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FUNCTIONAL EFFICIENCY AND STABILITY OF ROAD TRANSPORT ENTERPRISES

Abstract

The variability of the environment requires road transport enterprises to adapt to new conditions in short and long strategic management perspectives. Both approaches require them to set measurable objectives whose fulfilment improves their efficiency and durability. The measures to achieve the partial objectives are the measures of effectiveness, efficiency, productivity, profitability, and earning capacity. Consequently, the ability to identify, measure, and achieve goals in a changing environment builds vitality, creating conditions for the sustainability of an economic entity.

Keywords: road transport enterprise, functional efficiency, functional stability

Introduction

For road transport enterprises, the volatility of economic conditions is on the one hand an opportunity for development, and on the other an obstacle interfering with the use of verified methods and styles of management granting the expected results. Consequently, many companies are not able to find new management formulas in line with the new reality and collapse. However, some acquire the necessary skills and adapt to the new conditions – these are the ones that meet their owners’ expectations in terms of fulfilling their main objective, which is to multiply the value of the entity in the long term. Hence, the purpose of this article is to identify the conditions of management efficiency and capacity of functional durability of such entities as road freight companies based on the knowledge and experience of the authors and the analysis of the subject literature.
1. Functional efficiency and stability

As such, efficiency requires two basic economic values: input and output. However, their polymorphism as well as the need to determine the efficiency of an enterprise as a whole as well as its various activities make this category highly complex. Thus, various dimensions of efficiency and its various measures can be distinguished. The basic dimensions of efficiency are presented in Table 1.

Table 1. Basic dimensions of efficiency

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Interpretation</th>
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<tbody>
<tr>
<td>Market</td>
<td>Development of an optimal structure of transport service for the customer, i.e., utility, satisfying his needs and solving problems</td>
</tr>
<tr>
<td>Economic</td>
<td>Shaping an optimal structure of activities, resources, and their costs in the process of creating the value of services through the achieved results (revenue)</td>
</tr>
<tr>
<td>Management</td>
<td>Striving for a strategic assessment of shaping and adjusting the structure of conditions and ways of behaviour leading to achieving objectives in terms of value growth</td>
</tr>
<tr>
<td>Potential</td>
<td>Assessing the potential possibilities of the enterprise in terms of the quality of its functioning as a system and potential improvement (of functional properties) by identifying the possibilities of increasing efficiency that may be realised now or in the future</td>
</tr>
<tr>
<td>Litigation</td>
<td>Analysing the core processes and support for long-term development of cost-benefit relation in these processes stimulated and determined by the dynamic and spatial aspect of transport</td>
</tr>
<tr>
<td>Synergistic</td>
<td>Striving to ensure the cooperation of all actors (the carrier and the customer) in all phases of the activity by systemic and rational development of conditions and processes and, consequently, expenditure on achieving the expected results</td>
</tr>
</tbody>
</table>

Source: (own elaboration based on: Blaik, 2015, p. 25)

Although the dimensions of efficiency presented in Table 1 all refer to the company’s main objective, they still create the need to combine different approaches to avoid one-sidedness. The multidimensionality of the concept of efficiency therefore requires viewing it at the same time in a broad context and a context specific for each entity. Therefore, it can be concluded that efficiency is the enterprise’s capacity to implement both a short-term and a long-term strategy. In the long term it should be seen as (Pyszka, 2015, pp. 13–14):

- increasing the competitiveness,
- minimising the time of response to the challenges and expectations of the market,
- developing the resources (incl. human resources) in relation to the changes in internal and external environment,
- implementing a strategy and achieving its objectives.

In the short term, efficiency means the disaggregation of long-term objectives for the positive results (effectiveness, efficiency, productivity, profitability, earning capacity) and the implementation of functions in relation to the available resources and the prevailing relations. The following partial dimensions of efficiency can therefore be distinguished (Letkiewicz, 2013, p. 64):

- business: ensuring that the entity fulfils its genotypic function and maintains a desired degree of meeting the needs of the environment,
economic: maintaining a positive relation between broadly defined inputs and outputs,
- systemic: ensuring the system's "health" and its ability to exist in a given environment,
- political: ability to build relationships with the environment (its exploitation) and other entities,
- cultural: ability to consolidate the values and standards that help maintain cultural identity,
- behavioural: responsibility for the workers and their interests,
- financial: profitable use of capital.

Executing and measuring sub-objectives facilitates the identification of the areas and levels of efficiency and prioritising certain areas over others based on a strategy accepted at a given time. A company can be highly efficient in certain areas and less efficient in others. Indeed, attempts to increase efficiency in one area can hinder efficiency elsewhere.

Figure 1. Subjective division of the areas of efficiency
Source: (Letkiewicz, 2013, p. 65).

At the root of efficiency there are always two basic concepts: input and output – whose nature and level result from the type of economic activity – in this case, transport operations. The technical and technological conditions determine the possibilities of responding to market expectations, the supply needs, and the level and mechanism of achieving positive results, given the ways of financing the obtained resources. Depending on the nature of the entity's activities and market factors – mainly demand – there are also legislative and regulatory conditions determining the factors of sustainability in the general economic context and specific industry.
The stable nature of management stems from the essence of economic activity, which, generally, does not have a designated duration, although some entities manage to survive in the market for a longer period of time than others. Road transport is an industry which, in Polish conditions, is well-adjusted to the market; this means that competition, due to low entry barriers (Wojewódzka-Król, Załoga, 2016, p. 64), is high, causing a high rotation of market players. The problem of economic stability therefore seems to be of particular research interest. The very concept of stability seems to be relatively clear – it means constancy of existence and resistance to rapid change. In the economic context, it can be said that important features of a long-term existence of an entity are: continuity, stability, durability, and faultless. The meaning of durability is fairly obvious, but the ways of achieving it are not, as evidenced by the numerous instances of bankruptcy and establishing new companies.

In terms of the factors of sustainability of enterprises, it should be stated that a business entity cannot be expected to be successful in the long run if it is not efficient. Thus, the question arises of what combination of efficiency factors determines the durability of business entities. One thing is certain – in order to survive, a company has to master a few basic areas in the functional scope and in terms of describing those areas with relevant metrics.

One of these areas are undoubtedly the technological processes underlying the offered transport services. Transport companies must be able to efficiently and effectively implement transport processes and manage their rolling stocks. The second area is the ability to take the most beneficial position in the market, thus ensuring a stable, positive image in the eyes of current and potential service users. Finally, the third area is specific for the way in which the entity participates in the economic system and the resources it utilizes, i.e., it requires having human capital appropriate to the level of processes and to the quality requirements determined by the type of activity and the customer. All effort undertaken in the above areas have to take into account the fourth dimension, namely the profitability of the cost–benefit ratio, shaped by the value of capital and assets allocated to the achievement of goals, income, and expenses. Each road transport service provider must define short- and long-term sub-objectives determining its efficiency in these four areas. The relation between inputs and outputs that influences the durability of a transport company in the long-term is partially affected by:

- market efficiency: deciding on market actions and creating conditions for their efficient execution,
- operational efficiency: efficiently executing the transportation process (meeting the needs of service users in terms of quality and price),
- social efficiency: bearing in mind the interests of employees, managers, owners,
- economic and financial efficiency: maximising profit, i.e., maximising income with the given costs or minimising costs with the given revenue.

Together, all these partial dimensions determine the company’s sustainability, i.e., its functional status or its efficiency as a system, enabling it to realise its short- and medium-term objectives by optimising conditions for the development of its strategic objective, which is its ultimate configuration of sub-targets in given
economic conditions. This results in the company’s vitality perceived as its ability to survive (a kind of life force)\(^1\) and adjust to environmental changes without pressure from the outside, i.e., to sustainably explore and exploit its opportunities and compensate its weaknesses (Majecka, 2013, p. 128). The areas affecting the sustainability of business entities taking into account the measures of efficiency are presented in Figure 2.

![Diagram](image)

**Figure 2. The sustainability factors of business entities**  
Source: (own elaboration)

The general process of building sustainability is clearly determined by legislative, legal, and market conditions, which affect the business principles and operating conditions and thus become the basis for individualising the company’s market, social, operating, financial, and economic objectives. The degree of their achievement is referred to as the company’s efficiency, and the foundation of business durability is the realisation of its basic processes, described both by the effort necessary to implement them and their results – in other word, by the input and the output in terms of their productivity, efficiency, profitability, and earning capacity. These factors determine the aforementioned vitality of companies, i.e., their ability to adapt to the legislative, legal, and market conditions.

\(^1\) The concept of organization vitality can be understood more specifically (e.g.: The Strategic Planning Group) or more generally (Revitalizing the Organization, 2005; Vitalent, Bishwas, 2015).
2. Measures of efficiency in the process of building functional durability

Assuming both advisable and system perspective to assessing the efficiency of companies, it is crucial to identify its measures. This multidimensional approach views efficiency as the basic condition of functional sustainability – a category that reflects an appropriate relationship between the objectives, inputs, costs, and effects and can be analysed from a structural and dynamic perspective (Blaik, 2015, p. 26).

There is no doubt that for road transport businesses to be stable they require making deliberate effort to achieve and maintain high efficiency. Any purposeful activity is assessed in terms of its efficiency, i.e., in view of the relation between expected and actual outcomes (Blaik, 2015, pp. 28–29), the suitability of means for the ends, and the possibility of adjusting the goals to the capacity, taking into account the influence of different circumstances on the process of implementation (Komorowski, 2012, p. 214). The efficiency of the actions should therefore be analysed in the context of the conditions in which they are undertaken.

The efficiency of a company as a whole is determined by the efficiency of achieving its sub-targets at different functional levels. Each functional system includes regulators related to the objectives of production, sales, and ways and sources of financing (Letkiewicz et al., 2017, p. 141). It should also be noted that the efficiency of the strategic orientation is characterised by an assessment of the effects in relation to the achievement of the desired objectives, and brings long-term benefits in the competition game (Blaik, 2015, p. 31).

Although efficiency describes the level of implementation of a desired goal of an action, the optimal way leading to its achievement is described by the category of effectiveness. As a measure of efficiency, effectiveness refers to the utilisation of resources and the suitability of the chosen means of transformation or consumption of expenditure. The measures used (input) should be considered efficient if the relationship between them and the achieved results (output) is optimal (Blaik, 2015, p. 28). Effectiveness therefore focuses on the rationality of the relationship between expenditures, results, and the cost and revenue structure (Blaik, 2015, p. 31). As a relative category, the efficiency of a given choice can be assessed only in comparison with other possibilities.

Since both inputs and outputs can be expressed in both natural units or monetary units, the efficiency of transport processes can be measured in terms of productivity and profitability. Productivity reflects the results of operations, especially the efficiency of individual stocks. It is typically expressed by the ratio of the volume of goods produced and sold in a given period and the resources (materials, labour, capital, information) used (Gableta, 2003, p. 70). In practice, the expression of inputs and outputs in natural units requires identifying equivalent monetary units (mostly costs).

The monetary units can take the form of measures such as profitability or earning capacity. Although both measures are expressed by the ratio of profit

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2 More on the need for a multidimensional approach, see: (Bielski, 1996, pp. 104–112).
to expenditure, in the first instance the profit is expressed in absolute terms, while in the second – in relative terms (Bednarski et al., 2003, p. 59).

The multidimensional examination of the efficiency of road transport enterprises allows for a comprehensive analysis of its shaping factors, and their achieved levels of efficiency are the starting point for the analysis of the factors responsible for their functional durability.

3. Vitality as an aspect of functional durability

The main goal of the economic activities undertaken by road transport enterprises is to increase their efficiency in different, dichotomous contexts associated with their ongoing operations and durability in the long run. Durability is both an essential objective of any business and a condition for the achievement of its objectives related to efficiency. It is therefore the result of a financial success (long-term profit and management efficiency) and a guarantee that the company will be able to achieve its goals and, in the future, multiply the invested capital by providing an added value satisfactory to the owners.

Apart from the cases of deliberate efforts of the owners to close down a business, one of its inherent characteristics is its lasting existence, since the very definition of an economic activity in the form of an enterprise states that it is carried out in a stable manner. This stability is possible only when the entities possess certain features that allow them to adjust to the changing environment. The characteristics of business entities (incl. their organisational and legal form, type of ownership, size, industry) and the environment in which they operate create different combinations of circumstances that require slightly different configurations of features for the entity to survive. Moreover, in order to survive in the long term the company should adjust the scope and intensity of its life force (vitality) to the requirements of the environment.

The vitality of enterprises is therefore a kind of defence mechanism that allows them to act comprehensively – reactively in case of unforeseen turbulences, or proactively in case of imminent, predictable changes. This mechanism immunises them to crises and allows them to produce an automatic, but not schematic, response to the circumstances (Majecka, 2013, p. 139).

It is worth remembering that the vitality required to achieve long-term business goals changes over time and depends on the level of functional development of enterprises. The more complex the functional structure of a business, the higher the level of its vitality and, by the same token, its resistance to the environmental changes and production capabilities.

Conclusions

The identification of conditions of management efficiency and functional durability of road freight enterprises revealed that as a measure of management outcomes it has many long- and short-term dimensions; the former relate to the long-term objectives, including those resulting from social and economic conditions and ownership
relations. This creates a personalised perception of efficiency in relation to its market, economic, management, potential, processual, and synergistic nature. In the short term, the efficiency of economic entities should be seen in its substantial, economic, systemic, political, cultural, behavioural, and financial context. Regardless of the context, however, the measures of efficiency include effectiveness, capability, productivity, earning capacity, and profitability. When making each decision, companies take into account their internal and external environment, set and prioritise objectives, and select the direction of actions to enhance their adaptability to the changing environment, thereby increasing their vitality and, by the same token, their stability in the variable legislative, regulatory, and market conditions. The durability of an entity in this context is reduced to its survival capacity achieved through the ability to optimise the dimensions of its effectiveness.

References


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