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Research on Road Transport Regulation Path from an Effective Competition View

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ABSTRACT
The special attribute of the road transport determines that it should be strictly regulated. After more than 30 years of rapid development in China, road transport industry has become the main force to promote the development of economy. As the scope of the elements covered by the road transport has gradually expanded, and its attributes have already changed, the policy orientation of the industry management has been varied from the extreme to the mild. In this paper, it analyzed the market main subjects, transport mode competition, transport services and other related changes of road transport which occurred in an increasingly open market now, especially in the perspective of regulation and competition. And it also put forward reform of road transport regulation pathway of competitive structure adjustment, tariff structure adjustment, property rights reform and social regulation.

KEYWORDS
road transport; regulation; competition; market

1 Introduction

Road transport industry has monopolistic and strong externalities in natural, governments all put regulations on it in different extent for a long time, which including pricing, access, quality, environmental pollution and others [1]. But long-term regulations caused energy shortage, inefficient, slow innovation, supply and demand imbalance, unreasonable resources allocation and so on in road transportation. Meanwhile, market economy advocates freedom, fairness, efficiency and Pareto-optimazation conflicts with government regulation [2]. Rational regulation is essential to rise transportation efficient and optimize transportation resource allocation.

2 Analysis of the road transport enterprises

After more than 30 years of rapid development, road transport market is becoming more and more mature and specified in China, and transport market has been transformed into a buyers' market, in the process of development emerged a group of leading transport enterprises provided the high quality, characteristics, brand competitive transport service, at the same time, some problems still exist.

2.1 Excessive transport entities, low concentration ratio

The main structure of road transportation entities is an important factor that determines the quantity, quality and structure of transportation products. Chinese road transport development period is short, and the main components are complex without adequate competition to achieve market integration, basically in the small production stage. There are numerous business entities, and the production and operation is highly dispersed which can't achieved the scale economy. In all, it's a highly dispersed market and operating condition.

With the number of average employees and the average operating vehicle analysis, individual transport accounted for the total number of business by more than 80%, which provide homogeneous transportation services, and the quality of services are uneven, so price competition is common in market competition, and result the transport market disorder. Followed by are small business groups. Overall, there is 10 employees in each enterprise, some are barely break even, of whom are good potential in the future, but due to the funds and manpower constraints, and the excessive entities in market competition, capital primitive accumulation and business expanding almost can't be achieved in a short period, these enterprises are probably the main potential acquisition objects of the foreign transport enterprises. Powerful transport enterprise are divided into two types: one is reformed state-owned transport enterprises, the resources input and output are in balance, the personnel and equipment operate in a good condition. Meanwell, these enterprises implied diversification and accumulated capital, especially have strong control of the regional transportation resources, even in a regional market monopoly status. Another is the foreign transport company branches in China opened after the reform and opening-up policy, operate in China not very long time but parent companies in foreign countries have accumulated decades of development with really high competitiveness.

The new transport enterprises which have advanced management ideas, have brought vitality to transport market in the strategic choices, market opening, resource utilization, competition training and other aspects. Some traditional transport enterprises seize the opportunity to utilize resources advantage and reform, expand the operation scale and the product system and consolidate its market force, but decentralized management of road transport enterprises and lack of competitiveness has not been changed fundamentally. By the end of 2024, Chinese road freight operators capacity is only 11.03 vehicles on average [3]. Tons annual output of trucks is only about 1/10 of the European countries and the United States. Only a few enterprises can operate in across-region network. Transport operation efficiency is low overall, the business services are relatively unabundant, it is difficult to achieve network management, some companies rely on collecting vehicle management fees, venue rental fees to maintain daily operations, especially in freight transport enterprise.

2.2 Single transport enterprise corporate governance structure

There are mainly two types of road transport enterprises, local large state-owned transport enterprises established after the reform of the transport group(company), the private economy dominant transport enterprises. The former whose predecessor is the transport enterprises has strong centralization and planning in the production, management and operation, which were directly governed by the communication management department. Through financing, mergers and acquisitions, these enterprises have already built a modern enterprise operation framework. They have larger scale, higher qualification, and powerful control of transport routes, stations and other transport resources, accounting for most of the local transport market share. But the enterprises decision-making is influenced by the non-market factors, and is not the independent market players in essential. At the same time, enterprises have the monopoly power in a certain region may cause the competitive vitality lacks in the regional transport market.

Secondly, the state-owned enterprises became larger after the restructure and generally established a comprehensive business system, and also divided into a number of subsidiaries (or branches) based on different region, business types, the services are strongly complementary but weakly competitive. The related research showed that in the transition system, completely non-nationalized enterprises can't promote to develop the core competitive business. Once completely non nationalization emerges, companies tend to diversify business. Diversification while makes benefits to transport enterprises coping with so much uncertainties in the current business environment, but it is not significantly helpful to their core competitive business [4].

Privately owned economy in transport companies is on behalf of another force, the faster growing, the stronger vitality, and also the main force to compete for market share against the former transport enterprises. Private transport enterprises basically conformed to the requirements of the market system when established, is independent main players in the market, and there is almost no various conflicts and problems left over as state-owned transport enterprises after restructuring, almost no burden of debt and staff. Its wide resources such as financing make a more rapid development. Overall, such enterprises became a main force though is small and medium-sized, operating a single business, but good faith is not enough and the risk resistance capacity is not strong.

3 Transportation market structure analysis

The utilization of the network economy determines the structure of the transport market, the road transport market structure is unbalanced in space. Transport network should have more extensive coverage and road transport enterprises are mostly engaged in business activities in the limited space, mostly transport routes is short distance, across-provincial operations is more difficult and full of risks. A single enterprise has so limited control of the transport network, in fact, it forms the basis of the regional monopoly, that is, who can use the transport network effectively producing monopoly power in a certain region, and is also competitive.

In the 14th Five-Year Plan period, the road transport industry has achieved a steady and rapid development, structural adjustment was implied and reflected in vehicle optimization and route management. The proportion of road passenger transport accounted for the integrated transport system has declined, the freight volume, passenger and freight turnover increased in different degrees, the overall efficiency is not obvious, and the scale is still low.

3.1 Inefficient competition among transport modes

Due to the increasingly fierce competition between the various modes of transport, road transport market share declined slightly. Passenger transport, air transport aims to develop medium distance market, railway transportation aims to the intercity trains for short and medium haul markets; the highly dispersed road freight market makes the original shape of economy of LTL transportation network loose. Networked road transportation likes LTL, container, express and modern logistics develop fast, road freight flexibility and initiative in the whole freight process can't play well.

Nowadays short distance is the business competition superposition area to railway and road transport, the road transportation has the advantage of distribution, and door- door transportation is superior in short and medium haul. And rail transport costs are less than costs of road transport, mainly on the line of exclusive, scale of production, centralized management, different length of transport costs subsidies, which is more competitive. In the long-distance transport, the timeliness, the comfort and the flexibility of the road transport are the competition points against railway transport. Long-distance transport especially on the highway, which depends on the reintegration of resources, such as vehicles, routes, human resources, and the suck cost is higher. It is the focus of transport services in recent years. However, the integration is often unilateral from transport enterprises, resulting in a partial opening, but the overall closure, local monopoly, and disorderly competition in the transport market structure. Road transport enterprises must break through barriers of regional monopolies and local protectionism first, for cross-regional operation, then enter the transport market in this region to carry out deep competition. Therefore, the unbalanced spatial structure is one of the factors that weaken the competitiveness of road transport.

The organization form of the road transportation is diversified, and transport enterprises can achieve competitiveness via their own advantages, making the services highly specialized. Railway transport, air transport operations have more requirements on routes, equipment, funds and personnel make the business division limitation, and more resources needed to achieve scale economies than the amount to road transport. The industry entry standards are too low, road transport enterprise itself varies greatly, many enterprises (individual transport) can't provide personalized, specialized services for market share. Low value-added services field is full of chaotic competition, and even affect the high value-added services extension, also exacerbate the deep-seated contradictions of the transport supply and demand.

3.2 Imperfect transport market mechanism

Transport market mechanism has not been perfect, the price can't adjust the supply and demand of transport rationally, while transport supply and demand can't effect on the freight rate well. The influence of deregulation and privatization made the road transport industry more open. But unlike the developed countries, Chinese road transport didn't have a phase of strict regulation in a matured market yet, the early stage of the industry access threshold is low, and it is far from a high concentration of transport market and intensive management. In road freight industry, for example, after the full open-up policy, transport demand and requirement changes hardly influence on the price adjustment, as oil price rose exponentially, and transport costs are increasing, freight price is not very higher than 20 years ago, many freight business are on the break-even point or below, business expansion has been given up. Meanwhile, the competition and risk mechanism is not perfect, and the market is disordered, it is difficult to achieve the survival of the fittest. Long-term disordered, mixed competition caused low resources allocation efficiency, and external non-economy is obvious in road transport.

From the perspective of macro-control, the specialism of the production process and service of the road transport in nature, which makes the transport market dysfunctional, we must consider the fairness and effectiveness of the product supply. Market mechanism regulation is a kind of feedback control, the supply and demand mechanism and the price mechanism have long interaction time, there is a certain time difference. Therefore, it is necessary for the government to macro-control the total supply and demand, the price and the market competition. While subjected to the regulation cost, department benefit game and so many kinds of factors, the regulation objects, method, and control effectiveness are difficult to work comprehensively well. At the same time, energy, tax, legal, economy and other regulatory system in the market should continue to improve the framework [5].

3.3 Single transportation services

Transport demand changes, market structure adjustment and the rapid development of transport entities enlarge the concept and scope of the transport products. From the single, fast, cheap, basic transport service to phone/internet booking, timely (real-time) distribution, additional packaging, real-time information query, formalities, risk guarantee and compensation and logistics solutions design compose of whole supply chain of services combination, which accelerating the modernization of traditional road transport, also promoting the development of the main transport entities.

Due to the effect of scale economy, indivisible transport activities and integrity of production process require the expansion of operation scale and product system in road transport enterprises, breaking up the fragmented market[5]. From the point of transport service provider, a single entity can hardly cover continuous transport segments effectively, including effective integration. So the types of transport service provider is becoming increasingly blurred, and basic road transport operators and the intermediate operators have no clear boundaries in service division, there are completely basic service providers to middlemen. It enhances the market asymmetric information, and even harder to provide high efficient and low -cost transport services [6].

According to the transport process and the nature of the services, the road transport enterprises can be classified as shown in Figure 1.

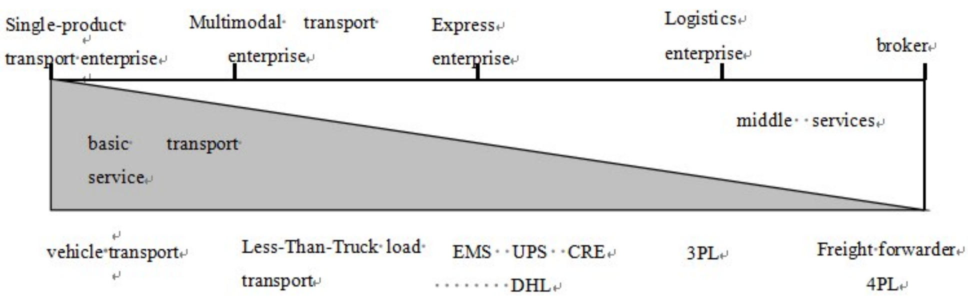

Figure 1 Road transport operator classification

Enterprises and individual transport capacity integration is an effective way of intensive production. In the future, vehicle affiliations is effective to finance and increase the market concentration, while the point is to make the affiliations rational and effective though continuous improvement. Irregular affiliations caused the short-term market behavior, disturbing the transport market, reducing the organization level, and sacrificing transport service, as a matter of fact, all these above are connected with contract property vulnerability and affiliated enterprises which substitute contract completely for administration, ineffective supervision and extensive management.

4 Road transport regulation reform

In summary, the interaction of competition and regulation mechanism is effective, while weight distribution of competition and regulation in hybrid mechanism is mainly determined by the cost and benefit of each implementation.

4.1 Competitive structure adjustment

In the principle of mutual benefit and complementation between different modes of transport, the government screen types of enterprises, and offer favorable policies according to the level of competition. Adopting indirect supervision to distinguish the transport enterprises, for instance, the rate hearing and the franchise right bid and so on. To strengthen annual audit, regulate vehicle transaction management, reduce fixed costs precipitation, and insist on the operational qualification grading of enterprises, explore transport service quality bidding and improve the transparency of information.

The government should guide the unhealthy competition between micro and small sized enterprises, irregular competition between medium-sized enterprises, and monopoly competition between large-sized enterprises, turn to competition in cooperation and cooperation in the competition. Micro and small-sized ones regulate market behaviors and explore business, relying on their own advantages; the medium-sized enterprises diversify appropriately based on the core competitiveness and expand new business, expanding the overall strength; the powerful ones cooperate with others actively to break the regional monopoly, improving operation efficiency and profitability. So the competitive system is multi-faceted, service complementary, which can support the economy.

4.2 Tariff structure adjustment

Pricing linkage mechanism.

The upstream of road transport industry are fundamental industry such as petrochemical industry, automobile industry, construction industry and so on, in the open transport market, freight is closely related to the industrial development above, so is very important to establish a linkage mechanism for pricing. In according to adjustment with the rate and basic price, charging fuel addition, cleaning fees, reducing the enterprise contract fees, management fees and implementing temporary subsidies, the government, enterprises, and consumers can afford increasing operating costs reasonably.

With a substantial rise of fuel and transport technology rapid progress, it should make the reformation to promote the road transport and other modes of transport price to coordinate pricing linkage mechanism. Strengthen the collection, collation and revision of the relevant information with operating costs, assets, investment plans, demand forecasting, etc. Combining freight restrictions and rate return regulation, motivating transportation industry and enterprises, fully making the market function well. Encouraging technical and management innovation in enterprises, reducing the cost and optimizing the cost, improving the efficiency of resource allocation and production.

Scientific freight rates formulation.

Road transport price is market-oriented or floating with the guidance, taking into account of regional disparity. The pricing modal differentiates with types of transport. And the basic principles is passenger transport, freight transport and ancillary services are basic, each is divided into monopoly, monopolistic competition and competition, taking different price management system.

Infrastructure rates adjustment.

Nowadays, shortfall is still in traffic construction funds, the infrastructure providers can price where marginal revenue is equal to marginal cost so they can obtain excess profits. Although social welfare is not maxim, it will attract funds to transport infrastructure.

4.3 Property rights reform

In order to clear the subjects of property rights, the owner false set, investment diversification and transport enterprise property rights reform is essential to an open and orderly industry. The basic way is company reformation. The limited liability company is more common in small and medium-sized enterprises, and the company limited by Share is favor to establish a sound legal system in large enterprises. Limited liability company with the employee stock ownership association, taking into account the diversification of investment subjects and can stimulate the employees. Actually, it should avoid the average distribution of the equity and income, promoting scientific and standardized performance appraisal system, guiding the capital injection after reformation of property rights actively, and improving the property right reform issues left over.

The property rights in private transport enterprises is more flexible, while contracting, leasing, financing management is more effective for lack of funds, weak strength of individual transport. The focus is dealing well with substituting contract completely for administration and inefficient operation. It should make full use of the flexibility and other advantages to implement scientific management and organizational operation in the transport market competition actively.

4.4 Strengthen social regulation

Less energy consumption and low carbon of Transport will be a trend in the future, and structural adjustment is still the main aim of the industry development, also an important way of core competitiveness to transport enterprises. The transport safety and environmental management, also legislate or revise laws and regulations should be strengthened to enable damage reduction to the environment. It should promote environmental friendly transportation technology research and development actively, advocating energy-saving and environment-friendly vehicles, speeding up the elimination of outdated, high energy consumption and serious pollution of transport equipment.

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