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THE ANALYSIS OF HUMAN RESOURCES MANAGEMENT (HRM) IN MARITIME AFFAIRS

Abstract

Specifics of human resources management in maritime affairs is reflected in the fact that part of the staff of enterprises is displaced on ships which represent a specific and isolated environment. Specifics of human resources management on ships are focused to decision-making in crisis situations, the deployment of personnel and work load, and giving orders to perform certain tasks. In this context it is necessary to examine the management of human resources which should include managing, motivation, rewarding, communication, education, advancement, decision-making and employee satisfaction in the specific environment. The aim of the research is to analyze the above stated parameters and connect them with the characteristics of companies in the sector of maritime logistics. The purpose of this paper is to provide an insight into the human resources management in companies involved in logistics in maritime transport i.e. delivery and transport of goods. Taking into account their differences, it can be concluded that companies in the maritime industry have different human resource management systems, which affects the company's business. The research methodology is based on the collection of data through questionnaires and databases created from them. The study included a total of 31 companies. According to the collected data, statistical analysis will be conducted which will be based on correlation and descriptive statistics. The analysis of the theoretical basis has not confirmed the existence of similar studies that take into account the observation of human resources management on ships. Therefore, it can be concluded that the research will be of interest for the field of business logistics as well as the whole scientific and professional community. Recommendations related to the current and future human resource management in maritime companies will be given in the conclusion.

Keywords: Human resources management, characteristics of companies, types of ships, maritime affairs

1. Introduction

Specifics of human resource management are reflected in the fact that the realization of the objectives of the company largely depends on the execution of the planned processes. Therefore, the efficiency of human resource management comes to the fore and can be considered in quantitative and qualitative form. The optimal number of employees who have the necessary knowledge and skills are one of the key factors in the execution of the planned processes. Specifics of human resources management in the maritime affairs include work in a relatively restricted environment in which coop-

eration within the regulated system is a key factor for the smooth execution of business tasks. If the aforementioned is considered in the context of the shipping industry, the goal is to ensure the smooth running of business processes involving the prevention and maintenance of work resources and the continuity of business tasks on board. Therefore, in the context of human resource management in shipping it is inevitable to examine certain indicators, such as managing, rewarding, motivation, satisfaction, communication, education, decision-making and promotion. These indicators have been identified as crucial for quality human resources management in shipping.

In addition, companies in the maritime industry differ with respect to certain characteristics. Taking into account their differences, it can be concluded that companies in the maritime industry have different human resource management systems, which affects the company's business. One of the major characteristics affecting the business organization and structure of companies in the maritime industry refers to the size of the company. In the present case this refers to the number of ships that companies possess. Accordingly, this raises the following hypothesis:

H1: Human resource management in maritime affairs differs according to company size.

As one of the criteria that should be included in the research, and on which human resources management in shipping is dependent, is the type of business, i.e. the object of the business in shipping enterprises. The transport of different cargo requires involvement of different types of ships that have been adapted and specialized to work with such kinds of cargo. All that has been mentioned requires the recruitment of specially trained employees. Accordingly, this raises the following hypothesis:

H2: Human resource management in maritime affairs differs due to the type of business of a company considered through the type of ships owned by the company or the type of cargo transported.

Since the company's business is defined by the internal and external environment in which the company operates, it is necessary to include in the research of human resources management the location of the companies, as in this specific case, whether the company positioned its headquarters in the Republic of Croatia or in a foreign country. It is assumed that the indicators of human resource management differ with regard to the seat of the company. The above is based on the fact that the socio-cultural, legal and political, economic and technological environment of enterprises has a certain influence on differences in human resources management. Accordingly this raises the following hypothesis:

H3: Human resources management in maritime affairs differs with respect to the headquarters seat of the company.

Since these issues are not examined in detail, the aim is to analyze the above parameters through the theoretical framework and practical research. The analysis will link certain indicators of human resources management with the individual characteristics of the companies operating in shipping. The purpose of this paper is to provide analysis based insights into the state of human resource management in companies involved in logistics in maritime traffic and more specifically to investigate the employees in the shipping industry. The analysis of research is based on the collection of data by using an online questionnaire, and creation of a database based on the responses. According to the collected data, a statistical analysis will be carried out. The analysis of the theoretical basis has shown that up to now no similar research has been realized and it is believed that the research brings a certain scientific and pragmatic contribution and as such would be interesting to the scientific and professional community. This work is presented in a way that after the introductory considerations, the first part is a theoretical framework that relates to the general consideration of the problem of human resource management as well as the specifics of the same in shipping. In the second part of the paper, previously defined indicators that are part of the created model are analyzed. Based on all mentioned in the previous sections, the concluding remarks, limitations and recommendations for future research are presented in the final part of this paper.

2. Human resources management (HRM)

When it comes to human resources, it is essential to notice that this represents the sum of common knowledge, skills, creative possibilities, motivation and loyalty to the company. Human resources management is composed of various interconnected management activities and organization aimed at ensuring the adequate number and structure of employees, their knowledge, skills, interests, motivation and behavior pattern necessary for achieving the development and strategic aims of the organization (Bahtijarević-Šiber, 1999: 16). This process includes the selection of goals, determination of policy, planning, organizing, coordinating and con-

trolling activities in the human resources domain, and taking managing actions for achieving given goals and achieving the purpose of the existence of control functions (Ćamilović, 2007: 13). All companies use certain form of capital to do the jobs for which they are specialized. No matter what kind of activities they are engaged in, all companies have something in common: they must have people that will make the capital work for the company (Portolese Dias, 2012: 12)[1]. During the founding or expansion of a company, the first goal is to define the mission, i.e., make a strategy course of business based on human resources (Niles, 2013: 9). The plan includes defining various processes and work activities comprising specific tasks (Dessler, 2012: 404–419). The process is formed by specifying the manner of execution of those tasks (Mathis, Jackson, 2006: 524–565).

The purpose of managing a company is conducting a variety of activities aimed at the company's resources by minimizing the spending of resources and maximizing the efficiency (Griffin, 2011: 5). Efficiency implies the rational use of resources, while effectiveness is achieved by taking the right decisions at the right moment. The most important function of management is planning, i.e., defining the goals and selecting the decisions for achieving those goals (Domijan-Arneri, 2014: 200–204). The actual and future state, as well as the way to achieve objectives is defined by planning (Buble, 2006: 110). Considering that human resources is part of the management of any organization, and people are the most important resource, the planning is an important part of managing. Some of the essential steps in planning resources are the determination of the direct connection between business strategy and human resources, organization aims and needs for human resources, determination of long-term needs for human resources in general and in specifics, protection and return of investments and competitiveness and realization of advantages (Sikavica et al., 2008: 655–656).

Answers that should be given when planning human resources are as follows (Bahtijarević-Šiber, 1999: 183):

- How many people are needed for achieving business plans and objectives?

- Which skills, knowledge, abilities and expertise should they have?

- How to ensure the required number and profile of people?

- How to prepare the currently employed for future needs and business requirements?

Systematic planning of personnel, according to Kreitner, unfolds as depicted in Figure 1.

Figure 1 Systematic planning of personnel
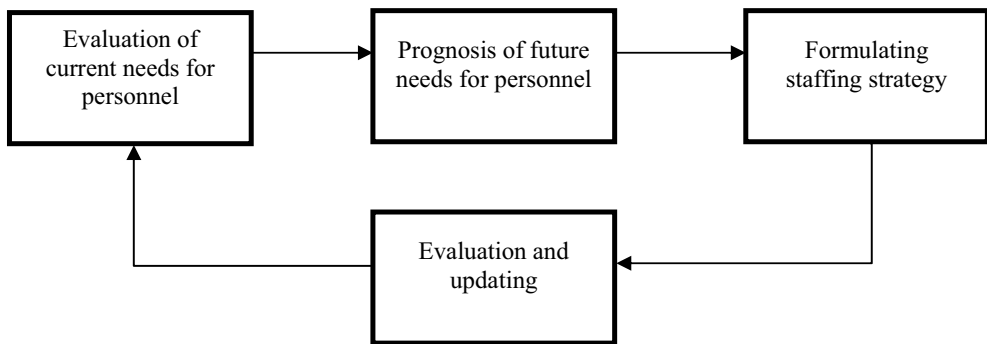
Source: Kreitner (2005), p. 349

The graph makes evident the logic of pre-set questions, because strategy of planning fits it perfectly. Organization management depends on the quality and number of personnel, and by analyzing current needs for personnel, a well-structured strategy can be made and future needs and ways to engage the necessary people can be anticipated. Quality strategy of organization management is impossible to make without feedback.

When staffing, it is difficult to distinguish the human relationships from resources. There are different views regarding the definition of human relations and human resources as is shown in Table 1.

Table 1 Differences between human relations and human resources

	HUMAN RELATIONS	HUMAN RESOURCES
The needs of employees	Employee needs to belong, to be loved and appreciated.	In addition they want to creatively and effectively contribute to valuable targets.
The wishes of the employees	They want to feel as a useful part of the organization.	They want to demonstrate initiative, responsibility and creativity, which their management should allow.
Outcome	If the employees' wishes are fulfilled they will cooperate with the management.	Management should use the abilities of employees instead of accumulating unused resources.
Job satisfaction	By meeting their needs and desires, employees will be more satisfied.	Employees will be happier if they feel they have the option of self-initiative and the freedom to use their creativity and experience.
Productivity	Satisfied employees with less resistance to the administration are more productive.	Employees will be more productive if they feel they have the option of self-initiative and the freedom to use their creativity and experience.
Management objectives	Management should strive to achieve that every employee feels as a part of the team.	Managers should help employees uncover hidden talents and ensure that these are fully used in order to achieve organizational goals.
Making decisions	Management should let employees participate in making proposals during decision-making and consider these proposals, but the important decisions they need to make themselves.	Management should allow and encourage employees to participate in decision-making at all levels.
Sharing of information	Sharing information is a useful tool which makes employees team members.	Information sharing is the key to good decision making while using full range of creativity and experience of employees.
Group work	Management should allow teams to practice a moderate amount of self-initiative and control.	Management should encourage teamwork and continuously seek and expand the area in which teams have more control.

Source: Miles (1965: 151)

Major differences are related to motivation and participation in decision making. Besides motivation, the psychological characteristics of the intellectual capital of a company are formed by perception and interests, whilst the physical characteristics relate to predispositions (height, weight, speed, sex, age, etc.), and personality traits and abilities (Lesko Bošnjak, Klepić, 2013: 161).

Human resources management is based on the fact that employees' familiarity with work obligations, the way to carry them out and get feedback on their work, causes a willingness to take responsibility for the quality of their work. In this way, employees feel more involved in the work and they are more dedicated (Kanji, Asher, 1996: 2).

Different groups of parameters influence the process of human resources management:

1. The first group of parameters – those that influence employee satisfaction: time spent in the company, participation in decision-making, education, rewarding and advancement.

2. The second group of parameters: those that refer to behavior of employees: number of complaints, absence from work, requirements for redeployment and dismissals.

3. The third group of parameters: includes the employees' environment or their access to required information, encouraging creativity and innovation of employees, stress at work, support from the company, interpersonal relations and the general situation of the company.

Employee loyalty can be achieved by quality personnel management that includes attraction, development and retention of quality staff, by using a number of individual activities. Those activities include planning, recruiting, selection, evaluation, teaching and developing of staff (Žager et al., 2008: 368).

Motivation largely depends on the work environment and atmosphere, and answers why someone behaves in a certain way and whether or not they achieve business success (Bahtijarević-Šiber, 1999: 557). That behavior should be aimed at some goal (Marušić, 1994: 377). Different emotions or circumstances act as motivational factors. Negative motivational factors are fear, threat and punishment, while positive factors are rewards and participation in decision-making. It is necessary to ensure employee satisfaction to motivate them. According to Herzberg's research there are two types of factors that affect satisfaction: hygienic (situation in which a person works) and motivating (related to the job person does). Hygienic factors (salary, working conditions, managers, company policy, and benefits) do not affect the operational engagement, but they are necessary in order to remove discontent. Motivational factors (challenging job, responsibility, recognition, development, advancement and attainment) cause greater satisfaction, and greater involvement (Lesko Bošnjak, Klepić, 2013: 183). Rewarding strengthens ties and relations of employees and enterprises and better results are achieved. The system of rewards may include material, financial or service forms. Some examples include: paid further education, transportation to or from work, providing a system of meals, collective insurance of employees, jubilee awards, severance payments, gifts and others (Lesko Bošnjak, Klepić, 2013: 220). The responsibility for ensuring the best possible working conditions is on the company management or the managers who vary in style of running a business.

The style of leadership can be defined as a special type of managerial behavior in the work process that affects the results of the work in the company. It is impossible to define the best style of leadership, because in practice there is always a combination of several styles of leadership.

In theory three styles of leadership have been developed (Hybels, Weaver II, 2001):

1. Autocratic,
2. Democratic,
3. "Laissez-faire".

The autocratic style in leading an organization is based on unrestricted power and decision-making of leaders who control subordinates, command groups and individuals and manage by way of rewards and punishments (Dulčić, Vrdoljak Raguž, 2007: 711). The leader of the democratic style encourages the participation of subordinates in decision-making, or delegates authority to all levels of management, but retains the responsibility (Dulčić, Vrdoljak Raguž, 2007: 712). "Laissez-faire" leadership is characterized by the so-called free hand leaders. By avoiding responsibility and nearly without the use of power they in fact assist subordinates in achieving the objectives (Koontz, Weichrich, 1994).

3. Human resources management (HRM) in maritime affairs

In addition to the before mentioned facts related to human resources management, it should be noted that all of the above can be applied to companies in the maritime sector. Specifics that define maritime companies are related in studying the maritime segment related to shipping. Shipping, as a term, is defined as transportation of goods and passengers by ship. The study of human resource management in shipping includes staffing on board, which presents a specific, isolated environment whose working conditions cannot be compared with usual operating conditions[2]. The problem of managing people on board is specific due to the fact that the management of the shipping company is not directly present on board, but the management function is performed by officers of the highest rank (captain and chief engineer). The specifics of the working environment have led shipping companies to organize additional training covering individual workouts with candidates. The above includes a day-long psychological evaluation with feedback and situational training such as decision-making in times of crisis or emergency situations, issuing commands, allocating of business load or handling the ship. Among other things, candidates should acquire knowledge and abilities related to leadership skills, personal stability, and sociability or cooperation with the crew[3]. Special attention is paid to the management of a multicultural crew, and a perspective on other cultures is set from the Western point of view. At seminars, the officers are instructed on existent means of describing, comparing and understanding of cultural and ethnic characteristics and differences. Such an approach should help officers in gaining deeper knowledge of different cultures, resulting in the improvement of the monitoring and management style. Diversity is manifested in attitudes, priorities, norms, beliefs and behavior[4].

In the ship's management, the workforce is the primary factor. Although saving on the crew is the easiest way to reduce the costs of companies by importing cheaper labor, one should keep in mind that people are a key factor in maritime affairs breakdowns (Baker, McCafferty, 2005: 2). Training can improve the skills of seamen, but no training can help if the wrong person is selected. Therefore, it is essential to choose the right candidate for the right tasks. Successful shipping companies create a sense of belonging, while in the lower-rated the crew is mainly motivated only by money (Barsan et al., 2012: 90). There are two basic approaches to the management of human resources. On the one hand is a classic staff management in which people are considered to be a cost to the company. Another approach is the modern HRM (Human Resources Management) that is broader than the previous one, and in which the people are viewed as a benefit to companies because they can contribute to competitiveness through technological and financial capital (Bilici et al., 2012: 239). In this process, the right selection of personnel is considered critical, but it includes more than just recruitment, and staff (crew) are monitored at all stages of their careers (Figure 2). The very process begins by the candidate's application for a job at the shipping company, after which follows a thorough and rigorous assessment, testing and examination of various knowledge and making decisions about employment. After the employee's arrival aboard their work is valued through the existing system of evaluation, i.e., the results at ship training, or in other ways, which results in termination of employment, or progression and reward.

Figure 2 Diagram of human resources management (HRM)
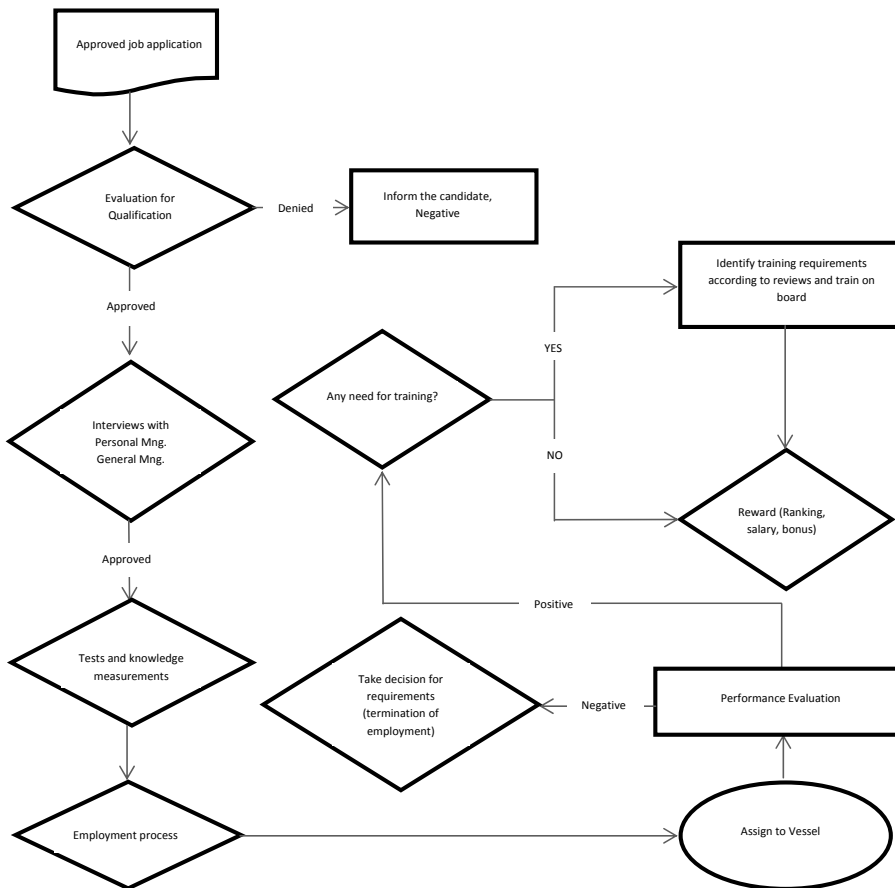
Source: Bilici et al. (2012: 243)

The shipping business is based on three key things: insight, relating to management, and human resources management and safety. The implementation of safety in the management system and staffing is based on each individual who is responsible for their work assignment. In other words, security has become an integral part of company strategy, business plans and set goals[5].

4. Characteristics of companies in maritime affairs

Characteristics of companies in the maritime industry depend on the shipping market that is highly variable and non-permanent, and as such is exposed to the process of volatility or variation in demand, which fluctuates within a certain time period. Changes relate to external general factors (changes in GDP, etc.), market, production, financial, organizational and legal factors (Frenkel et al., 2000: 248). In this context, it is possible to consider the company's business in the maritime industry, whose basic function is to ensure continuous and smooth functioning of the navigation process with the lowest possible costs. In the mentioned context it should be noted that the demand for personnel in shipping depends on the demand for services provided by companies in the maritime industry. Since the services in the maritime industry differ in the type of business considered through the subject of transport and types of ships, we can distinguish between passenger and cargo shipping, which can be line, free and tanker. Passenger shipping can be based on route transport or cruise. Passenger line transport is characterized by lower sensitivity to the political and economic situation as well as smaller companies, while the market situation of passenger cruises is extremely sensitive and it is characterized by a small number of very strong companies. While passenger line shipping is characterized by smaller passenger vessels, cruises are characterized by larger ships (cruisers) with numerous and luxurious accommodation facilities. Line cargo shipping is based on small loads related to industrial production and is extremely inflexible. Because of its inflexibility, line cargo ship transport, in order to survive in the market of logistics, has become part of the distribution chain from manufacturer to consumer. This type of transportation is commonly characterized by container ships. Free cargo shipping does not have a well-established timetable, and it is characterized by a free market in which the price of transportation is formed solely on the basis of offer and demand. In this type of shipping, companies with the same types of ships often form associations for a joint appearance on the market and strengthening of their market position. This type of shipping is based mostly on + bulk carriers. Tanker shipping has been developed on the transportation of oil and liquid gas, vegetable oil, chemicals, and juices and wines. The price of transportation of oil and petroleum products is exclusively linked to the price of raw materials being transported. According to the type of ships, these are specialized ships that can carry few types of cargo with optimum capacity (Domijan-Arneri, 2014: 18-79).

The development of world trade has led to the trend of globalization of the market in maritime transport caused by efforts to rationalize operating costs, and is characterized by a free process of supply and demand of goods, capital and labor. Although the company headquarters in maritime affairs differs according to the country of registration, the business of most companies that are not related to the local market are linked to the global world market. In this context it is necessary to consider the issue of observed research that is among other things related to the previously presented facts considered in the context of the characteristics of companies in the maritime industry.

5. Research methodology

In accordance with the presented theoretical framework of research, the authors concluded that there is no model which includes human resources management in shipping from the perspective of observing the characteristics of companies and their types of business.

Figure 3 Model of human resources management (HRM) considering the characteristics of companies in maritime affairs
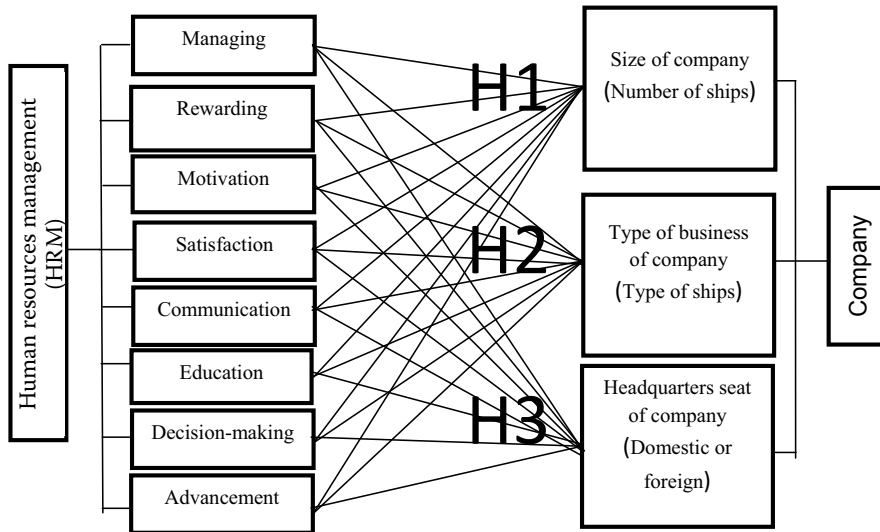
Source: Made by authors

Management can be derived from the presented research model indicators relating to human resources, and these are presented through leadership, rewards, motivation, satisfaction, communication, education, decision-making and promotion. Also presented are the indicators relating to the characteristics of the enterprises operating in the maritime business and related to the size of the company according to the number of ships, the type of business by the kind of ships, and the seat of the company that may be foreign or domestic.

Empirical research has involved the collection of data using an on-line questionnaire, which was conducted during the months of April and May, 2016. The questionnaire contained open and closed types of questions, whereby for the issues referring to human resources management a Likert scale of 7 degrees of intensity was offered, ranging from completely negative to completely positive assessment. The study included 100 sailors who had been or are on board. The survey was conducted on the basis of random selection. The study included a total of 31 companies. Statistical analysis was carried out using computer programs for processing data in Microsoft Excel 2010 and IBM SPSS Statistics 20 with the use of descriptive statistics and correlation analysis. All tests were performed at a significance level of 1%, 5% or 10%.

6. Research results and analysis

6.1 General characteristics of the sample

To facilitate the consideration of the results of research it is necessary to analyze the basic characteristics of the sample. The sample comprised 100 sailors who were on board or are currently on board, and who will be analyzed in terms of age, sailing experience, level of education, occupation, working place on the ship, the type of ship on which they are employed and headquarters of companies that employ them.

If the age of sailors is taken into consideration, it can be concluded that the majority of the seafarers included in the study are between 26 and 35 years of age, a total of 47%, and 27% are between 36 and 45 years of age.

The majority of sailors in the sample had sailing experience from 0-5 years, 33%. 19% had navigation service of 6-10 years, 17% had 11-15 years of navigation service, while 12% had 16-20 navigational years of service.

A total of 32% respondents have completed high school, while 48% of them have higher education or three years of study, 13% have a university degree, and 7% have completed a special program for the training of seamen.

By profession the majority of them, 61% are sailors, 26% ship engineers, 5% electricians, while 8% comprise the rest of the crew.

According to the workplace, aboard ratios are nearly equal and have ranged from 15% (captains and chief engineers) to 23% (other crew). Officers are covered with a total of 62% of the sample in approximately the same proportion.

With regard to the type of ships on which they work, most were seamen from the LNG or LPG tankers, a total of 39%, 20% are on ships carrying bulk cargo, 10% on cruisers, while the rest are on container ships, ferries and platforms.

Considering the number of ships which the company owns, 58% of the companies have 0-50 ships, 16% of the companies have 51-100 ships, 13% of the companies have 101-250 ships, 6.5% of the companies have 251-500 ships, and 6.5% more than 500 ships.

Considering the headquarters of the company, 74% of the seamen are employed by foreign companies while 26% are employed in companies that are based in the Republic of Croatia.

6.2 Testing measurement models and set hypotheses

In accordance with the above facts, the presented model of research and the characteristics of the sample, it is necessary to connect the indicators on the basis of which hypotheses will be tested and conclusions drawn. The nonparametric rank correlation coefficient indicates the direction, intensity and statistically significant link between variables relating to the management of human resources and the size of the company.

The first hypothesis related management of human resources to company size and reads as follows:

H1: Human resources management in maritime affairs differs according to company size.

Human resources management included indicators related to managing, rewarding, motivation, satisfaction, communication, education, decision-making and advancement, while the size of the company in the maritime industry is measured by the number ships owned.

Table 2 The correlation between the indicators of HRM and the number of ships

Correlations			
			Number of ships
Spearman's rho	Number of ships	Correlation Coefficient	1.000
		Sig. (1-tailed)	
	Managing 1	Correlation Coefficient	.032
		Sig. (1-tailed)	.377
	Managing 2	Correlation Coefficient	.230**
		Sig. (1-tailed)	.011
	Managing 3	Correlation Coefficient	.164*
		Sig. (1-tailed)	.052
	Rewarding 1	Correlation Coefficient	.185**
		Sig. (1-tailed)	.032
	Rewarding 2	Correlation Coefficient	.245***
		Sig. (1-tailed)	.007
	Rewarding 3	Correlation Coefficient	.005
		Sig. (1-tailed)	.482
	Motivation 1	Correlation Coefficient	.241***
		Sig. (1-tailed)	.008
	Motivation 2	Correlation Coefficient	.226**
		Sig. (1-tailed)	.012
	Motivation 3	Correlation Coefficient	.113
		Sig. (1-tailed)	.131
	Satisfaction 1	Correlation Coefficient	.141*
		Sig. (1-tailed)	.081
	Satisfaction 2	Correlation Coefficient	.283***
		Sig. (1-tailed)	.002
	Satisfaction 3	Correlation Coefficient	.253***
		Sig. (1-tailed)	.006
	Satisfaction 4	Correlation Coefficient	-.002
		Sig. (1-tailed)	.491

Correlations			
			Number of ships
	Satisfaction 5	Correlation Coefficient	.045
		Sig. (1-tailed)	.329
	Communication 1	Correlation Coefficient	.044
		Sig. (1-tailed)	.331
	Communication 2	Correlation Coefficient	.207**
		Sig. (1-tailed)	.020
	Communication 3	Correlation Coefficient	.180**
		Sig. (1-tailed)	.037
	Communication 4	Correlation Coefficient	.086
		Sig. (1-tailed)	.198
	Communication 5	Correlation Coefficient	.154*
		Sig. (1-tailed)	.063
	Education 1	Correlation Coefficient	.301***
		Sig. (1-tailed)	.001
	Education 2	Correlation Coefficient	.171**
		Sig. (1-tailed)	.045
	Education 3	Correlation Coefficient	.204**
		Sig. (1-tailed)	.021
	Decision-making 1	Correlation Coefficient	.170**
		Sig. (1-tailed)	.045
	Decision-making 2	Correlation Coefficient	.023
		Sig. (1-tailed)	.410
	Decision-making 3	Correlation Coefficient	.010
		Sig. (1-tailed)	.462
	Advancement 1	Correlation Coefficient	-.005
		Sig. (1-tailed)	.479
	Advancement 2	Correlation Coefficient	-.065
		Sig. (1-tailed)	.261
	Advancement 3	Correlation Coefficient	.037
		Sig. (1-tailed)	.357

*. Correlation is significant at the 0.1 level (1-tailed).
**. Correlation is significant at the 0.05 level (1-tailed).
***. Correlation is significant at the 0.01 level (1-tailed).
Source: Research results (N=100)

According to the table, Spearman's rank correlation coefficient between the majority of indicators of management, rewards, motivation, satisfaction, communication and education, and the number of ships owned by the company shows that there is a statistically significant correlation between the level of significance of 1%, 5% or 10%. Also, a majority of indicators of decision making and promotion, and the number of ships owned by the company there is no statistically significant correlation. According to the presented results, the posed hypothesis is accepted.

It is necessary to include another hypothesis in the analysis that puts human resources in maritime affairs in relation to the type of business enterprises that are in the conducted research based on the type of ships that the shipping company owns or cargo which the stated ships carry. The hypothesis reads as follows:

H2: Human resources management in maritime affairs differs due to the type of business of the company considered through the type of ships owned by the company or the type of cargo transported.

The research results are presented in the following tables.

Table 3 The correlation between the indicators of HRM and the type of ships

Correlations			
			Type of ships
Spearman's rho	Type of ships	Correlation Coefficient	1.000
		Sig. (1-tailed)	
	Managing 1	Correlation Coefficient	-.062
		Sig. (1-tailed)	.270
	Managing 2	Correlation Coefficient	.104
		Sig. (1-tailed)	.151
	Managing 3	Correlation Coefficient	.024
		Sig. (1-tailed)	.407
	Rewarding 1	Correlation Coefficient	-.176**
		Sig. (1-tailed)	.040
	Rewarding 2	Correlation Coefficient	-.346***
		Sig. (1-tailed)	.000
	Rewarding 3	Correlation Coefficient	-.080
		Sig. (1-tailed)	.215
	Motivation 1	Correlation Coefficient	-.271***
		Sig. (1-tailed)	.003
	Motivation 2	Correlation Coefficient	-.143*
		Sig. (1-tailed)	.078
	Motivation 3	Correlation Coefficient	-.150*
		Sig. (1-tailed)	.068
	Satisfaction 1	Correlation Coefficient	-.049
		Sig. (1-tailed)	.315
	Satisfaction 2	Correlation Coefficient	-.180**
		Sig. (1-tailed)	.037
	Satisfaction 3	Correlation Coefficient	-.248***
		Sig. (1-tailed)	.006
	Satisfaction 4	Correlation Coefficient	.050
		Sig. (1-tailed)	.312
	Satisfaction 5	Correlation Coefficient	-0.141*
		Sig. (1-tailed)	.081
	Communication 1	Correlation Coefficient	-.117
		Sig. (1-tailed)	.123
	Communication 2	Correlation Coefficient	.022
		Sig. (1-tailed)	.414
	Communication 3	Correlation Coefficient	.021
		Sig. (1-tailed)	.419
	Communication 4	Correlation Coefficient	-.078
		Sig. (1-tailed)	.219
	Communication 5	Correlation Coefficient	-.279***
		Sig. (1-tailed)	.003
	Education 1	Correlation Coefficient	-.358***
		Sig. (1-tailed)	.000
	Education 2	Correlation Coefficient	-.316***
		Sig. (1-tailed)	.001
	Education 3	Correlation Coefficient	-.377***
		Sig. (1-tailed)	.000
	Decision-making 1	Correlation Coefficient	-.092
		Sig. (1-tailed)	.182

Correlations			
			Type of ships
	Decision-making 2	Correlation Coefficient	-.327***
		Sig. (1-tailed)	.000
	Decision-making 3	Correlation Coefficient	-.142*
		Sig. (1-tailed)	.080
	Advancement 1	Correlation Coefficient	-.066
		Sig. (1-tailed)	.258
	Advancement 2	Correlation Coefficient	-.105
		Sig. (1-tailed)	.148
	Advancement 3	Correlation Coefficient	-.255***
		Sig. (1-tailed)	.005

*. Correlation is significant at the 0.1 level (1-tailed).
**. Correlation is significant at the 0.05 level (1-tailed).
***. Correlation is significant at the 0.01 level (1-tailed).
Source: Research results (N=100)

According to the table, Spearman's rank correlation coefficient between most of the indicators of rewarding, motivation, pleasure, education and decision-making and types of ships owned by the company shows that there is a statistically significant correlation between the level of significance of 1%, 5% or 10%. Also, a majority of indicators of management, communication and promotion and the type of ships owned by the company show that there is no statistically significant correlation. Accordingly, the hypothesis is accepted.

The third hypothesis relates to the observation of human resources management with respect to the seat of the company which can be domestic or foreign. The hypothesis reads as follows:

H3: Human resources management in maritime affairs differs with respect to the headquarters seat of the company.

The following table shows the results of research with respect to the previous hypothesis and used indicators.

Table 4 The correlation between the indicators of HRM and headquarters seat of the company

Correlations			
			Headquarters seat of the company
Spearman's rho	Headquarters seat of the company	Correlation Coefficient	1.000
		Sig. (1-tailed)	
	Managing 1	Correlation Coefficient	.021
		Sig. (1-tailed)	.418
	Managing 2	Correlation Coefficient	-.066
		Sig. (1-tailed)	.258
	Managing 3	Correlation Coefficient	.024
		Sig. (1-tailed)	.406
	Rewarding 1	Correlation Coefficient	.021
		Sig. (1-tailed)	.419
	Rewarding 2	Correlation Coefficient	.192**
		Sig. (1-tailed)	.028
	Rewarding 3	Correlation Coefficient	.148*
		Sig. (1-tailed)	.071
	Motivation 1	Correlation Coefficient	.150*
		Sig. (1-tailed)	.068

Correlations			
			Headquarters seat of the company
	Motivation 2	Correlation Coefficient	.062
		Sig. (1-tailed)	.270
	Motivation 3	Correlation Coefficient	.131*
		Sig. (1-tailed)	.097
	Satisfaction 1	Correlation Coefficient	-.086
		Sig. (1-tailed)	.198
	Satisfaction 2	Correlation Coefficient	.127
		Sig. (1-tailed)	.104
	Satisfaction 3	Correlation Coefficient	.086
		Sig. (1-tailed)	.197
	Satisfaction 4	Correlation Coefficient	-.038
		Sig. (1-tailed)	.353
	Satisfaction 5	Correlation Coefficient	-.213**
		Sig. (1-tailed)	.017
	Communication 1	Correlation Coefficient	-.112
		Sig. (1-tailed)	.133
	Communication 2	Correlation Coefficient	-.001
		Sig. (1-tailed)	.497
	Communication 3	Correlation Coefficient	-.307***
		Sig. (1-tailed)	.001
	Communication 4	Correlation Coefficient	-.141*
		Sig. (1-tailed)	.081
	Communication 5	Correlation Coefficient	-.175**
		Sig. (1-tailed)	.041
	Education 1	Correlation Coefficient	.041
		Sig. (1-tailed)	.342
	Education 2	Correlation Coefficient	.061
		Sig. (1-tailed)	.274
	Education 3	Correlation Coefficient	.127
		Sig. (1-tailed)	.103
	Decision-making 1	Correlation Coefficient	.173**
		Sig. (1-tailed)	.042
	Decision-making 2	Correlation Coefficient	.171**
		Sig. (1-tailed)	.044
	Decision-making 3	Correlation Coefficient	.063
		Sig. (1-tailed)	.268
	Advancement 1	Correlation Coefficient	-.037
		Sig. (1-tailed)	.356
	Advancement 2	Correlation Coefficient	-.002
		Sig. (1-tailed)	.490
	Advancement 3	Correlation Coefficient	.101
		Sig. (1-tailed)	.160

*. Correlation is significant at the 0.1 level (1-tailed).
**. Correlation is significant at the 0.05 level (1-tailed).
***. Correlation is significant at the 0.01 level (1-tailed).
Source: Research results (N=100)

According to the table, Spearman's rank correlation coefficient between most of the indicators of rewarding, motivation, communication and decision-making and its headquarters shows that there is statistically significant correlation between the level of significance of 1%, 5% or 10%. Also, a majority of indicators of management, customer satisfaction, training and promotion, and its headquarters show that there is no statistically significant correlation. With regard to the presented results, the hypothesis was partially accepted.

7. Discussion and conclusion

In accordance with previously presented results of research and evaluation of hypotheses, one can conclude that the management of human resources differs with respect to enterprises operating in the maritime sector and shipping. If we compare the managing as a segment of human resource management, one can conclude that the biggest companies have very positively evaluated this segment. The top rated management system is the one on the platforms and ferries. The reward system also is better in larger companies and the worst on the ferries and platforms. The motivation for the work grows as the size of the company grows, and the best is on tankers, LNG or LPG ships, bulk carriers and platforms. Employee satisfaction is most pronounced in large enterprises, while considering the type of ships it is on approximately the same level. Communication is better in larger companies, while it is worst-rated on container ships. The system of education, acquiring of new skills and training is better in larger companies, and the best on tankers, LNG or LPG ships, while the worst on cruisers. The system of decision-making is better in larger companies, but when looking at the type of ships it is the best on ferries. Top rated advancement is in large companies and on bulk carriers. In accordance with this, one can conclude that larger companies manage human resources better.

Domestic enterprises have better communication, but foreign have a better system of education or acquiring of new skills and training, and a better system of decision-making and promotion.

If some of the indicators of human resource management are taken into consideration, one can conclude that motivation, communication, satisfaction and decision making were assessed as partially positive, while rewarding and education were partially negatively evaluated. Management and promotion were assessed as neutral. If each of the individual indicators is examined in more detail, one can conclude that the best evaluated segments of managing are the reliability and confidence of superiors in subordinates and acceptance of the idea of subordinates to superiors, and as neutral the sense of freedom of subordinates in communication with superiors. In the system of rewards, the worst rated is the reward for overtime while rewarding loyalty to the company is partially negatively rated and salary satisfaction is closer to neutral. When it comes to motivation, the best evaluated are readiness for teamwork and cooperation and responsibility towards the goals while the motivation for work ranged from neutral to partially negative. In satisfaction, employees on ships express satisfaction first with the workplace, then the boat / ship, crew and ports while satisfaction with the company was rated as neutral. Considering communication, seafarers evaluated communication with the ship's crew and subordinates and superiors as the best. Communication with the company is slightly above the neutral level, while conflict resolution slightly below the neutral level. The worst evaluated was education of seafarers by the company, then encouraging further training through courses and development of training skills on board. When it comes to decision-making, it can be concluded that the best rated is participation of employees in decision-making, then satisfaction with delegation of authority from superiors and delegating authority to subordinates. The recommendation for promotion by superiors on board was slightly positive, but the pace of progress slightly negative, while encouraging the advancement by the company was at a neutral level.

The small number of participants included in the research may be construed as a limitation of the research. The reason for this was the relatively short period of the survey of just a few weeks. Also, it should be stated that there are no similar studies with which we could make a comparison of the results, so this is one of the aggravating factors.

Recommendations for future research are related to more detailed study of individual segments of human resources that can be put in the context of particular companies as special segments of which the most interesting is training, or level, mode, range and quality of education of employees on ships. It is also recommended to explore the internal environment that is observed, in this case in limited isolation of seafarers on ships. From the mentioned point of view it is interesting to research sociological and psychological aspects and adjustment to environment and responding to emergencies.

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ANALIZA UPRAVLJANJA LJUDSKIM RESURSIMA U POMORSTVU

Sažetak

Specifičnosti upravljanja ljudskim resursima u pomorstvu očituje se u činjenici da je dio kadrova poduzeća dislociran na brodovima koji predstavljaju specifičnu, izoliranu sredinu. Specifičnosti upravljanja ljudskim resursima na brodovima vezane su za odlučivanje u kriznim situacijama, raspoređivanje kadrova i poslovnoga opterećenja te davanje naloga za obavljanje određenih zadataka. U navedenom kontekstu potrebno je sagledati upravljanje ljudskim resursima, u prethodno navedenom okruženju, koje bi trebalo uključivati vođenje, motivaciju, nagrađivanje, komunikaciju, edukaciju, napredovanje, odlučivanje te zadovoljstvo zaposlenika. Cilj je istraživanja analizirati prethodno navedene parametre te dovesti u vezu s karakteristikama poduzeća koja posluju u pomorstvu. Svrha rada je pružiti uvid u stanje upravljanja ljudskim resursima u poduzećima koja se bave logistikom u pomorskome prometu, odnosno dostavom i prijevozom robe. Metodologija istraživanja temelji se na prikupljanju podataka pomoću anketnoga upitnika slučajnim odabirom na temelju kojega se kreira baza podatka. U skladu s prikupljenim podatcima izvršit će se statistička analiza koja će se temeljiti na korelaciji te korištenju deskriptivne statistike. Analizom teorijske osnove, utvrđeno je da do sada nisu provedena slična istraživanja koja bi u obzir uzela promatranje navedene problematike u kontekstu upravljanja ljudskim resursima na brodovima te se stoga navedeno istraživanje smatra zanimljivim za područje poslovne logistike, kao i cijele znanstvene i stručne javnosti. U zaključnim razmatranjima dat će se preporuke poduzećima vezane za trenutno i buduće upravljanje ljudskim resursima u poduzećima koja se bave logistikom u pomorstvu.

Ključne riječi: upravljanje ljudskim resursima, karakteristike poduzeća, vrste brodova, pomorstvo