

STRESZCZENIE

SUMMARY OF THE DOCTORAL THESIS:

Human Capital Management supported by an ERP-class system

Supervisor: **Associate Professor Eng. Ph.D. Paula Bajdor**

ERP class information systems have been and continue to be the subject of many studies and analyses, as well as considerations conducted by both theorists and practitioners specializing in these systems. However, the universally available knowledge and research primarily relate to these systems as a whole and their general impact on company management. However, there is still a lack of research and analysis results in the literature, referring to specific modules that are part of the entire ERP system. Given that the modules responsible for managing a company's human Capital have only been a part of ERP systems for a few years, knowledge about their impact on company management in this area needs to be supplemented. Given that the issue of using the HCM module is still insufficiently recognized, it is the main motivation for taking up this topic in this dissertation. The main research problem was formulated as follows: How does the ERP system with a built-in HCM module affect human Capital management in the company? To specify it, the following detailed questions were formulated:

- In what way and for how long do companies implement the HCM strategy?
- What are the main reasons for implementing the ERP system with a built-in HCM module?
- What are the main effects of implementing the ERP system with a built-in HCM module?
- What are the main disadvantages and limitations of the ERP system with a built-in HCM module?
- Which functions of the ERP system with a built-in HCM module are used?
- What is the purpose of using the ERP system with a built-in HCM module?
- What is the impact of the ERP system with a built-in HCM module on company management?
- How are individual elements of the ERP system with a built-in HCM module evaluated?

- To what extent has the Covid-19 pandemic affected the company's activities in the HCM area?

The subject of the considerations undertaken in this doctoral dissertation is the use of the ERP system with a built-in HCM module in managing companies, and in particular:

- Characteristics of companies using the ERP system with a built-in HCM module;
- Companies' application of the HCM strategy;
- Main reasons for implementing the ERP system with a built-in HCM module;
- Effects of implementing the HCM module in the company's system;
- Disadvantages and limitations of the ERP system with a built-in HCM module;
- Functions used by the ERP system with a built-in HCM module;
- The impact of the ERP system with a built-in HCM module on company management;
- Evaluation of individual elements of the ERP system with a built-in HCM module;
- The role of the ERP system with a built-in HCM module in the process of creating a business strategy;
- The impact of the Covid-19 pandemic on the company's operations in the HCM area.

In addition, three research hypotheses were formulated:

H1 : There are statistically significant dependencies between the reasons for implementation and the functions used by the ERP system with a built-in HCM module in relation to specific enterprise parameters.

H2: There are significant differences between selected elements of the ERP system and the parameters of the enterprise.

H3: There are significant differences in the assessment of the perception of the impact of the ERP system on the achievement of objectives and on enterprise management depending on the consideration of Solutions offered by the ERP system in creating the enterprise's business strategy.

The formulation of goals and research hypotheses determined the layout of the work, which took the form of five main chapters, an introduction and a conclusion.

The first chapter is devoted to the concept of human Capital management and its importance in enterprise management. This chapter consists of three subchapters:

- **The first subchapter** discusses the essence of human **Capital**, the role it plays in **the functioning** and further **development** of the enterprise, the most popular definitions of human Capital are cited and discussed, as well as its **importance** in managing the **knowledge** of the **enterprise**. **Social Capital**, **intellectual Capital** and organizational

- The fifth subchapter, in turn, contains a review and characteristics of the three most popular ERP systems with built-in human Capital management modules - SAP system, Oracle NetSuite system, and PeopleSoft system.

Chapter three is a bridge between the theoretical and empirical part of the work, it is devoted to the importance of the concept of human capital management in enterprise management and the use of ERP class systems in Poland in quantitative terms. It consists of four subchapters:

- The first subchapter presents current trends characterizing the impact of HCM on enterprise development, for this purpose a number of secondary data were analyzed, enabling quantitative analysis - such as the HCM index, global disruptions affecting enterprise development, sustainability issues affecting the future of enterprises, strategies used to attract and retain human resources or the index of digital human capital development,
- The second subchapter presents the concept of HCM in IT terms, based on the review of conducted studies and reports, it was possible to present the level of use of HCM modules in enterprises;
- The third subchapter presents examples of good practices, indicating numerous benefits from implementing an ERP class system with a built-in HCM module. The cases described in the subchapter concerned companies such as JSW Energy Limited, BO AD bank, Schroders company, Accenture company, medical companies, cosmetics manufacturers, and moving organization companies;
- In the last, fourth subchapter, the results of secondary data analyses are presented in relation to the use of IT systems in enterprises. The conducted quantitative analyses concerned enterprises' access to broadband internet, employees with remote access to enterprise resources, remote work organization, the size of enterprises' expenditures on Computer technologies, the use of ERP class systems, and the classification of enterprises to specific levels of digital intensity.

Chapter four is the practical part of the work and also consists of four subchapters:

- The first subchapter is dedicated to the methodology of empirical research used in the work - it defines the subject of research, adopted research objectives, formulates research hypotheses, describes applied methods, techniques and research tools, and presents the research procedure developed for the work, covering all stages of research;
- The second subchapter contains a characteristic of the research group, with reference to

which empirical research was conducted;

- The third subchapter presents the results of the quantitative analysis conducted in relation to human Capital management in the researched enterprises;
- The fourth subchapter contains the effects of the analysis of the primary data in relation to the effects of the operation of the ERP class system with a built-in HCM module in selected areas of enterprises.

The last, fifth chapter consists of three subchapters and contains the results of statistical analyses, carried out to verify the adopted research hypotheses:

- In the first subchapter, a series of correlation analyses were conducted to identify the occurrence of significant relationships between selected system criteria;
- The content of the second subchapter includes analyses using non-parametric significance tests, used to identify potentially occurring relationships between elements and ERP system parameters;
- The third subchapter is dedicated to conducting analyses in relation to companies that consider ERP system Solutions in the process of creating a business strategy.

The work ends with a summary, which contains the main conclusions from the research. The conducted literature studies and analyses not only allowed the achievement of research objectives and verification of hypotheses, but above all, they facilitated the resolution of the research problem formulated for the purpose of the dissertation. The first specific objective, in the form of a characteristic of the concept of human Capital management, was achieved in the first chapter, as a result of which this concept was presented in the broadest possible context. The next goal was to present this concept, but in the IT context, which will help understand its role and function in currently used ERP systems. The next, third chapter, is devoted to achieving the third goal, which was to present current trends in relation to human Capital management in the enterprise. While the previously presented specific objectives were theoretical objectives, the next two objectives are research objectives, which were achieved by presenting a very detailed characteristic of enterprises that use the ERP system with a built-in HCM module in their activities and examining the role and impact of this system on human Capital management in enterprises depending on specific parameters. The parameters adopted are size, industry, scope, years of implementing the HCM policy by the researched enterprises. It can therefore be assumed that all the objectives formulated for the work have been achieved.

In the further part of the work, analyses aimed at confirming the formulated research hypotheses were conducted. As a result, two of the three research hypotheses were confirmed,

one hypothesis was not confirmed.

The research material presented in the following dissertation in the form of literature studies and empirical research undoubtedly constitutes a significant and very significant contribution to the scientific field, which are social Sciences, and in particular in determining the role played by today's IT systems supporting the company's activities in all its areas.

In conclusion, it can be added that the research results and conclusions from the conducted research are characterized by a very high potential of their practical use not only by economic entities but also by academic circles.

Keywords: ERP systems, HCM, ERP with HCM module, business strategy, ERP impact on HCM