

Collaborative Consumption in the Sharing Economy: Concept, Foundation, and Suggestions

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Abstract—Collaborative consumption is a type of consumption pattern based on the internet and mobile internet platforms, which allows people to share resources such as goods, knowledge, time, or services through sharing, exchange, barter, group buying, trading, and leasing, to achieve cost allocation and optimal allocation of resources. This paper studies collaborative consumption in the sharing economy, covering the evolution of the collaborative consumption concept, the commercial foundation of collaborative consumption, and comparing the differences between collaborative consumption and traditional consumption. Finally, it discusses the future development trends of collaborative consumption.

Index Terms—Sharing economy, collaborative consumption

I. INTRODUCTION

Since the 1990s, with the widespread adoption of internet technologies, collaborative consumption models have rapidly emerged, represented by companies like Airbnb and Uber, reshaping economic growth and gradually altering social production and lifestyles, serving as new symbols of innovation and development. As collaborative consumption expands into various fields, consumer attitudes and behavioral patterns are also transforming. Now, making the best of things is better than just owning, consumers no longer only pursue the possession of goods but focus on the use of value and personal experience of goods, striving to meet their ever-growing production and living needs with minimal expenditure. This shift in consciousness drives the trend of consumption moving from ownership to collaborative consumption. Under the cooperative consumption model, consumers fully tap and utilize a large number of idle resources in society to meet their needs at a lower price and in a more convenient way and realize resource sharing to the greatest extent.

This paper is aim to address related questions in the field of collaborative consumption: (1) What exactly is collaborative consumption? What is the commercial foundation of collaborative consumption? (2) What are the differences between collaborative consumption and traditional consumption? (3) How can collaborative consumption be better promoted?

II. CONCEPT AND COMMERCIAL BASIS OF COLLABORATIVE CONSUMPTION

A. The Concept of Collaborative Consumption

Collaborative consumption is the manifestation of the

sharing economy, revealing the underlying meaning of sharing, which is the idea of sharing to be practiced through collaboration. The concept of collaborative consumption was first proposed as early as 1978 when Felson and Spaeth defined it as the consumption of goods or services in common activities involving many people (Felson and Spaeth, 1978). However, this definition is too broad and does not fully emphasize the acquisition and distribution of resources. Botsman and Rogers (2012) equated the sharing economy with collaborative consumption, viewing it as a social economic activity that involves the sharing, materialization, borrowing, or exchange of personal assets such as space, products, time, and skills. As a transformation of social consumption patterns, collaborative consumption creates new value through resource sharing and has developed into an economic model based on sharing, trading, commercial trade, or leasing the right to use products instead of purchasing (Botsman and Rogers, 2010). From Botsman and Rogers' definitions, we can deduce three elements of collaborative consumption:

- 1) It relies on infrastructure such as technology, social platforms, and P2P platforms;
- 2) Sharing and exchanging is the main way to realize collaborative consumption;
- 3) The core feature of collaborative consumption is the replacement of product ownership with product usage rights.

Botsman and Rogers' viewpoints have been agreed upon widely. However, some scholars have further supplemented and refined their definitions, especially in terms of compensation and reciprocity. These supplements and refinements deepen and clarify the concept. Belk argues that collaborative consumption is a transaction mode between the sharing of members within a household and general market exchange activities. It does not include uncompensated sharing activities, nor does it be gift-giving activities in that ownership are permanently transferred (Belk, 2014). Collaborative consumption is a paid exchange but differs from traditional market transactions because ownership does not change.

To sum up, collaborative consumption activities are a new economic model that realizes mutual benefits through the transfer and sharing of the rights to use tangible or intangible idle resources, such as products or skills, among consumers of goods or services under the condition of information technology.

B. The Commercial Foundation of Collaborative Consumption Development

- 1) *Technological innovation provides a technical foundation for collaborative consumption*

The emergence and development of collaborative consumption are inseparable from the support of

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technological innovation, which provides a technical foundation for this type of consumption. As global economic uncertainty increases and the post-financial crisis era arrives, people reexamine their consumption concepts and pursue a more environmentally friendly lifestyle. The rapid development of Internet technology has given rise to online communities and network platforms characterized by low transaction costs for this type of consumption. In especial, mobile apps have facilitated the instant exchange of pieces of information (Bardhi and Eckhardt, 2012). Therefore, technological innovation, it can be said, provides technical support for collaborative consumption and is the foundation for its development.

2) Changes in consumption and interpersonal relationship concepts have driven collaborative consumption

People's views on consumption and interpersonal relationships are constantly changing with the enhancement of living standards. They begin to use shared resources in their relationships for consumption and living. The growth of post-80s and post-90s generations, active thinking, the pursuit of personalized life, and strong acceptance of new things, make this shared consumption pattern what these young consumers are passionate about. This consumption pattern not only brings convenience but also expands their social circles. Therefore, it continues to develop in the transition of people's consumption and interpersonal relationships, driven by new generation consumers' concepts.

3) Business integrity is the foundation for the development and prosperity of collaborative consumption

Business integrity plays a role in bearing consumer expectations in collaborative consumption, making consumers share consumption information and provide valuable suggestions gladly, and making merchants treat consumers sincerely and supply high-quality products and services. Trust is positively related to consumer satisfaction and intention to continue using sharing in the B2C and C2C (Möhlmann, 2015). For example, MeiTuan is loved by many people, based on the fact that consumers can not only obtain credible consumption records but also share their consumption experiences to provide references for others. This consumption experience based on integrity provides a broad development space for collaborative consumption. Only by establishing good business integrity can we form a sustainable cooperative consumption ecosystem to get greater benefits for both consumers and businesses.

III. COMPARISON BETWEEN COLLABORATIVE CONSUMPTION AND TRADITIONAL CONSUMPTION BUSINESS MODELS

Collaborative consumption, as a new consumption model formed by the integrations of the Internet and production and consumption, achieves "de-ownership" by eliminating the allocation of ownership and usage rights among participants. Instead, participants provide access to get products or services directly, matching demand and optimizing resource allocation. The aggregating of needs is a process of value increment and economic surplus generation and distribution, which are an extension and optimization of traditional

consumption.

1) Collaborative consumption realizes information sharing and enhances the trust relationship between producers and consumers. In traditional markets, both sellers and buyers are completely independent. It leads to a widespread problem of information asymmetry in the transaction process. However, the emergence of collaborative consumption has somewhat resolved the information-sharing problem. For example, consumers can establish trust relationships with strangers through transaction platform websites and social networks, and engage in point-to-point communication. Ultimately, consumers can accurately trade with the appropriate party that meets their needs, making the transaction process more efficient and convenient.

2) Collaborative consumption provides more product usage value and extends the product life cycle. In collaborative consumption, the shopping purpose of consumers returns to the product's usage value, and the demand for "ownership" of goods is weakened. Product suppliers deliver products they own but have excess or temporarily do not need to the market, including some high-end products, thereby enhancing the usage value and life cycle of these products. Especially with the growing needs of some young ordinary consumers for high-end products, they can also have the opportunity to use these goods through collaborative consumption, increasing the ways to purchase and creating more opportunities for business development.

3) Collaborative consumption offers varieties of products in comparison to traditional consumption. In the collaborative consumption, the offering party (which can also be a consumer) offers used or temporarily unnecessary goods, but purchasing party (consumer or potential buyer) obtains a discount or value equivalent to the remaining value of the goods. The traditional consumer market mainly deals with new products or services, such as physical or labor goods, and the collaborative consumption includes collaborative lifestyles based on asset and skill sharing, such as time, space, knowledge, and skills, thinking, and social networks, among other intangible assets.

4) Producers and consumers achieve value co-creation. Consumers become the driving force, and their relationships constitute an indispensable element of the entire business ecosystem in collaborative consumption. Their interactions create a more vibrant market. Consumers can quickly search for suppliers that meet their individualized needs on online platforms. The supplier is likely to be just another consumer that is looking for a supplier to meet their needs concurrently. Once their needs have coincided, and their identities or interests are recognized or aligned in social networks, they can reach a transaction. In this case, consumers transform from passive consumers to creators and highly collaborative partners.

Overall, the most significant characteristic of collaborative consumption is the emphasis on the usage right, or "Shared ownership" (Lu Dong *et al.*, 2018) as opposed to traditional consumption. This new consumption model aligns with the structural changes and sustainable development values in this consumption ecosystem, thus effectively promoting co-evolution for sustainable development and business.

IV. SUGGESTIONS FOR THE DEVELOPMENT OF COLLABORATIVE CONSUMPTION UNDER THE SHARED ECONOMY

Collaborative consumption under the sharing economy is an economic innovation model in the “Internet +” era, which is a novel concept for individuals, enterprises, and government organizations. The existing laws and management measures have not adapted to the development of the industry, resulting in many problems highlighted in the development process, which need to be solved more effectively, such as the contradiction between the new business format and the lagging local management, the lack of credit and norms, the protection of user personal information, including daily behavior data, and the protection of users’ rights and interests.

A. Continuously Enhance the Quality of Products and Services, and Optimize the Platform Reputation

The most notable characteristic of collaborative consumption is the emphasis on the transformation of the right to use goods during the consumption process, which enables users to access low-cost, environmentally friendly products and services by improving the utilization of idle resources. From the perspective of the theory of planned behavior, consumer behavioral attitudes and subjective norms all jointly influence their behavioral intentions, i.e., consumers’ perceptions and understanding of social subjective norms (such as the energy-saving and environmental protection) can influence their consumption attitudes, which in turn have a decisive impact on users’ sustainable consumption behavior. When users have high sensitivity to the platform’s sustainability, they will be more willing to participate in sustainable consumption activities. On the one hand, users will form a notion of sustainability. The stronger this sustainability thought, the more it can motivate users to participate in sustainable consumption activities. On the other hand, the platform not only gives some conveniences to users but also makes a contribution to sustainable development by sharing or exchanging idle resources. Such business activities can effectively improve users’ perception of the platform’s sustainability, further stimulating users’ more environmentally friendly behaviors.

Platform reputation refers to users’ overall evaluation of products and services, the confidence of platform enterprises and sellers based on a series of marketing behaviors in the past, as well as the degree of user fondness. Platform reputation can help users to some extent to predict the future activities and behaviors of platform enterprise, and then affect the users’ final consumption behavior. Pais and Provasi (2015) found that the number of participants in collaborative consumption is closely related to the reputation value of sharing economy platforms. Specifically, platforms with high reputation levels can meet users’ needs and provide satisfactory products and services, which makes users willing to participate in platform activities, trust service providers, and show sustainable consumption behaviors such as resource sharing and mutual benefit sharing. For providers, they need to expand the range of products and services to meet consumers’ personalized needs; for platform enterprises, they need to upgrade the service level of the sharing economy service platform, enhance the user’s evaluation and feedback

system, and optimize the platform reputation evaluation mechanism to build a good online reputation, and jointly promoting the healthy and sustainable development of the platform enterprises.

B. Improve the Management System of Collaborative Consumption and Strengthen Individual Identity and Trust

Trust is the foundation for sharing which is the essence of collaborative consumption. A large part of the work of organizations is to build and consolidate the trust relationship between the relevant parties in their consumer community. The practice has indicated that building and improving the management system of the platform under the sharing economy is of great importance for enhancing the sense of identity and trust in collaborative consumption under the sharing economy. From the perspective of laws and regulations, it is necessary to innovate in the methods of legal regulation to protect the legitimate rights and interests of producers and consumers. For consumers, their right to know, to choose, to be safe, to quality, and to be personal privacy need to be protected by laws. In this regard, various countries have promulgated laws to safeguard the legitimate rights and interests of consumers, such as “The European Union Consumer Protection Law”, “United States Electronic Commerce Consumer Protection Act”, and the “United States Online Privacy Protection Act”. For the suppliers of goods and services, in addition to assuming the responsibility for internal supervision, platform enterprises should also take labor protection measures by the Labor Law to provide them with necessary social and labor security. From the perspective of technology application and innovation, reducing the risk of the platforms is an important way to enhance personal identity and trust that can generate consumption intention and behavior. The platform is required to improve the security payment mechanism, privacy protection mechanism, third-party guarantee mechanism, and identity authentication mechanism. A secure payment system will reduce the financial risks of consumers, the protection of private information can improve their trust in the platform, the introduction of third-party guarantees will lift their confidence in transactions, strict identity authentication and information disclosure mechanisms will enhance the credibility of the platform, and a sound platform mechanism will stimulate their willingness to consume.

As for the current data trading and circulation across the entire industry, effectively utilizing data is a key focus, but there are still many problems. One of them is that the lack of unified information collection standards makes it difficult for data to form a linkage. There are also issues such as data leakage and abuse. To solve these problems, the coming transaction and circulation of data need to shift from a model based on subject trust to a model based on technical trust. Data encryption is the inevitable path to achieving this technical trust. “Encrypted Sky Computing” refers to data cross-cloud interconnection based on technical trust, providing cross-cloud encrypted data flow and computing services, and its goal is to allow data-encrypted applications to run across multiple cloud vendors. For example, the goal of Sky Computing proposed by RISE Lab of Berkeley University is to achieve interoperability among the cloud, allowing users to obtain the optimal computing resources on

demand across different cloud vendors and services to improve the credibility and security of data (<https://sky.cs.berkeley.edu/>). To sum up, Encrypted Sky Computing is one of the important directions for future data trading and circulation. By building a circulation model based on technical trust, we can solve the current problems and promote the effective use and secure circulation of data across the entire industry.

C. Innovate Business Models and Strengthen the Construction of Internet Communities

Currently, collaborative consumption in the sharing economy is still in the exploration period, facing a series of problems, so it is necessary to reduce costs and risks through continuous improvement and innovation. Platform enterprises should closely follow the trend of collaborative consumption, taking these ideas of sharing, innovation, and sustainability as the future development priorities, deeply exploring user needs, improving the online and offline service levels of the shared platform itself, and providing users with better services and convenient products to create new advantages for their innovation and development. Zipcar counts as one of the disruptive innovations, rather than Uber. This definition of disruption by Christensen *et al.* (2013) is a process “whereby a smaller company with fewer resources can successfully challenge established incumbent businesses”. Zipcar, founded in 2001, adopted a different approach from old-fashioned car rental companies in the sharing platforms, allowing Zipcar members to conveniently know the location of cars and acquire cars anywhere in their city. By logging in to the Zipcar website or searching by phone, you can find out which cars are available during this period, and the website will arrange the basic information and price of the available cars based on the distance between you and the vehicle location, and you can choose the car model and even color based on your travel characteristics, and make an appointment. After making an appointment, you can pick up the car at the location during the appointment time. Relying on a fully networked and self-service service model, Zipcar has grown into the largest car rental website in the United States. To expand its business scope, Zipcar takes college students as target users that other rental companies have overlooked. Many large car rental companies typically do not provide services to customers under age 21 and charge additional fees for different situations. Zipcar cooperates with Wesleyan University to use the excellent driving records of college students to win lower insurance premiums and expand these services to more campuses. Nowadays, about two-thirds of Zipcar’s members are under the age of 35, and 5% to 10% of licensed drivers are users of Zipcar.

Internet communities are an indispensable part of collaborative consumption. One of the critical reasons for the development of collaborative consumption is that it expands people’s relationships from traditional strong links to weak links. As a result, more intrinsic connections are formed among consumers, producers, and operators, creating a decentralized and transparent community with a dispersed structure. In this community, people enhance their sense of belonging through friendly communication and interaction, fostering a harmonious community atmosphere of mutual trust and assistance, thereby increasing their willingness to

participate in collaborative consumption. Albinsson and Perera (2012) indicated that community belonging is both the driving force and the result of consumer participation in collaborative consumption.

V. SUMMARY

In the context of the sharing economy, collaborative consumption is an original business model based on technological innovation. It enriches the content of products but facilitates information sharing and mutual trust between producers and consumers, thereby extending the life-cycle of products. Collaborative consumption fosters producers and consumers as partners in value creation to stimulate the development of the sharing economy. Multiple efforts are required to facilitate the healthy development of collaborative consumption, involving constantly optimizing our products and services to improve the platform’s reputation and attract more consumers, reinforcing the formulation and implementation of laws to protect the rights and interests of stakeholders to provide consumers with a safe and reliable consumption environment, and continuously innovating business models and strengthening the construction of Internet communities for sustainable development, and so on.

In the future, collaborative consumption will continue to enable consumers to share goods, knowledge, time, or services through methods such as sharing, exchanging, bartering, group-buying, trading, and renting. This practice facilitates cost-sharing, optimizes resource allocation, and deeply transforms the ways of social production and living. Collaborative consumption will provide new impetus for innovative patterns, create new opportunities, and bring about a more diverse and higher-quality experience for consumers.

CONFLICT OF INTEREST

The author declares no conflict of interest.

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