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ENHANCING HUMAN RESOURCE MANAGEMENT EFFICIENCY IN MANUFACTURING INDUSTRIES BASED ON MODERN MANAGERIAL APPROACHES

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Abstract – *This article examines the issue of enhancing human resource management efficiency in manufacturing industries based on modern managerial approaches. The relevance of the topic is determined by the growing need for industrial enterprises to improve labor productivity, strengthen workforce adaptability, and ensure sustainable development under conditions of technological change, market competition, and organizational modernization. In the manufacturing sector, human resources represent not only a labor factor, but also a strategic asset that directly influences production stability, product quality, innovation capacity, and the long-term competitiveness of enterprises. For this reason, the modernization of human resource management has become one of the central directions of industrial management improvement.*

The study is based on the assumption that traditional personnel management models are no longer sufficient for manufacturing industries that operate in a dynamic environment requiring flexibility, efficiency, and continuous professional development. Special attention is given to modern managerial approaches such as competency-based management, performance-oriented evaluation, motivation systems, workforce planning, digital HR tools, and the integration of strategic and operational personnel decisions. The article substantiates that the efficiency of human resource management in manufacturing industries depends on the extent to which enterprises are able to combine organizational goals with employee development, labor discipline, professional training, and effective managerial coordination.

The research shows that the application of modern managerial approaches contributes to improving the quality of personnel decisions, optimizing labor organization, increasing employee engagement, and strengthening the overall effectiveness of production management. As a result, the article proposes conceptual directions for enhancing human resource management efficiency in manufacturing industries, aimed at ensuring higher productivity, stronger organizational resilience, and more sustainable industrial growth.

Keywords: *human resource management, manufacturing industries, managerial approaches, labor productivity, personnel efficiency, industrial management, workforce planning, employee motivation, competency-based management, digital HR tools.*

INTRODUCTION

In the modern economy, manufacturing industries remain one of the key foundations of economic growth, employment, technological progress, and national competitiveness. At the same time, the effectiveness of industrial development increasingly depends not only on equipment modernization, production capacity, or access to financial resources, but also on the quality of human resource management. In manufacturing enterprises, human resources play a decisive role in ensuring labor productivity, production discipline, product quality, operational continuity, and the

implementation of innovation. Under these conditions, improving the efficiency of human resource management based on modern managerial approaches becomes an urgent scientific and practical issue.

The relevance of this topic is strengthened by the fact that manufacturing industries today operate in a dynamic environment shaped by technological renewal, digitalization, increasing competition, stricter quality requirements, and constant changes in labor market conditions. These factors create new demands for workforce adaptability, professional skills, motivation, and managerial coordination. Traditional personnel management models, which often focus mainly on administrative control and staffing procedures, are no longer sufficient for modern industrial enterprises. The growing complexity of production systems requires a transition toward more flexible, integrated, and strategically oriented approaches to human resource management.

In this context, human resource management should be considered not only as a support function, but as an important component of enterprise strategy. Effective management of personnel in manufacturing industries involves workforce planning, competency development, labor organization, performance evaluation, employee motivation, professional training, and the creation of conditions for continuous improvement. Modern managerial approaches make it possible to align personnel policy with strategic production goals, increase employee involvement, reduce inefficiencies in labor use, and strengthen the overall resilience of industrial organizations. This means that the role of management is shifting from simple supervision of labor processes toward the development of human capital as a strategic resource of industrial growth.

The scientific significance of this issue lies in the need to rethink the principles of personnel management in accordance with contemporary industrial challenges. Manufacturing industries require management systems capable of combining productivity goals with employee development, technological adaptation, and organizational stability. Such systems must support both operational efficiency and long-term competitiveness. In this regard, modern managerial approaches, including competency-based management, performance-oriented evaluation, motivation systems, digital HR instruments, and integrated personnel planning, are becoming increasingly important for improving enterprise performance.

The practical importance of the research is connected with the possibility of identifying managerial directions that can increase the efficiency of human resource management in manufacturing industries. Enterprises that apply modern managerial approaches more effectively are better able to organize labor processes, improve employee performance, strengthen professional discipline, and adapt to technological and organizational changes. In contrast, weak personnel management reduces productivity, increases labor turnover, limits innovation capacity, and weakens enterprise competitiveness. Therefore, the improvement of human resource management efficiency is directly related to the broader objectives of industrial modernization and sustainable economic development.

LITERATURE REVIEW

Contemporary research treats human resource management as a strategic determinant of enterprise performance rather than a purely administrative function. Foundational HRM-performance studies show that staffing, training, performance appraisal, compensation, and employee involvement are linked with productivity and organizational outcomes, while later reviews argue that the central question is no longer whether HRM matters, but how specific HR systems improve performance under different organizational conditions. This perspective is especially relevant for manufacturing industries, where labor productivity, process discipline, quality stability, and innovation capacity depend on the coordinated use of human resources.

A major stream of recent literature connects HRM with technological modernization and industrial transformation. Systematic reviews on HRM in the context of Industry 4.0 show that digital production environments require new managerial approaches centered on workforce adaptability, reskilling, digital competencies, and closer integration between people management and

technological systems. These studies indicate that modern HRM in industry must support not only operational efficiency but also continuous learning, organizational flexibility, and the human side of digital change. OECD research reinforces this conclusion by showing that digital transition is changing skill demand and increasing the importance of managerial, technical, and adaptive capabilities in enterprises.

Another important line of scholarship emphasizes the integration of HRM with operations and production management. Research in manufacturing demonstrates that HR practices produce stronger results when they are aligned with operational systems rather than implemented in isolation. Studies on manufacturing firms show that the combination of HRM and operations management improves productivity more effectively than fragmented interventions, which supports the idea that personnel policy should be embedded in broader managerial architecture. In this sense, workforce planning, training, performance monitoring, and motivation systems become part of the overall logic of industrial competitiveness.

The literature also highlights the growing role of innovation-oriented and employee-centered managerial approaches. Reviews of innovative HRM practices argue that enterprises achieve better organizational outcomes when they combine competency development, motivation systems, employee well-being, and participatory management with strategic goals. This is particularly important in manufacturing, where productivity pressures are high but sustainable performance depends on workforce engagement, skill development, and retention. Recent studies therefore move beyond traditional control-based personnel administration and promote more flexible, developmental, and evidence-based HR models.

At the same time, the literature still reveals a gap. A large body of research addresses HRM-performance relations in general terms, while another part focuses on digitalization or innovation separately. Comparatively fewer studies examine how modern managerial approaches can be combined into a coherent model specifically for enhancing human resource management efficiency in manufacturing industries. This creates the need for further research that links strategic HRM, operational coordination, workforce development, motivation, and digital managerial tools within the realities of industrial enterprises. The present study is therefore positioned within this gap and focuses on substantiating managerial approaches that can strengthen HRM efficiency as a factor of sustainable industrial development.

METHODOLOGY

This study is based on a qualitative and analytical approach aimed at examining how human resource management efficiency in manufacturing industries can be improved through modern managerial approaches. The methodology combines theoretical generalization, comparative analysis, and a systematic approach, which allows the study to identify the main factors influencing labor productivity, personnel efficiency, and organizational performance.

The research is grounded in the analysis of scientific literature and conceptual studies on human resource management, industrial development, and modern management approaches. A systematic approach was used to examine manufacturing enterprises as complex systems in which HRM is closely connected with production processes, workforce planning, employee motivation, training, and performance evaluation. The comparative method helped distinguish traditional personnel administration from modern, competency-based and strategically integrated HR approaches.

In addition, logical analysis and abstraction were applied to formulate general conclusions and identify the main directions for improving HRM efficiency. This methodology provides a consistent basis for understanding the problem and developing practical recommendations for manufacturing enterprises.

ANALYSIS AND RESULTS

The analysis shows that enhancing human resource management efficiency in manufacturing

industries requires a transition from traditional personnel administration toward modern managerial approaches that are more flexible, integrated, and performance-oriented. In industrial enterprises, human resources directly influence labor productivity, production discipline, product quality, technological adaptation, and organizational stability. For this reason, the efficiency of HRM can no longer be assessed only through staffing functions or formal control procedures. It increasingly depends on how effectively enterprises align personnel policy with production goals, workforce development, and long-term strategic priorities.

The results of the analysis indicate that one of the most important conditions for improving HRM efficiency is the integration of personnel management with the overall system of industrial management. When workforce planning, employee training, motivation, and performance evaluation are linked with operational objectives, enterprises are better able to optimize labor use and improve production outcomes. In contrast, fragmented HR practices often lead to skill mismatches, weak coordination, lower employee engagement, and reduced organizational effectiveness. This confirms that HRM efficiency in manufacturing industries grows when personnel decisions are embedded in a broader managerial framework.

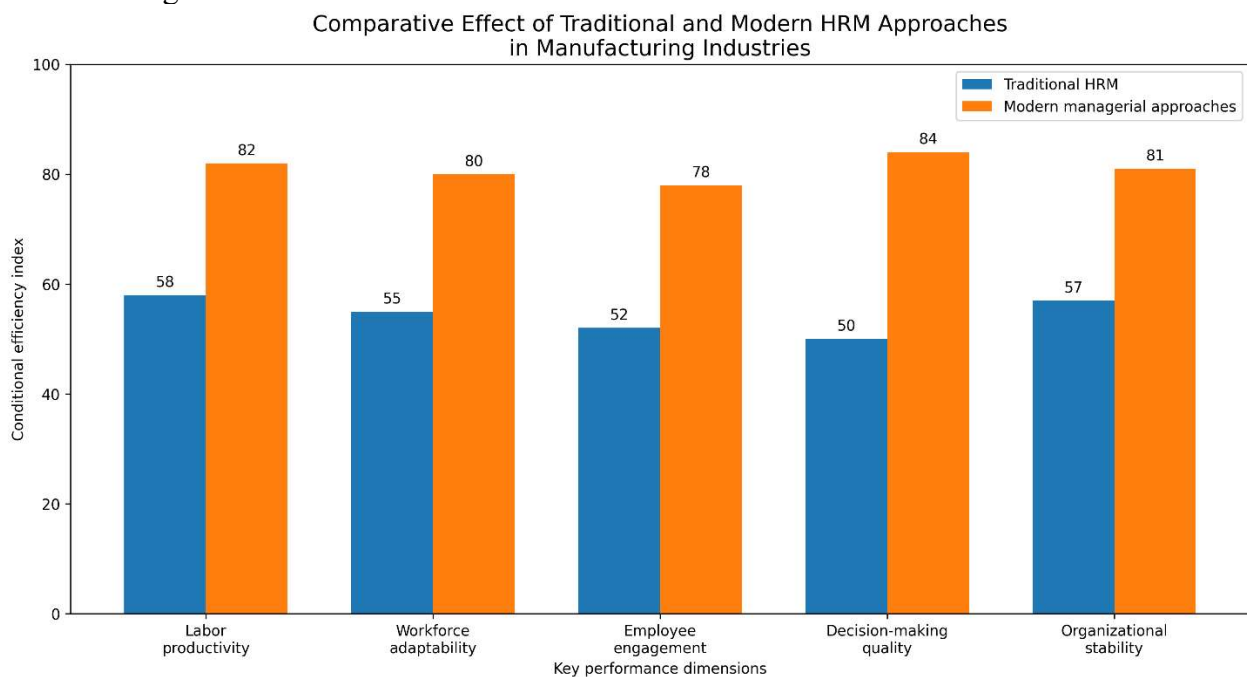


Fig 1. Comparative effect of traditional and modern HRM approaches in manufacturing industries

The study also reveals that modern managerial approaches significantly improve the quality of human resource management by shifting attention toward competencies, performance, and adaptability. Manufacturing enterprises operating in a dynamic environment require workers who are not only technically qualified but also capable of learning, adapting to technological change, and participating in continuous improvement processes. Therefore, competency-based management, professional development systems, and performance-oriented evaluation become essential tools for strengthening HRM efficiency. These approaches help enterprises reduce operational inefficiencies, improve employee contribution, and increase labor productivity.

Another important result is the growing role of employee motivation and engagement in industrial performance. The analysis demonstrates that effective HRM in manufacturing industries depends not only on formal control mechanisms but also on the ability of managers to create conditions that support discipline, responsibility, and professional commitment. Enterprises that apply modern motivational systems, transparent evaluation criteria, and development opportunities are more likely to achieve stable workforce performance and lower labor turnover. As a result, modern HRM should be built on a combination of managerial control and employee-centered

approaches.

The findings further show that digital and analytical tools are becoming increasingly important for HRM efficiency in manufacturing industries. Modern managerial approaches make wider use of data in workforce planning, monitoring of employee performance, skills assessment, and decision-making. This allows enterprises to respond more accurately to production needs, identify weaknesses in labor organization, and improve the quality of managerial decisions. However, the results also indicate that digital tools alone do not guarantee HRM efficiency unless they are supported by competent managers, clear organizational procedures, and alignment with enterprise objectives.

Overall, the analysis suggests that enhancing human resource management efficiency in manufacturing industries should be based on several interrelated directions: the strategic integration of HRM into industrial management, the development of competency-based and performance-oriented personnel systems, the strengthening of employee motivation and engagement, and the broader use of analytical and digital tools in personnel decision-making. These directions contribute to higher labor productivity, stronger organizational adaptability, and more sustainable industrial development. Thus, the results confirm that modern managerial approaches play a decisive role in transforming human resource management into a strategic factor of manufacturing competitiveness.

CONCLUSION

The study shows that enhancing human resource management efficiency in manufacturing industries has become an essential condition for improving productivity, organizational stability, and long-term competitiveness. In modern industrial environments, human resource management can no longer be limited to routine administrative functions, since the effectiveness of enterprises increasingly depends on the quality of workforce planning, employee development, motivation, and managerial coordination. This makes the use of modern managerial approaches especially important for industrial enterprises operating under conditions of technological change and growing competition.

The analysis confirms that traditional personnel management models are often insufficient for meeting the current demands of manufacturing industries. More effective results are achieved when human resource management is integrated into the overall system of industrial management and supported by competency-based development, performance-oriented evaluation, employee engagement, and analytical decision-making tools. In this context, HRM becomes not only a support function but also a strategic factor influencing production quality, labor productivity, and organizational adaptability.

Therefore, the improvement of HRM efficiency in manufacturing industries should be directed toward the formation of more flexible, integrated, and development-oriented management systems. Such systems allow enterprises to respond more effectively to technological and organizational changes, strengthen workforce performance, and ensure sustainable industrial growth. Thus, modern managerial approaches play a decisive role in transforming human resource management into a key source of industrial competitiveness.

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