

Analysis of the Organisation of Railway Freight Undertaking: A Case Study of HŽ Cargo Ltd.

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Abstract. Organisation is a significant segment of every enterprise, and so is the case with companies providing railway freight transport services. The success of a company depends on the organisational structure that makes it much easier to conduct business owing to the clearly defined hierarchy and responsibilities that lead to the ultimate goal – freight transport. This paper defines and describes railway freight transport, as well as the impact of freight transport market liberalisation on the sole organisation of a company. Moreover, various organisational schemes are analysed along with their potential benefits for the railway transport. The organisation of HŽ Cargo Ltd. is shown together with an outline of business activities of certain organisational units of the company.

1 Introduction

Organisation is a willing association of persons whose goal is to use appropriate means to complete certain tasks with the slightest strain possible, in any aspect of the social life [1]. The foundation for successful enterprise lies in effective organisation. A carefully selected and conducted organisation ensures an expedite and thorough fulfillment of goals with minimal expenses. Organisation places important emphasis on human resources – the cadre – as they ensure a successful business. The modern age, in which technology and techniques advance on a daily basis, has in a way forced parties engaged in the railway transport to change and adapt the organisational structure in order for the production process to continue without problems and progress with time. Freight operators need to rise to the various challenges of providing a high quality of service at low cost. The European Union has recently been working to liberalise the market in order to simplify the transport process [2]. Opening the market requires elaborate preparation of the undertakings, and it very often demands a complete restructuring of the enterprise. The future of business strategy, success on the market, and long-term growth all depend on the adaptation of an enterprise to the new changes [3].

2 Organising freight railway transport

An efficient organisation can anticipate issues and their resolution thus ensuring stability of the system, which in turn enables potential progress in terms of abilities, knowledge, and competencies. The organisation has certain elements that determine its quality, such as [4]:

- Established goals: e.g. higher profit, greater capacity for transport, higher productivity,
- Content: the structure of labour, transport, and cost structure,
- Responsible personnel: executives, employees (cadre), means,
- Methodology: the manner in which activities are conducted, and
- Monitoring mechanisms: indicators and collection of feedback.

A transport service is a non-material output and cannot be stored, which asserts the need for the service production and consumption processes to take place simultaneously. The place where that occurs is the market, which is specific due to the creation of freight transport service. The whole point of the organisation of railway transport is ultimately to offer a high quality transport service for its users, which depends on the connectivity between the components of the rail process. The basic components include techniques and technology. [5-6]

The organisational structure is a totality of relations and relationships between all the factors of production and business, as well as those within each individual factor. The organisational structure plays a very important role in the organisation of an enterprise, which ultimately impacts the success of a business.

Types of organisational structures of an enterprise include internal division of labour and forming organisational units on all hierarchical levels of the company. The lower ones are usually called departments, sectors, divisions, or offices. Each structure is distinct from another because of the different ways of merging similar business activities, and in line with that so is each division of labour. Merging business activities

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is carried out based on the appropriate functions in the enterprise. Wider and narrower organisational units are able to adapt the organisation more quickly and easily to the changes that occur.

Jermakowicz [7], [8] classified organisational structures based on the degree of functionality and the general degree of decentralisation, as follows:

- a) Line structure:
 - 1) Simple line,
 - 2) Line-and-staff,
 - 3) Line with a centralized position,
- b) Functional structure:
 - 1) Functional,
 - 2) Matrix, and
 - 3) Project structure
- c) Organic structure
 - 1) Hybrid,
 - 2) Collegial, and
 - 3) Amorphous.

3 Railway freight transport market

Liberalisation signifies introducing the 'new' and 'different' legal norms that, in turn, do away with the previous restrictions and bans in various domains of human activity [9]. The chief purpose of the directives and regulations of the EU is to liberalise the transport market for both the cargo and passengers. These regulations also apply to the Republic of Croatia as a full member of the EU, so the first step in the harmonisation of the Croatian legislation with that of the EU was bringing in the Railway Act of 2006, which initiated the adoption of the First railway package of EU directives, the foundation for further harmonisation, creating institutional framework for the railway, that is, reconstructing the railway system in Croatia. The country regularly carries out these harmonisations with the *acquis* of the EU, and there is a new law currently being drafted which would harmonise legislature with the Fourth railway package.

The liberalisation of the transport market is ultimately what ensures growth and development of transport companies, which depend solely on competitiveness, which implies a reduction of manipulative costs, i.e. rationalizing between creating transport service and increasing safety and commercial speed for freight and passenger transport.

The positive effects of service liberalisation in railway traffic [5] should result in a greater:

- Modal split in favour of railway traffic,
- Number of operators – carriers,
- Number of services for a lower price, and
- Financially sustainable system.

4 A case study of HŽ Cargo d.o.o.

HŽ Cargo d.o.o. is a limited liability company that provides services in domestic and international railway and intermodal freight transport, as well as other activities related to the transport process, such as:

- Loading and unloading freight in railway stations and other locations,
- Accompanying transport activities,
- Public freight transport in domestic and international road transport,
- Storage services,
- Letting property,
- Letting other means of land transport,
- Procuring and distributing goods,
- Brokering on the domestic and international market,
- Shipping,
- Wagon maintenance,
- Wagon cleaning and washing,
- Representing various foreign companies,
- Maneuvering and marshalling,
- Rail security (accompanying freight trains for other companies), and
- Overhaul and maintenance of rail vehicles (minor repairs of wagons for other railway undertakings, as well as the future undertakings in the Republic of Croatia) [10, 11].

HŽ Cargo d.o.o. is a hundred-percent owner of its daughter or subsidiary companies, which include AGIT d.o.o., a limited liability company for intermodal transport, Održavanje vagona d.o.o. (Wagon maintenance Ltd.), Radionica željezničkih vozila Čakovec d.o.o. (Railway vehicle workshop Čakovec Ltd.), and Remont i proizvodnja željezničkih vozila Slavonski Brod d.o.o. (Overhaul and manufacturing of railway vehicles Slavonski Brod Ltd.). In addition, under HŽ Cargo's shared ownership are Robno-transportni centar Brod d.o.o. (Goods Transport Centre Brod Ltd.), 51 per cent, CROKOMBI d.o.o. 47.09 %, and Cargo centre Zagreb, 20 %.[12]

HŽ Cargo d.o.o. has a staff of 1.608, 168 of whom are in managing positions, with 1422 employees based in various regions [13].

The organisational structure of the company is based on [14] the Railway Act, Railway Safety and Interoperability Act, Companies Act, and Articles of Associations. The organisation of units, their tasks, obligations, authorities, and hierarchy are regulated by Ordinance of the Organisation of HŽ Cargo d.o.o. The organisational structure comprises several organisational units:

- Office of the Management Board,
- IT service,
- RCS customer support centre (IS Cargo),
- Office for Management of Safety, Workplace Safety, Fire Safety and Environmental Protection,
- Office for Controlling and Risk Management,
- Centre for Training of Train Drivers,
- Business departments: Sales, Technology, Finance, HR, Legal affairs, General and commercial affairs,
- Regional areas: West, South, East, Centre, and
- Regional centre, Sub-regional Technical Inspection, Sub-regional Traction.

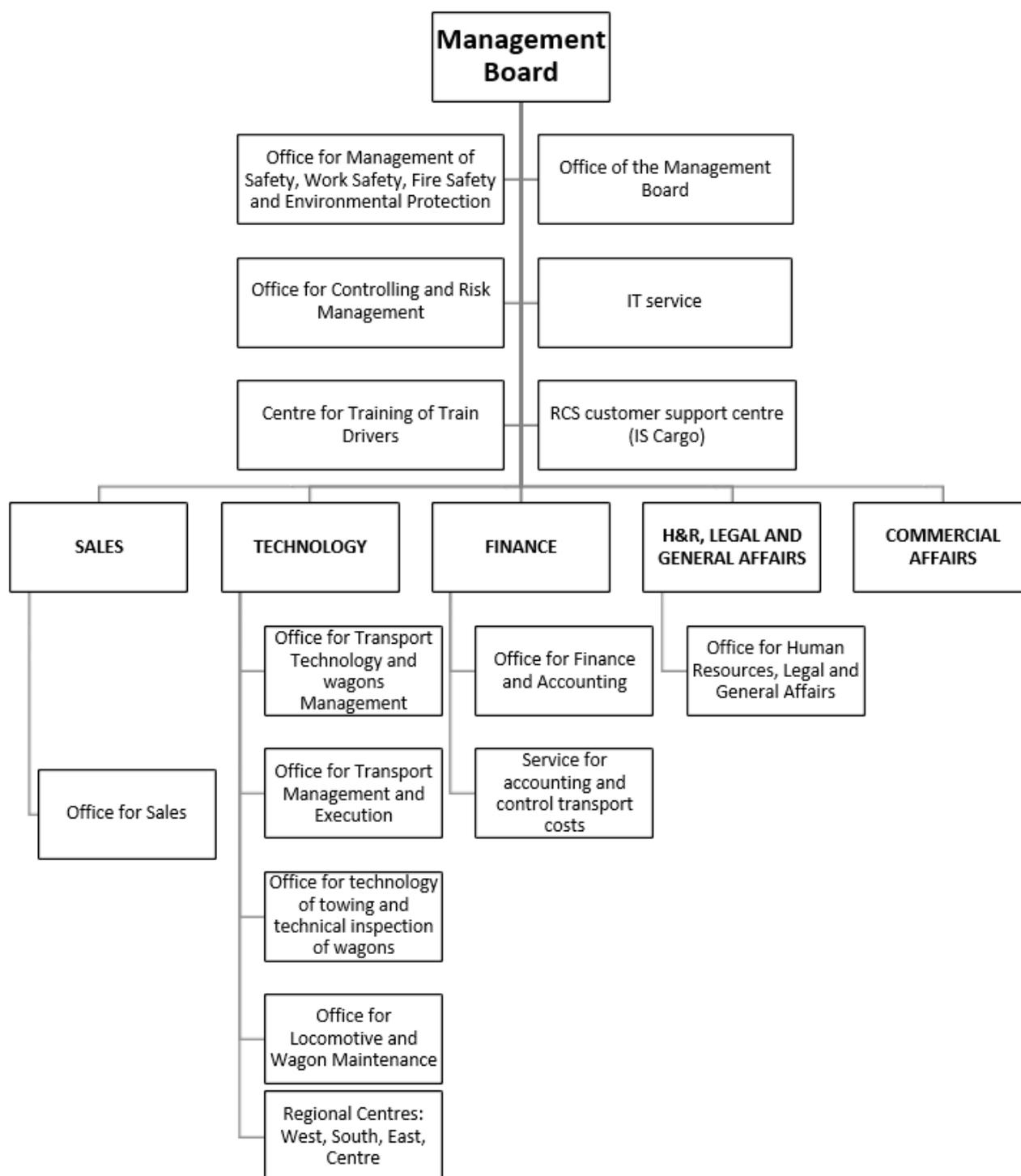


Fig. 1. HŽ Cargo d.o.o organisational structure [11]

The following sections will analyse in detail the following business departments: (1) Sales, (2) Technology, (3) Finance, (4) Human Resources, (5) Legal and General Affairs, and (5) Commercial Affairs.

4.1 Business sector – Sales

Sales department is concerned with activities related to the selling of railway freight transport services on both the domestic and international market, as well as providing intermodal transport services, which is the aim and purpose of every railway undertaking. Sales activities, cost accounting, and billing are done by the Office for Sales and directly in the regional centres of HŽ Cargo d.o.o.

Office for Sales deals with providing railway transport services on the domestic market, transit directions, and intermodal transport at import/export ports, land import/export directions, drafting agreements and user tariffs, processing complaints, providing instructions for service accounting, and monitoring the quantity of transport service. Furthermore, the Office is in charge of the following:[15]

- Laying down the criteria for compiling a list of transport service users,
- Monitoring the execution of transport according to user tariffs for all transport service users,
- Managing service quality and communication with transport service users at the time of accounting and billing,
- Resolving complaints,
- Issuing invoices to transport service users and approving refunds, and
- Balancing accounts for HŽ Cargo d.o.o.

4.2 Business sector – Technology

The technology sector performs a wide array of activities at the Office for Transport Technology and Wagon Management, Office for Transport Management and Execution, Office for Traction Technology and Wagon Inspection, Office for Locomotive and Wagon Maintenance, and at regional centres of the company. [9]

Its business activities include:

- Transport management,
- Work organisation for the HŽ Cargo d.o.o. centres,
- Drafting and interpreting regulations, tariffs, cargo wagon management, monitoring transport and operations,
- Drafting modernisation projects for existing traction vehicles and procuring new ones,
- Preparing working plan period for locomotives and train staff,
- Preparing the work schedule for train staff and locomotives based on the working plan period,
- Maintaining freight wagons and locomotives,
- Planning and monitoring the expenses of wagons maintenance, technical inspection of wagons, operations and technologies of vehicle inspection,
- Planning and monitoring expenses of locomotive technical inspections.

4.3 Business sector – Finance

Finance is an integral part of any business process. Its importance arises from its activity, which is to merge the functions of procuring and utilising capital. The business related to finance takes place at the Office for Financial Operations and Accounting, Office for Accounting and Control of Transport Expenses, and partly also in the regional centres.

The Office of Financial Operations and Accounting is concerned with:

- Billing,
- Paying accounts receivable,
- Controlling accounts receivable and accounts payable,
- Managing local and foreign currency register business activities,
- Liquidating and controlling interests,
- Drafting and controlling a list of short-term and long-term non-monetary assets, and
- Coordinating business with other related companies.

Activities that are conducted at the Office for Accounting and Control of Transport Costs include: [8]

- Evaluating the validity of accounts and accounting documents in receipt and dispatch register,
- Assessing incurred transport costs,
- Entering data from the transport documents into the IT system,
- Compiling reports for invoicing, international accounting, and controlling the accounting from other railway management boards,
- Controlling the train station cash registers, accounting franking and other deposits, controlling accounts payable charged and uncharged in cash, and
- Controlling demurrage and detention in the receipt and dispatch register as well as other charges arising from the transport agreement.

4.4 Business area - Human resources, Legal and General Affairs

Human resources represent the labour force which means it is one of the most vital resources of an enterprise. Employees are essential to every organisation, even more so because their value increases with growth, training, and professional development.

This department's business activities include:

- Introducing acts and articles for the entire Company,
- Offering expert opinions,
- Representing HŽ Cargo d.o.o. In courts and other state bodies,
- Establishing and advocating business policies for human resources management,
- Activities related to European Public Law, methodology and conducting them according to business targets of the company,
- Supporting other organisational units by adopting and complying with regulations, labour and employment relations and legal affairs,

- Permanent shaping and organising of professional training based on the obligatory and other programmes,
- Activities related to social labour, and
- Preparing and payroll accounting.

The aforementioned activities take place within (1) Office for Human Resources, (2) Legal Affairs, and (3) General Affairs.

4.5 Business area - Commercial Affairs

Commercial affairs include conceiving developmental projects, preparing and controlling investments, proposing improvements and rationalisations in business, monitoring the situation of properties of HŽ Cargo d.o.o., investing in them or letting. Purchasing merchandise, works, and services is realised pursuant to Procurement plan, complying thereby with enforced laws related to public procurement. Storage business of HŽ Cargo d.o.o. is conducted in the central storage facilities and accompanying locations in Zagreb.

Business activities carried out by Commercial Affairs are as follows:

- Development, investment, and management of properties owned by HŽ Cargo d.o.o.
- Preparation and implementation of the procurement of merchandise, works, and services, and
- Receipt, storage, and dispatch of goods from the storages.

5 Conclusions

The success of an enterprise comes from a well-organised organisational structure. When opting for the right structure, caution needs to be exercised and the condition in which the company conducts business need to be taken into consideration. The option depends on the company size, number of employees, type of business activity and a variety of factors relevant to business. Therefore, every company must have a unique organisational structure. It is the structure that defines the operation of all employees that are a part of creating the finished product, in this case, transport service. The analysis of the company is what provides insight into the importance of recognising factors that affect the shaping of the company, because, in that way, it is simple to (re)shape the organisational structure.

HŽ Cargo d.o.o. is a company with more than 1.600 employees. Because of its business activities – providing transport services – it is essential that the organisation and division of labour are clearly defined in order to prevent undesirable occurrences. The company is organised based on the principle of line structure, which means that the management board has the upper hand. As mentioned earlier, organisation of the rail freight undertaking is not feasible by utilising functional and organic structures, only line structures. The reason for that lies in the fact that railway transport demands a high level of safety and punctuality, which means there is no room for error since every mistake can cause material or

financial loss. Line structures are quite efficient for freight undertakings as they have a clear hierarchy of responsibilities that precisely determine the responsibility of each employee.

The organisation greatly influences the quality of business, and in order to improve it, and thereby the productivity of the company, the enterprise needs restructuring. This enables a different approach of the company to the railway services market, which ultimately very often leads to an increase in quality and the scope of provided services. The issue that is often raised during restructuring is the loss of jobs, one of the greatest challenges. Since the Croatian railway market has been liberalised and now there are several foreign undertakings, restructuring would enable HŽ Cargo d.o.o. to achieve a better position on the liberalised market. Its competitiveness on the market HŽ Cargo d.o.o. should definitely base on an organisation which ensures a quick and efficient process of providing transport services to the satisfaction of end-users.

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