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IMPLEMENTATION OF DIGITAL TECHNOLOGIES IN PRODUCTION: BENEFITS FOR VEDISPROM LLC

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Abstract

The rapid development of digital technologies is radically changing manufacturing processes, opening up new opportunities for increasing the efficiency and competitiveness of enterprises. The work is assigned to investigate the advancement of digital technologies in the manufacturing industry, focusing on the advantages that VEDISPROM LLC gives to the company. At the same time, we are looking at the integration of speeches, great data and piece intelligence with the Internet to optimize production processes, reduce costs and increase the quality of products. The research demonstrates how digital transformation is fueling innovation and sustainable growth in the minds of the modern economy [2].

Keywords: digital technologies, virtualization, Internet of speeches, great data, piece intelligence

1 Introduction

The rapid development of digital technologies is fundamentally changing the landscape of industrial production, opening up new opportunities for improving the efficiency and competitiveness of enterprises. The integration of technologies such as the Internet of Things, artificial intelligence, big data and automation allows optimizing production processes, reducing costs and improving product quality [1]. The introduction of information and communication technologies contributes to the rapid collection and analysis of data, which ensures the adoption of informed management decisions and increases the competitiveness of enterprises in the market [4].

However, the process of digitalization is accompanied by a number of challenges, including the need for significant investments, ensuring cybersecurity and training qualified personnel. High implementation costs, a

lack of qualified ICT specialists and the threat of cyberattacks are the main obstacles to digital transformation.

Despite these challenges, the strategic implementation of digital technologies is a key factor in achieving sustainable development and innovative growth of industrial enterprises [2]. Digital transformation allows for the creation of «smart factories» where all elements of the production process are interconnected and optimized using modern technologies, which increases flexibility and adaptability to changing market conditions

In this context, research into the experience of companies in implementing digital technologies is extremely relevant. Analysis of their approaches and the results obtained can become a valuable reference point for other companies seeking to implement similar initiatives and achieve success in the conditions of the modern digital economy.

Overview

The introduction of digital technologies into production processes is a key factor in increasing the efficiency and competitiveness of industrial enterprises. The integration of information and communication technologies helps in automation, improving product quality and optimizing business processes [2].

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LLC «VEDISPROM» is a Ukrainian company registered on November 21, 2018 in the city of Cherkasy. The enterprise specializes in the production of oil and animal fats, which corresponds to the KVED code 10.41. The enterprise demonstrates stable financial results: net profit is 1,703,000 UAH, total asset value is 13,444,200 UAH, authorized capital is 15,000 UAH. as of 2023. Given its specialization, LLC «VEDISPROM» operates in the food industry, which is strategically important for the Ukrainian economy due to the country's strong agricultural base and export potential. The company's production activities contribute to the food industry value chain, ensuring a stable supply of necessary raw materials for both domestic consumption and international markets [3].

The company's financial stability indicates a well-established business model that allows it to navigate the challenges of the Ukrainian economy. The ability to maintain profitability and asset growth indicates operational efficiency and potentially effective cost management strategies. The presence

of VEDISPROM LLC in Cherkasy is also an indicator of the economic development of the region, as the city is known for its industrial and agricultural significance [4].The integration of additional digital technologies into production should further increase the company's efficiency, allowing for process automation, improved resource management, and compliance with international quality standards.

First of all, the use of rotating machinery monitoring systems allows for timely detection of potential defects, planning repair work and reducing equipment downtime. For example, Vidisy technology optimizes the production support process and reduces repair and downtime costs by up to 75%, providing detailed information on the location, time and cause of the breakdown, as well as ease of installation and use.

The use of digital solutions such as the Internet of Things, artificial intelligence and data analytics allows industrial enterprises to collect, process and analyze large amounts of data, which contributes to making informed decisions and increasing productivity. However, the implementation of these technologies is accompanied by challenges, such as the need for significant investments, ensuring cybersecurity and training qualified personnel [1].

It is worth noting that the successful implementation of digital technologies requires a strategic approach and adaptation to the specifics of each enterprise. The experience of companies that have already implemented digital transformation demonstrates significant benefits, including resource savings and improved product quality [3].For example, LLC «FITOSVIT LTD» was able to increase the efficiency of crop processing and reduce resource costs through digital field auditing [4].

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Conclusion

Therefore, digital transformation is a key factor in increasing the competitiveness of enterprises, contributing to the optimization of processes, reducing costs and improving product quality. The introduction of advanced technologies, such as the Internet of Things, artificial intelligence and cloud computing, allows enterprises to adapt to dynamic market changes and meet the growing needs of consumers. However, successful digitalization requires significant investments, the development of a strategic approach and the training of qualified personnel. Thus, enterprises that effectively integrate digital technologies into their activities gain sustainable competitive advantages and ensure long-term development in the modern digital environment.

References

[1] Porter M. E. Competitive Advantage: Creating and Sustaining Superior Performance. New York: Free Press, 1985. 557 p.

[2] Laudon K. C., Laudon J. P. Management Information Systems: Managing the Digital Firm. 15th ed. Harlow: Pearson Education, 2018. 720 p.

[3] Bharadwaj A. S. A Resource-Based Perspective on Information Technology Capability and Firm Performance: An Empirical Investigation. MIS Quarterly. 2000. Vol. 24, No. 1. P. 169–196.

[4] Brynjolfsson E., McAfee A. The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies. New York: W. W. Norton & Company, 2014. 306 p. URL: https://www.wwnorton.com/books/The-Second-Machine-Age/ (дата звернення: 31.03.2025).