EFFECTIVE HUMAN RESOURCE MANAGEMENT IN LOGISTICS AND TRANSPORT COMPANIES

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Abstract

Human resource management is a key element for the success of logistics and transport companies. In the modern paradigm of human resource management, employees are at the centre of focus and represent the most valuable resource of the company. In this regard, contemporary approaches to human resource management redefine management practices by emphasising the attraction of qualified employees, their retention, and the effective management of their development. As one of the fundamental functions of management, it cannot operate in isolation but must be aligned with the overall corporate strategy and business objectives. Considering this, recruitment, selection, and employee development are of utmost importance as they ensure a qualified workforce capable of successfully contributing to the achievement of the company's business goals. This paper analyses the characteristics of human resource management in the logistics and transport sector, where digital transformation introduces new challenges but also creates opportunities for optimising work processes and enhancing organisational efficiency. A particular focus is placed on contemporary strategies and challenges in human resource management. Based on an analysis of industry practices, recommendations are presented for improving strategic human resource management in the context of a dynamic labour market and technological advancements.

Keywords: *management, human resources, logistics and transport companies, employees, digitization*
JEL classification: J24, L91 i M54

INTRODUCTION

In a globalized business environment, Human Resource Management (HRM) is crucial for the success of logistics and transport companies. Given the growth of globalization and competition, companies must be flexible and adaptable. In other words, they must adjust to changing market conditions and customer satisfaction. In this regard, human resources within a company become key to competitiveness. Accordingly, it is necessary to focus efforts and improve HRM (Shtuler et al., 2021). Companies that aim to be leading and competitive in today's market must actively plan how and where they will deliver their products and services. In other words, companies cannot wait for customers to come to them; instead, they must find ways, i.e., distribution strategies, that enable them to reach the widest possible customer base. Consequently, the goal is to reach a wider range of customers, not only in the domestic market but also internationally (global operations and exports).

When it comes to HRM within logistics, the authors (Shtuler et al., 2021), suggest that companies can apply one of four functional strategies – an adaptive strategy (e.g., flexible workers), an innovative strategy (creativity, new ideas), a selective strategy (hiring top talent with specific skills), and an exclusive strategy. Based on this, modern logistics companies must strategically plan their expansion and HRM, and the choice of strategy must be aligned with the company's policies (distribution, market positioning, etc.).

The Covid-19 pandemic has shown that companies faced serious crises and were consequently forced to transform their business in a very short period, which particularly affected human resources. In this sense, it became evident how important it is to be prepared for crisis situations and to apply adaptive strategies. Employees are key to maintaining the functionality of logistics, especially in crisis situations (e.g., pandemics, natural disasters, supply chain disruptions, etc.). Effective (adaptive) strategies increase system resilience, specifically through flexible workforces (e.g., job rotation), continuous training, and employee development programs, etc. (Esan et al., 2024; Popo -Olaniyan et al., 2022).

According to the study by (Esan et al., 2024), it is clear that workforce agility, technological integration in HRM, leadership development, and the creation of a resilient organizational culture are essential components of effective strategies within the HRM concept. The study highlighted the importance of investing in human resource development, adopting technology-supported practices, and promoting a sustainable and ethical HRM framework to enhance supply chain resilience.

In addition to this research, the authors (Gu et al., 2023), emphasize that supply chain resilience is an increasingly important topic for both practitioners and researchers, as it represents a competitive advantage for companies facing disruptions in the supply chain. The study explored the impact of high-involvement HRM practices on supply chain resilience based on the AMO model (Ability – Motivation – Opportunity).

In simple terms, if a company invests in employee education and skill-building (Ability), motivates them through reward systems (Motivation), and includes them in problem-solving and opportunities for contribution (Opportunity), employees are more likely to be prepared, capable, and willing to respond effectively during supply chain disruptions. The results of the study showed that employee involvement has the strongest impact on enhancing resilience compared to other factors – "suppliers, customers, and internal resilience." The theoretical AMO framework (Harrell-Cook et al., 2001) explains how HRM practices influence employee performance and, consequently, the overall business success of the company.

Today, logistics and transport companies face numerous challenges, such as high employee turnover (frequent job changes due to better conditions, job seasonality, insecurity, etc.), shortage of qualified labor (difficulty in finding experienced, skilled personnel, e.g., warehouse workers, drivers, dispatchers), pressure to increase delivery speed and accuracy (next-day delivery, same-day delivery), compliance with environmental requirements, the need for digital transformation, new skills, and maintaining high levels of customer satisfaction (and experience), low employee motivation (lack of support, demanding working conditions, etc.), insufficient investment in training and development, etc.

In this context, a holistic and strategic approach is essential. First and foremost, it is necessary to attract qualified employees, then invest in training and development (trainings, workshops, certification, development of digital skills), and design a motivational and reward system (both material and non-material) (e.g., transparent rewards, bonuses for efficiency and team success, flexible working hours, etc.) that will retain those employees – and at the same time attract new personnel, bringing fresh energy into the organization.

1. THE FUNCTIONAL HIERARCHY OF HUMAN RESOURCE MANAGEMENT IN LOGISTICS

In addition to the rapid advancement of technology, modern companies today cannot function effectively without their main resource – people. Human resources represent the living fabric of a business organization, and according to the new paradigm, the focus is placed on them as the company's main capital. Human resource management (HRM) in a modern environment has a number of attributes and specific characteristics. First and foremost, HRM represents the most productive part of contemporary management. Furthermore, HRM is of a social nature – it is not an isolated process, but rather one that recognizes the broader social context. People who enter the company come from society, operate within it, and influence it in return. In this sense, the new HRM paradigm views employees not merely as resources, but as social beings. Social beings whose behavior, relationships, and value systems influence the organizational culture. People within a company are also carriers of knowledge, innovation, and skills, which make up the company's intellectual capital. Investing in people is essential for the long-term stability of the company. HRM is also one of the core managerial functions – the function of managing people. Without effective HRM, other managerial functions lose their overall efficiency and impact. (Gutić et al., 2018).

HRM in logistics and transport companies is implemented across three functional levels – strategic, tactical, and operational. Each level has its own specific characteristics in terms of tasks, efficiency, responsibilities, and challenges. Table 1 presents examples of activities at each of these levels.

At the strategic level, a company defines what it aims to achieve in the long term and how human resources can contribute to its business goals. This includes activities such as organizing strategic human resource planning at the business system level, aligning HR policies with company objectives, and similar tasks. The strategic level involves long-term forecasting and planning of human resource needs, in alignment with the logistics and transport strategy.

Furthermore, it develops the organizational culture and the system of values within the business organization.

The strategic level is responsible for talent management, as well as the retention of qualified personnel. Activities at the strategic level are aimed at ensuring the long-term competitiveness of the logistics system. At the tactical level, work teams are planned and optimized by departments (e.g., warehouse, transport, etc.). Also, at the tactical level, the focus is on short-term analyses, adjustments, and supporting HR activities operationally and organizationally. The operational level includes activities related to the recruitment and training of personnel for specific logistics tasks (e.g., warehouse workers, dispatchers, drivers, etc.). The operational level refers to the day-to-day management of personnel – including recruitment and selection processes, onboarding of new employees, and integration into the organization, internal procedures, and work culture. It is important to emphasize that HRM must function simultaneously across all three levels, especially in the logistics sector. Every logistics and transport company depends on the well-coordinated functioning of all HRM levels to maintain efficiency and competitiveness (Esan et al., 2024; Kada, 2016; Ogedengbe et al., 2024; Okeudo, 2012).

Table 1 Overview of HR Activities by Organizational Level

Level	Activities
Strategic level	Strategic fit, defining long-term strategies in line with the business objectives of the company
	Organizing strategic human resource planning at the business system level
	Talent management and retention of qualified personnel
	Long-term forecasting and planning of human resource needs in alignment with logistics and transport strategy
	Planning the structure and number of employees for the future needs of the company
	Succession planning
	Determining the budget for the HR function and employee development
	Aligning organizational culture with the company's vision (values, behaviors and norms for employees)
Tactical level	Analysis of existing employees
	Assignment of employees to specific work tasks
	Short-term analyses and adjustments
	Monitoring employee turnover
	Labor cost analysis
	Resolution of disputes and complaints
	Analysis and use of survey results for improving the work environment and procedures
	Planning and optimization of work teams by departments (e.g., warehouse, transport, etc.)
	Internal communication, operational tasks of the HR department (employee notifications, responding to inquiries, regulations, daily communication)
Operational level	Recruitment and selection process (job postings, interviews, selection)
	Onboarding processes for new employees (introduction to work, team, internal procedures)
	Day-to-day personnel management
	Performance management, evaluation of results (monitoring and assessment)
	Employee relations management (maintaining a positive work environment)
	Recruitment and training of personnel for specific logistics tasks (e.g., warehouse workers, dispatchers, drivers, etc.)
	Work schedule and shift planning (e.g. vacation planning, shift organization, etc.)
	Payroll and benefits administration (payments, contributions, allowances, bonuses, etc.)

Source: adapted from (Esan et al., 2024; Kada, 2016; Ogedengbe et al., 2024; Okeudo, 2012)

In a dynamic and ever-changing business environment, the lack of a qualified and motivated workforce is becoming an increasingly significant challenge. The primary goal of HRM is to ensure that employees with the right qualifications are available at the right time and in the right place. In this context, the focus should be placed on attracting and retaining competent workers whose efforts contribute to achieving business objectives and enable the company to stand out in a competitive market.

Employees are now considered a company's key capital, and organizations that invest in their development tend to achieve better results. Hiring qualified individuals helps create a strong work culture and a workforce capable of responding to the demands of a competitive environment. Additionally, investing in employee training and development enhances their skills, making them even more valuable to the company.

However, challenges remain, and there is still room for improvement in HRM. For this reason, companies often focus on the four core functions of HRM, which are illustrated in **Figure 1**(Barišić, 2024).

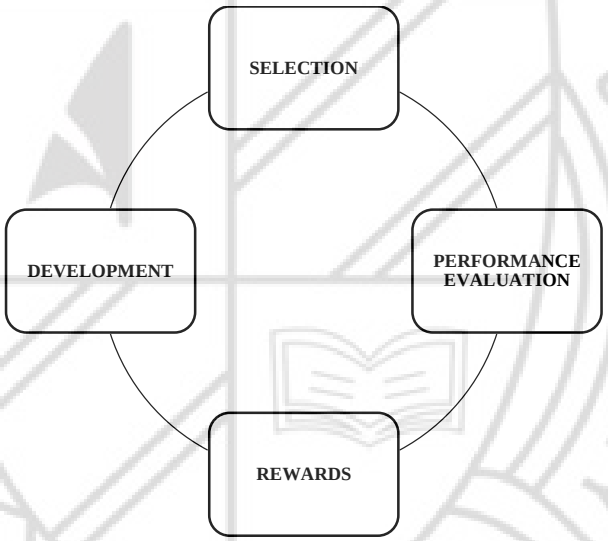

Figure 13 Diagram of the Human Resource Management Cycle

Source: (Barišić, 2024)

The selection of new employees must be aligned with the company's vision, which means that various staffing strategies should be based on risk analysis and the current situation of the company in order to ensure long-term competitiveness and success (Barišić, 2024). It refers to the hiring and internal development of people. The focus is not only on skills, but also on the candidate's ability to integrate into the organization and contribute to its success. Before selection, workforce planning is carried out to determine the number of employees with the necessary qualifications required to achieve strategic goals. Planning depends on market conditions and trends, which leads to adjustments in terms of the number, quality, and allocation of employees. A new employee must recognize key challenges and align their own goals with the goals of the company. The selection decision is based on résumés, interviews, and recommendations.

Candidate sources can be internal (currently employed workers) or external (job advertisements and employment agencies) (Gasser, 2021; Karić, 2018).

Performance evaluation is an annual employee evaluation process that provides feedback on their work and guides them toward the company's goals.

It helps assess professional competence and identifies employees' strengths and weaknesses. The appraisal includes performance, which is used to evaluate salary increases, and potential for future development, such as managerial positions (Karić, 2018). The reward system motivates employees and influences their performance and satisfaction.

Managers should ensure a fair system and, in case of any ambiguities, provide guidance to employees to maintain a pleasant working atmosphere and encourage proactive behavior (Gooma, 2022).

Employee development includes their training and upskilling, through which the company gains a competitive advantage.

The evaluation of employee performance helps in the proper allocation of tasks based on their skills. Factors such as work quality, independence in task execution, adaptability, and diligence are assessed, while the company must keep up with technological changes and adjust training programs to market needs. The goal is to create capable and motivated employees. (Karić, 2018; Ramiro, 2025).

2. CHARACTERISTICS OF HUMAN RESOURCE MANAGEMENT IN THE LOGISTICS SECTOR

Although human resources with appropriate skills are crucial for efficient operations, hiring qualified workers in the logistics industry is becoming an increasing challenge. The shortage of professionals in logistics, including drivers, warehouse employees, and supply chain management experts, is a result of insufficient expertise to keep up with technological progress and adapt to a changing labor market. In addition, lower wages compared to other industries, especially for operational workers, negatively affect the attraction of new employees. Beyond salary, problematic factors include working conditions, lack of opportunities for advancement, and the very nature of the work. All these factors contribute to the poor reputation of the logistics industry and the declining interest in working in this sector (Kilibarda et al., 2019). Therefore, employee turnover is a challenge in the logistics sector, and the attractiveness of a company can be increased by creating clear development opportunities and structured workforce planning. In this context, it is also important to mention workplace culture, which includes core beliefs or values that guide employee behavior, unwritten rules about acceptable and unacceptable conduct within the organization (norms), and the company's attitudes (feelings and opinions toward the job, colleagues, supervisors, and the organization as a whole). Companies are becoming increasingly aware of the importance of the impression they leave on candidates during the selection process, as the atmosphere during interviews can significantly influence their decision. A positive work culture contributes to a pleasant working environment, which is essential for attracting and retaining employees. A lack of challenges and opportunities for advancement often becomes an obstacle to employee retention, which is why it is important to encourage innovation and the proposal of new ideas. Open, two-way, and honest communication is crucial.

Only in this way can employees share their thoughts (satisfaction or dissatisfaction) about their work with their superiors (Hagel IT, n.d.; LOGISTIK HEUTE, 2010).

Employee strain arises from physical or intellectual tasks, the work environment, and the tools used in the workplace. Although stress depends on the individual, it is important to analyze job positions in order to identify potential shortcomings. Sustainable business management is focused on long-term solutions that enhance performance while minimizing negative impacts on the environment and society. A company should monitor its production processes and their environmental impact in order to align economic, social, and ecological goals through socially responsible business practices. Such an approach increases the company's competitive advantage, strengthens customer loyalty, and contributes to the common good (Knežević, 2019; Shiftbase, 2024).

While modern technologies accelerate processes, their implementation can be hindered if employees are not sufficiently qualified and motivated. Therefore, it is essential to develop personnel in parallel with technological advancement, while assessing their ability to adopt new technologies and their level of digital literacy. The HR department must adapt to the digitalization of the company and the evolving demands of the logistics sector. Effective employee scheduling is crucial to meet the complex needs of the sector. In this regard, in order to remain competitive, companies must demonstrate a high level of adaptability, especially in HRM. As a result, software solutions for employee scheduling are increasingly being used, particularly in warehouse logistics (Gasser, 2021; Randstad, 2025).

3. STRATEGIES AND CHALLENGES OF HUMAN RESOURCE MANAGEMENT IN A LOGISTICS COMPANY BASED ON A PRACTICAL EXAMPLE

In its approach to HRM, company XY[108] pays special attention to creating a motivating work culture in its warehouse departments, with the aim of increasing employee satisfaction, encouraging their development, and enhancing the company's competitiveness. The company under study employs approximately 180 workers across logistics and distribution centers at three different locations, along with an additional ten seasonal workers. Human resource planning is based on actual needs and is cost-optimized, including traffic volume assessments to determine the required number of workers. Job vacancies are announced when necessary. The goal is to ensure that all warehouse tasks are carried out within the defined working hours, in compliance with safety standards and existing operational constraints. At the same time, it is necessary to establish clearly structured work processes (with optimal resource utilization) and to minimize idle time while increasing the overall efficiency of warehouse operations (Barišić, 2024).

Historical and current data are used for task allocation, considering seasonal fluctuations and increased volumes of goods. The main planning criteria include legal requirements, such as annual leave and the maximum number of working hours. Differences in workload intensity are also considered, and workers from other departments are rotated when necessary, during the planning process. A minimum number of employees must always be ensured, while workforce planning must remain flexible enough to adapt to sudden changes.

108 Company XY is a real-life example used in this paper. For confidentiality reasons, the company's name and identifying details have been anonymized.

In task assignment, key factors include the number of incoming pallets, the number of cartons to be picked, and the number of return items. Department managers use scheduling optimization systems and ensure the availability of the necessary work equipment. To compensate for staff shortages, seasonal or student workers are employed. Key performance indicators, such as productivity, the number of picked pallets, and the number of picked cartons, are collected for analysis and operational optimization. The implementation of new systems for automated planning is under consideration, which would accelerate processes and improve accuracy (Barišić, 2024).

In the goods receiving department, a significant challenge is the unknown number of incoming pallets, as only 60% of trucks have accurate arrival notifications, while the remaining 40% arrive unannounced, making it difficult to plan workforce capacity. This unpredictable schedule complicates the ability to ensure enough workers, which is further aggravated by unforeseen absences such as sick leave. In the order preparation department, in addition to the issue of staff shortages, which are difficult to replace quickly, the biggest challenge lies in the fluctuations of store orders. The implementation of a new system is being planned, which would automatically allocate goods to stores, thereby helping to better manage these fluctuations. The goods dispatch department faces challenges due to non-working Sundays, which complicate delivery planning and employee scheduling. Overall, a key challenge in workforce scheduling stems from the need to balance employees' private lives with business demands. Although the company strives to accommodate employees’ preferences, it must also ensure that all tasks are completed, which requires flexibility and individual adaptation (Barišić, 2024).

The company recognizes the importance of training and continuous employee development, which contributes to achieving business objectives. It also continuously explores and implements new technological systems and measurement tools to facilitate the daily tasks of warehouse workers, increase their motivation, and strengthen the company's competitiveness. Among the proposed improvements is the active involvement of employees in decision-making processes by allowing them to submit suggestions for improving systems, processes, or work guidelines. In addition to financial rewards, a sense of being valued can be a powerful motivator, and recognizing employee effort has a positive effect on others as well. The introduction of a nomination system, in which employees can nominate their colleagues for monetary rewards, may also lead to stronger interpersonal relationships and improved teamwork (Barišić, 2024).

CONCLUSION

The logistics sector significantly contributes to economic growth and development, as well as to the interconnection of various industries within the market. Given global production and consumption trends, logistics chains face increasingly complex and dynamic challenges. To ensure the smooth flow of people, goods, and capital, the development of logistics includes the improvement of infrastructure and the harmonization of regulations and legislation. The selection of qualified personnel who can achieve business goals and strategies is also essential. Employee qualifications are achieved through careful planning, organization, control, and development, while HRM involves the optimal use and enhancement of available resources. This management approach is based on achieving long-term sustainable goals while minimizing negative impacts on the environment and society. Employee turnover can be stabilized by creating clear opportunities for professional development and advancement, designing jobs to reduce monotony, implementing fair (and competitive) reward systems, promoting a positive work culture, involving employees in decision-making processes, maintaining effective internal communication systems, supporting work-life balance, offering mentoring (especially onboarding for new employees or those changing positions), and ultimately – by monitoring the reasons for employee departures. When the cause is known, effective action can be taken. Through the application of modern technologies, digital tools, and software solutions, it is possible to optimize and manage employee scheduling in warehouse departments more efficiently. The company analyzed aligns human resource planning with operational needs and regulatory requirements, while facing challenges such as delivery unpredictability and workforce shortages. Special emphasis is placed on employee training, the implementation of new technologies, and encouraging active employee involvement. Motivation and collaboration are further supported through recognition systems (effort-based rewards and internal nomination mechanisms).

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