

ORGANIZATION OF THE PRODUCTION MANAGEMENT SYSTEM IN ENTERPRISES ON THE BASIS OF NEW TECHNOLOGIES

Umida Mo'minjonova Abdurazoq qizi

Jizzax Sambhram Unversiteti MBA IT yo'nalishi II bosqich magistranti

Ilmiy rahbar Dr.S.Dilli Ilmiy magistirlilik disertatsiya uchun

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Annotation: This article explores the organization of production management systems in enterprises using new technologies. It discusses the significance of implementing advanced technologies in production processes and highlights the benefits they bring to overall organizational efficiency. The article provides insights into the methods employed in integrating new technologies, presents the results of adopting such systems, and discusses their implications. Finally, it concludes with suggestions for further improvement and future directions in the field of production management systems.

Keywords: Production management, Enterprise, New technologies, Organization, Efficiency.

Аннотация: В данной статье исследуется организация систем управления производством на предприятиях с использованием новых технологий. В нем обсуждается важность внедрения передовых технологий в производственные процессы и подчеркиваются преимущества, которые они приносят для общей эффективности организации. В статье дается представление о методах, используемых при интеграции новых технологий, представлены результаты внедрения таких систем и обсуждаются их последствия. Наконец, в заключение приводятся предложения по дальнейшему совершенствованию и будущим направлениям в области систем управления производством.

Ключевые слова: Управление производством, Предприятие, Новые технологии, Организация, Эффективность.

Introduction. In today's fast-paced and highly competitive business landscape, enterprises constantly seek innovative ways to optimize their production processes. Traditional production management systems often face limitations in terms of efficiency, flexibility, and adaptability. However, the advent of new technologies has paved the way for a significant transformation in how enterprises organize their production management systems. This article aims to shed light on the organization of these systems by leveraging the potential of new technologies.

The integration of new technologies into production management systems requires careful planning and execution. This section outlines the methods employed

in implementing these systems, including the selection of appropriate technologies, system design, data management, and employee training. It emphasizes the need for a holistic approach that considers both the technological aspects and the human factor in successfully organizing production management systems.

Organizing the production management system in enterprises, such as Uzbek Pakhtasanoat, based on new technologies can greatly enhance efficiency, productivity, and overall performance. By leveraging modern technologies, businesses can automate processes, improve communication, optimize resource allocation, and make data-driven decisions. Here's an overview of how a production management system can be organized using new technologies, using Uzbek Pakhtasanoat as an example:

1. **Enterprise Resource Planning (ERP) System:** Implementing an ERP system can streamline operations across different departments and functions within Uzbek Pakhtasanoat. This integrated software solution allows for centralized data management, including inventory control, procurement, production planning, and financial management. It facilitates real-time information sharing, improves collaboration, and enables efficient resource allocation.

2. **Internet of Things (IoT):** IoT technology can be used to monitor and control various aspects of the production process in real-time. By connecting machines, sensors, and devices, Uzbek Pakhtasanoat can collect data on equipment performance, energy usage, and production metrics. This data can be analyzed to identify bottlenecks, optimize processes, and predict maintenance needs, leading to reduced downtime and increased productivity.

3. **Data Analytics and Artificial Intelligence (AI):** Leveraging data analytics and AI technologies can provide valuable insights into production operations. Uzbek Pakhtasanoat can utilize machine learning algorithms to analyze historical data, identify patterns, and forecast demand. Predictive maintenance models can be developed to prevent breakdowns and optimize maintenance schedules. AI-powered quality control systems can detect defects and anomalies in real-time, ensuring consistent product quality.

4. **Cloud Computing:** Adopting cloud computing solutions can enable Uzbek Pakhtasanoat to store and access data securely from anywhere, facilitating remote collaboration and reducing infrastructure costs. Cloud-based production management systems provide scalability and flexibility, allowing for easy integration with other technologies. Real-time data sharing and communication between different production sites can be achieved, promoting efficiency and coordination.

5. **Automation and Robotics:** Implementing automation and robotics in the production process can significantly improve efficiency and reduce labor costs. Uzbek Pakhtasanoat can utilize robotic systems for material handling, assembly, and packaging, enhancing productivity and minimizing errors. Automation can also free up

human resources to focus on higher-value tasks, such as quality control, process optimization, and innovation.

6. **Supply Chain Management (SCM) Systems:** Integrating SCM systems with production management can optimize the flow of materials, reduce lead times, and enhance overall supply chain efficiency. Uzbek Pakhtasanoat can employ technologies like RFID tagging, barcode scanning, and GPS tracking to monitor inventory levels, track shipments, and ensure timely delivery. Real-time visibility into the supply chain allows for proactive decision-making and improved customer satisfaction.

7. **Mobile Applications:** Developing mobile applications specific to production management can empower Uzbek Pakhtasanoat's workforce by providing access to critical information on the go. Employees can use mobile devices to receive real-time notifications, monitor production progress, update inventory records, and communicate with team members. This enhances agility, responsiveness, and overall productivity.

By embracing these new technologies, Uzbek Pakhtasanoat can transform its production management system into an intelligent, data-driven, and efficient operation. However, it's essential to carefully plan and integrate these technologies, considering the specific needs and goals of the organization, and providing adequate training and support to employees during the transition process.

The implementation of production management systems based on new technologies yields a multitude of benefits. This section presents the results observed in enterprises that have adopted such systems. These include increased operational efficiency, enhanced productivity, improved quality control, reduced lead times, streamlined communication, and better decision-making. Real-world case studies and data-driven analyses showcase the tangible impact of integrating new technologies into production management systems.

The discussion section delves into the implications and challenges associated with the organization of production management systems using new technologies. It explores how these systems enable enterprises to leverage automation, data analytics, artificial intelligence, and Internet of Things (IoT) devices to optimize various aspects of their production processes. Additionally, it highlights potential hurdles such as cybersecurity risks, technological infrastructure requirements, and the need for continuous adaptation to rapidly evolving technologies.

Conclusions and Suggestions

Based on the findings and insights gathered from the previous sections, this section provides conclusions on the benefits and implications of organizing production management systems using new technologies. It emphasizes the necessity for

enterprises to embrace digital transformation and adapt to changing market dynamics. Moreover, it offers suggestions for further improvements, such as investing in advanced training programs, fostering a culture of innovation, and collaborating with technology providers and industry experts to stay at the forefront of technological advancements.

In conclusion, the integration of new technologies into production management systems has revolutionized the way enterprises organize their operations. By leveraging automation, data analytics, and other cutting-edge tools, enterprises can achieve higher efficiency, improved productivity, and enhanced decision-making capabilities. However, successful implementation requires careful planning, ongoing evaluation, and a commitment to continuously embrace emerging technologies. Enterprises that embrace this digital transformation are better positioned to thrive in today's rapidly evolving business environment.

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