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Providing a framework for examining and solving economic problems on the quality of road transportation

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Abstract

Transportation, as one of the important sectors in the economic development of the country, has an increasing need for more and better development and requires more participation of the private sector. In the meantime, paying attention to the obstacles to the entry of the private sector into the field of transportation as one of the most influential sectors in the country's economy is one of the most necessary and important issues in planning and directing the private sector to invest in this sector of the economy. None of the types of transportation methods are unnecessary from road transportation. This field is of great importance in the growth and expansion of the world economy. The challenges of road transportation have caused this system to be disrupted in the country. Some of the most important problems of road transportation are: wear and tear of vehicles, lack of interconnected highways, and unsafe road infrastructure. In order not to damage the country's economy, the government should quickly find solutions for road transportation. One of the most important solutions is to provide cheap facilities for replacing worn-out cars and containers. In the meantime, handing over part of the road improvement system to private companies will also help a lot in increasing road safety. But apart from all these cases, in the conditions of embargo, the best and most cost-effective solution to overcome such problems is to improve the road freight fleet.

Keywords: Transport quality, economic problems, road transport, transport improvement.

1. Introduction:

The transportation sector has two main roles in the country's economy. The first role and function of the transportation sector is the direct effect it has on economic growth and job creation as an economic activity. In fact, the transportation sector as a set of economic activities by providing rail, air and sea transportation services, like other economic activities, creates added value and contributes to the economic growth and employment creation of the country [1]. Looking at the national accounts, the contribution of the added value of the transportation sector to the GDP is significant to the extent that statistics show that in the last 10 years, the transportation sector has created an average of 7% of the country's GDP. This figure shows the direct effect of transportation in the economy, but the role of transportation in economic development is more than that [2]. The second function and role of the transportation sector in the country's economy is to provide one of the most key economic infrastructures for the economic growth and development of other sectors of the economy. The transportation sector is one of the main and most important economic infrastructures of the country, and if it is not developed according to the goals of the macro economy, it will become a bottleneck for economic growth and development. In Iran's economy, despite the significant progress that has been made in the development of transportation infrastructure, this sector is still considered one of the bottlenecks of economic growth [3]. For example, in air transportation, the main problem is fleet exhaustion and lack of aircraft. Of course, it should also be emphasized that the development of the country's transportation infrastructure requires the comprehensive development of all transportation sub-sectors, including rail, road, air, and sea. In other words, although the development of railway infrastructure may have deeper effects on the country's economic development for various reasons, comprehensive development in all aspects of transportation should not be forgotten [4].

Therefore, despite the priority of railway development in the country, the development of the highway network is also important enough. Iran has unique advantages and opportunities in the field of transit of goods and passengers and energy, tourism, mining industry and energy field, and the activation of these capacities and the use of these advantages require comprehensive development of transportation infrastructure. In other words, comprehensive and extensive development of transportation infrastructure can provide the basis for achieving sustainable and job-creating economic growth. Therefore, this article examines the economic problems of road transportation.

2. Problem statement:

Transportation is considered a tool that is used to move various items such as goods, people, and goods, and in fact, there are rules and regulations for transporting goods and transporting passengers, and if the transportation process The movement of citizens in a general way, such as urban, inter-urban or suburban travel or extra-urban freight, is known as public transportation [5]. One of the important issues in the country is related to transportation, and many organizations and companies are directly related to transportation, and how it is done can have direct effects on the organization. Transportation is one of the most important pillars of the national economy, and today we can say that its great impact is felt in the economic growth and development of a country [6]. Transportation as a broad subject that includes sub-sets and has been involved in all activities of production, distribution and consumption of transportation goods, and we cannot consider it a separate part of economic development and economic activities. In land transportation, the main problem is the exhaustion of the passenger fleet as well as the insufficient coverage of the country's highway network. In rail transportation, the main problems are severe wear and tear of the fleet and facilities, low quality of services and insufficient coverage of rail lines in different regions of the country [7]. In fact, in all the transport

sectors of the country, there are weaknesses and shortages in the infrastructure, and there is the problem of wear and tear and inadequacy of the fleet, to the extent that the country's public transport infrastructure, both passenger and cargo transport, has become one of the main bottlenecks of economic growth [8]. Compensating for these delays, both in terms of funding and implementation restrictions, is not easily possible, especially since our country still lacks a specific strategy and model for the development of the public transportation network. In Iran, due to the insufficient capacity of rail transport, about 93% of passenger movement and about 71% of cargo movement is carried out by road transport [9]. The very high share of road transport in Iran is mainly due to the low rate of road fuel, the severe underdevelopment of rail transport and the ease of entry into the road transport business by the informal and unorganized sector. In this situation, the investigations show that the road infrastructure does not have sufficient capacity to meet the needs of the country. The development of the highway network in all the main corridors of the country will reduce the number of road accidents and accidents, reduce energy consumption and air pollution, reduce travel time, and reduce costs. The completion of transportation for economic enterprises will be the development of domestic tourism, as well as the development of road transportation services and the growth of this sector's income generation.

3. Necessity of conducting research:

From the past until now, transportation in Iran has had many problems and many ups and downs, and in fact, the main goal of transportation is to bring it to the desired position and characteristics [5]. And consider it, you will realize that creating an efficient and effective transportation system can lead to social and economic development and has a special place and role for many countries, including Iran. Transportation causes different parts of a society to be connected to each other to create sustainable development, and it is considered as a

mediator between different activities of a society such as industrial, economic, commercial activities, etc. In time, we cannot observe the growth and development of a society without an ideal transportation system and fleet [2]. The role of transportation systems in the economic growth and development of a country and world trade in many times regarding the optimization of costs, time of movement and its speed is undeniable. Various reports and studies show that the existence of investments in transportation has led to a good increase in the economic growth of a country, and we have also seen private investments in transportation infrastructure [3]. In general, we can say that one of the important indicators that play a significant role in the development of a society is transportation. At first glance, you may not understand the effects of transportation and life, but it is better to know that transportation has had short-term, medium-term and long-term effects on the lives of all of us and a country [10]. The smell of a gasoline car like a city Nissan or a truck has both effects. If you want to know about the long-term effects of transportation on the country, you can refer to the main variables of the country's economy, such as total production and total employment, which are production in economic sectors and employment in economic sectors, and in this way, the price of different economic sectors and indicators Costs have a direct impact on people's lives. The medium-term effects of transportation are also such that transportation and its prices have affected the consumption of alternative services, and the long-term effects of transportation are related to the change in the basis of economic calculations of construction and production plans. In general, we can say that transmission is one of the issues that cannot be ignored in any way, and it will have a direct impact on the economy, so it should not be ignored.

4. Theoretical foundations of research:

4.1. The effect of transportation on economic growth and development:

Macro-level studies in some countries show that government investment in the transportation sector has increased the economic growth of these countries and increased the social efficiency of private sector investment. Investing in the transportation sector directly reduces the price of inputs and naturally lowers production costs [7]. It also increases the possibility of access to markets, diversity of production outputs and finally the development of other sectors. Investing in the transportation sector, such as the development of roads, railways, etc., can change the process of economic development in different regions. Infrastructure investment is of particular importance to reduce transportation costs from peripheral and border areas to central areas [1]. Reducing costs plays an important role in reducing regional differences and improving the competitiveness of regions through trade and movement of production factors. This set of positive effects leads to the promotion of economic productivity and the correction of relative advantages in different regions [11]. The growth of transportation infrastructure can be done in the following ways:

- 1- Increasing investment or improving the quality of capital stock by building new highways, airports, etc.;
- 2- Improvement in effective use or improvement of efficiency in operation such as; Creating additional capacities of infrastructure capital stock, optimizing transportation organizations (by using intelligent transportation systems, etc.) and changing fuel consumption costs (by taxes and duties, etc.) [12].

The most important aspect in examining the relationship between transportation and the economy is the role of infrastructure investment in transportation and economic growth. In other words, this is the potential contribution of increasing the effective capacity and efficiency of the transportation system in economic

growth. Researchers pay attention to more benefits than the direct and primary benefits of transportation, which include increasing access to production factors and increasing operational capacity. The combined result of such effects will be reflected in higher economic growth, which is measured as changes in employment, production and productivity [5]. On the other hand, in the absence of such external effects, transportation benefits are formed only in the form of a type of investment. In this regard, some economists believe that some areas that have not yet faced the problem of public transportation congestion can experience long-term growth without increasing investment in transportation. Because other factors such as; Technological advancement, improvement of labor productivity, investment in business plan and equipment and development of human capital exist for economic growth [13].

4.2. Role of public transportation development in country's economic growth:

The problems and dilemmas of metropolises, including traffic, air pollution, economic failures, social problems, increase in physical and mental diseases, commercial financial losses, etc., have caused planners and policy makers of countries to pay more attention to the role of transportation in recent years [14]. In Iran, a law entitled "Public Transportation Development and Fuel Consumption Management Law" was passed in 2006, which aims to develop public transportation and clarify the responsibilities of the government and other related authorities [15]. The law on the development of public transportation has taken into account the responsibilities of the government in three dimensions: the first dimension, improving the level of transportation services by increasing the public transportation fleet, reforming and expanding railway networks, integrating transportation management, access and safety, the use of intelligent transportation systems, another dimension is the reformation of administrative processes, the expansion of the use of information and communication technology, the reformation of land productivity and the introduction of new

education and traffic laws, in this law it is also related to the issue of energy consumption management, the conversion of vehicles from Gasoline-burning to gas-burning, increasing the construction of gas stations, the gradual elimination of fuel subsidies over a period of five years have been considered as the third dimension [16]. Living in big cities has many problems and disadvantages, but this does not mean that these problems cannot be solved forever and that the authorities are left in their hands. The problems of urban life should be solved with the cooperation of the officials and the people. With proper management and correct planning by the officials and the participation and cooperation of the people, these problems can be overcome [17]. Cities are a combination of private and public spaces that have interfered with each other in a complex way, but what is important in the public space is the cultivation of culture in the field of using public transportation and respecting the rights of citizens [2]. This positive social culture and behavior can contribute to the health of the environment and reduce traffic. According to the chart indicators, approximately 40% of citizens always use public transportation, so by strengthening the rail infrastructure, expanding the subway, high-speed bus lines, taxis and air-conditioned city buses, there should be favorable conditions for public transportation users. provided to solve any problem, we must know that problem in the first step, because knowing the problem accurately will solve it, and in the next step, we must use global experiences, we must not repeat the mistakes of other countries to reach the right path. For this purpose, there are several solutions that should be used, such as, with the development of electronic services, unnecessary trips are avoided, and the type of vehicle is changed from private to public in long routes from subway and bus and in nearby routes from Use a bicycle [8]. Changing travel time during peak hours, changing uses, support measures such as supporting special days and cooperation and coordination of the three sides of the triangle of the government, parliament and

city management are among the basic solutions to end Tehran's traffic challenges. We must not forget that problems are not solved miraculously in a short period of time, because Tehran is not an ordinary city whose problems can be solved easily.

4.3. Road transport problems:

Solving road transportation problems will improve the country's economy. Improving the fleet is one of the most important solutions for ground transportation. With the increase in people's need for transportation, progress in this field became especially important [3]. Road transport has an important position among all types of transport methods, because the beginning and the end of the path of all methods lead to it. Road transport has a special place in the economic growth of a country and the world. All our daily work and purchases depend on road transport. Disruption in the ground transportation system will cause economic and even cultural problems. The problems in this method of transportation may be different in different societies [9]. In our country, Iran, in addition to the problems related to the quality of the roads, there is also the wear and tear of some vehicles and cargo containers. But what are the problems of road transport and what are the solutions for them? Roads serve as an important feeder for other modes of transportation such as rail, ship, and air. Disruption in the road transportation system will cause damage to the economy of a region. Governments should think about solving these problems by identifying outstanding problems and providing appropriate solutions [18]. But some of the most important road transport problems are:

- **Low quality of road infrastructure:** Unfortunately, the infrastructure of most of the country's main roads and roads is old and dilapidated and has caused land transportation problems. Even in some cases, the lack of use of high-quality raw materials has led to the destruction of newly built roads. This issue has caused accidents, wear of wheels and damage to

vehicles. This issue causes disappointment to drivers due to sanctions and the high cost of car spare parts [13].

- Deterioration of vehicles and cargo containers: Unfortunately, in the country, we see trucks or containers that are more than 30 years old. This issue not only lowers the quality of cargo, but also causes environmental pollution. The excessive cost of vehicles and the lack of fleet improvement facilities have made drivers avoid renewing their vehicles [19].
- Inadequate coverage of the country's highway network: unfortunately, in all cities, there is no highway that passes outside the city and connects the route to nearby cities. This has caused the trucks to pass through the city. This issue will cause urban traffic and delay in sending goods [20].

4.4. Solutions to road transport problems:

One of the important components in the dynamism and reliability of the country's economy is the development of transportation and balanced integration in various modes of transportation. In other words, if a proper transportation system is to be designed for the movement of goods, all the transportation infrastructures and the fleet of goods moving from the origin to the destination must be planned, implemented and managed in a completely coordinated manner [5]. As the main and vital economic artery of the country, the land fleet has a 90% share of the movement of goods within the country, directly and momentarily affecting the process of movement and the supply chain of goods and is one of the main parameters affecting the macro economy of the country. With the development of the country's ports and the increase in the number and capacity of border crossings and terminals with neighboring countries, and on the other hand, the requirement of high-level strategic plans for transportation and the development of the country's trade to increase non-oil exports, transit of goods and reduce the cost price of manufactured goods; It is very important to pay attention to ground transportation and try to solve the problems of this

sector before it becomes a crisis [15]. Goods owners, transport companies, drivers and government regulations and laws are the main aspects of the formation of the country's ground transportation sector. Currently, high price factors and the need for significant liquidity in the supply and purchase of trucks, the high average life of the ground transportation fleet and high depreciation, and the need to supply and replace spare parts and consumable items are among the main challenges affecting the ground transportation industry [21]. The country is in the current situation, of course, the lack of supervision of ground transportation companies and the high costs of bills of lading, duties and insurance are among the problems that the 2-fold increase in ground transportation fares over the past one year is one of the consequences of this issue. The above mentioned and the self-ownership structure of the land transportation sector has caused the drivers of the road transportation sector due to the inability to provide liquidity and the uncertainty of being able to manage maintenance costs, supply of spare parts and the high price of consumable items such as oil and tires. And the filter does not want to supply the truck. On the other hand, the lack of planning and the establishment of rules for the modernization of the transport fleet by the government and the lack of allocating the necessary incentives have increased maintenance costs, reduced income and unwillingness of truckers and drivers to work in this sector [22]. The final point is that in addition to all the development and infrastructure programs such as the development of ports, the creation of road infrastructure and the expansion of terminals and border crossings, in case of not paying attention to the modernization of the fleet, there is no plan to reduce the costs of maintaining the fleet and there is no effort to encourage capital. investors to invest and direct liquidity to this sector; The country's road transport sector will be severely challenged and the country's economy will also be affected. An issue that the timely supply and distribution of basic goods, the cost of export and transit, and

the timely supply of raw materials to industrial factories will face serious problems in the next few years. Therefore, it is necessary to listen to the problems of the laborers of the ground transportation fleet and use The experiences of countries in the development of ground transportation, the amendment of laws and the reduction of overhead costs were focused on solving the obstacles and problems of this sector [8]. As we have mentioned, ground transportation is considered as the beating pulse of a country's economy. Despite the challenges of road transportation and the lack of promising prospects in the future to solve them, the economic damage caused by it can be easily predicted. But some road transport solutions are:

- Development of additional capacity of roads: One of the most common methods of dealing with road congestion in medium and small cities or in larger regions and centers is the construction of bypasses to direct traffic. Planners of the mid-twentieth century saw the construction of additional road capacity in the form of new or improved highways as an acceptable solution to congestion in large cities. Expanding the country's highway network will not only help to solve the traffic problem, but will also speed up transportation [5].
- Providing transportation fleet improvement facilities: due to the existence of reasonable facilities for companies or private drivers, people will undoubtedly think of replacing their worn out cars due to the high replacement rate of car parts. Renewal of vehicles will have a significant impact on increasing the quality of freight services, reducing air pollution and increasing transportation security [16].
- Legislation for truck room renovations: Fleet renovations include cargo container renovations. This issue has a great impact on maintaining product quality. Unfortunately, the hygiene of the goods will not be maintained in the used shipping containers. Today, many utility

companies such as Shayan Utility Company offer many good facilities for container renovation [19].

- Investing in the road improvement sector: One of the suggestions that may improve the quality of the roads is to entrust this sector to private companies. Of course, the government should have more supervision over the reconstruction of roads [2].

5. Review and analysis:

Transportation is an effect and not a cause, which is formed to meet the needs of members of society and provide access to economic, social and cultural opportunities of citizens. It is not a one-dimensional matter and has many aspects. Transportation is intertwined with people's daily life and is perhaps the first phenomenon that people encounter at the beginning of a working day. For this reason, if the system is weak and inefficient, citizens face problems such as congestion and street traffic, air pollution, crowded buses and subways, and carry the resulting mental and physical consequences with them throughout the day. will reduce Transportation has a social dimension from another point of view because it is one of the means of generating income for the low-income sections of the society, especially in unfavorable economic conditions. Therefore, if the transportation system is not efficient enough and appropriate, these strata provide non-standard vehicles at a low cost and participate in the movement of citizens. If this participation, due to the impossibility of monitoring and managing it, it definitely has many negative consequences. It can be unsafe, increase pollution, cause the growth of marginalization and increase migration from small to big cities, which unfortunately has already happened in Tehran and almost all the big cities of the country. Non-observance of rules and regulations by vehicles is another problem of urban transportation in the country. With a simple calculation, you can get how much this disorder and

disturbance in driving reduces the capacity of the existing network and infrastructure, in addition to causing serious damage to the nerves and psyche of citizens and increasing the number of accidents and damages caused by it. In addition to the social and cultural effects, transportation also affects the economy of the society in the sense that the development of transportation and its infrastructure can create economic opportunities, entrepreneurship, investment, production growth and proper distribution of goods. On the other hand, transportation is also affected by the economy, because infrastructure development requires positive economic growth and considerable financial resources. Therefore, transportation and economy have a strong relationship and connection. What is the role of urban management in transportation and services and its problems and with what approach should the efficiency of transportation systems be increased and its performance improved until the satisfaction and peace of citizens is achieved and their first problem is traffic and pollution caused by it is not Should it be concerned only with the supply and development of infrastructure regardless of the resource and environment limitations, or by following the principles of sustainable development, instead of focusing and emphasizing absolute emphasis on the smoothness of private car traffic and their speed, should priority be given to improving the city's livability indicators for all citizens? put The right option for urban management in Iran is to adopt a method based on the principles of sustainable development, using global experiences and learning from our previous experiences. In this choice, the city should be managed in such a way that while providing equal opportunities for citizens, it can also improve the livability of the city and preserve its vital resources for future generations.

Conclusion:

In this case, man has the right to live in the city as a citizen and valuable living being. However, if this approach is taken seriously and addressed properly, the problem of traffic and time wasting will be reduced automatically. In this way, the city management thinks about providing equal and fair opportunities for the members of the society and makes arrangements for it, but in such a way that you can walk calmly on the ground of the city and breathe in its air without worries. Of course, this approach and choice also faces challenges. Changing the mentality and long-standing belief of managers, citizens and even a part of the specialized community is basically not a simple and quick-yielding task. Accepting the fact that construction is a long time ago is miles ahead of efforts to improve efficiency and effective use, that the city is built for people, not for cars, that the livability, identity, and tranquility of the city are more important than speed. Above 80 km/h is important in all networks, and finally, due to the fact that citizens are an important part of this structure, and without their direct participation, city management with this approach is not possible, it requires considerable patience, effort and perseverance. In this regard, the art of gaining citizens' trust and empathy should be added to urban management skills as a necessity. People should believe that the city management does not intend to take facilities and make their daily life difficult, but rather tries to provide all the opportunities they need by adopting low-damage methods based on global experiences and scientific and expert methods. provide them differently than before. This challenge can be solved if the specialized community also believes in it and comes to the help of the city management and provides the necessary and scientific guidelines for the implementation of this policy.

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