer/Discount Information	0.618±0.493	0.243	21.000	0.000	1.000	1.000	0.085	0.452	0.783	1.000	-1.856	-0.507	79.863%
Engaging visual content (images, videos)	0.353±0.485	0.235	12.000	0.000	0.000	1.000	0.083	0.190	0.516	1.000	-1.688	0.644	137.437%
Brand Story/Values	0.412±0.500	0.250	14.000	0.000	0.000	1.000	0.086	0.244	0.580	1.000	-1.979	0.375	121.320%

Table 3. Factors influencing consumption decisions. (26-34 years old).

Name	The mean ± standard deviation	Variance	Sum	25th percentile	Median	75th percentile	Standard error	Mean 95% CI(LL)	Mean 95% CI(UL)	IQR	Kurtosis	Skewness	Coefficient (CV)
Recommendations from friends/family	0.735±0.448	0.201	25.000	0.000	1.000	1.000	0.077	0.585	0.886	1.000	-0.804	-1.117	60.902%
Discussion/word-of-mouth within the community	0.647±0.485	0.235	22.000	0.000	1.000	1.000	0.083	0.484	0.810	1.000	-1.688	-0.644	74.966%
The degree to which personal interests and needs are matched	0.618±0.493	0.243	21.000	0.000	1.000	1.000	0.085	0.452	0.783	1.000	-1.856	-0.507	79.863%
The brand's sense of social responsibility or value	0.500±0.508	0.258	17.000	0.000	0.500	1.000	0.087	0.329	0.671	1.000	-2.129	0.000	101.504%
Frequency and creativity of the advertisement	0.176±0.387	0.150	6.000	0.000	0.000	0.000	0.066	0.046	0.307	0.000	1.225	1.777	219.273%

5 DISCUSSION

In today's information age, social networks have served as a central place for platform users to construct and display their digital identities, and the ways in which they influence consumer perceptions deserve in-depth study. The findings reveal that the distinctive behavioural styles exhibited by users of different age groups on social platforms are closely related to digital identity shaping and consumption philosophy.

From the perspective of digital identity construction, social media provides a rich and diverse range of platforms and tools that enable consumers to shape their digital image in a personalised way, which is particularly evident among the youth population. Digital identity is a subjective product driven by the personal development aspirations of youth groups (Yan et al., 2024). Young users between the ages of 18 and 34, for example, show a high level of activity on social media, posting frequent content and actively participating in interactions. The process by which individuals present themselves to others is the process by which individuals present images and identities that conform to their self-perceptions and shape others' impressions of their individual selves during social interactions (Li & Sun, 2023). They gradually form a recognisable 'self' in the virtual world by sharing their life, hobbies and views on various things. This process of digital identity construction is the result of their interaction and communication with others in the social media space, as well as an expression of their perception and positioning of themselves.

The mechanism of social media's influence on consumer thinking is multifaceted. On the one hand, social media marketing can motivate consumers to participate in marketing activities and influence their consumption behaviour (Wang et al., 2024). Social media is changing the way consumers access information. In the traditional model, advertisements and brochures are the main channels to learn about products and brands. Nowadays, platforms offer a rich source of information, including product reviews and brand stories. This content influences perceptions and shapes consumer thinking. On the other hand, the social interaction feature of social media enhances the connection and communication between consumers. Consumers use the platform to share their shopping experiences, discuss consumer opinions, and interact with friends, family and other users. Such interactions both satisfy social needs and influence the mindset of individual users; they are influenced by the behaviour and perceptions of others in their interactions, thus shaping their personal consumption patterns and paths of thought.

In addition, the algorithmic recommendation systems of social media have also influenced consumer thinking and behaviour to some extent. Algorithmic recommendation systems recommend personalised content and products for users based on their browsing history, interests and other information. Such personalised recommendations make it easier for consumers to access information about products that match their interests and needs, thus influencing their consumption decisions. In the future, as social media continues to grow and evolve, its impact on consumer digital identity construction and consumer thinking will be even more profound.

6 CONCLUSION

This study found that social media plays a key role in the construction of consumers' digital identities. The rapid expansion of social platforms has led to the gradual creation of unique digital identities out of the habits of users' activities. Different generations of people display a variety of different digital images. At the same time, as an important way of information dissemination, social media provides consumers with a large amount of product information, and influences consumer decisions through user feedback and brand culture stories and other content.

This research informs the future development of algorithms in the field of communication, especially as reflected in brand marketing practices. For brands, this means they need to focus more on social media marketing, which is particularly important in shaping digital identities and influencing consumer spending choices. The study provides brands with valuable insights to help better understand and reach their target groups and gain an edge in the competitive marketplace. At the same time, this paper analyses the differences in the behaviour of different groups on social platforms and points out their importance for accurate and personalised promotion strategies. Adjusting content and activities according to users' interests and action patterns can increase user engagement and loyalty.

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