Application of Modern Finance in Clean Transportation

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Keywords: Clean traffic, Clean energy, Traffic efficiency, Traffic concept modern finance.

Abstract. With the continuous rapid development of transportation, the devastating impact of transportation on the environment is becoming more and more intense. It is also important to accelerate the development of clean transportation. The development of clean transport mainly requires three aspects: First, to develop clean energy and environmentally friendly transport to reduce the emission of harmful pollutants; Second, the need to improve traffic efficiency; Third, the need to change people's traditional transport concepts. In order to better and faster development of clean transportation, need to help with the modern financial industry.

Introduction

With the rapid and steady social and economic development, the environmental problems caused by traffic have become more and more prominent. The emissions and noise emitted by vehicles have also exerted more and more serious impacts on the environmental pollution in major cities. The proportion of energy consumed by transport in total energy consumption in the country is also gradually increasing. In particular, the dependence on and consumption of fossil fuels such as oil increase the imbalance in energy supply. Moreover, the state has invested a large amount of funds for the construction of transportation infrastructure, but the transportation needs of cities are not fully satisfied, and the contradiction between supply and demand of transportation has not really been solved. As modern traffic is more and more destructive to the environment, it becomes more and more meaningful to develop clean transportation. If we want to develop clean transportation, we can’t do without the support of capital. Based on the current situation of modern financial service system and the state's fiscal and tax support for the development of clean transportation, we should study the application of modern finance in clean transportation and make it easier for clean transportation to be faster and better development of.

Clean Traffic

The Concept of Clean Traffic

In simple terms, clean transportation means that under certain conditions, on one hand, it can meet the needs of social development; on the other hand, it can make full use of limited resources and at the same time play a very good protective role in the transportation development mode. It is one of the least energy-intensive modes of transport operations in the entire transport system [1].

As the name suggests, the development of clean transport our current major problem to be solved is to make the three aspects of resource and environment, traffic efficiency and traffic coordination well [2]. This is the basic meaning of clean transportation, as shown below. First of all, people need to change the traditional concept of transportation first, and then again to improve the efficiency of traffic operation. Ultimately, we need to accomplish the goal of effectively improving the ecological environment.[3]

The first step in achieving clean transportation is to require people to change the original
outdated traffic concept. Our traditional thinking is to go the first way of pollution re-governance[4]. However, in today's society, this concept is no longer valid. We need to gradually adapt to the new concept of comprehensive prevention and control of pollutants generated in all aspects of the transportation system, when conditions permit, we need to replace the original idea of pollutant control with the new idea of preventing pollutants. We should not only pursue the increase of the numbers in unilateral pursuit, but also focus on cultivating new concepts of transportation by means of comprehensive benefits mainly; traffic consumption is no longer just to meet the needs of individuals at the same time need to meet the needs of the public[5].

Improving traffic efficiency is also a top priority in achieving clean transportation. If you want to improve traffic efficiency, you need to reasonably organize a variety of modes of transport and pay more attention to the development of public transport; take informationization and intelligence as measures to improve traffic efficiency and adopt appropriate organizational and management methods[6].

The main goal of developing clean transportation is to continuously improve the traffic environment while efficiently developing and utilizing the limited natural and energy resources. To achieve this goal requires us to solve the problem of changing traffic concepts and improving traffic efficiency as soon as possible.

In short, if you want to build a sound and clean transportation system, you need to take appropriate measures in all aspects of traffic concepts, policies and regulations, and technical means, and should be integrated into the operation of the transportation system [7].

**Clean the Traffic Operation System**

The entire clean transportation system mainly includes three major aspects: traffic planning, resources and environment, and social economy.

First of all, we need to plan well before the construction of the transportation system. We should also pay attention to the organization and management during the operation so that we can effectively build the transportation infrastructure so as to meet the traffic demand arising from the rapid economic and social development. At the same time, we need to consume the appropriate resources and produce waste. The operation of the socio-economic system requires the consumption of natural resources while generating the demand for transportation. With the rapid economic development and advances in science and technology, people are able to develop and utilize better resources for transportation[8].

**Modern Finance in Clean Transportation Application**

**Modern Finance for Clean Energy Development Support**

**Clean Energy.** In simple terms, clean energy refers to the energy that is less damaging to the environment during its production and use. In a broad sense, clean energy refers not only to a specific type of energy, but to a technical approach that can provide a clean and efficient use of energy.

**The Shortcomings of Modern Finance in Supporting the Development of New Energy Industry.** With the increasing emphasis on developing clean energy in recent years, the state's support for the clean energy industry is also constantly increasing. The development of the clean energy industry is also getting faster and faster, with a very considerable future development prospect. However, in general, clean energy is still an emerging industry, and its development time is relatively shorter than that of traditional energy sources[9]. Therefore, clean energy itself has the characteristics of "more input and greater risk", and therefore it encounters many limitations in its development factors, of which only the most influential factors are the fewer channels of financing that can be effectively used and the lack of funding available. However, the current society does not yet have a comprehensive and efficient energy financial system and service system. Even some provincial, municipal and provincial clean energy companies have almost zero capital market financing. There are some shortcomings in the development of the clean energy industry in finance. This is mainly reflected in the following four aspects:
1). The size of the clean energy project loans due to commercial banks risk awareness and other factors are limited;

2). The current venture capital agencies on the new energy projects are still mainly in the wait state, at the trial stage;

3). The size of the financing of clean energy companies also due to the imperfection of the capital market system is limited;

4). There is no relevant agencies to clean energy companies to provide financial information consulting and other services.

Some Supporting Measures Taken by Modern Finance in the Development of Clean Energy Industry.

1). Increase venture capital investment in the clean energy industry

Venture capital refers to a higher investment risk but at the same time there is a higher return on investment [10]. From the perspective of investment behavior, venture capital is to invest funds in the field of research and development of high-tech industries and their products with greater risk of failure [11] in order to make high-tech achievements be produced faster. Come out, form an industry, and thus obtain a more modest return on investment. From the operational point of view, it is an investment behavior to share interests and share investment risk together.

2). Continue to open up financing channels, the use of project financing

Project financing refers to the use of the project’s assets or project is expected to produce future benefits as a way to obtain funding as a way [12]. The advantage of adopting a new financing method such as project financing is that it can help companies to effectively disperse the investment risk and help clean energy companies to increase their sources of funds so as to improve the efficiency of comprehensive investment. The BOT is usually approved by the government of the country in which the project is located, to the project company for the construction and management of the project. After that, the project company reaps the benefits of the project and repays the operating costs through the operating period concession granted by the host government [13]. At present, China's rapid development of clean energy industry will inevitably require a lot of investment, some projects in the construction and operation process requires high technical support, the Government's various targeted policies, is expected to be relatively stable benefit.

3). Increase the bank's credit support for the clean energy industry

Because the energy financial market system has not yet fully formed a multi-level, all-round such a state, now, the clean energy industry, the main source of funding, still needs to rely on bank loans[14]. However, the credit of our country is mainly put on the traditional industries. However, with the continuous upgrading and upgrading of the domestic industrial structure, the international industrial division of labor is undergoing constant changes at the same time. As a result, the banking industry also encounters greater risks. Therefore, according to the changes in the new economic situation, banks vigorously implement the state's policies on the development of emerging industries, adjust the structure of credit assets in a timely manner and increase the efforts to develop credit products. This not only ensures the safety of financial assets but also ensures can help clean the energy industry this emerging industry growth. First, commercial banks can launch new financial products to adapt to the development of the clean energy industry. Second, banks can change their business model. According to the characteristics of the clean energy industry, commercial banks should pay attention to cooperation with some other relevant units to improve their overall rate of return. Meet the company's funding needs by sharing new patterns of risk and shared benefits with these institutions. Third, banks need to speed up the establishment of a loan management and evaluation system applicable to the clean energy industry. At the same time, they also need to make innovations in financial services such as developing financial service systems with relevant characteristics and accelerating the steady development of China's clean energy industry. For now, the development of the clean energy industry started relatively late, there is still much room for improvement in development, and a short period of time can not allow some social capital to enter in large numbers.
Clean Transportation - New Energy Vehicles Development of Government Fiscal Tax Policy Support

**Special Funds.** The latest "13th Five-Year Plan" in 2015 stipulates that as the new energy automotive industry continues to grow rapidly, it will be necessary to constantly absorb social funds from other countries as well as local governments for the development of this industry.

**Financial Subsidies.** In order to cultivate emerging industries with strategic characteristics, China first identified 13 pilot cities for promoting new energy vehicles since 2009. Since then, the number of cities that the state continues to expand the promotion of new energy vehicles has reached 25 by 2010. And in 2010, for the first time in China, subsidies were paid for the private purchase of domestic new energy vehicles.

**Tax Incentives.** Taxes on automobiles mainly include the purchase, retention and use of automobiles. Taxes on automobile companies mainly include the research and development of automobiles as well as the production process. Specifically, the state mainly adopts the tax relief policy on new energy vehicles in terms of travel taxes.

VAT. In Fiscal Yearbook No. 156, tax rates for some energy-efficiency-related products were adjusted in 2008: Starting from 2011 to 2020, the state has implemented a lower tax rate for new-energy vehicles and related ancillary industries in order to It can effectively promote the development of new technologies and decide to adopt preferential tax policies.

Corporate income tax. Both Circular No. 116 of 2008 and No. 70 of 2013, jointly issued by the State Administration of Taxation and the Ministry of Finance, show that a corresponding deduction policy has been formulated to encourage companies to strengthen their R & D in technology.

**Clean Development Commissioned Loans**

In order to be able to effectively control greenhouse gas emissions, which requires the financial sector to actively play a macro-control and management role, government departments have also taken a number of reform measures to support energy-saving emission reduction work. The China CDM Fund is actually a new financial mechanism put forward by the state finance department in response to global climate change. Loans and other measures will be used to help build a domestic market emission reduction system and to promote the development of using low-carbon and environmentally friendly technologies, and developing some new industries to accelerate the change of economic system and the mode of conversion and development.

**Conclusion**

In today's world, environmental issues are becoming more and more prominent. Human beings are also paying more and more attention to the protection of the environment. Traffic is an essential economic activity for the development of human society and human beings will also pay attention to the environmental problems caused by traffic. Therefore, clean transportation will become an important development direction of transportation at present and in the future. The development of clean transportation can not only play a good protective role in the environment, but also play a huge role in promoting social and economic development. If we want to develop a clean transportation system, we must invest huge amounts of money in this process. This requires us to innovatively link the development of clean transportation with modern finance through the adoption of modern financial service system support and the state's efforts to develop clean transportation. Launched the relevant support policies that can promote the rapid and steady development of clean transportation, contribute to the development of human society.

**References**


