

Reflections on the Progress of Green Consumption within the Sharing Economy

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Abstract: *The sharing economy, which has emerged with the rise of the Internet, is considered a new economic trend with revolutionary implications. The sharing economy effectively allocates idle resources and surplus labor through online platforms, ensuring accurate distribution based on demand to maximize resource utilization. Through the sharing economy, social resources are utilized more efficiently, resulting in a significant reduction in resource consumption, continuous enhancement of environmental benefits, and promotion of green consumption. Therefore, the sharing economy plays a pivotal role in creating a more sustainable economy.*

Keywords: *collaborative economy; sustainable consumption; technological advancements; data protection.*

1. Introduction

The sharing economy is a new type of economic model that has grown rapidly worldwide, driven the "Internet Plus" wave. It is reshaping people's lifestyles and work patterns by transforming their to goods and services. This industry originated from practice and emphasizes "usage" rather than "ownership," resulting in cost reduction and aligning with green development principles that promote ecological civilization construction. According to PwC's prediction, the global market size of the economy will reach 335 billion US dollars by 2025. In 2022, China's sharing economy market had already achieved a transaction volume of approximately 3,832 billion yuan with a year-on-year growth rate of about 3.9%.

2. The Essence of Sharing Economy

The concept of the sharing economy, also known as the "collaborative consumption" model, has around since 1978. Based on the idea of symbiotic cooperation for sustainable development needs, Felson and Spaeth proposed that collaborative consumption includes daily activities that aim to meet everyday needs while building interpersonal connections^[1]. Later, Robin Chase provided a brief overview of the primary business model in the sharing economy. This involves three key players: demand-side consumers who seek goods or services, suppliers who are willing to use their residual resources for profit, and online platforms that facilitate real-time information exchange between these two groups, while optimizing matching efficiency to maximize benefits for all parties involved^[2].

2.1 Sharing economy creates a new business model

The sharing economy is a new economic model that has been made possible by the internet. It involves people pooling their resources to achieve mutual economic benefits. Enterprises can outsource work globally, which has resulted in flattened organizational structures, blurred boundaries and reduced individual dependence on organizations. This allows individuals to have more flexibility and autonomy, and participate in customization, localization and specialization processes at lower costs. The internet has broken down temporal and spatial barriers, enabling people to form markets through transactions, establish organizations through cooperation and build industrial ecological networks across time zones. According to Rachel Botsman, the sharing economy can be divided into three groups: product service systems, redistribution markets and cooperative lifestyles^[3]. These changes have reduced transactional and opportunity costs of production factors.

2.2 Reduce production costs by developing excess production capacity

The sharing economy is a system that uses information technology to connect underutilized resources with people who need them. This results in reduced transaction costs and lower information acquisition costs. The excess capacity that is not being used can be utilized efficiently and at a lower cost compared to purchasing new raw materials. This process requires minimal effort, time, and investment. By utilizing excess capacity, you can make the most of its value. With advancements in technology such as mobile internet connectivity, third-party payment systems, LBS positioning services, cloud computing, and big data analytics, information asymmetry is mitigated. This reduction in asymmetry enables both supply and demand sides to access products and services that surpass those offered by traditional commercial organizations. Ultimately, this leads to reduced transaction costs and improved utilization rates of idle resources.

2.3 Realize platform trading of resources, more economical and efficient

The network platform is a pivotal element in the sharing economy, as it dominates the development and operational model. It serves as a vital link between supply and demand, facilitating easy and cost-effective resource acquisition for individuals while enabling the accomplishment of tasks that would otherwise be challenging to achieve independently. Furthermore, it ensures that the outcomes are disseminated among all participants involved. The functions of sharing platforms can be categorized into three aspects: resource segmentation, integration, and openness. Resource segmentation involves dividing individual idle resources into smaller units that correspond to consumer demands for trading purposes. An example is Zipcar's division of vehicle usage rights for individual users. Resource integration entails consolidating resources beyond an individual's capacity and making them available for trade. Airbnb is an excellent example of this by integrating hosts' vacant properties to cater to potential renters' needs. Openness and sharing facilitate the release of hidden expertise and data assets, thereby fostering innovation and enhancing productivity. Github is an excellent example by providing impetus to startups' development efforts while being utilized by numerous researchers to create diverse powerful functionalities.

3. Sharing economy drives a sustainable revolution

3.1 Sharing economy reshapes consumer values

The sharing economy promotes the reduction of resource waste and excessive consumption by recycling idle resources while advocating for a sustainable and eco-friendly lifestyle. Collaborative consumption, a key feature of the sharing economy, prioritizes usage over possession. This approach helps individuals establish a "dematerialized" concept of consumption. On a societal level, the sharing economy conserves resources and promotes the development of an energy-efficient and environmentally conscious society in line with sustainable development principles. It fosters collectivism and community cooperation. Sharing behaviors reshape people's understanding of community relations and values by giving rise to collective collaborative consumption mechanisms. These mechanisms strike a balance between individual needs, communal communities, and the Earth's environment^[3]. Given limited resources, it is crucial to reevaluate the value of collective society, encourage sharing and public welfare initiatives, and achieve both individual and collective interests..

3.2 Sharing economy enhances resource efficiency and mitigates carbon emissions.

Enterprises are adopting a sharing model, where they shift their focus from energy consumption to collaborative consumption, rather than blindly pursuing GDP growth. This model facilitates resource conservation and addresses excess capacity by integrating resources, leasing equipment, or sharing idle production capacity. For example, the "Internet + renewable resources" model achieves resource reuse through the integration of online recycling and offline logistics. By adjusting the economic growth model, the carbon footprint is reduced and environmental benefits are enhanced, thereby achieving a harmonious development of economy and environment. Kering Group, as the world's second-largest luxury goods company, sets an exemplary precedent by aiming for carbon neutrality and striving to reduce the environmental profit and loss of its supply chain by 40% before 2025. To achieve this goal, they have developed an EP&L (environmental profit & loss) statement to evaluate the carbon footprint while also formulating "raw materials and manufacturing process standards" aimed at reducing their

carbon emissions^[4].

3.3 Sharing economy facilitates green lifestyle

Promoting sustainable public consumption is crucial in addressing the current ecological issues. Green consumption involves reducing the adverse environmental impact of individual purchasing, usage, and disposal behaviors^[5]. While every product has inherent value and utility value, traditional consumption concepts tend to focus on product ownership and undermine utilization rates. However, in the era of the sharing economy, consumers are shifting towards a use-oriented approach by choosing rentals over purchases, which require minimal expenditure to meet their needs. This economic model not only enhances consumption capacity and expands its scope but also actively fosters green production and consumption practices.

4. The Obstacles and Challenges Encountered in Green Consumption

4.1 The concepts of green consumption exhibit variations

Different societal groups hold diverse perceptions regarding the value of green consumption, which is affected by multiple factors, making it challenging to reach a consensus. The prevailing materialistic influence during the stage of extensive economic development has fostered excessive consumption and conspicuous consumption. This has hindered the formation of green consumption ideals as traditional consumption concepts and habits play a significant role. Materialism emphasizes the acquisition and consumption of material wealth as a reflection of existential significance; however, this value concept is detrimental, leading to compulsive purchasing behaviors, environmental degradation, and even unethical conduct^[6]. In contrast, individuals who prioritize environmental values are more inclined to focus on and appreciate environmental information, thus making greener product choices^[7]. Green consumption refers to a tendency towards achieving environmental protection through purchasing and consuming practices closely linked with individuals' sense of natural connection. Consumers may opt for green consumption due to constructing their moral identity or seeking self-protection or self-promotion (self-orientation), while others may be driven by inherent moral beliefs and genuine concern for the environment (environment orientation). However, green consumption possesses moral attributes that result in varied consumer behaviors based on different conceptualizations. Green consumption rooted in identity construction can lead to behavioral instability since consumers might discontinue engaging in environmentally friendly practices after completing their self-construction process. The psychological mechanism lies within moral self-regulation.

4.2 Conflict between economic development and environmentally-friendly consumption

Economic development and green consumption are intricately intertwined, as they rely on each other and impose mutual constraints. Economic development is a crucial driver of societal progress. It establishes a robust material foundation and creates the market demand needed for green consumption. Meanwhile, green consumption is a significant pathway to sustainable development. It plays a vital role in steering economic growth towards a more environmentally friendly and sustainable trajectory.

However, there are also conflicts between economic development and green consumption. While pursuing economic growth and maximizing profits, some enterprises may neglect environmental protection and sustainable development, leading to excessive resource consumption and environmental degradation. In contrast, green consumption emphasizes resource conservation and recycling. Unfortunately, green consumption can be pricey, resulting in a burden for economically disadvantaged consumers.

4.3 The legal framework for green consumption requires enhancement

The sharing economy is a relatively new economic model that, due to the lack of comprehensive institutional guarantees, is partially able to evade government supervision in areas such as taxation, environmental protection, labor rights, and social responsibility. This has given rise to several issues, with companies like Airbnb and Uber criticized for tax avoidance practices and undermining labor rights^[8]. One of the main challenges for green consumption is that it currently relies primarily on policies rather than a well-established legal framework. The government holds a dominant position in this area and often relies on policy measures without sufficient emphasis on the rule of law. In addition,

the absence of specialized legislation for green consumption hampers its guidance, management, and evaluation. While various regulations about energy conservation, environmental protection, circular economy, and sustainable development have some positive implications for green consumption, they do not directly contribute to a sustainable lifestyle due to their inadequate relevance and operational limitations. Moreover, these laws are lack of systematic coherence which impedes their ability to generate synergy.

4.4 Information Security Incidents and Consumer Fraud Cases

The increasing use of information technology has brought about the concept of green consumption. People are now more inclined towards choosing environmentally friendly and low-carbon products and services. However, green consumption comes with its own set of challenges, particularly related to information security. Firstly, green consumption often involves personal sensitive data such as purchase records, preferences, and payment details. The leakage of this information can lead to significant economic losses and privacy infringements for consumers. Therefore, it is crucial to safeguard personal information security in green consumption. Secondly, the information security problems are also evident in supply chain management. Emphasizing environmental protection and product sustainability requires companies to enhance the monitoring and management of the supply chain. However, this involves a substantial amount of trade secrets and sensitive information, so information security problems need to be addressed.

The prevalence of fraudulent behavior in green consumption is a growing concern. These practices infringe upon consumers' rights and interests, undermine fair market competition, and hinder the advancement of the green economy. Fraudulent practices can take many forms, such as misrepresenting products with false environmental indicators or deceiving consumers through misleading advertisements. They not only result in higher costs for consumers but also exacerbate environmental issues, which goes against the original purpose of promoting green consumption.

5. Suggestions

5.1 Enhance legislation and regulations, establish comprehensive supervisory system

The laws and regulations related to green consumption have gained significant attention in recent years. These measures aim to promote environmental protection, sustainable development, reduce resource waste, and curb environmental pollution. To achieve these goals, the government must establish stringent laws and regulations about green consumption while implementing rigorous oversight across all stages of production, sales, and consumption. This will ensure the effective enforcement of green consumption practices. To create a deterrent, legal penalties should be imposed on both businesses and individuals who violate these laws and regulations. To encourage residents to engage in green consumption and promote a greener lifestyle, preferential measures such as tax reduction and exemption, as well as financial subsidies, should be implemented. It is also crucial to impose a carbon tax on enterprises with high energy consumption and pollution levels. Additionally, increasing the consumption tax on products with high emissions will encourage both producers and consumers to jointly shoulder the responsibility of environmental protection. The formulation, implementation, and enforcement of laws and regulations on green consumption require collaborative efforts from the government, enterprises, and consumers. The government should enhance supervision and enforcement to ensure enterprise compliance with environmental standards. Enterprises need to fulfill their social responsibilities by strengthening environmental management, improving product quality, and enhancing environmental performance. Consumers should increase their awareness of environmental protection and opt for eco-friendly products and services, thereby promoting the advancement of green consumption. For instance, in late 2019, the European Union unveiled the European Green Deal, which aims to achieve climate neutrality in Europe by 2050, with greenhouse gas emissions no greater than the amount that ecosystems can naturally absorb. The deal presents an initial roadmap for key policies and measures to implement this agreement.

5.2 Enhance the sharing paradigm and foster universal participation.

Numerous studies have indicated a strong connection between green consumption and daily performance in this area^[9]. Therefore, it's crucial to prioritize ecological civilization education and encourage public participation in green practices to promote a social identity that supports the

harmonious coexistence between humans and nature. Firstly, the public needs to accept the principles of innovative, coordinated, green, open and shared development. This requires integrating green education into schools while promoting family-based ecological education to create a favorable societal environment that advocates for green consumption. It's essential to understand that materialistic values and extravagance hinder the adoption of a greener lifestyle. Secondly, active participation in green consumption practices by the public can encourage the growth of sustainable supply chains and subsequently drive the transition to greener lifestyles. In everyday life, individuals should focus on fundamental aspects such as travel habits, dietary choices, and waste management while embracing concepts such as low carbon emissions and green consumption. By doing so, they can contribute to transforming the supply side of environmentally friendly products. For example, when promoting eco-friendly products, green advertising should emphasize both the environmental benefits and consumer interests^[10]. For individuals new to green consumption, advertisements should consider practical factors such as quality and price, and ethical factors like moral identity formation, to enhance consumers' perception of personal benefits. However, for consumers who prioritize the environment, advertisements should highlight the product's efficacy in environmental protection.

5.3 Promote technological innovation and facilitate coordinated developments

Technological innovation has a significant role to play in finding a balance between economic growth and environmental conservation. The sharing economy relies heavily on technological support, where research and development of new technologies such as clean production and renewable energy can reduce resource consumption and pollution while promoting sustainable economic growth. For instance, advancements such as radio frequency identification transceivers, wireless networks, and mobile technology have made Zipcar's shared mobility model possible, enabling eco-friendly transportation.

Currently, China's green supply is limited to a few products, has standardized quality criteria, high costs, and low market competitiveness. Enterprises should invest in research and development, explore and apply green technologies, and integrate digital technology with a low-carbon circular economic system. Through technological innovation, we can establish digital ecological industries, upgrade traditional sectors, and eliminate outdated excess capacity. Technological advancements can also help reduce energy consumption and pollution emissions, resulting in mutually beneficial outcomes for the economy and the environment. Furthermore, enterprises can leverage technological innovation to develop new green products and services that cater to market demands by offering high-quality yet affordable options. By continuously improving the quality and competitiveness of these eco-friendly offerings in response to growing consumer preferences for sustainability, we can foster the establishment and growth of a thriving green consumption market.

5.4 Crack down on consumer fraud and strengthen information security

The following is a proposal to improve the green consumer market and ensure the veracity and reliability of environmental protection indicators associated with products. Firstly, the government should enhance the supervision of the market and establish a robust legal and regulatory framework. Simultaneously, there should be an escalation in penalties for fraudulent practices to ensure that offenders face appropriate consequences. To combat "greenwashing", where products casually claim "carbon neutrality", the European Parliament passed the "Empowering Consumers for the Green Transition" bill in early 2024. Secondly, technological innovation will enhance data security and fraud prevention measures, including the implementation of advanced data encryption technologies. Artificial intelligence will be utilized for risk assessment and anti-fraud protocols, blockchain technology will provide a more secure and transparent trading environment, and IoT technology will enable more convenient payment methods. Thirdly, consumers should assess the authenticity of eco-friendly products by verifying their environmental certification, comprehending the production process, and evaluating the environmental performance of the products. Lastly, enhancing credit construction and the platform's reputation is crucial. With the improvement of Internet payment methods and evaluation systems, the market's influence in holding traders accountable on the platform is growing stronger. However, it remains imperative to consistently elevate societal credit levels and integrity standards while cultivating a powerful brand image for the platform.

6. Conclusions

In conclusion, it is important for the government, enterprises, and consumers to work together to achieve a balance between economic development and environmentally-friendly consumption. The government can lead the way by implementing policies that encourage green production. Enterprises should prioritize sustainable practices and increase their environmental awareness. Similarly, consumers should also make eco-friendly choices and become more environmentally conscious. These collective efforts will help safeguard the environment and promote economic sustainability, which will ultimately contribute to a better future for all.

References

- [1] Felson, M., and Spaeth, J. L. *Community structure and collaborative consumption: A routine activity approach. American behavioral scientist*, 1978, 21(4), 614-624.
- [2] Chase, R. *Peers Inc: how people and platforms are inventing the collaborative economy and reinventing capitalism. PublicAffairs*. 2015.
- [3] Botsman, R., and Rogers, R. *What's mine is yours. The rise of collaborative consumption. HarperCollins*.2010.
- [4] Kering: *SustainabilityProgress Report 2017-2020*.
- [5] Carlson, L., Grove, S. J., and Kangun, N. *A content analysis of environmental advertising claims: A matrix method approach. Journal of advertising*, 1993, 22(3), 27-39.
- [6] Gentina, E., Shrum, L. J., and Lowrey, T. M. *Coping with loneliness through materialism: Strategies matter for adolescent development of unethical behaviors. Journal of Business Ethics*, 2016, 152(1), 1–20.
- [7] Verplanken, B., and Holland, R. W. *Motivated decision making: effects of activation and self-centrality of values on choices and behavior. Journal of personality and social psychology*, 2002,82(3), 434.
- [8] Martin, C. J., Upham, P., and Budd, L. *Commercial orientation in grassroots social innovation: Insights from the sharing economy. Ecological economics*, 2015,118, 240-251.
- [9] Haws, K. L., Bearden, W. O., and Nenkov, G. Y. *Consumer spending self-control effectiveness and outcome elaboration prompts. Journal of the Academy of Marketing Science*, 2012, 40(5), 695–710.
- [10] Royne, M. B., Martinez, J., Oakley, J., and Fox, A. K. *The effectiveness of benefit type and price endings in green advertising. Journal of Advertising*, 2012,41(4), 85–102.