

## ROAD TRANSPORT ORGANIZATION, INTEGRATED PART OF KNOWLEDGE-BASED ORGANIZATIONS

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### **Abstract**

*The scientific work outlines a practical investigation conducted by the authors to put into practice some concepts of a technical and managerial nature. Aspects relating to organizations in general and the road transport organization, in particular, are presented, and their components and features are systematically analyzed. In this way, those interested can learn about the current state of an organization's structure and its relationships with the environment. The concept of the knowledge-based organization and the learning organization are further discussed. The road transport organization is analyzed, where its main elements and characteristic features are presented. Finally, the conclusions in the addressed field are presented.*

### **Keywords**

*knowledge; organization; road transport; teaching; traits; services;*

### **Introduction**

The demand for mobility defines the transport activity with road vehicles. It covers multiple configurations in relation to its activity objective (passengers, raw materials, material goods or goods) through the machines, devices, and installations used in this case, but also the means of transport with which the journey or movement is carried out. It makes connections between organizations assimilated as production units and those assimilated as product sales units, sometimes even from door to door, ensures the needs of movement of people and goods, maintains and carries forward the traditions and customs of peoples, allows access to various destinations, supports entertainment and creates a more balanced space, is crucial for the economy and the social environment, raising the standard of living of the people in the areas where it

takes place, even if it sometimes has harmful effects on the environment and the population.

The knowledge of road transport organizations represents the most valuable asset, the strategic resource, and the training of human resources represents their ability to compete in the transport market.

Within the environment in which they operate, road transport organizations produce services to ensure the daily needs of the beneficiaries. Any organization, regardless of the type, structure, or field of activity, endures and works through chaining human fractions with the same ideas, opinions, visions, interests and causes, brought together according to previously established legislative requirements, to carry out systematic activities. By enhancing transportation operations, we advance economically and boost mobility, but finding the equilibrium between ecological, social, and economic factors is essential for road transport organizations' long-term and sustainable growth.

The sustainable development of professional organizations is the basic foundation of economic growth, which has as its basic objective the reduction of poverty and free entry to the goods and travelers market, the provision of services and safe and permanent jobs, and easy access to training and education.

### **The method used and results obtained**

#### Research objectives:

Studies and research on the organization analyzed as a system;  
Studies and research on the knowledge-based organization;  
Studies and research on the learning organization;  
Study and results on the elements that define the road transport organization;  
Study on results on the characteristics of the road transport organization.

#### Research hypotheses:

The organization is made up of a group of employees who work together to achieve common objectives to obtain specific products needed by one/some customers;  
Any organization, regardless of its profile, relies on the knowledge of its employees;  
The accumulation of knowledge in the organizational environment secures the future and creates added market value for any type of such organization;  
Employees in the logically defined structure of the road transport organization meet a multitude of objectives through reciprocal causal actions;  
The characteristics of road transport organizations derive from their fields of activity.

Research tools used: bibliographic research; consultation of websites of the European and Romanian public institutions, analysis, comparison, and exposure;

Respondents/studied corpus: the road transport organizations from Romania;

#### Arguments:

Road transport makes connections between organizations assimilated as production units and those assimilated as product sales units, sometimes even from door to door, ensures the needs of movement of people and goods, maintains and carries forward the traditions and customs of peoples, allows access to various destinations, supports

entertainment and creates a more balanced space, is crucial for the economy and the social environment, raising the standard of living of the people in the areas where it takes place, even if it sometimes has harmful effects on the environment and the population. The knowledge of road transport organizations represents the most valuable asset, the strategic resource, and the training of human resources represents their ability to become competitive in the transport market. The sustainable development of professional organizations is the basic foundation of economic development, which has as its basic objective the reduction of poverty and free entry to the goods and travelers market, the provision of services and safe and permanent jobs, and easy access to training and education.

The period during which the study was conducted: Any road transport organization from the current period.

How the data were collected: studies and bibliographical research on the documents elaborated by the European Union and Romania authorities.

Software programs used for data processing: Word and Adobe Photoshop.

### **The organization analyzed as a system**

The organization comprises a group of employees who work together to achieve common objectives to obtain specific products needed by one/some customers (Boroiu & Țițu, 2011, p. 1). Some authors present it as a polyvalent ensemble formed by a group of people with shared ideals and objectives, thus fulfilling the purpose of its creation (Oprean, Țițu, & Bucur, 2011). Other authors present it as a social system in which employees are engaged in cooperative actions, and through their interactions, they achieve the proposed objectives (Iacob & Cismaru, 2002, pp. 33-34). In the conception of the same authors, the organization represents that system that has self-organization and self-regulation properties based on its ability to deal with influencing factors that come from inside or outside it, having in this sense all the support of organizational communication and specific management (Iacob & Cismaru, 2002, pp. 33-34).

Figure 1 presents the model of an organization. Leavitt's rhombus defines the interrelationships between people—purposes, structures, and technology—taken as a defining part of an open, adaptive system whose internal processes constantly interact with the environment.



**Figure 1. The model of an organization. H. Leavitt's rhombus**  
(Source: Leavitt, 1972)

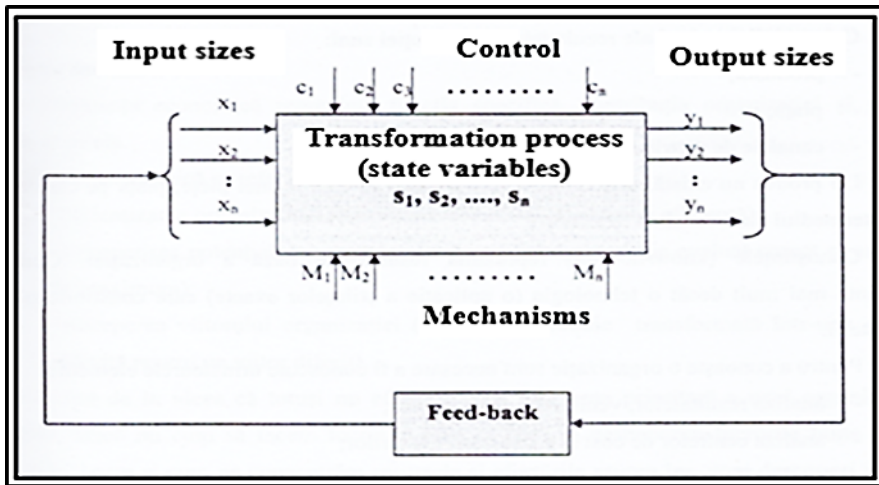
In this context, it is argued that the composition of the environment includes technology, the economy, the political, and the social as a determining part.

In our opinion, the organization represents a system that gathers several elements of probable character, with strong links between them, demonstrated by an association of structures constrained by disruptive elements or phenomena, which has the capabilities of good functioning in a framework that delimits its conduct. All organizations have a system characteristic determined by input quantities, state/situation quantities, and output quantities from the production process (Oprean & Țițu, 2008, p. 13). The input quantities are processed at the level of the organization. They are transformed into state quantities, according to the specific field of activity, based on the methodology and legislation that provides the foundation and defines the processes. The processing of input quantities within the organization is carried out according to the principle of know-how. Loosely translated, know-how would mean knowing how to do, knowing what and how to do.

In our view, the knowledge and skills generate organizational know-how and special abilities acquired and possessed by employees or the organization, which, when put into practice, create products, goods, or services. The constituent elements of know-how are attitudes, procedures, knowledge (of all kinds), skills, formulas, and techniques. Know-how is not easy to imitate. It was created and achieved through experience, trial, experimentation, and, of course, error. All these aspects led over time to the development of the employees' individual skills.

Internal know-how can determine the market success of any organization.

Figure 2 shows the generalized model of the organization system.



**Figure 2. The generalized model of the organization system**  
 (Source: Oprean & Țîțu, 2008, p. 13)

According to the authors, the input quantities represent the value that is added through its inclusion in the manufactured product (tangible or intangible) and explain the connection between these quantities according to the relationships (Oprean & Țîțu, 2008, p. 14):

$$y_i = f(x_i, s_i) \tag{1}$$

$$B = \varphi(x) \tag{2}$$

Where:

$y_i$  represents the outputs;  $x_i$  – inputs; and  $s_i$ – the states.

### The knowledge-based organization

It is a concept that appeared after 1984 and had several phases of evolution. Peter Drucker characterized the informational collectivity in which people matched in an irreversible form as "a community of understanding and, at the same time, a collectivity of organizations" (Drucker, 1992, pp. 95-104). Huber explains how the organization was designed to make the transition from an economy that produces and delivers goods or products to an economy that predominantly provides services, i.e., the post-industrial society. In this context, he presented 1984 his organizational model in the form of a new type of society, the one that is the heir of the industrial society" (Huber, 1984, pp. 928-951).

Other authors define the knowledge-based organization seen from the computer scientist's perspective as "a society of workers who carry out design activities, interconnected by means of networks" (Holsapple & Whinston, 1987, pp. 77-90). The existence of such a type of computerized organization is based on PC technology and artificial intelligence.

Peter Drucker presents some data regarding the knowledge-based organization that represents the organization model belonging to the 21<sup>st</sup> century and shows its main characteristics, thus, "the characteristic constituent of people with appropriate professional training, the small number of existing managers at transitional levels, the guarantee of coordination through non-authoritative methods (standards, regulations, collaboration regulations, etc.) are" (Drucker, 1988, p. 33).

After that, many conceptions of this term appeared, which generated major interpretations such as: "organization focused on mindfulness" (Le Moigne, 1990, p. 94), or Nurmi who shows that "the organization is an intellectual-intensive firm" (Nurmi, 1998, pp. 29-32), and Hendriks calls it "an intelligent organization" (Hendriks, 1999, pp. 199-213). Another author shows that certain types of organizations "have developed in the sense of a development of their level of creation based on perception, also understood as a tendency of gradual civilization" (Palmer, 1998, p. 294). He presents the evolution of models on certain configurations, which was inspired by the prototype of organizations based on authority and control. Then, the last decade of the 20<sup>th</sup> century is notable for achieving a convergence between technology and management through the union between the needs of the organization and the facilitation of those solutions through which IT assistance is achieved (Scott, 1998, p. 3).

It was only after 1995 that the first convincing results on the establishment, operation, and development of knowledge-based organizations appeared. For example, the authors Filip and Dragomirescu showed that on the position of an inflexible pyramidal configuration of manners that can be predicted, active everywhere until that date, a multitude of configurations of structures without hierarchies emerge, in the form of networks; the behaviors characteristic of artists who interpret specific roles in their structure, have an entrepreneurial form and accumulate all the patterns of professionalism of the ideal manager, even when their hierarchy can be reversed (Filip & Dragomirescu, 2001, p. 7). In the authors' view, this type of organization has a convergent structure with an anthropocentric orientation based on information systems.

Organizations of this kind had the support of dimensional recalculations that significantly improved their hierarchical configuration, even if they were part of the period of manufacturing imperialism.

### **The learning organization**

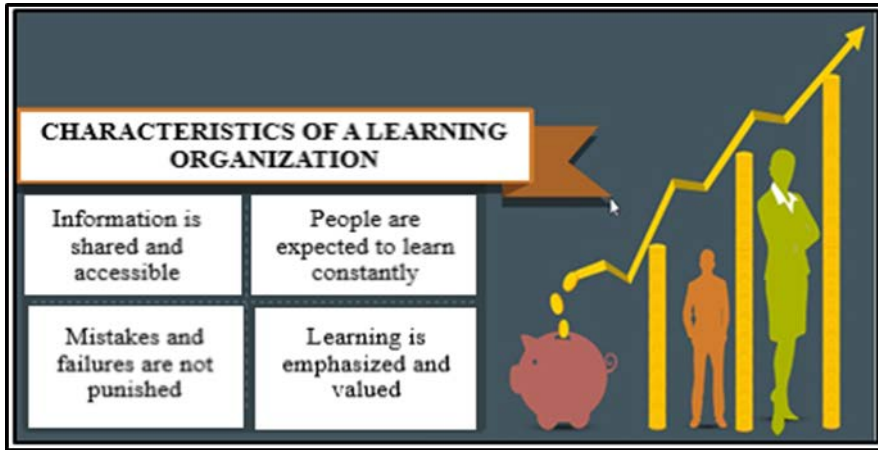
It is a concept that appeared after 1990, and managerial specialists of that time claimed that the accumulation of knowledge in the organizational environment would not be of the future and would ensure the termination of the market operation of any type of such organization. However, the opposite was proven over time because it turned out to be the most successful way of driving on the world map.

The learning organization comprises personnel engaged in the unfolding productive process who transmit and produce new information daily. To challenge employees to create new information and new ideas, the following should be considered:

- employees will not share any information if they do not have the trust of those around them;

- many of them won't reveal the information if they aren't requested to or if they aren't prompted to do so;
- learning is not exclusively related to the organization the employees are part of.

Figure 3 shows the characteristics of learning organizations.



**Figure 3. Characteristics of a learning organization**  
 (Source: RoCoach, 2022)

It is a habit, a tradition, a way of living, which is stimulated and formed only by recapitulation, by repetition (as in the Latin proverb *Repetitio mater studiorum*, translated as "Repetition is the mother of learning").

Figure 4 shows the main activities of a learning organization.



**Figure 4. The main activities of an organization that adopts the principle of learning**  
 (Source: RoCoach, 2022)

Organizations that operate according to the principle of learning easily adapt to the systematic resolution of ambiguities or problems faced by employees in the production process, quickly experiment with new ideas, can learn from previous experience or other organizations, from mistakes made or through the transfer of information from the external environment (Academy, 2022). Some authors appreciate that people employed in management functions with learning orientations are true creators of the environment, supporting and enlivening learning and exchanging knowledge among employees (Oprean, Țițu, & Bucur, 2011). Peter Senge, considered the father of this type of organization since 1990, shows that the value of a learning organization and its competitive advantages come from individual, continuous, and collective learning throughout life (Senge, 2012). The same author also shows that employees should learn not from PowerPoint presentations but from real life.

After 1990, the problem of learning organizations was also addressed by other authors. Thus, in 1991, Peter Keen defined it as a "network organization (of relationship)"; J. B. Quinn defined it as an "intelligent organization" (1992); R. D. Hames defined it as an "appreciation organization" (1994); M. Shultz et al. (2000) described it as "the democratic organization, the expressive organization." Alvin Toffler characterizes the organizations of the future as adhocracies, that is, "those organizations that are fed information by highly skilled employees." In this sense, the author proposes the concept of "organizational man, associative man," meaning "that man who creates and is defined by mobility" (Toffler, 1990). A pragmatic approach to learning organizations was presented in 2004 by Oscar Hoffman in his far-reaching work *Sociology of Organizations*.

Table 1 presents some aspects that distinguish between the old and the new paradigm of learning organizations given by the author.

**Table 1. Differences between the old and the new paradigm in learning organizations**

(Source: Hoffman, 2004, p. 293)

<b>Archaic Skill</b>	<b>Current Skill</b>
Organizational Science	Organizational Learning
Defective domain	Domain endowed with virtues
Inflexible organizations	Flexible organizations
Management by delegating decision-making power	Management by manager
False information	Open information
Hierarchy/status	Markets
Strategic organizations drive the evolution of tangible assets	Core capabilities drive the evolution of tangible assets
Strategic learning takes place at the top of the organizational hierarchy	Strategic learning capabilities are distributed throughout the organization
The assumption that you do not have support from the majority of the organization's members	The assumption that you have the support from the majority of the organization's members
Most employees do not have	Most employees are authorized



<b>Archaic Skill</b>	<b>Current Skill</b>
freedom of action	
Knowledge of the actions of most employees of an enterprise must be supervised by managers.	Knowledge of the actions of most employees of an enterprise is the basic condition of success based on creation.

The specialized literature shows that the activities of learning organizations are based on five learning disciplines, as follows (Senge, 1994, p. 3):

- personal mastery - consists of expanding personal capacity to achieve the expected results, developing an advantageous organizational environment for all employees who will successfully complete the activities carried out;
- mental models – consists of continuously solving and optimizing our own images of the world that surrounds us, thoughtfully establishing how our decisions and actions are formed;
- common vision – consists of developing group commitment, creating images that convey what we want to achieve in the future, practices and principles that guide us towards the future;
- systemic thinking – consists of how we think and speak to understand and describe the energies and reciprocity that shape systemic behavior;
- team learning - consists of changing the capacities of information and collective thinking, in such a way that the collective of employees confidently develops their knowledge, skills, and abilities, the whole exceeding the simple sum of the knowledge and individual talent of each collective member.

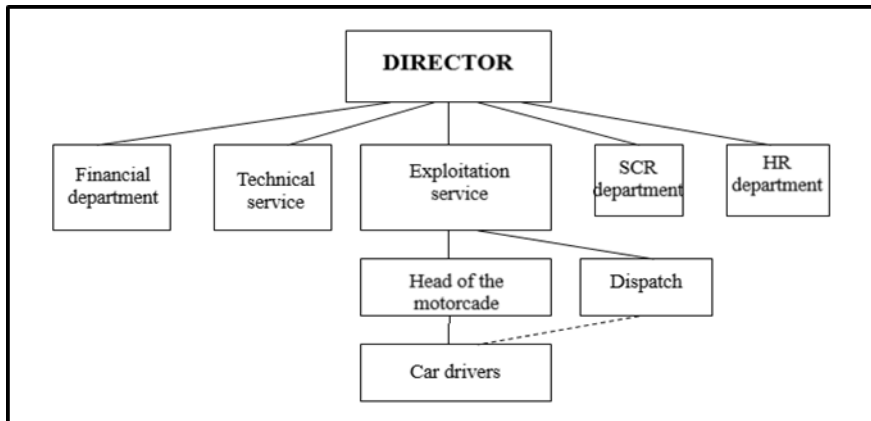
In learning organizations, education is the engine of change, and the organization's employees hold both the fuel that fuels the engine and the button that initiates the spark that ignites the fuel in its cylinders (Țițu, Oprean, Țițu, Pop, & Nguyen, 2021). We believe that the way the organization learns is strongly influenced by the tools used in managerial activity at all levels.

Organizational learning, knowledge management, and the measurement of intellectual capital are concepts that relate to and are in perfect complementarity. This element can be supported by the argument that organizational learning is the foundation of knowledge management, which in turn is the source of the creation of intellectual capital in the knowledge-based economy.

### **The elements that define the road transport organization**

Considering the analysis carried out on the concepts of organization, management, and economy, which has as its foundation the knowledge, the essential elements that characterize the road transport organization are:

- The road transport organization has a logical structural form, with an institutional (official) character of the parts from which it is formed. All transport organizations have in their composition a specific managerial structure, logistics departments, movement office, etc., through which proper functioning is ensured (Figure 5);



**Figure 5. The principle of operation of a road transport organization**  
(Source: Source: Authors' own contribution)

- The road transport organization comprises a group of people who possess the knowledge, skills, and expertise necessary to carry out transport activities to achieve the objectives set by the organization's management. This category includes managers at different levels, drivers, their companions, maintenance personnel, dispatchers, administrative, financial, accounting personnel, etc;
- The road transport organization has many clearly formulated (defined) objectives, which are considered common to the members of the road transport organizations. In the present case, the purpose(s) for which the organization was created is to satisfy the needs of the mobility of goods or passengers;
- The fraction of employees within the road transport organization manifests itself through a form of mutual causal action to achieve its common goal. In the transport activity, there are collaborative relationships between individuals, loading-unloading flows of goods/passengers, but also interactions in which individuals depend on each other through the abilities, skills and knowledge possessed by each of them.

### Features of the road transport organization

Road transport organizations are polyvalent configurations characterized by the following features:

- a. The road transport organization is a technical unit for the sale of specific services to beneficiaries, natural or legal persons:
  - provides transport services for goods and passengers;
  - it produces a value that is then added to the organization's technical, economic and financial base. Road transport does not generate goods but services, the costs of which are added to the price of the transported goods;
  - combines transport factors to obtain benefits and constantly renews the combinations of these factors;

- has the infrastructure and logistics necessary for operation (sections, workshops, garages, technical maintenance stations, means of transport, machinery, installations, etc.);
  - has the required human resources to carry out road transport activities, who have the specific training, skills, and expertise (vehicle drivers, dispatchers, maintenance staff, administrative staff, etc.);
  - has its own technical and economic documentation system (schemes, sketches, procedures, situations, plans, etc.).
- b. The road transport organization is a unit with an administrative-economic structure:
- has a unitary management team with specific training in the field of road transport (management of the organization);
  - has a headquarters and a well-established territory in the form of car columns or car depots;
  - operates based on well-defined legislation;
  - has relationships and interacts with customers, suppliers, and beneficiaries of goods and services, with other organizations of the same or different profile;
- c. The road transport organization is a unit with an economic structure:
- has a well-defined development program and strategy;
  - has its quantitative-value accounting records;
  - it has economic efficiency and promotes its growth;
  - efficiently and rationally access resources of any kind to obtain high economic-financial results;
  - makes financial payments to the budget of the state in whose territory it operates and is registered as a commercial company;
  - maintains economic-financial relations with other organizations, the state, and its own employed staff.
- d. The road transport organization is a unit with a social structure. In this capacity, he reports to and obeys the specific rules of the social group he belongs to, as follows:
- the group is constituted and organized to achieve well-defined specific objectives;
  - the group consists of people very well trained to carry out activities in the field of road transport through knowledge and experience;
  - the group is framed according to a well-defined organizational chart (individual hierarchy, state of functions);
  - the group is heterogeneous, being divided into subgroups.
- e. The road transport organization is characterized by a management that makes decisions. The organization's managers must make decisions specific to the activities carried out in accordance with the legislation of the field.
- f. The road transport organization works and produces specific services as a whole:
- possesses structured elements: unitary management and variables comprising inputs and outputs;
  - has established objectives based on which it organizes itself, makes systematic adjustments, and operates;
  - all its elements relate to each other, ensuring the unity of the entire system.

## Conclusions

Changes in the structure of any organization occur within the system in which they are located and produce specific services relating directly to the environment in which they exist. The tacit knowledge (know-how) in the structure of road transport organizations is the most difficult to achieve. It can only be measured and leveraged when any employee of that organization can make a decision and then review and critique the results.

The ability of individuals to act in a particular manner depending on the circumstances surrounding their activity, provided that all decisions taken are considered, serves as a representation of the decision. Generally speaking, persons who must interpret the facts or knowledge possessed into teachings and decisions aimed at achievement must have a great deal of intelligence and experience in the relevant subject.

The results achieved by any continuously learning organization have benefits across multiple departments, divisions, or departments. They create a healthy attitude of continuous personal development, develop the efficiency and retention rate of employees due to the satisfaction and loyalty they feel; develops the leadership potential of core employees; improve the skills of managers at all levels; ensures the support of a culture of its own based on adaptive learning and the effort to disseminate knowledge. Without the knowledge of employees, any profile organization has no value. The organization may have top endowments in terms of technology. However, without the knowledge of the employees, it cannot progress, although sometimes the technology held at a given time is so advanced that it carries out activities and completes processes or contributes to the provision of high-quality services quality without the need for human coordination or intervention.

After the Revolution of 1989, most organizations in Romania stood out through structural changes. Their classification was based on the employees' knowledge and accumulated at work.

Anticipation must be the defining element in the work of any road transport organization. In this sense, managers must know the profile and typology of the client to provide them with specific quality services. To become competitive in the road transport market, they must have the ability to adapt the production process quickly to satisfy the demands of customers at the highest quality standards. Consequently, they will constantly look for solutions to stimulate the internal innovation flow, which is highly dependent on that intangible capital represented by employees' knowledge, skills, and experience.

The economies of highly developed countries were based on the high share of intangible capital, which consists of knowledge held by people, in the price or value of any business developed by any organization. The value of products or services has always been based on the knowledge of employees. The argument is the increase in the value of intangible capital for some organizations, which have shown themselves exemplary on the stock market. Because they offer transportation services using road vehicles, road transport businesses set themselves apart from other types of enterprises. As a result, their accomplishments are measured in terms of abstract units even though they really house productive processes involving the movement of people

or things. Road transportation organizations, communication networks, and transportation systems are now essential to daily life.

The social division of labor was emphasized through the growth of the production forces, and the movement of people and goods led to the rapid development of this type of organization to the point where they now stand alone as a separate entity. Element from the past or present can be used as an example to develop an efficient and successful knowledge management system at the level of any road transport enterprise. Although the relationship between the human component and the technological aspect cannot be broken, there is information from the past that, when used appropriately, can alleviate the present and foresee the future.

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