



# **World Journal of Sensors Network Research**

# **Carriage of Goods within the Country**

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#### Abstract

The article is about the transportation of goods by road transport. The rapid construction works in our country, the increase in the number of the population, and our improved regions increase the need for freight transportation services within the country. In addition to following the rules of transportation, it is very important to fulfill the customer's requirements, meet and satisfy his expectations. But it is necessary to take into account that in this competitive environment, entrepreneurs or enterprises (public or private) engaged in cargo transportation activities must also monitor the technical operation of the used vehicles in addition to fulfilling all these requirements. At the same time, depending on the transported destination, the working mode of the driver should also be taken into account. Depending on the types of cargo, determining the means of transport that will be met with minimum costs, the exact study of the parameters of the cargo, whether it is expedited, etc. data should be recorded, taking into account all this, a suitable vehicle should be assigned. For the transportation of expedited cargo, it is necessary to have the possibility of transportation under special conditions. If necessary, before the transportation is carried out, an inspection at the address should be done for the sake of correct assessment. Depending on the type, packing (packing) of the load and, if necessary, labor force service should be offered. The customer should be informed that all these are taken into account during the evaluation. In order to make these and many parameters accessible and managed from one center, it is proposed to develop a software for cargo transportation information.

**Keywords:** Transport, Freight, Cargo, Packing, Evaluation, Customer, Information, Software, Enterprises, Requirements, Labor Force.

#### The Relevance of the Issue

At present, up to 75-80% of all passenger and cargo transportation volume in developed countries is carried out by road transport. High transport capacity is one of the factors influencing the development of the region. Depending on the infrastructure and the location of the population, the volume of transportation may vary. The rapid construction works in our country, the increase in the number of the population, and our improved regions increase the need for freight transportation services within the country. According to the rules of regulation of domestic cargo transportation in our country, the carrier must accept the cargo based on the contract concluded with the customer for commercial transportation by road.

In this period of development of our road transport infrastructure, freight transportation through road transport is preferred. The number of companies (public or private) providing cargo transportation services is increasing day by day as the need is increasing. Customers who use the service prefer an enterprise with a good quality, safe, insured contract for cargo at a cheap price. Let's analyze the examples of several companies that carry out the process of transporting goods by road transport within the country.

166 Cargo transportation company carries out transportation of any type of cargo from one point to several points. Cargo transportation service is divided into several groups depending on the volume of cargo. These include: light freight, domestic freight and international freight services. With more than 1,200 vehicles, it provides insured transportation of loads starting from 500 kg to 26 tons with various purpose vehicles (refrigerator, tow truck, dump truck, awning). In terms of length, Fiat Doblo offers options for the length of cargo, starting from cars with a minimum length of 2 meters and up to 13.6 meters. There is

Page No: 01 www.mkscienceset.com Wor Jour of Sens Net Res 2025

a professional worker service for loading products, packaging service in several types (cardboard, polyethylene, foam plastic, laminate) for protection from hazards, warehouse service under continuous control for storage. It provides services not only in the capital and cities, but at any address in Azerbaijan.

188 Freight company comprehensively implements all services for safe transportation of furniture and things: laborer, handyman, packaging and transport services, in order to ensure convenience during house relocation. All cargo is insured during transportation. 1676 Cargo Transport Company Azerbaijan provides logistics and cargo transportation services. The main business principle of the company is customer satisfaction and high-quality service. It offers customers full insurance of cargo against all risks. Its services are not only limited to cargo transportation, but also provide a full range of handyman, labor, cleaning and other services at the most affordable prices. Transportation of food products is the basis of their work. The responsible approach to the work of the freight company's employees allows the cargo transportation process to be carried out with maximum accuracy and minimal losses.

But it is necessary to take into account that in this competitive environment, entrepreneurs or enterprises (public or private) engaged in cargo transportation activities must also monitor the technical operation of the used vehicles in addition to fulfilling all these requirements. At the same time, it should be taken into account in the working mode of the driver who drives the vehicle depending on the transported point.

# Car Transport Has Advantages and Disadvantages Advantages:

- Speed adjustment to save time;
- Immediate and regular execution of deliveries;
- Economical in short distances;
- Possibility of door-to-door delivery;
- Good cargo protection;

## Disadvantages:

- Dependence on road transport infrastructure;
- Tariffs are relatively high:

It should be noted that loads are of different nature and their transportation technologies may be different. For this reason, it is appropriate to carry out the classification of loads.

# **Cargo Classification**

- Transportation of household goods;
- Courier service
- Transportation of construction materials;
- Transportation of non-standard cargo;

Let's get acquainted with the main concepts of the Cabinet of Ministers of the Republic of Azerbaijan in the rules for transporting goods by road:

- commercial cargo transportation by road transport cargo transportation performed on the basis of a cargo transportation contract or other legal grounds and payment of transportation fees;
- international cargo transportation cargo transportation performed by motor vehicles from the territory of the Republic of Azerbaijan to other states or from other states to the territory of the Republic of Azerbaijan, as well as tran-

- siting through the territory of the Republic of Azerbaijan;
- carrier a legal entity or an individual entrepreneur who carries out freight transportation for a fee based on a transportation contract or other legal grounds, owns vehicles with the right of ownership, lease or use;
- 1. the operator of international cargo transportation by road transport (hereinafter the operator) who carries out international cargo transportation by road, meets the criteria related to business reputation, financial status and professional competence, and the driver(s) meet the requirements regarding the level of training, A legal or physical person registered by the Ministry of Digital Development and Transport of the Republic of Azerbaijan;
- 2. the responsible person of the operator the physical person who actually and continuously manages the transport activity of the operator on the basis of the contract, as well as meets the criteria related to professional competence;
- "Permission" form "Permission" form of foreign countries issued to operators to carry out international car transportation in the territory of foreign countries that have signed an international agreement on international car transportation with the Republic of Azerbaijan;
- domestic cargo transportation cargo transportation performed within the borders of the Republic of Azerbaijan;
- trailer any vehicle designed to be towed by mechanical transport;
- customer a legal or physical person (consignor, consignee or forwarder) who has entered into an agreement with the carrier on freight transportation;
- driver a person who has the right to drive a motor vehicle, who directly participates in the transportation process, as well as represents the carrier in appropriate cases;
- expedited cargo cargo that requires compliance with a special temperature and sanitary-hygiene regime for its safety (integrity) during transportation;
- terminal a complex of buildings, structures and technical means intended for the collection (gathering), sorting, control and subsequent dispatch (departure) of cargo;
- universal container a reusable tare with a volume of not less than 1 cubic meter intended for transportation of goods without tare, in primary packaging or in lightened (simplified) tare;
- general-purpose cargo vehicle a cargo vehicle used in cargo transportation with an on-board platform not equipped with self-loading-unloading means or other special devices;
- a specially designed cargo vehicle a cargo vehicle that has a special rail for transporting certain types of cargo;
- semi-trailer any trailer designed to be connected to a truck, a part of which rests on the vehicle and transfers a certain part of its mass and the weight of the load to it;
- cargo commodity or non-commodity goods accepted for delivery from the location to the destination by the motor carrier for a fee;
- cargo vehicle a vehicle designed for cargo transportation due to its construction and equipped equipment;
- consignor a legal or physical person on whose behalf shipment of cargo is formalized;
- consignee a legal or physical person authorized to receive the cargo according to the contract of cargo transportation by road transport or other relevant documents;
- tachograph an electromechanical or electronic control

device installed in that vehicle for the purpose of continuously measuring or recording all data on the movement of the motor vehicle, including the distance traveled, the speed of movement, as well as the work and rest periods of the drivers. Setting the issue.

During the relocation of houses, offices, objects, or in connection with the organization of events, there is a need to transport various cargoes (cargoes allowed to be transported) from one address to another. At this time, the customer places an order with the shipping company that will meet his requirements. Then, the person accepting the order enters the necessary information in the order acceptance table in order to be able to carry out the shipment. After that, the most optimal execution plan is prepared for the transportation of a new order formed in the form and time according to the customer's requirements.

#### **Order execution Mechanism**

- Choosing a vehicle suitable for the load to be transported;
- Selection of the driver;
- Selecting the route line

Depending on the types of cargo, a means of transport that will meet the minimum costs should be determined. For this purpose, the recipient of the order must learn the exact parameters of the cargo. The dimensions, size, weight, material of the cargo to be transported, whether it is expedited or not, etc. data should be recorded, taking into account all this, a suitable vehicle should be assigned. For the transportation of expedited cargo, it is necessary to have the possibility of transportation under special conditions. If necessary, before the transportation is carried out, an inspection at the address has been carried out for the purpose of correct assessment, so the assessment should be carried out. Depending on the type, packing (packing) of the load and, if necessary, labor force service should be offered. The customer should be informed that all these are taken into account during

the evaluation.

When the order is accepted by the carrier, the address to which the cargo will be picked up must be accurately studied. The destination point must be specified. Because the distance between the address where the cargo will be picked up and the destination point must be calculated.

Providing transportation for all types of cargo (except prohibited cargo) according to the volume of the order, setting fixed rates for standard shipments means more involvement. When the order is received, depending on the volume of the cargo and the placement of the cargo at the destination point, it should be taken into account that the cargo may be transported to the destination point not at once, but in parts several times.

According to the request of the customer, a means of transport should be designated, taking into account the presence of an accompanying person in the car where the cargo will be transported. Depending on the customer's request, a terminal for cargo storage can be offered.

#### **Problem Solving**

Proposal for the development of the information program of cargo transportation. Application development for process management is a must, but it should also be developed in a mobile application. Connecting GPS to all the vehicles in use, and through this, the customer can clearly track the transportation of his cargo from the mobile application. Notifications should be able to be sent through the application.

#### **Tables**

- 1. Order list table
- 2. Car table
- 3. Driver table
- 4. Order execution process table

Table 1: Name of the table: Order list table The purpose of the table: Necessary information about the order

Field name	Field type	Field description	Note
IDSIFARISNOM	AutoInc	Unique code of the order number	
SIFARISVEREN	nVarchar	The person who placed the order	
UNVAN	nVarchar	Order address	
TEYINATNOQTESI	nVarchar	Destination point	
YUKUNNOVU	nVarchar	Type of cargo	
YUKUNOLCUSU	Integer	The size of the load	
YUKUNCEKISI	Integer	The weight of the load	
SIFARISTARIX	datetime	The date the order was picked up from the address	
SIFARISSAAT	datetime	The time the order is picked up from the address	
TESLIMALAN	nVarchar	The person receiving the order	
SIFARISSTATUS	nVarchar	Order status: received, in progress, fulfilled.	

Table 2: Name of the table: Car table The purpose of the table: Information about the car

Field name	Field type	Field description	Note
IDAVTOMOBIL	AutoInc	Vehicle unique code	
AVTOMAR	nVarchar	Car brand	
YUKTUTUMU	Integer	Car load capacity	
YANACAQNOVU	nVarchar	Fuel type	
YANACAQSERF	Integer	Fuel consumption	
YANACAQTUTUMU	Integer	Fuel capacity	

Table 3: Name of the table: Driver table The purpose of the table: Driver information

Field name	Field type	Field description	Note
IDSURUCU	AutoInc	The unique code of the driver	
SURUCUAD	nVarchar	The name of the driver	
SURUCUSOYAD	nVarchar	Last name of the driver	
SURUCUATAAD	nVarchar	Driver's father's name	
SURUCULUKVES nVarchar		Driver's license category	

**Table 4:** Name of the table: Order execution process table The purpose of the table: Information about the execution process of the order after the decision has been made

Field name	Field type	Field description	Note
IDSIFARIS	AutoInc	Order acceptance unique code	
IDAVTOMOBIL	Integer	Vehicle unique code	
IDSURUCU	Integer	The unique code of the driver	
SIFARISINNOVU	nVarchar	Type of order	
BASHTARİX	datetime	Date of commencement of execution of the order	
BİTTARİX	datetime	The date of completion of the order	

#### **Illustrative Example**

An order for the transportation of household equipment from one apartment to another apartment has been accepted. All necessary information for cargo transportation has been collected. After specifying the address and destination point, the order will be executed at once. The customer requested that the cargo be delivered and transported to the destination on the specified date. A transport vehicle must be designated for order execution by the carrier. Agreement registration must be confirmed.

Based on the requirements of the customer, the carrier prepares an insurance contract for the safe delivery of the cargo to the destination point, and this contract must be signed on the spot when the cargo is taken over and delivered to the destination point.

It is necessary to pay attention to the choice of means of transport that carry out transportation with minimum costs. A budget must be calculated for each order.

## Order form

S/s	Name of the information	Information	Note
1	Date of receipt of the order	25.01.2024	
2	Address of the cargo to be picked up	Ruhulla Akhundov 23Q	
3	Destination point	Narimanov 96	
4	Order execution period??		
5	Type of cargo	Household appliances	
6	Dimensions of the cargo	a*b*c	
7	Size of the cargo	6m3	
8	Weight of the cargo	800 kg	
9	Expedited		

10	Special transportation			
11	Escorter			
12	Labor force	+++		
13	Cargo storage terminal			
14	Designated vehicle	???		
15	Driver	Əli		
16	Price	???		

	ID	Address	Desti- nation point	Type of cargo	Size of the load	Weight of the load	Order his- tory	Order time	Order exe- cution start date	Date the or- der was com- pleted	Order status
	1	R.Akhun dov 23Q	Nariman- ov 96	House- hold ap- pliances	6m3	800 kq	25.01.2024	16:00	30.01. 2024	30.01. 2024	Accepted
	2										
	3										
ĺ	4										

#### Conclusion

- 1. The order execution mechanism has been developed.
- 2. It was proposed to compile the program of information security of cargo transportation.

#### References

- 1. https://e-qanun.az/framework/18722
- 2. Javadov, A. A. (2009). Road freight transportation [Textbook]. Baku: Education.
- 3. United States Senate, Committee on Commerce, Science, and Transportation. (1999). The effectiveness of the Depart-
- ment of Transportation's motor carrier safety programs and its organizational structure: Hearing before the Committee on Commerce, Science, and Transportation, United States Senate, One Hundred Sixth Congress, first session, April 27, 1999. U.S. Government Printing Office.
- https://www.academia.edu/84237418/The\_XX-VIII\_International\_Scientific\_Symposium\_Karabakh\_is\_My\_Native\_Land\_dedicated\_to\_the\_190\_anniversary\_of\_Khurshidbanu\_Natavan\_30\_July\_2022\_ ISBN\_978\_605\_71427\_9\_5\_Amsterdam\_Holland , page 177

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Page No: 05 www.mkscienceset.com Wor Jour of Sens Net Res 2025