

Research on the Current Situation and Promotion Strategy of Green Transformation of Logistics Enterprises in Beijing

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ABSTRACT

On September 22, 2020, at the 75th United Nations General Assembly, China formally proposed the goal of achieving carbon peak in 2030 and carbon neutrality in 2060. Carbon neutrality is not only a national strategy, but also a national requirement for every enterprise. The goal of "double carbon" has put forward higher development requirements for the logistics industry, and vigorously promoting the development of green logistics has become an important path for China's logistics industry to achieve green transformation and upgrading. This paper starts with the analysis of the current situation of green transformation of logistics enterprises in Beijing, and puts forward countermeasures to solve the existing problems, so as to provide reference for promoting green logistics to achieve sustainable development goals.

KEYWORDS: Green transformation of logistics enterprises, strategy research, green logistics

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INTRODUCTION

In the Opinions on Implementing Policies and Measures to Promote the Healthy Development of Logistics Industry, the Beijing Municipal Government pointed out that logistics industry is an important part of producer services. Vigorously developing modern logistics industry is of great significance for reducing circulation costs, ensuring and improving people's livelihood, generally improving the quality and efficiency of economic operation, and optimizing and upgrading the comprehensive development environment of cities. In this context, the green transformation of logistics enterprises has become the key direction for Beijing to promote the development of low-carbon economy. Therefore, this paper compiles a questionnaire on the green transformation of logistics enterprises in Beijing according to the current situation and promotion strategies of the green transformation of logistics enterprises in Beijing. Based on interviews, the questionnaire used the Likert scale scoring method to measure the current situation of green transformation of logistics enterprises in Beijing, and examined the progress of logistics

enterprises in promoting green development and environmental protection. A total of 47 valid questionnaires were collected.

I. Analysis of the Responsibility and Current Situation of Green Transformation of Logistics Enterprises in Beijing under the Goal of "Double Carbon"

1. Responsibility for Green Transformation of Logistics Enterprises in Beijing

Logistics enterprises in Beijing bear the important responsibilities of reducing carbon emissions, promoting green packaging, optimizing storage facilities, promoting circular economy and strengthening environmental management in the green transformation. Logistics enterprises can play an important role in the Green Beijing strategy through their own carbon emission reduction and penetration into the industrial chain enterprises, and contribute to the realization of sustainable development and the construction of ecological civilization.

2. Main "Carbon Source" of Logistics Enterprises in Beijing

The workflow of logistics enterprises mainly includes independent links such as warehousing, packaging, loading and unloading, storage, transportation and distribution. Combined with the actual operation process of express delivery, we can divide the carbon emissions generated in the whole process of express delivery into three types, namely, direct emissions, indirect emissions and other indirect emissions. Direct emissions refer to greenhouse gas emissions from the combustion of fossil fuels such as coal, oil and natural gas used in mobile or fixed equipment used in express transportation; indirect emissions refer to the

greenhouse gas emissions generated by the use of electricity or heat in the process of express sorting and delivery; other indirect emissions refer to the carbon emissions generated in the process of express packaging or node planning, construction and operation. Among them, the combustion of fossil fuels such as coal, oil and natural gas used in transportation accounts for the largest proportion of greenhouse gas emissions. When the enterprise is taken as the research object, the carbon emission can be divided into three "scope" for analysis by referring to the internationally accepted carbon emission accounting method, see Table 1.2. as shown in.

Tab.1 CO2 emission Scope analyzing of logistics enterprises

Number	scope	kind	Source/Link/Operation
1		Natural gas	Canteen, office heating, etc.
2	Energy-related	Diesel and gasoline	Transport Vehicle
Scope I			
3	Material-related	Polystyrene (foamed plastic)	Incomplete recovery of packaging materials
Scope II			
4		electricity	Office area for packaging and other processes
5		steam	Office heating, bathroom, etc.
Scope III			
6	etc.	Express packaging or node construction and operation process	

Table 2. Carbon emission details of transportation/storage/postal industry (Unit: 10,000 tons)

Year	Coal Carbon Emissions	Coke carbon emission	Carbon emission of crude oil	Carbon emission from gasoline	Carbon emission of kerosene	Carbon emission of diesel	Carbon emission of fuel oil	Carbon emission of natural gas	Total amount
2017	671	17.18	26.22	16689.28	9637.98	34636.21	5616.03	6163.69	73458.24

Data source: Guotai'an csmar database

3. Carbon emissions of different types of enterprises in the logistics industry in Beijing

According to the type of operation, logistics enterprises can be divided into the following types: transportation enterprises, warehousing enterprises, circulation and processing enterprises, and distribution enterprises.

Transportation enterprises are mainly responsible for the transportation and distribution of goods. The carbon emissions of transport enterprises mainly come from the combustion emissions of transport vehicles (such as trucks, ships, aircraft, etc.). Carbon emissions are influenced by factors such as the distance travelled, the quality of the goods and the energy efficiency of the means of transport. Warehousing

enterprises are mainly responsible for the storage and management of goods. The carbon emissions of warehousing enterprises mainly come from the energy consumption of warehouses, including lighting, air conditioning, refrigeration equipment and so on. In addition, warehousing enterprises may also produce some indirect carbon emissions in the process of goods storage and management, such as the use of packaging materials and waste disposal. Circulation processing enterprises are mainly responsible for processing and sorting goods to meet market demand. The carbon emissions of circulation processing enterprises mainly come from processing equipment and energy consumption. In addition, circulation processing enterprises may also produce some indirect carbon emissions, such as the use of packaging

materials and waste disposal. Distribution enterprises are mainly responsible for delivering goods from warehouses or production sites to destinations. The carbon emissions of distribution enterprises mainly come from the combustion emissions of distribution vehicles. Carbon emissions are influenced by factors such as the distance of delivery, the quality of goods and the energy efficiency of delivery vehicles.

4. Existing specific measures and effects of carbon emission reduction in Beijing's logistics industry

The government plays a leading role in promulgating relevant policies to regulate the low-carbon operation of logistics enterprises.

A. Promote clean energy vehicles.

The Beijing Municipal Government explicitly requires that all logistics distribution vehicles under 4.5 tons be new energy vehicles. During the "14th Five-Year Plan" period, 100% of the logistics distribution vehicles (excluding dangerous goods transport vehicles and cold chain transport vehicles) with less than 4.5 tons of truck passes will be new energy vehicles, and all new and updated ships in the water transport cruise industry will be new energy ships. At the beginning of 2021, the Beijing Municipal Commission of Transport issued the Implementation Plan on Encouraging Enterprises to Provide Priority Urban Traffic for the Operation of New Energy Light Trucks in Beijing, encouraging and promoting the use of clean energy vehicles such as electric trucks and hydrogen fuel cell vehicles to reduce exhaust emissions. According to statistics, by the end of 2020, Beijing's logistics enterprises had promoted the use of more than 100,000 clean energy vehicles, reducing carbon emissions by more than 1 million tons.

B. Electronic face sheets are widely used.

At the request of the Beijing Municipal Government, by the end of 2023, logistics enterprises in Beijing will fully use electronic face sheets. This is a major initiative to help improve logistics efficiency, save resources, reduce costs, reduce waste generated in printing, packaging and transportation, and thus reduce the negative impact on the environment.

In response to the government's call, large enterprises have taken active measures to promote green development. FedEx provides a wide range of international express, package shipping, logistics and supply chain services in Beijing. As an international express company, FedEx has a number of service outlets in Beijing, providing customers with express, freight, logistics solutions and other services. This section takes FedEx as an example to analyze the

existing measures and effects of carbon emission reduction of large logistics enterprises in Beijing.

A. Application of high and new technologies for energy saving and emission reduction.

FedEx applies energy-saving and emission-reduction technologies in warehousing and distribution, such as intelligent lighting systems and energy-saving refrigeration equipment, to reduce energy consumption and carbon emissions. More than 2.38 million kilowatt-hours of electricity have been saved by retrofitting lighting facilities and applying energy management systems. This is equivalent to a reduction of 193,462 metric tons of carbon dioxide emissions, which is equivalent to the production of carbon dioxide emissions that can supply 35,000 + households with electricity for one year.

B. Improve operation and reduce environmental impact.

FedEx is pushing for a paperless office, saving 1 cubic meter of wood for every 5000 sheets of A4 paper, as well as the electricity and chemicals used in the production of paper, with remarkable results. In order to achieve the ambitious goal of carbon neutral operation of global business by 2040, FedEx invests in cutting-edge technology and will invest more than \$2 billion in three key areas of vehicle electrification, sustainable energy and carbon sequestration. The investment includes a \$100 million donation to Yale University to help it establish the Yale Natural Carbon Capture Center in the United States to accelerate research on large-scale carbon sequestration methods.

Compared with large logistics enterprises, small and medium-sized or even micro-logistics enterprises are inevitably stretched. Due to the limitations of capital, technology and scale, it may be difficult for them to bear the high cost and risk of green transformation. Senior executives of small and medium-sized logistics enterprises said that enterprises have a sense of green development, but because of insufficient funds, green transformation is not enough. The results of the questionnaire survey show that more than half of the small and medium-sized micro-enterprises think that "your company has done a better job in green development and environmental protection". For example, in the question of "the proportion of green packaging currently used by your company", 78.57% of small and medium-sized micro-enterprises gave "general" or "low" answers. The reason behind this is obvious. Green packaging materials such as degradable packaging materials, recycled cardboard and sustainably produced plastics are usually more expensive than traditional plastic packaging materials. In addition, the design and implementation of green

packaging strategies also require additional inputs, such as the redesign of the supply chain, the search for sustainable packaging suppliers, and staff training. Therefore, the adoption of green packaging by logistics enterprises is not a small investment. Because of the small scale of operation, these enterprises are often unable to carry out large-scale technology investment and resource integration like large enterprises. In the meantime, small and medium-sized logistics enterprises usually lack professional technical personnel and R & D teams, and can not carry out independent R & D and innovation, which leads to the shortcomings of technological innovation and environmental protection technology application. In addition, because of their small scale, these enterprises are facing greater risks in the market competition, so it is difficult to bear the uncertainty and risk of green transformation.

II. Analysis of the Constraints of Green Transformation of Logistics Enterprises in Beijing under the Goal of "Double Carbon"

1. Analysis of internal factors

The results of the questionnaire show that most enterprises in the logistics industry believe that green transformation needs more financial support, and more than half of the small and medium-sized logistics enterprises believe that survival is the biggest problem before the environmental problems, and they do not have enough energy to invest in the green transformation of enterprises in the severe market competition environment. The specific analysis is as follows.

A. Economic constraints.

The investment cost of technology and equipment is high. Green transformation requires logistics enterprises to purchase environmental protection equipment, improve transportation and storage facilities, and the investment cost of these equipment and technology is high. For example, the purchase of low-emission transport vehicles and the installation of pollution control equipment require large capital investment. This may be a big economic burden for some small logistics enterprises.

Increased operating costs. Green transformation may lead to an increase in the operating costs of logistics enterprises. For example, the use of low-emission transport vehicles may require higher fuel costs, and the improvement of storage facilities may require higher energy and maintenance costs. These additional operating costs may have a certain impact on the profitability of enterprises.

B. Lack of awareness of environmental responsibility of management.

Green transformation requires the management of logistics enterprises to attach great importance to training employees with environmental awareness and skills. However, at present, the lack of environmental awareness in the management of some logistics enterprises leads to the lack of environmental awareness and skills of employees, which may also limit the process of green transformation of logistics enterprises.

2. Analysis of external factors

The results of the questionnaire show that nearly half of the enterprises in the industry believe that the reason why they do not adopt more green development in their business is the lack of government policy support and the lack of mandatory regulations on environmental protection issues such as carbon emission reduction.

A. The policy support provided by the government is insufficient.

The root cause of the lack of motivation for enterprises to take the initiative to reduce emissions is the lack of support from relevant policies and standards. While the Beijing municipal government offers some tax incentives and subsidies, they may not be enough to really motivate companies to make a green transition. More financial incentives may need to be developed and implemented to encourage businesses to invest in green technologies and equipment.

B. For the time being, there are no mandatory provisions on environmental protection issues such as carbon emission reduction of enterprises.

Green transformation needs the support of policies and standards of the government and industry organizations, but there is still a lack of relevant policies and standards in Beijing. Lack of clear policies and standards may lead to low enthusiasm of logistics enterprises for green transformation, and it is difficult to obtain government support and incentives.

3. Research on the Dynamic Mechanism of Green Transformation of Logistics Enterprises in Beijing under the Goal of "Double Carbon"

A. Research on the external driving mechanism of carbon emission reduction in logistics enterprises

In the external environment, policies and mechanisms such as carbon market, tax and subsidy policies and green finance provide a certain degree of support and effect for the carbon emission reduction activities of logistics enterprises. These policies and mechanisms can provide economic incentives and financial

support for logistics enterprises, reduce the cost of carbon emission reduction, and promote enterprises to take more emission reduction measures. This is explained in detail below.

1. Carbon market:

Carbon market is a market mechanism to achieve emission reduction through carbon emission trading, and its goal is to achieve carbon emission reduction in the whole industry through carbon trading mechanism. The practice of seven carbon trading pilot projects in developed countries and China has proved that carbon emissions trading is an effective method of carbon emission reduction, a greenhouse gas emission reduction measure based on market mechanism, and a win-win policy tool to achieve energy conservation and emission reduction and economic growth. As an important source of carbon emissions, the reduction behavior of logistics enterprises has an important impact on the reduction effect of the whole carbon market.

The Beijing Municipal Government has implemented a carbon emission quota system to restrict and supervise the carbon emissions of logistics enterprises. Logistics enterprises need to obtain the corresponding carbon emission quotas, and the carbon emissions exceeding the quotas need to be compensated or purchased additional carbon emission rights. If logistics enterprises can actively take emission reduction measures to reduce carbon emissions, it will have a positive impact on the carbon emission reduction effect of the whole carbon market. In addition, the carbon market can also guide logistics enterprises to take more emission reduction measures through the carbon pricing mechanism, so as to further improve the effect of carbon emission reduction.

However, there are still some challenges in the support and effectiveness of the carbon market for the carbon emission reduction activities of logistics enterprises. At present, the scale of Beijing's carbon market is relatively high, but the carbon price is relatively high, and the development of the carbon market still faces some technical and institutional obstacles.

Therefore, in order to improve the support and effectiveness of the carbon market for the carbon emission reduction activities of logistics enterprises in Beijing, it is necessary to further expand the scale of the carbon market, raise the carbon price, strengthen policy support, provide technical and financial support, encourage logistics enterprises to actively participate in carbon trading activities, and strengthen international cooperation to promote the development and improvement of the carbon market.

2. Tax and subsidy policies:

The Beijing Municipal Government encourages enterprises to take measures to reduce emissions by reducing or reducing the carbon emission tax of logistics enterprises. This kind of tax policy support can reduce the cost of emission reduction of logistics enterprises and improve the enthusiasm of emission reduction.

It should be noted that the design of tax and subsidy policies also needs to balance the interests of all parties, and the degree and effect of support for carbon emission reduction activities of logistics enterprises are also facing some challenges.

Therefore, the Beijing Municipal Government needs to formulate reasonable tax and subsidy policies to ensure that the objectives of the policies are clear and feasible, and to truly encourage logistics enterprises to take emission reduction measures. The government needs to formulate reasonable tax and subsidy policies to ensure that the objectives of the policies are clear and feasible, and to truly encourage logistics enterprises to take emission reduction measures. At the same time, the government, enterprises and international organizations should strengthen cooperation to jointly promote the development of low-carbon logistics and provide better policy support and incentive mechanism for logistics enterprises.

3. Green Finance:

Green finance can promote environmental protection and governance, and guide resources from industries with high pollution and energy consumption to sectors with advanced ideas and technologies. The support and effect of green finance on carbon emission reduction activities of various logistics enterprises can be said to be continuously enhanced and improved. With the increasing global attention to climate change and environmental protection, green financial institutions are paying more and more attention to carbon emission reduction in the logistics industry and providing corresponding support and services. Green financial institutions usually require logistics enterprises to conduct environmental assessment and disclosure to assess their environmental risks and emission reduction potential, and to disclose relevant information to investors and the public. This can encourage logistics enterprises to pay more attention to emission reduction, strengthen environmental management and monitoring, and improve transparency and responsibility.

Generally speaking, the support and effect of green finance on carbon emission reduction activities of logistics enterprises are positive. By providing financial support, technical support, environmental assessment and disclosure, incentives and

certification, green financial institutions can help logistics enterprises implement carbon emission reduction projects and promote the development of low-carbon logistics. This not only helps to reduce carbon emissions in the logistics industry, but also improves the competitiveness and sustainable development ability of enterprises, and also meets the needs of society for sustainable development and environmental protection.

However, in order to realize the green transformation of logistics enterprises, on the one hand, financing support is indispensable, on the other hand, the government needs to formulate relevant laws and regulations, subsidy policies, improve infrastructure, two-pronged approach, both hard and soft, to promote the green transformation of logistics industry.

III. Research on the Endogenous Power of Green Transformation of Logistics Enterprises

The questionnaire results show that 77.6% of the respondents believe that one of the reasons why the company has taken measures in green development and environmental protection is the awareness of corporate social responsibility. McKinsey has conducted extensive research on ESG (environmental, social and governance) concepts, including ESG investment, sustainable development strategy and ESG performance. ESG philosophy emphasizes that enterprises should consider environmental, social and governance factors in the process of operation in order to achieve sustainable development and maximize long-term benefits. McKinsey's research shows that sustainable development not only protects the environment, but also improves the trust of customers, employees and investors in the company. In the medium and long term, companies with higher ESG (environmental, social and corporate governance) scores perform better than the whole market. Promoting enterprises to practice ESG concept can internalize it into the endogenous power of green transformation of logistics enterprises. As will be describe in more detail below.

1. Improving brand value brings long-term benefits. Logistics enterprises implement the concept of environment, society and governance (ESG), attach importance to environmental protection and improve brand value, which will bring long-term benefits to enterprises.
2. Reduce environmental risks. Paying attention to environmental issues helps to reduce the environmental risks of enterprises, comply with environmental laws and regulations, reduce the occurrence of environmental accidents and pollution incidents, and reduce the environmental

responsibilities and legal risks of enterprises.

IV. Research on the Promotion Strategy of Green Transformation of Logistics Enterprises in Beijing under the Goal of "Double Carbon"

Under the goal of "double carbon", it is very important to promote the green transformation of logistics enterprises in Beijing. The author will explain the promotion strategy of green transformation of logistics enterprises in Beijing under the goal of "double carbon" from both internal and external latitudes.

1. Internal latitude

From the perspective of internal dimension, to promote the green transformation of logistics enterprises in Beijing, we need to carry out reform and innovation from within the enterprise. Here are some internal push strategies:

A. Develop a green logistics plan:

Logistics enterprises should formulate specific green logistics plans, set carbon emission reduction targets and timetables. The plan should take into account the actual situation and resources of the enterprise, and specify the green technologies and measures to be taken, such as the use of electric vehicles and the optimization of route planning.

B. Enhance staff awareness:

Enterprises should strengthen the environmental awareness and training of employees, so that employees understand the importance of green logistics and implementation methods. Employees can participate in the green transformation by saving energy and reducing waste.

C. Optimize operational processes:

Enterprises should optimize the operation process, reduce unnecessary transportation and warehousing links, and improve transportation efficiency and resource utilization. Through intelligent dispatching system, warehousing optimization and other measures, carbon emissions and energy consumption can be reduced.

2. External Latitude

From the external dimension, promoting the green transformation of logistics enterprises in Beijing needs the support and cooperation of the government, industry organizations and all sectors of society.

A. Government guidance:

The results of the questionnaire survey show that the vast majority of enterprises hope that the government will take incentives such as subsidies, tax cuts and fee cuts to promote the establishment of a green supply chain management system.

The Beijing Municipal Government can introduce relevant policies and regulations to encourage and support the green transformation of logistics enterprises by using the role of policy guidance. Specifically, we can give tax incentives to logistics enterprises that meet the green transformation standards, reduce the operating costs of enterprises, and encourage enterprises to invest in the introduction and renewal of green technology and equipment. At the same time, the Beijing Municipal Government can set up special funds to provide loans, subsidies and other support for logistics enterprises to purchase green equipment, build green warehouses, and promote green transportation, so as to help enterprises achieve green transformation. We can also set up a reward mechanism to reward logistics enterprises that have achieved remarkable results in green transformation, so as to stimulate the enthusiasm and innovation of enterprises and promote the in-depth development of green transformation.

The Beijing Municipal Government can also increase investment in green infrastructure construction, such as the construction of charging pile network and intelligent logistics center, further improve the layout of new energy charging and switching infrastructure, and provide convenience and support for logistics enterprises. It is suggested to speed up the completion of the construction planning and implementation rules of Beijing charging and switching power stations, further optimize the approval process of charging and switching power stations, speed up the layout and commercialization of charging and switching power stations, follow the principle of "overall planning of passengers and merchants, accompanying stations and rational layout", encourage enterprises to properly construct and lay out the infrastructure of charging and switching power stations in various operation scenarios, and improve the network service system. It is suggested that Beijing should give preferential policies to new energy commercial vehicles in terms of land use, power capacity increase and charging costs, and give appropriate policy support to new energy logistics vehicles, so as to enhance the enthusiasm of logistics enterprises.

It is suggested that the Beijing Municipal Government should guide the establishment of a green supply chain management system, strengthen the coordination between green supply chain management and policy measures, promote the mainstreaming of green supply chain management, and use the "powerful hand" of the government to clarify the relevant requirements and objectives of green supply chain in laws, regulations and planning policies with strong legal effect and binding force.

B. Guidance of industry organizations:

Beijing Logistics Association provides a platform for communication, exchange, learning, cooperation and exhibition for logistics enterprises in Beijing, provides professional services for logistics enterprises, plays a guiding and coordinating role, promotes logistics enterprises to work together, shares experience and resources, and provides suggestions for Beijing Municipal Government on green development of logistics and policies and regulations. Beijing Logistics Association can organize training and seminars, provide technical support and consulting services, and promote the application of green logistics technologies and strategies.

C. Cooperation among all sectors of society:

All sectors of society, including customers, suppliers and social organizations, can cooperate with logistics enterprises to build a green supply chain management system under the guidance of the government to form a joint force to jointly promote green transformation. Customers can choose green logistics services, provide support and demand, and promote logistics enterprises to improve environmental performance. Suppliers can provide environmentally friendly products and technologies to support the green transformation of logistics enterprises. Logistics enterprises cooperate closely with suppliers and partners to build a green supply chain management system, which helps to reduce environmental impact, improve resource utilization efficiency, promote partner participation, enhance corporate image and brand value, and meet regulatory and regulatory requirements, and plays a vital role in the green transformation of logistics enterprises.

V. Basic Information and Analysis of Questionnaire Survey

Among the respondents, 48.94 percent of the respondents come from the middle level and above (including the middle level) of the enterprise, and they have a good grasp of the basic situation within the enterprise. Among them, 10.64% of the personnel come from the middle or senior level of large logistics enterprises, 12.77% from the middle or senior level of small and medium-sized enterprises, 19.14% from the grass-roots level of large enterprises, and 29.79% from the grass-roots level of small and medium-sized micro enterprises, which shows that the level distribution of the respondents is relatively uniform. The questions studied in this questionnaire are mainly based on the Likert scale method. The options are assigned from 1 to 5. 1 is "completely inconsistent", 2 is "relatively inconsistent", 3 is "general", 4 is "relatively

consistent", and 5 is "completely consistent". According to the existing research, when the mean value of the option answer is significantly more than 3, that is, the answer is between "uncertain" and "relatively agree", it can be considered that the respondents agree with the view of the question.

References

Citation type literature:

- [1] Chen Qi. Research on Comprehensive Carbon Emission Trading in China's Transportation Industry [C].: Luohe Vocational and Technical College 2023 (01).
- [2] He Zican 1. Li Xia, 1.2. Research on Countermeasures for Green Transformation of Logistics Industry-Based on the Perspective of Green Finance [J/OL].: 1. School of Economics, Guizhou University 2. Center for Development and Application of Marxist Economics, Guizhou University 2023 (08).

- [3] Xinhuanet. BAIC Group Jiang Deyi: It is suggested to speed up the pace of new energy for transportation and logistics vehicles in Beijing.

Reading literature:

- [1] Song Anan. Preliminary Study on Carbon Emission Sources and Total Carbon Emissions of Foundry Industry [A].: Hefei Anzhi Environmental Technology Consulting Co., Ltd. 2023 (07).
- [2] Ma Mingming. Research on Low Carbon Efficiency Measurement and Green Development Strategy of Logistics Industry under the Goal of "Double Carbon" [A].: Wuhan Vocational College of Software Engineering 2022 (10).

