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# Assessment of Technical Service Performance with Limited Liability

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**ABSTARCT:** The recommendations developed in this article mainly serve to improve traffic safety by eliminating factors affecting the behavior of the transport market, the scale of production, maintaining the level of technical condition of vehicles during operation.

**KEY WORDS:** car, traffic safety, maintenance, repair, technology, condition, quality of work, efficiency, movement, production.

## I. INTRODUCTION

The most important part of the plan today is the assessment of the composition of highly qualified drivers and technicians, their work to ensure the safety of road transport. As noted in statistics, the share of repair work, that is, the productivity of technical personnel, is of great importance in the occurrence of road accidents. At the same time, according to statistics, technical workers account for 20% of road traffic accidents in terms of work efficiency (technical condition of transport). The set of elements affecting the road safety system requires a theoretical justification for the prevention of road accidents and traffic violations. It is advisable to use a schematic connection of maintenance performance indicators using a set of elements.

**Relevance**: it is necessary to identify the main reasons for the need for transport services, i.e. the scale of production, the system of factors influencing the behavior of the transport market, while maintaining the technical condition of transport in accordance with the requirements of the norm.

**Objective**: From this point of view, when operating road transport, it is advisable to take into account:
- production conditions for the carriage of passengers;
- the importance of road transport services in this production;
- production technology;
- Production efficiency;

However, the technical base of production has a negative impact on the training and retraining of drivers and technicians in the management system of motor transport enterprises.

### RESEARCH

The effectiveness of repair work in LLC, carrying out passenger transportation, is determined by a number of indicators of repair work:
-Influence of the quality of work and performance of the LLC, the level of performance of cars;
- labor productivity of service personnel;
- the level of influence of the technical condition of cars in LLC on traffic safety and the environment;
- the level of technical and moral knowledge of employees;
- the cost of maintaining the level of performance.

Of course, it is advisable to evaluate the efficiency of the service personnel in an LLC according to the above indicators.

And also it is necessary to assess the technical capacity of cars in the following order:

1. The efficiency of the technical service is determined by the coefficient of technical readiness.

$$К_{крт} = \frac{\alpha_т^f}{\alpha_т^т} \qquad (1)$$

$\alpha_т^f$- the actual value of the technical readiness coefficient

This fair value is chosen as the main indicator in the enterprise depending on the activities of the enterprise. $\alpha_\text{т}^\text{r}$ is the planned value of the technical readiness factor, the planned value of the technical readiness factor is determined by the following formula.

$$\alpha_\text{т}^\text{r} = \alpha_\text{po}^\text{r} + \alpha_\text{r}$$

$\alpha_\text{po}^\text{r}$ −p is the planned output coefficient
$\alpha_\text{r}$- coefficient taking into account the share of cars in the reserve.
2. Determined the efficiency of the technical service on the loss of linear time for technical reasons.

$$K_\text{tr} = 1 - \frac{t^\text{T}}{T_\text{n}} \qquad (2)$$

$t^\text{T}$ −time loss of linear flow due to technical reasons, hours
$T_\text{H}$ - time in the outfit, hours
3. Determination of the effectiveness of the technical service in terms of operating costs.

$$K_\text{c} = \frac{C^\text{c}}{C^\text{r}} \qquad (3)$$

$C^\text{c}$- planned operating costs, sum.
   The planned costs are determined by the financial condition of the enterprise.
$C^\text{r}$- Operating costs based on real conditions, sum.
Operating costs based on actual conditions are determined by the productivity of the enterprise.
4. Determination of the effectiveness of the technical service in terms of staff turnover.

$$K_\text{st} = \frac{P_\text{w} - P_\text{fw}}{P_\text{w}} \qquad (4)$$

$P_\text{w}$- the total number of repairmen, workers.
$P_\text{fw}$ - the number of workers dismissed from repair work, worker.
5. Determination of the aggregate productivity of the LLC technical personnel.

$$K_\text{tp} = K_\text{кpt} \times K_\text{tr} \times K_\text{c} \times K_\text{st} \qquad (5)$$

It is advisable to experiment by relating the values of the aforementioned technical quantities to real operating conditions.

   For this purpose, the processes of experimental research were tested on the example of Dilshodtranss LLC in Samarkand and Oybek super transs LLC in Jizzak.

   The data initially required for the assessment were obtained from the enterprises listed in the table below.

| № | Indicators required for the assessment | Dilshodtranss LLC | Oybek super transs LLC |
|---|---|---|---|
| 1 | $\alpha_\text{r}^\text{f}$- the actual value of the technical readiness coefficient | 0,867 | 0,883 |
| 2 | $\alpha_\text{т}^\text{r}$ is the planned value of the technical readiness factor | 0,822 | 0,835 |
| 3 | $t^\text{T}$ −time loss of linear flow due to technical reasons, hours | 2,35 | 2,20 |
| 4 | $T_\text{H}$ - time in the outfit, hours | 8,0 | 8,0 |
| 5 | $C^\text{c}$- planned operating costs, sum. | 1,011 | 1,201 |
| 6 | $C^\text{r}$- Operating costs based on real conditions, sum. | 1,023 | 1,324 |
| 7 | $P_\text{w}$- the total number of repairmen, workers. | 28 | 50 |
| 8 | $P_\text{fw}$ - the number of workers dismissed from repair work, worker | 3 | 7 |

**Table-1. Comparative analysis of two companies**

It is advisable to implement theoretical solutions of experimental studies using the example of Dilshodtrans LLC in Samarkand and Oybek super trans LLC in Jizzak.

The technical training coefficient was used to determine the productivity of technical personnel. For Dilshod Trans LLC

$$К_{крt} = \frac{\alpha^f_{т}}{\alpha^r_{т}} = \frac{0,867}{0,822} = 1,054$$

With the help of the coefficient of technical training, the productivity of technical personnel was determined. For Oybek super trans LLC

$$К_{крt} = \frac{\alpha^f_{т}}{\alpha^r_{т}} = \frac{0,883}{0,835} = 1,057$$

Comparing the theoretical decisions of technical personnel using the coefficient of technical training, the positive results of both enterprises in Samarkand, OOO Dilshod trans $К_{крt}$ =1.054 and Oybek super trans OOO in Jizzak $К_{крt} = 1,057$ are positive, can be explained by the presence of constant monitoring of the technical performance of cars.

The efficiency of repair work in case of loss of working time due to technical reasons has been determined. For Dilshod Trans LLC

$$К_{tr} = 1 - \frac{t^T}{T_n} = 1 - \frac{2,35}{8,0} = 0,706$$

The efficiency of repair work in case of loss of working time due to technical reasons has been determined. For Oybek super trans LLC

$$К_{tr} = 1 - \frac{t^T}{T_n} = 1 - \frac{2,20}{8,0} = 0,725$$

ability of roads, high foot traffic, traffic jams and lunchtime).

The efficiency of technical personnel in terms of operating costs has been determined. For Dilshod Trans LLC

$$К_c = \frac{C^c}{C^r} = \frac{1,011}{1,023} = 0,988$$

The efficiency of technical personnel in terms of operating costs has been determined. For Oybek super trans LLC

$$К_c = \frac{C^c}{C^r} = \frac{1,201}{1,324} = 0,907$$

Comparing the theoretical solutions for the performance indicators of technical personnel in terms of operating costs, the positive results of both enterprises in Samarkand, Dilshodtrans LLC, $К_c = 0,988$ and Oybek super trans LLC in Jizzak, $К_c = 0,907$ are positive. the amount of expenses for maintaining the technical performance of cars was at the level of the required level of coverage.

The effectiveness of the work of the technical service on staff turnover has been determined. For Dilshod Trans LLC

$$К_{st} = \frac{P_w - P_{fw}}{P_w} = \frac{28 - 3}{28} = 0,893$$

The effectiveness of the work of the technical service on staff turnover has been determined. For Oybek super trans LLC

$$К_{st} = \frac{P_w - P_{fw}}{P_w} = \frac{50 - 7}{50} = 0,862$$

Comparing theoretical solutions of performance indicators of technical personnel in terms of staffing, one can see that the indicator decreased due to the low capacity of technical personnel involved in maintaining the technical potential of vehicles (maintenance and repair) of Dilshod Trans LLC. $К_{st} = 0,893$ in Samarkand and Oybek Super Trans LLC in Jizzak $К_{st} = 0,862$ This enterprise also has external factors (low level of knowledge of technical personnel, insufficient use of technological equipment) and the impact of staff turnover.

An integral indicator of the effectiveness of the work of the technical staff of the LLC has been determined. For Dilshod Trans LLC

$$К_{tp} = 1,054 \times 0,706 \times 0,988 \times 0,893 = 0,656$$

An integral indicator of the effectiveness of the work of the technical staff of the LLC has been determined. For Oybek super trans LLC

$$К_{tp} = 1,057 \times 0,725 \times 0,907 \times 0,862 = 0,599$$

In limited liability companies, factors such as operational requirements need to be taken into account to ensure that road safety is maintained by technical staff through an integrated performance metric.

## II. CONCLUSION

Below is the weight of the impact of some of the LLC service services on road safety during operation: [1].

The share of operational services in ensuring traffic safety is 35%, the main factors are:
- Study of road conditions and identification of dangerous sections of the route of the affiliated LLC - 8%;
- Pre-departure medical work of drivers - 10%
- compliance with traffic rules - 10%
- Systematic route control - 7%

The HR department is mainly engaged in recruiting qualified personnel, monitoring their activities, providing them with initial information, collecting information about them and transferring it to management.

The share of the influence of the personnel department on traffic safety is 30%, the main factors are:

driver's choice - 12%,

control of advanced training - 10%

reprimand - 3%

warning - 3%

encouragement - 2%.

The share of technical supervision in road safety is 27%, the main factors are:
- Diagnostics by technical condition - 12%;
- automotive equipment - 5%;
- quality of service and repair - 10%.

Financial and economic department.

At the enterprise, mainly the financial and economic department represents the competence of the enterprise. Increases efficiency through vehicle operating income.

The influence of financial and economic management on traffic safety is 15%, the main factors are:
- road safety measures - 10%;
- other organizational relations - 5%.

According to the requirements of the current regulations, the staff of the LLC is 25 people. According to the survey, currently the number of administrative staff is 7 people. Since the financial support of this structure falls on the remaining 18 staff, a number of administrative services are mainly provided by the road safety officers, and these responsibilities are combined with other positions. This situation negatively affects the effective management of road safety issues.

Based on the results of the analysis, with the correct organization of the road safety management system in the LLC, the identified deficiencies will be completely eliminated at the enterprise.

Taking into account such factors as the technological process of maintenance and equipment, technical safety of equipment, maintenance of the technical condition of vehicles through the technical re-equipment of existing transport enterprises on the basis of modern norms and standards, as well as traffic safety has been achieved.

We will achieve our common goal in the field of road safety only if the work of road safety commissions at enterprises is strengthened and the responsibility of managers in this area is increased with the involvement of local governments, departments and organizations, as well as the general public.

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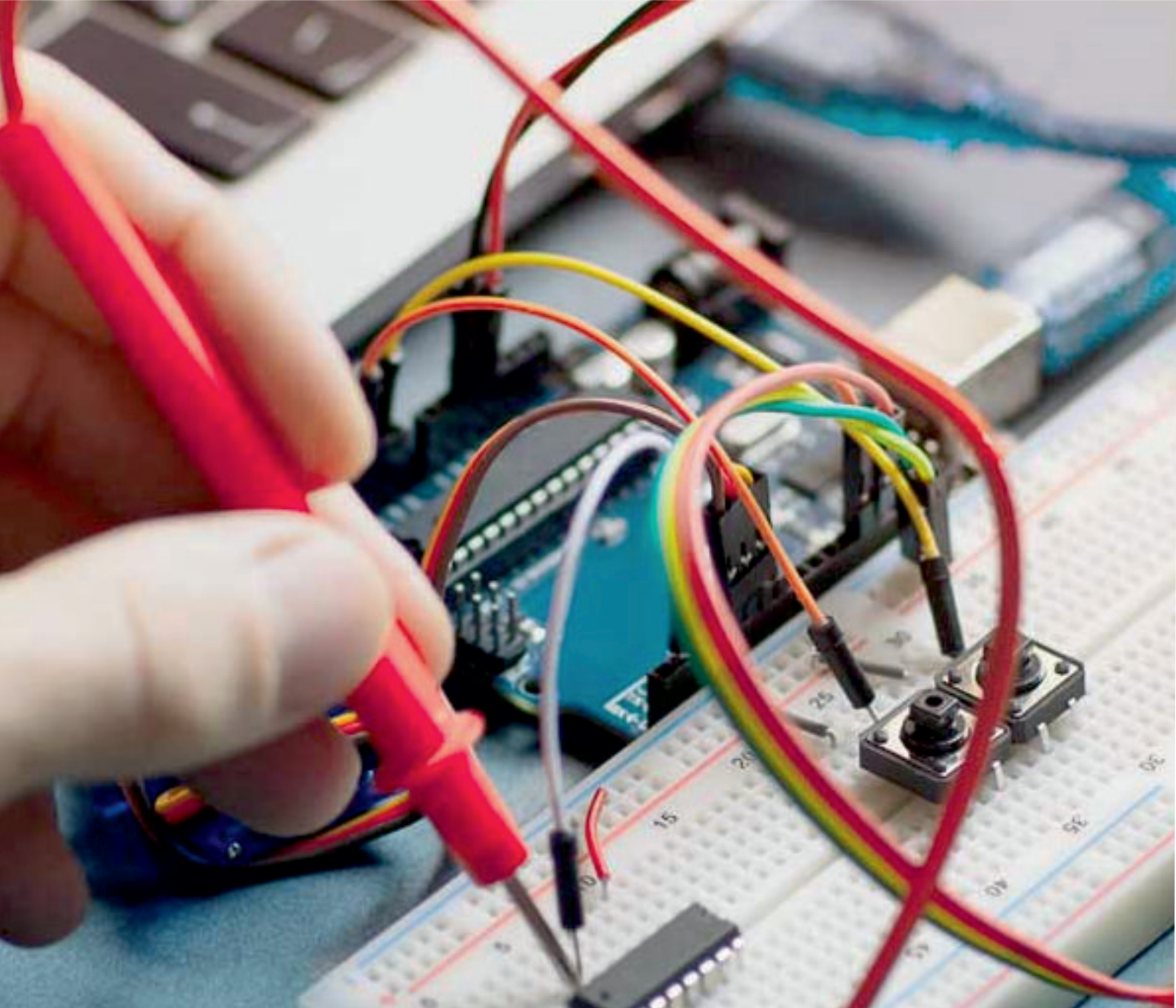
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