

Research on green supply chain management of Retail Businesses from the prospective of carbon peaking and carbon neutrality goals: Taking JingDong as an example

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Abstract. The formulation of carbon peaking and carbon neutrality goals in long run provides the basic follow for enterprises to achieve the high-quality development of the supply chain, which will be bound to be applied to the greening of the supply chain of retailers. Hooked on these goals, retailers have adjusted their supply chain in terms of energy use structures. In the process of achieving these goals, this present paper takes JingDong as an example, aims at studying the green supply chain management selection of the current retailers, and tries further to fully analyze the three types of pressures faced by retailers using the Natural Resource-Based View (NRBV) as well as Institutional Theory(INT), which is of practical significance for the retail managers and policy makers to identify and implement appropriate green supply chain management strategies and improve the performance.

Keywords: Carbon Peaking and Carbon Neutrality Goals; Institutional theory; Retail Businesses; Green Supply Chain Management.

1. Introduction

On October 24, 2021, the Opinions on Complete and Accurate Implementation of the New Development Concept to Do a Good Job in Carbon Dumping and Carbon Neutral Work (hereinafter referred to as "Opinions") was issued, pointing out the development indicators of the proportion of non-fossil energy consumption. According to the 21st Century Business Herald, the Opinions, as the "1" in the "1+N" policy system, provide the "double carbon" work in other industries and fields. As the "1" in the "1+N" policy system, the Opinions provide a systematic plan, overall deployment and fundamental guidance for the development of "double carbon" in other industries, which is bound to involve the future high-quality development of related industries [1].

In recent years, under the booming development of e-commerce, the scale of China's logistics industry has grown unprecedentedly, and it is the right time to build a green supply chain [2]. As a leading enterprise in the retail sector that has laid out low-carbon emission reduction in advance, Jingdong Group announced the official launch of its green logistics practice in June 2017 with the "Green Stream Plan" involving the upstream and downstream of the green supply chain.

The current research on the green supply chain management (GSCM) of retail enterprises under the "double carbon" objective is inadequate, and the research on GSCM is relatively shallow and theoretically subsidiary, with large gaps. Therefore, this paper tries to use the institutional theory and basic natural resources view to examine the GSCM strategy of retail enterprises under the "double carbon" objective, taking Jingdong enterprise as an example, with the aim of fully analyzing the above-mentioned issues and providing insights for retail enterprise managers and policy makers to identify and formulate GSCM strategies and achieve high-quality development.

2. Green Supply Chain Management

By definition, a supply chain can be thought of as a series of three or more entities, such as individuals or organizations directly involved in the downstream and upstream movement of money, services, products and information from the source to the customer [3]. Adding the concept of "green" to SCM, forming green supply chain management (GSCM) is inevitably related to the impact and

connection between supply chain management and the environment [4]. As with SCM, the limitations of GSCM depend on the researcher's objectives [5]. Based on Diabat and Govindan [6], examples of GSCM strategies include reducing packaging and waste, evaluating suppliers based on environmental performance, developing more environmentally friendly products, and reducing carbon emissions associated with product transportation.

3. Theoretical Framework and Technology Roadmap

3.1 Natural resource base view

The challenges of the natural environment are integrated by Hart [7] into a theoretical framework known as the Natural Resources Basic View (NRBV). The framework asserts that pollution prevention, product stewardship, and sustainable development are interrelated and require critical resources to play a significant role in sustainable competitive advantages. According to NRBV, organizational resources and capabilities play an important role in the success of strategic environmental supply chain management [7]. NBRV believes that organizations can improve economic and environmental performance through the implementation of appropriate environmental policies and therefore adopt this theory as a conceptual framework for their analysis.

3.2 Institutional Theory

According to institutional theory, three types of institutional pressures (coercive, normative and imitative pressures) affect the competitive alignment of the organization with the environment [8]. Therefore, the theory provides researchers with a perspective to examine the impact of influencing factors on facilitating organizational processes and cultural contexts [9]. The framework incorporates social, political and economic factors into the examination [10]. The development and implementation of GSCM in current research has taken institutional theory into account, for example, considering the types of pressures exerted by institutions [11]. The institutional theory is therefore suitable to explain supply chain sustainability in social and environmental aspects.

4. Analysis of the "double carbon" target based on INT

4.1 Forced pressure

Coercive pressures are described as pressures exerted by "others on whom the firm depends", such as buying a house, government agencies, regulations, etc., and characterize social expectations [12]. The top-level document "Opinions", which provides the fundamental guidelines for the "1+N" policy system, is not legally mandatory, but given its role as a guiding document issued by the central government and its direct reference to future industry regulations, it should be considered a mandatory pressure for the GSC to be adopted. It will have a positive impact on the successive adoption of green supply chain strategies such as the "Green Stream Plan".

4.2 Normative pressure

Pressure to regulate comes from social organizations, end users and downstream supply chain partners [13]. The main contradiction in our society has been transformed into the contradiction between the people's growing need for a better life and unbalanced and insufficient development. From the dimension of comprehensive social development, this transformation of the main contradiction is characterized by the more urgent demand of the people for a beautiful environment in terms of ecological civilization [14]. In order to realize the high-quality development of ecological civilization, the country focuses on promoting the "double carbon" work; and Jingdong and other leading retail enterprises, through scientific carbon reduction, leading the high-quality development of the industry, to help promote the construction of ecological civilization nationwide is also the responsibility and the right thing to do.

4.3 Imitation pressure

The imitation pressure comes directly from the imitation behavior of competitors, which is caused by the uncertainty of the environment [23]. Since the release of the Opinions, the "carbon neutral" concept blocks such as photovoltaic and wind power generation have triggered a "rising storm" in the A-share market, heralding the official arrival of the "double carbon" era [1]. A large amount of capital is urgently needed to enter the market, coercing new entrants and existing companies to imitate the green champion in the green supply chain industry in order to be at the forefront of the competitors [15]. The green champion is the first of its kind. Jingdong, as a leading company in the field of retailing, has taken the lead in the industry in terms of service quality, brand premium and self-research technology [16]. This will inevitably lead to imitation pressure from competitors. The likelihood that the Jingdong Group will continue to implement green supply chain strategies will also grow as a result of its linkages with competitors.

5. Conclusion

5.1 Main conclusions

In this paper, we use the NRBV and INT to fully analyze the impact of the "double carbon" target on the GSCM strategy of retail enterprises, taking Jingdong as the research site, and argue that government regulations (compulsory pressure), social legitimacy (normative pressure) brought by people's growing demand for a better life, and imitation competition (regulatory pressure) brought by capital entering the market are all important factors. The positive impact of government regulations (compulsory pressure), social legitimacy brought by people's growing demand for a better life (normative pressure), and imitation competition after the capital enters the market (imitation pressure) on the implementation of Jingdong's green supply chain strategy. Based on the above results, Jingdong should continue to implement GSCM, continue to build a low-carbon and efficient green supply chain through self-research technology, expand cooperation, etc., and contribute "Jingdong power" to the high-quality development of the whole industry.

5.2 Limitations and Future Research

Although this paper tries to provide a new perspective for analyzing the GSCM strategy model of retail enterprises in the "dual carbon" perspective, there are still many limitations. For example, this paper discusses the impact of "dual carbon" objectives on retail enterprises qualitatively from a basic natural resource perspective and institutional theory, and lacks quantitative research in the same area. The structural equation modeling of various variables based on institutional theory could be a further research direction. In addition, this paper is limited to the Jingdong group of companies, and there is a risk of lack of generalizability of the findings, which can be solved by analyzing other companies in the same field.

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