

Management of marketing activities of the transport sector in the context of sustainable development

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Abstract. The existing system for organizing and processing local car flows in railway junctions does not implement the concept of an integrated, or rather a systematic approach to organizing and ensuring the interaction of elements and subsystems of a railway junction, as a complex integral system, to the necessary extent. As a result, local, at first glance, optimal measures to further improve the operation of the node do not give the expected effect. The organization of local car flows, the distribution of work and technical resources between the stations of the hub to ensure the formation of multi-group trains, the provision of technological interaction between the technical and freight stations of the hub, as a rule, have shortcomings in the feasibility study.

1 Introduction

Multiple reduction in operating costs (compared to a shunting diesel locomotive) Ability to operate as a full-fledged truck. Moreover, if necessary, the entire hitch for movement along the railway tracks is dismantled within 2 hours and the machine can be operated in automobile mode without any restrictions. With the installed railway equipment, short-term transportation of goods by road (up to 100 km) is possible, due to the increased load on the suspension of the vehicle [1-35].

2 Materials and methods of research

The purpose of this study is to study management and marketing in the activities of the transport sector in sustainable development. The theoretical and methodological basis of the study was the scientific works of domestic and foreign researchers studying the application of modern information technologies in the process of making managerial decisions. During

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the research, methods of general scientific analysis and comparison, tabular and graphical visualization techniques of calculations, methods of induction and deduction were used in the formation of conclusions of the study.

3 Results

The ability to build optimal traffic schedules when solving the problems of towing and maneuvering, due to the possibility of following to the place of work and back not by rail, but by road.

The possibility of using the MART locomobile as a repair, diagnostic and linear rail vehicle.

When installing the appropriate attachments, it becomes possible to use the car to clear paths from snow, from branches of trees and shrubs.

The main advantage is the use as an alternative to traditional rolling stock (shunting diesel locomotives, car pushers, etc.) in cases where the use of such rolling stock is not economically or organizationally feasible.

Advantages of the MART locomobile over conventional shunting diesel locomotives:

Multiple reduction in operating costs (compared to a shunting diesel locomotive);

Possibility of operation as a full-fledged cargo car. Moreover, if necessary, the entire hitch for movement on the railway tracks is dismantled within 2 hours and the machine can be operated in automobile mode without any restrictions. With the installed railway equipment, short-term transportation of goods by road (up to 100 km) is possible, due to the increased load on the suspension of the machine;

The ability to build optimal traffic schedules when solving the problems of towing and maneuvering, due to the possibility of following to the place of work and back not by rail, but by road;

The possibility of using the MART locomobile as a repair, diagnostic and linear rail vehicle;

When installing the appropriate attachments, it becomes possible to use the car to clear paths from snow, from branches of trees and shrubs.

The main advantage of sustainable development is the use as an alternative to traditional rolling stock (shunting locomotives, car pushers, etc.) in cases where the use of such is economically or organizationally impractical. Advantages of using a truck chassis compared to a special chassis.

The main advantages of using the chassis of a serial truck is that the vehicle, in fact, remains, by and large, a truck:

- Initially, the main function of a truck is present and preserved – in fact, the transportation of goods;
- The locomobile fits into the dimensions of the gates, driveways, boxes, originally intended for trucks;
- Maintenance, repairs are carried out on the basis of the base available at the enterprises for the repair of trucks;
- To drive a locomobile on a railway, you need an ordinary driver who has received an additional specialty. For the carriage of goods on public roads, there are no special requirements.

Table 1 shows the characteristics of the main models of the MART locomobile.

Table 1. Of technical data.

Brief technical characteristics	MART –1	MART –2	MART –3	
Base of road–rail vehicle	URAL 4320, URAL 5557, URAL NEXT			
Curb weight (with onboard platform)*, kg, not more than	10950 Various modifications of the MARCH–3 locomobile in weight and size parameters vary in weight from 9820kg. 10950 maximum mass for maneuvering modification.			
Weight of equipment (cargo), kg, no more (on the railway track)	9600	9000	9000	
Weight of equipment (cargo), kg, no more (with dismantled railway track)	10000 The weight of the transported cargo when using a locomobile as a truck can be increased from 9000kg to 10000kg by dismantling the quick–release units of the railway.			
Gross weight (including the weight of the driver and two passengers). kg, no more	4320 4320 NEXT	5557 5557 NEXT	55571 5557 NEXT	4320 elongated
	17300	21300	21300	21300
Overall dimensions				
Length, mm, no more	8000	9300	11400	
Width, mm, no more	2500	2500	2500	
Minimum turning radius				
on the road, m	11,3	11,3	11,3	
by rail*, m	120 (*50 – with a rotary axis)			
Max speed	90 km/h.			
on the road, km/h				
by rail*, km/h				
Traction force on the coupling device, kN, not less than (with a ballast weighing 5000 kg)		50,96	50,96	
Engine brand, power	YAMZ–6565, 230–240 horsepower	YAMZ–6565, 230–240 horsepower	YAMZ–536, 285–312 horsepower	
Coupling devices, adaptations, characteristics				
Traction (practical) effort, tons. (with a full ballast weight of 10 tons)	—	500 tons	1500 tons	
Service personnel on the railway track (number of people)	1	2	2 or 1 if there is a remote control	
Remote control	—	—	Installed as an option	
coupler	—	CA–3 or CA–3 – compatible		
Hydraulic system				
Drive unit	Hydraulic pump from the power take–off box			
Compressor drive	—	Hydraulic motor		
Manual hydraulic pump	For emergency control of the lifting mechanism of railway wheels in case of failure of the main			

	hydraulic control system of the locomobile.		
Fluid pressure monitoring system in hydraulic cylinders.	option	To control and control the clamping force on the guide rail wheels of the rear rail trolley	
Oil cooler in the hydraulic system	—	It is installed to cool the oil during the expected intensive shunting operation with constant long-term operation of the compressor.	
Limiter lowering railway wheels	Activated when driving on the highway in order to avoid lowering the railway wheels		
Hydraulic locks on hydraulic cylinders	In the standard version, the hydraulic lock is installed on the main highway. To increase the degree of reliability, safety hydraulic locks are optionally installed directly on the hydraulic cylinders.		
Temperature range of climatic conditions.	from minus 40 to plus 50		
The maximum inclines for the railway ("uphill" "from the mountain") are the same with the load, starting from the spot.	theoretical—according to the standard calculation of the mass of the composition (practical up to 30 ppm with a corresponding reduction in the weight of the composition)		
Rubber wear along the railway track	reduced, in comparison with the operation on highways		
Operating costs (maintenance and change of consumables)	—	—	25000rub / 250 engine hours; oil change in automatic transmission every 3000 engine hours
Braking system for brake-free cars	—	Automotive braking system (experimental data: with a ballast load of 5 tons; weight of the train 300 tons; wet rails; speed 10 km / h – braking distance 20m.	
The warranty period.	1 year or 2500 hours.		

4 Discussion

Road transport also determines the state's ability to create conditions for leveling the socio-economic development of regions and ensuring connectivity the territory of the state.

The task of modernizing the Russian economy provides for the transition from an export–raw material to an innovative socially-oriented development model, the formation of conditions for the integration of the Russian Federation into the world economy, the transition to the full-scale implementation of import substitution programs in the country's economy. In these conditions, increasing the requirements for the quality of transport services and ensuring the safety and stability of the functioning of the transport system is a modern challenge facing the automotive and urban ground electric transport and requiring a clear definition of priorities, goals and objectives for the development of automobile and urban ground electric transport as a sub-sector of the country's transport complex.

From the point of view of development, in the current situation, the current management system of road transport management agencies limits the progressive development of industry management. Due to the continuous development and improvement of the road transport market, the functions of administration and management of transportation have been further expanded.

The management system of some existing road transport management agencies limits the progressive development of industry management,

To strengthen the management of road transport, it is necessary to strengthen the management functions of road traffic management enterprises, coordinate and cooperate with tax, industrial and trade, price, finance and other departments, study and formulate

plans for the development of road transport and appropriate countermeasures; make forecasts for the development of highways.

The harmonious coexistence of nature and man in general cannot contribute to the sustainable development of the economy. The green economy focuses on the balance of the ecological environment and energy conservation. According to this economic model, the road transport industry should be actively transformed, and the state can formulate some strategies to encourage it.

The composition of the logistics infrastructure:

- transport systems by individual modes of transport:
- car-roads;
- railway and railway tracks and stations;
- water-geographical and navigation access, ports, beaches I berths;
- air-airports, aerodromes, notification system;
- Pipe-Masters.
- transport fleet by type and form of ownership;
- system of gas stations, parking lots, maintenance.

Transport and logistics infrastructure facilities ensuring the correct process of passenger transportation

buildings and equipment. Such objects include:

- car depots;
- bus stations;
- railway stations;
- airports;
- warehouse complexes;
- cargo terminals;
- container areas.

This classification provides for all equipment, not only the building itself roads for road and railway transport

Is.

Correct creation of transport and logistic infrastructure transportation it prevents unjustified losses in the process of the enterprise and increases the effective functioning of the industry. Transport and logistics through the design and adjustment of infrastructure, passengers and optimization of transport flows and convenient cargo service can be accessed.

At the international level, the globalization of the region's economy and integration, that is, integration of local economic forms into other it leads to the establishment of close ties with the objects of the region and the country.

Their successful partnership requires a transport and logistics infrastructure.

Therefore, the successful functioning of the region's economy in the context of globalization it is necessary to develop a transport and logistics complex.

The environmental impact is presented in Figure 1.

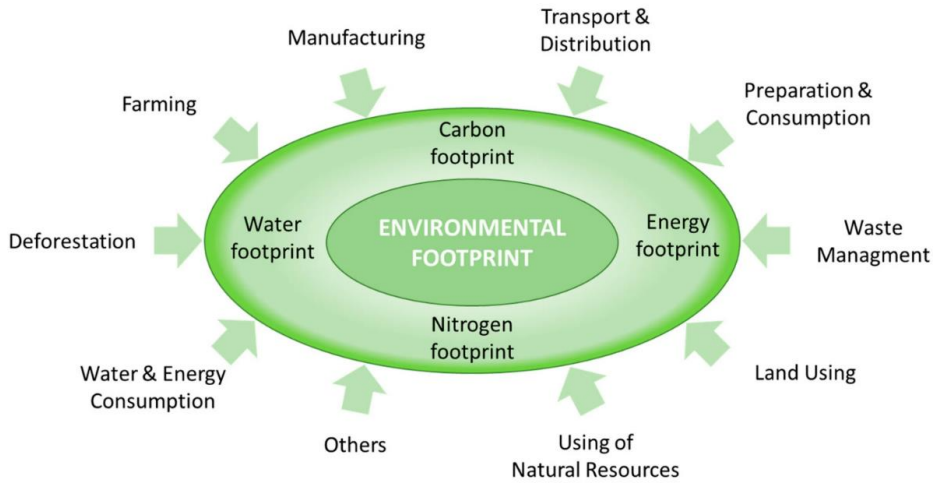


Fig. 1. Environmental footprint.

Sustainable transport impacts on achieving the SGDs is presented in Figure 2.



Fig. 2. Sustainable transport.

5 Conclusion

Thus, the advantage of this type of transport is its efficiency in terms of fuel consumption in sustainable development. Locomotives consume much less diesel fuel than the same diesel locomotives. Another advantage of stability is the possibility of installing various attachments: pneumatic tools, "hydraulic lever", front blade for snow removal, shpalopodbivochny module and much more.

Measuring the SDGs related to transport and sustainable development.

It is necessary to make future transport systems safe, efficient, affordable and sustainable.

The goal of the 9 SDGS in the field of sustainable development is to create a sustainable infrastructure, promote sustainable industrialization and stimulate innovation, and in the field of transport is measured by an indicator measuring the volume of passenger and cargo transportation by mode of transport.

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