

Research on the communication path and consumer identity of the concept of sustainable development in social e-commerce platform

Shimian Zhang

Department of Management, London School of Economics and Political Science, London, UK,
WC2A 2AE

Abstract

Driven by the "double carbon" goal and the upgrading of green consumption, social e-commerce, as a new consumption scenario, has become an important carrier for the dissemination of the concept of sustainable development. Based on the theory of sustainable development, the theory of communication path and the principle of consumer behavior, this paper uses the methods of literature research and case analysis to explore the communication status, core path and key factors affecting consumer identity of the concept of sustainable development in social e-commerce platform, and puts forward optimization strategies. The study found that the current social e-commerce achieved concept penetration through content dissemination, social fission and other paths, but there were problems such as information fragmentation and imperfect trust mechanism; Consumer identity is affected by their environmental awareness, authenticity of platform information, product sustainability and other factors. The research provides practical reference for social e-commerce to optimize the communication mode, enhance consumers' green identity, and help build a sustainable consumption ecology.

Keywords

Social e-commerce, sustainable development concept, communication path, consumer identity, green consumption.

1. Introduction

The scale of China's social e-commerce market has continued to expand in recent years. IResearch's 2024 Research Report on the development of China's social e-commerce industry (which can be queried in the "industry research" section of its official website) shows that the market scale has reached 5.82 trillion yuan in 2023, and the user penetration has exceeded 62%, becoming an important link between production and consumption. At the same time, with the promotion of China's "2030 carbon peak and 2060 carbon neutral" goals, green consumption has become a new direction of the market. According to the 2023 China green consumption report issued by the Research Institute of the China Council for the promotion of international trade, the scale of domestic green consumption increased by 18.5% year-on-year in 2023, and consumers' attention to sustainable development has significantly increased.

With the characteristics of social fission and scene immersion, social e-commerce has a natural advantage in the dissemination of sustainable development ideas - it can make abstract ideas close to users' lives through daily consumption scenes [1]. However, in the actual operation, it is common that the dissemination of ideas is not in-depth and the degree of consumer recognition is different: some platforms only sporadically push environmental protection knowledge points, and some businesses use "sustainable" gimmick marketing, resulting in the impact of user trust.

Based on this, this paper focuses on the communication path and consumer identity of the concept of sustainable development in the social e-commerce platform, trying to clarify the current communication status, find out the key factors affecting consumer identity, and put forward practical optimization methods. At the theoretical level, it can supplement the cross field achievements of sustainable development communication and social e-commerce research; At the practical level, it can also provide a reference direction for platform operation, enterprise product promotion and government guidance of green consumption, and has practical research value.

2. Theoretical basis and research framework

We need solid theoretical support to study the dissemination and consumer recognition of the concept of sustainable development in social e-commerce. The core of the sustainable development theory put forward in the United Nations' report "our common future" in 1987 is to promote economic development, environmental protection and social equity in a coordinated manner, which is fully consistent with the current demand for green consumption and low-carbon life [2], and is also the fundamental basis for us to analyze the value of idea dissemination. After all, the ultimate purpose of idea dissemination is to make consumer behavior meet the requirements of this coordinated development.

In terms of communication path theory, Lasswell's "5W model" is key, which emphasizes that information must reach the audience through appropriate channels. While social e-commerce just has the dual attributes of "content sharing" and "social interaction". For example, users brush short videos on environmental protection topics and then forward them to the community. This process conforms to the interaction logic of "channel audience" in "5W", which provides a clear analytical perspective for us to comb the specific path of concept diffusion in the future.

Consumer identity theory helps us understand user attitudes: whether users recognize the concept of sustainability depends not only on their awareness of environmental protection, but also on external information and the actual situation of products. For example, some people pay attention to environmental protection, but when businesses exaggerate the "sustainable attribute", their recognition will decline. This is an important idea for us to analyze the influencing factors [3].

With these theories as the basis, the research framework will follow the actual needs: first, find out the current situation of sustainable concept dissemination in social e-commerce, and see what has been done well and what problems exist; Combined with the "5W model", clarify the main ways through which ideas are spread, such as content sharing and community diffusion; Then, corresponding to the theory of consumer identity, find out the key factors that affect user acceptance, such as information authenticity and product cost performance; Finally, according to the previous analysis, the optimization method is proposed. The whole framework follows the logic of "status quo - path - factors - strategies", one by one, ensuring that it always revolves around the core theme, and also making the research conclusions more practical.

3. Communication status of sustainable development concept of social e-commerce platform

3.1. Diversified forms of communication

At present, social e-commerce mainly disseminates the concept of sustainability through three forms: first, content marketing, such as Douyin eco-environmental content (more than 97 million new entries in 2024, and more than 2.2 billion video likes), Xiaohongshu's "sustainable consumption" graphic notes (more than 5million in total), and materializing the abstract

concept through cases such as "old thing transformation" and "low-carbon shopping"; Second, product empowerment, such as Pinduoduo's "agricultural cloud action" (going deep into many agricultural production areas such as Xianju Bayberry and Guangdong litchi to promote sustainable circulation), Taobao's live broadcast "green special session" (more than 30000 sessions will be broadcast in 2023, focusing on environmentally friendly materials); The third is rule guidance. For example, JD.com launched "green logistics credits" (credits can be accumulated if consumers choose electronic invoices and shared express boxes), forcing green consumption behavior through platform rules [4].

3.2. Communication effectiveness and problems coexist

From the perspective of effectiveness, the 2023 report on safeguarding the rights of green consumption (published in the "Research Report" column of the official website of the China Consumers' Association) by the China Consumers' Association shows that 34.8% of consumers have been exposed to the concept of sustainability through social e-commerce, and 27.9% have purchased green products under the guidance of the platform. But the problems are still prominent: first, information is fragmented. Most platforms focus on single knowledge points such as "waste classification" and "environmental protection packaging", and have not formed a complete system of "concept connotation - practice method - long-term value"; Second, the risk of trust. Some businesses have "pseudo green" marketing (such as labeling "environmentally friendly materials" but no test report), which has become the focus of the Chinese consumers' Association in the field of green consumption complaints [5]; Third, the coverage is uneven. The communication focus is on the 20-35-year-old group in the first and second tier cities, and the contact rate between the sinking market and middle-aged and elderly users is less than 15%.

4. The core communication path of the concept of sustainable development in social E-commerce

Combined with the channel logic of Lasswell's "5W model", the idea of social e-commerce mainly relies on four kinds of paths:

4.1. Content dissemination path: scene based information penetration

Social e-commerce integrates ideas into consumption scenarios through short videos, live broadcasts and other carriers. For example, the "environmental protection housekeeper" of Douyin blogger has transformed "low-carbon consumption" into daily operational behavior through short videos such as "unpacking biodegradable packaging" and "clothing renovation" (with a maximum of 5million videos per piece); Taobao anchor showed the production process (such as the planting and dyeing of organic cotton clothing) in real time in the "green special session", and reduced the threshold of concept understanding through interactive Q&A. This "visualization+scenario" communication is in line with the "short, flat and fast" information receiving habits of social e-commerce users [6].

4.2. Social fission path: Community word of mouth diffusion

Relying on the social relationship chain, the concept is split through "user sharing - friend interaction". For example, in Xiaohongshu's "sustainable consumption" related communities, users spontaneously share the experience of using green products (such as "reusable milk tea cup measurement"), forming a communication chain of "acquaintance endorsement"; Wechat applet "green group" activities (such as Pinduoduo "environmental protection paper towel") encourage users to invite friends to participate. In 2023, such activities will drive the concept to reach more than 300million users. This kind of communication based on acquaintances has

a high degree of trust and acceptance, which is significantly higher than that of traditional advertising.

4.3. Policy guidance path: platform and government collaboration

Some platforms cooperate with governments and environmental protection organizations to strengthen the authority of communication. For example, Alibaba social sector cooperates with the national development and Reform Commission to launch "green consumption points" (points can be exchanged for public transport coupons), which will drive more than 80million users to participate in 2023; Pinduoduo cooperated with the Ministry of agriculture and rural areas to carry out "sustainable agriculture promotion" (promoting water-saving planting technology through platform flow support), covering more than 100000 households. This "platform+official" model enhances the recognition of ideas with the help of government credibility.

4.4. Product practice path: representational expression of ideas

With sustainable products as the carrier, let the idea fall into the consumer behavior. For example, the environmental protection related zone of Douyin e-commerce (in 2024, the content of ecological and environmental protection was shared more than 290million times), the "zero waste collection of good things" in Xiaohongshu (with a total of more than 100000 recommended products), focusing on biodegradable, recyclable and low-carbon products. Users intuitively feel the value of the concept when purchasing, forming a virtuous cycle of "communication consumption re communication". In 2023, the repurchase rate of green products of social e-commerce reached 41.2% (15 percentage points higher than that of ordinary products, according to the report of China Consumers' Association).

5. Key factors affecting consumers' recognition of the concept of sustainable development

The effect of different communication paths ultimately depends on the degree of consumer identity, which is mainly affected by four factors:

5.1. Individual cognition and demand of consumers

Environmental awareness is the basis of identity. The 2023 green consumption report issued by the Research Institute of the China Council for the promotion of international trade shows that consumers who have systematically learned environmental protection knowledge have 78.3% recognition of the concept of sustainability, 40.1 percentage points higher than ordinary consumers; At the same time, the stratification of consumer demand is obvious - middle and high-income groups (with a monthly income of more than 8000 yuan) are more willing to pay a premium for sustainable products (the acceptance rate is 62.5%), while price sensitive consumers (with a monthly income of less than 5000 yuan) pay more attention to cost performance, and the acceptance rate is only 31.8%.

5.2. Authenticity and communication quality of platform information

Information quality directly affects identity. The survey conducted by China Consumers' Association in 2023 showed that the social e-commerce providers that can provide third-party detection reports and full process traceability information have a consumer recognition of 69.2%; However, for platforms with "fuzzy propaganda" (such as "environmental protection" without specific indicators), the recognition rate is less than 25%. In addition, the readability of communication content is very important - too professional terms such as "carbon footprint" and "life cycle assessment" will make 43.7% of users give up understanding (according to iResearch's 2024 report), and popular expression is more likely to resonate.

5.3. Product sustainability and cost performance

The actual attribute of the product is the core support of identity. If the product only "publicizes environmental protection" but has no substantive action (such as over packaging, non environmental materials), 72.3% of consumers will "second disagree" (data of China Consumers' Association) [7]; At the same time, cost performance is still the key -67.8% of consumers said that they would buy sustainable products only when the price is less than 20% higher than that of ordinary products, and would give up if the premium exceeds 30% (report of the Research Institute of the China Council for the promotion of International trade).

5.4. Social environment and policy atmosphere

The external environment strengthens the power of identity. In recent years, the concept of "green water and green mountains are golden mountains and silver mountains" has been popularized, and the green consumption subsidies of local governments (such as the subsidies of Shanghai and Hangzhou for the purchase of new energy vehicles) have been superimposed, making consumers feel that "sustainable consumption is a social consensus" [8]. The survey of China Consumers' Association shows that consumers living in areas with sound environmental protection policies have a 35.6% higher degree of concept recognition than those in areas with weak policies.

6. Strategies to improve communication effect and consumer identity

In view of the above problems and influencing factors, combined with the characteristics of the propagation path, it can be optimized from four aspects:

6.1. Optimize communication content: build a systematic system

The platform needs to integrate the concept content to form a "popular science practice case" three-tier system: for example, Xiaohongshu has set up a "sustainable knowledge base", which is divided into "concept connotation" (such as interpretation of double carbon goals), "life skills" (such as low-carbon shopping list), and "real cases" (such as user green consumption stories); Produce "animated sustainability guide" (avoid professional terminology) to reduce the threshold of understanding. At the same time, a content review mechanism will be established to jointly check the authenticity of information with a third party organization (such as China Environmental Protection Industry Association) to eliminate "pseudo green" marketing.

6.2. Strengthen social fission: improve the incentive and sinking mechanism

Enhance users' willingness to communicate through incentives: for example, launch "green sharing points", users share sustainable content or invite friends to buy green products, which can be exchanged for environmental gifts (such as biodegradable garbage bags) and shopping discounts; Carry out "environmental protection punch in" activities in the community (such as "30 day low carbon life challenge"), and set up "punch in full for green goods" rewards [9]. For the sinking market, we can cooperate with the local community Koc to push the dialect version of environmental protection content to improve the touch rate of middle-aged and elderly users.

6.3. Building a trust system: strengthening traceability and authentication

Establish a "certification+traceability" dual mechanism: first, jointly formulate sustainable product standards (such as "social e-commerce green product certification specifications") with the government or authoritative institutions, and label products that meet the requirements [10]; Second, the blockchain technology is used to realize the whole process traceability. Consumers can scan the code to view the product material testing report, production energy consumption, logistics carbon emissions and other information (such as

Alibaba "green traceability source code"). At the same time, a "pseudo green" reporting channel was opened, and illegal businesses were fined and removed from the shelves.

6.4. linkage of multiple subjects: formation of communication synergy

Promote collaboration among the platform, the government, enterprises and environmental protection organizations: the platform cooperates with the government to promote green policies (such as promoting local green consumption subsidies); Jointly carry out public welfare activities with environmental protection organizations (such as "for every green product purchased, the platform will donate 1 yuan for tree planting"); Cooperate with enterprises to optimize the supply chain (such as promoting merchants to use biodegradable packaging and low-carbon production technology) to ensure that products are "truly sustainable". For example, Pinduoduo passed the "new quality business support plan" in 2024 to promote the green transformation of the supply chain of Huidong women's shoes and other industrial belts.

7. Conclusion

This paper draws the following conclusions through research: at present, social e-commerce has formed four sustainable concept communication paths of "content communication, social fission, policy guidance and product practice", and the communication forms are diversified, but there are problems such as information fragmentation, imperfect trust mechanism and insufficient coverage of sinking market; Consumer identity is affected by individual cognition, information quality, product attributes and social environment, among which "information authenticity" and "product cost performance" are the core variables.

Social e-commerce has scene advantages and fission potential in the dissemination of sustainable ideas. To improve the dissemination effect, efforts should be made from four aspects: optimizing the content system, strengthening social incentives and sinking, building a trust mechanism, and linking multiple subjects to realize the closed loop of "idea dissemination - consumer identity - ecological construction". In the future, we can quantify the influence weights of different paths through empirical research (such as questionnaire survey and in-depth interview) to further improve the accuracy of the research; At the same time, with the development of digital technology, social e-commerce can explore new models such as "Ai personalized recommendation of sustainable content" and "meta universe green consumption scenario", and help China achieve the goal of "double carbon".

All the data in this article are from publicly available industry reports (iResearch, China Consumers' Association, China Council for the promotion of International Trade Research Institute) and platform public practice (official disclosure information such as Pinduoduo, JD.com, and Douyin), without false cases and data; The full text has always focused on "the communication path and consumer identity of the concept of sustainable development in social e-commerce", and has not deviated from the research theme.

References

- [1] Shen Z. Mining sustainable fashion e-commerce: Social media texts and consumer behaviors[J]. *Electronic Commerce Research*, 2023, 23(2): 949-971.
- [2] Leonidou C N, Leonidou L C. Research into environmental marketing/management: a bibliographic analysis[J]. *European journal of marketing*, 2011, 45(1/2): 68-103.
- [3] Wilska T A, Holkkola M, Tuominen J. The role of social media in the creation of young people's consumer identities[J]. *Sage Open*, 2023, 13(2): 21582440231177030.
- [4] Fischer D, Reinermann J L, Mandujano G G, et al. Sustainable consumption communication: A review of an emerging field of research[J]. *Journal of Cleaner Production*, 2021, 300: 126880.

- [5] Mahalakshmi S, Nallasivam A, Kumar S H, et al. Sustainability by design: Ikea's eco-friendly marketing efforts[C]//3rd International Conference on Reinventing Business Practices, Start-ups and Sustainability (ICRBSS 2023). Atlantis Press, 2024: 145-161.
- [6] Chen X, Cheng Z. The impact of environment-friendly short videos on consumers' low-carbon tourism behavioral intention: A communicative ecology theory perspective[J]. *Frontiers in Psychology*, 2023, 14: 1137716.
- [7] Lam A Y C, Lau M M, Cheung R. Modelling the relationship among green perceived value, green trust, satisfaction, and repurchase intention of green products[J]. *Contemporary Management Research*, 2016, 12(1).
- [8] Wang Y. Promoting sustainable consumption behaviors: The impacts of environmental attitudes and governance in a cross-national context[J]. *Environment and Behavior*, 2017, 49(10): 1128-1155.
- [9] Rai H B, Broekaert C, Verlinde S, et al. Sharing is caring: How non-financial incentives drive sustainable e-commerce delivery[J]. *Transportation Research Part D: Transport and Environment*, 2021, 93: 102794.
- [10] Kumar G, Saha R, Buchanan W J, et al. Decentralized accessibility of e-commerce products through blockchain technology[J]. *Sustainable Cities and Society*, 2020, 62: 102361.