МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ

НАЦІОНАЛЬНИЙ УНІВЕРСИТЕТ БІОРЕСУРСІВ І ПРИРОДОКОРИСТУВАННЯ УКРАЇНИ

ІНСТИТУТ МЕХАНІКИ ТА АВТОМАТИКИ АПВ НААН

ДЕРЖАВНИЙ БІОТЕХНОЛОГІЧНИЙ УНІВЕРСИТЕТ

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В збірнику представлені тези доповідей науково-педагогічних працівників, наукових співробітників, аспірантів та студентів НУБіП України, провідних вітчизняних і закордонних вищих навчальних закладів та наукових установ, в яких розглядаються завершені етапи розробок.

The Proceedings presents abstracts of reports of scientific and pedagogical workers, research staff, graduate students and students of the NULES of Ukraine, leading domestic and foreign higher educational institutions and scientific institutions, in which completed stages of development are considered.

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CALCULATION OF THE RELEASE OF BUSES ON THE ROUTE USING THE DECISION TREE METHOD

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The choice of the number of buses on the route is a necessary step in building the work of the motor transport enterprise. However, due to the wide variety of indicators that affect the probability of favorable and unfavorable events in the construction of motor transport enterprises, as well as the occurrence of these

conditions in the market for the sale of services, there are problems with the choice of the number of passenger vehicles on the route. That's why I practicethan enterprises in the field of bus passenger transportation should apply the method that is expedient to apply at the initial stage of project development, when the forecasted state is structured, highlighting the key points in which decisions should be made with a certain probability. In this regard, it is interesting to solve the solution by the method of building a decision tree, which offers to consider the enterprise without financial costs. The study consists of four main stages, They are shown in Figure 1.

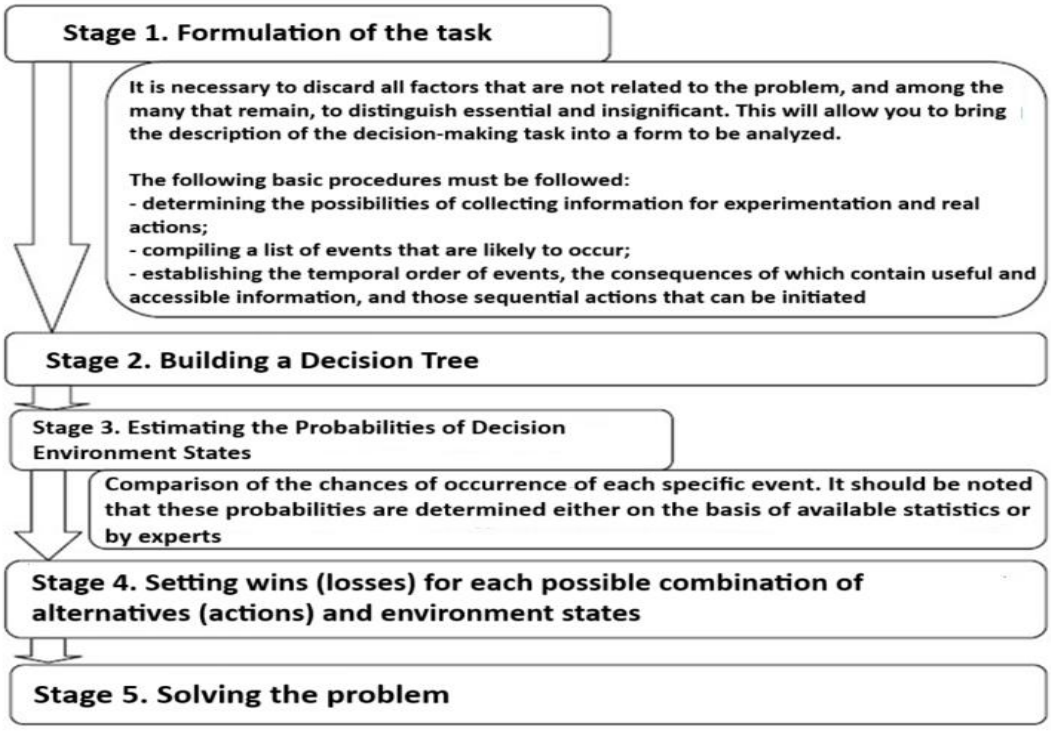

Fig. 1 The main stages of decision-making when using the decision tree method

We took this approach into account and analyzed the work of other scientists to create a set of indicators to assess the possible consequences and probabilities that will be useful in calculating the problem. To facilitate the perception and calculation of these indicators, we have divided them into four main groups that affect passenger turnover and passenger flow on the studied route. Each group includes aspects that must be evaluated when choosing the number of buses that are planned to be introduced on the route. The main source of these probabilities is sociological surveys of various companies, where the results are formed in accordance with the mood of the survey participants in the context of possible changes in the country.

As experience shows, the only source of information that sufficiently characterizes the parameters of transport demand and the conditions for its satisfaction within the framework of the current system is various methods of transport surveys of the population. Only the processing of the materials of these surveys allows to obtain a set of such indicators as the size and direction of passenger

flows, the amount of time spent on transport movements as a whole and by components (walking approach to the stop, departure from the stop, waiting for transport), the number of transportations, etc.

Table 1 Indicators of assessment of risk groups

№	Group Name	Evaluation Indicators
1	Indicators assessing the military-political situation in the country	Growing public confidence in the President of Ukraine; growing distrust of political parties; citizens' assessment of the situation in the country; attitude to changes in the level of prices and tariffs in the country.
2	Indicators Assessing Job Development	An increase in the number of vacancies and an increase in earnings; difficult financial situation, which encourages Ukrainians to look for additional earnings; growth in the creation of large businesses.
3	Metrics that assess business sentiment	The economic situation in the country; progressive changes in the field of taxation; changes in the military-political situation in the country; business lending.
4	Indicators assessing the solvency of passengers	A decrease in the income of the working population, or their complete or partial loss, will lead to a decrease in solvency; rising unemployment due to a deep downturn in economic activity; The number of vacancies remains critically lowagainst the background of an increase in the supply of labor due to the growth of economic activity of citizens and the return of some migrants

Analysis of such indicators allows to objectively assess the nature of the functioning of the existing system of transport services and to identify its shortcomings. On the basis of this, specific measures can be developed to improve public services through information support of such transport and operational tasks as adjusting the operation of vehicles between routes, regulating their release on routes, etc.

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