The Exploring of Supply Chain and Consumer Behavior
Under the Concept of Sustainable Development

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Abstract. In the context of deteriorating global environmental conditions, sustainable development has been recognized by more and more people. The concept of sustainability has also been incorporated into many business and consumer behaviors. Companies will use sustainable supply chains to balance three goals, economic, social and environment. Consumers will also adopt many green activities to implement the concept of sustainability. Therefore, the impact of sustainable supply chain on consumers and the impact of consumers' green behaviors on supply chain are worth discussing and exploring. Exploring the impact of enterprise supply chain on consumers is conducive to enterprises' better response to consumers. Consumers' feedback to enterprises is also conducive to the development of new green products. It helps to better implement the concept of sustainable development and reduce environmental damage and resource consumption.

Key words: Supply chain, consumer behavior, sustainability management

1. introduction
With the development of global economy and technology, people's living standards have been improved
a lot. But at the same time of economic development, it has caused a series of damage to the ecological environment. More and more conditions have been highlighted, such as acid rain, greenhouse effect. In this situation, a green concept is emerging to protect the earth's environment and promote sustainable development. Green marketing, green products and other sustainable development concepts been popular already.

On September 25, 2015, the UN sustainable development summit was held in New York, where the 193 member states of the UN will formally adopt 17 sustainable development goals. The seven sustainable development goals (SDGS) aim to shift the path of sustainable development and address the three dimensions of social, economic and environmental development, including: Elimination of poverty; Eliminate hunger; Good health and well-being; Quality education; Gender equality; Clean drinking water and sanitation; Cheap and clean energy; Decent jobs and economic growth; Industry, innovation and infrastructure; Narrowing the gap; Sustainable cities and communities; Responsible consumption and production; Climate action; Underwater life; Terrestrial organisms; Peace, justice and strong institutions; Partnerships that promote the achievement of goals.

In this case, the concept of sustainable development and environmental protection has become a topic worth exploring. Based on the theory of consumer behavior, this paper explores the relationship between supply chain and consumer behavior under the concept of sustainable development, and explores the following issues:
1. The impact of supplier supply chain with the concept of sustainable development on consumer behavior
2. The impact of consumers with the concept of sustainable development on the supply chain
3. Interaction between consumer behavior and supply chain under the concept of customer demand development

1.1. The concept of sustainable development
Since the 1930s, there have been more and more environmental hazards around the world, Such as the smoke incident in the maas valley, Belgium in 1930, the asthma incident in the 4th city, Japan in 1961, and the black rain incident in chongqing, China in 1994. The eight major public hazards brought people's attention to environmental protection. In 1972, the United Nations held a conference on the human environment in Stockholm, Sweden, and put forward the declaration on the human environment. The brundtland commission, sponsored by the United Nations, first proposed the idea of sustainable development in its 1987 report, our common future, It defines sustainable development as "the development of meeting the needs of the present without sacrificing the ability of future generations to meet the needs". It has aroused people's attention to the ecological environment and set off the climax of contemporary sustainable development research.

2. Supply chain under the concept of sustainable development

2.1. Overview of sustainable supply chain management
Sustainable supply chain is developed on the basis of green supply chain. [1] It proposed that enterprises should have a sense of social responsibility, pay attention to social benefits while pursuing economic
benefits, and carry out basic activities such as purchase, production and consumption accordingly. [2]

It also proposed that environmental issues should be paid attention to in the process of logistics management, so as to add the environmental concept of sustainable development into the supply chain. [3] The sustainable supply chain also put forward that environmental issues should be considered in logistics management, especially in operation and supply chain management, which is another step forward for environmental issues in supply chain. [4] The sustainable supply chain in the meantime proposed to transfer social responsibility from management to independent supply chain management activities. [5] It proposed that in supply chain management, the source point is the supplier and the manufacturer, and the consumption point is the consumers, and end users in the supply chain. They are interdependent as a whole, and this dependence is manifested in the dependence on time, relationship and function.

With the increasing awareness of environmental protection, green consumption and green products are becoming more and more popular. Global enterprises also begin to pay attention to the impact on the environment while making profits, and gradually implement green manufacturing. Green manufacturing is a modern management model that takes into account the environmental impact and resource efficiency. Its purpose is to make the product design, manufacturing, packaging, transportation, use and scrap treatment of the whole product life cycle, the minimum impact on the environment, the highest utilization of resources, and make the enterprise economic benefits and social benefits coordination optimization. [6]

It is suggested to define sustainable supply chain as: Connect each element of manufacturing and the supply process from raw materials to end users, including some boundaries of several organizations. [7] it is proposed that sustainable supply chain management is the strategic and transparent integration and realization of social, environmental and economic goals in the organization, so as to enhance the long-term economic benefits between the enterprise and the supply chain.

2.2. Objectives of sustainable supply chain management

It is proposed the triple bottom line of sustainable supply chain performance indicators. [8] The triple bottom line refers to the balance of economy, environment and society. Therefore, the index of sustainable supply chain should be the integration of economy, environment and society. While considering its own economic interests, it should also take into account the common development of society and environment. Therefore, the difference between sustainable supply chain and traditional supply chain is that the waste can be recycled and processed to the maximum extent, so as to protect the environment.

Green supply chain management is a way to improve effective environmental protection. Green supply chain management focuses on the protection of the environment and does not mention the coordination of environment, society and economy. As more and more scholars later added the concept of sustainability into the supply chain, the concept of sustainable supply chain was born. Sustainable supply chain is a mode of balancing economic, environmental and social at the same time. Its research content is more comprehensive and complex than green supply chain.

2.3. The impact of sustainable supply chain on consumer behavior
Through the theory and practice of consumer behavior, we can know that consumers' purchasing behavior is influenced by cultural, social and individual factors. The consumer behavior decision-making model shows that consumers will be influenced by their own and external factors, while under the promotion of the concept of sustainable development, consumers may be stimulated by the outside world to make some sustainable consumption decisions. In maslow's theory, when human needs are ranked from low to high, human beings will first meet the most basic needs of survival and security, and then want to meet the needs of higher self-realization. And many studies have shown that people with higher levels of education in general are more likely to have a sense of social responsibility to try sustainable development. And these people are better off financially, with a steady income that allows them to try to consume these sustainable products. From the above theories, it can be concluded that, in theory, supply chain manufacturers with sustainable concept will cause external marketing incentives to consumers, so that consumers' purchasing decisions will be changed.

![Figure 1](image)

**Figure 1** Maslow's theory influences consumer's purchase decision

3. Green consumption behavior of consumers with sustainable concept

3.1. The concept of green consumption with a sustainable concept

Green consumption advocates environment-friendly rational consumption. Consumers try to incorporate resource conservation and ecological environmental protection into human behavior norms through consumption, and through the reverse mechanism of consumption on production, the concept of sustainability runs through the whole product life cycle, so as to reduce resource consumption and improve environmental protection [9].

Green consumption is a high level of rational behavior of consumption, Human consumption
concept will progress with the progress of the society. Green consumption takes into account the protection of the environment and the reduction of resources, which is different from the traditional consumption concept. Generally, consumers with this green consumption concept will have a higher awareness of environmental protection and a sense of social responsibility.

3.2. The impact of sustainable consumers on manufacturers

The marketing concept of enterprises can be divided into five stages, production orientation, product orientation, sales orientation, marketing orientation and social marketing orientation. With the change of marketing concept, enterprises pay more and more attention to the needs of consumers. Maintaining closer contact with customers has become the consensus of more companies. As the market competition becomes more and more fierce, enterprises need to respond to the changes of the market at any time to maintain their competitive advantages. In the new business environment and competition background, enterprises need to change the traditional product cooperation innovation mode, strengthen the cooperation with customers[10]. Therefore, as a new model of product cooperation and innovation, customer orientation is widely used by enterprises to improve the speed of new product launch.

As enterprises pay more and more attention to the needs of consumers, they will let consumers participate in the production of enterprises in various ways. Customer orientation is the core element of enterprise market orientation and the important foundation of enterprise marketing. The higher the degree of customer orientation, the closer the relationship with customers, the easier it is to learn from customers and get more information and feedback in time. This enables faster and more efficient response to changes in customer requirements. Some companies are even able to form many collaborations with key customers to jointly develop new products.

According to the above literature, in theory, when consumers with sustainable ideas participate in the company's production process, their opinions and feedback will also affect the company's supply chain, thus increasing the company's innovation ability and performance.

![Figure 2](image)

**Figure 2** Consumer participation in new product development

4. Interaction between consumer and supply chain with sustainable concept

Based on the previous literature review, it can be concluded that the supplier supply chain with sustainable concept can influence consumers through marketing and other means, so as to change consumers' purchasing decisions. On the other hand, now that enterprises are paying more and more
attention to the needs of consumers, enterprises will also let consumers indirectly participate in production and development, so as to maintain their advantages in market competition. The feedback of various information from consumers will affect the production chain of enterprises, namely the customer-oriented production mode.

Under the influence of the concept of sustainability, the consumer side and the production side may interact. When consumer’s feedback information to enterprises, it will also have an impact on consumers.

Figure 3 Interaction between consumer and enterprise supply chain

5. Conclusion
Through consumer behavior pattern, it can be concluded that consumers will be stimulated by many factors, including the outside and themselves. Therefore, consumers will be affected by sustainable supply chain and make changes in purchasing decisions. The participation of consumers should have a positive impact on the development of new products, so the participation of consumers will indirectly affect the performance of enterprises. The participation of consumers can better enable enterprises to find problems in the process of new product development, so as to accelerate the research and development of new products and market speed, which is conducive to the integration of the supply chain.

With the participation of sustainable concept, the sustainable supply chain of enterprises should be easier to influence the consumers with sustainable concept. In the same way, the green behaviors of consumers with sustainable ideas should be able to give more feedback to enterprises and make them change.
However, the supply chain of an enterprise contains many variables that will be affected, such as the development and innovation of new products and enterprise performance. It is still worth exploring how these variables change when the supply chain and consumer behavior interact. And consumer behavior is still a topic worth discussing.

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