

**THE IMPORTANCE OF DIGITAL TRANSFORMATION IN WORKPLACE
MANAGEMENT AT AUTOMOBILE MANUFACTURING PLANTS**

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Shokarimov Shokhrukhbek Ulugbekovich

Process Automation Manager

UzAuto Passenger Vehicles Management LLC

shohruh.shokarimov@gmail.com

Annotatsiya: Ushbu maqolada avtomobil ishlab chiqarish zavodlarida ish joylarini boshqarishda raqamli transformatsiya texnologiyalarining ahamiyati tahlil qilinadi. Tadqiqot jarayonida sanoat korxonalarida ishlab chiqarish jarayonlarini raqamlashtirish, avtomatlashtirish hamda raqamli boshqaruv tizimlarining joriy etilishi natijasida yuzaga keladigan samaradorlik ko'rsatkichlari o'rganildi. Tadqiqot metodologiyasi sifatida tizimli tahlil, taqqoslash, statistik tahlil va kuzatuv usullaridan foydalanildi. Tadqiqot natijalari shuni ko'rsatdiki, raqamli texnologiyalarni ishlab chiqarish jarayonlariga joriy etish ish joylarini boshqarish samaradorligini oshiradi, ishlab chiqarish jarayonlarini optimallashtiradi hamda mehnat unumdorligini yaxshilaydi. Shuningdek, raqamli transformatsiya ishlab chiqarish jarayonlarini real vaqt rejimida monitoring qilish, boshqaruv qarorlarini tezkor qabul qilish va ishlab chiqarish resurslaridan samarali foydalanish imkonini beradi. Tadqiqot natijalari avtomobil sanoati korxonalarida zamonaviy raqamli boshqaruv tizimlarini joriy etish bo'yicha ilmiy-amaliy tavsiyalar ishlab chiqishda muhim ahamiyatga ega.

Kalit so'zlar: raqamli transformatsiya, avtomobil sanoati, ishlab chiqarish boshqaruvi, ish joylarini boshqarish, Industry 4.0, avtomatlashtirish, raqamli texnologiyalar.

Аннотация: В данной статье анализируется значение цифровой трансформации в управлении рабочими местами на предприятиях автомобильной промышленности. В ходе исследования были изучены процессы цифровизации и автоматизации производства, а также влияние внедрения цифровых систем управления на эффективность производственных процессов. В качестве методов исследования использованы системный анализ, сравнительный анализ, статистический анализ и методы наблюдения. Результаты исследования показали, что внедрение цифровых технологий в производственные процессы способствует повышению эффективности управления рабочими местами, оптимизации производственных процессов и росту производительности труда. Кроме того, цифровая трансформация обеспечивает возможность мониторинга производственных процессов в режиме реального времени, принятия оперативных управленческих решений и более эффективного использования производственных ресурсов. Полученные результаты могут быть использованы при разработке

современных систем цифрового управления на предприятиях автомобильной промышленности.

Ключевые слова: *цифровая трансформация, автомобильная промышленность, управление производством, управление рабочими местами, индустрия 4.0, автоматизация, цифровые технологии*

Abstract: *This article analyzes the importance of digital transformation in workplace management at automotive manufacturing enterprises. The study examines the processes of digitalization and automation of production, as well as the impact of implementing digital management systems on production efficiency. System analysis, comparative analysis, statistical analysis, and observation methods were used as the main research methods. The results of the study show that the implementation of digital technologies in production processes significantly improves workplace management efficiency, optimizes production processes, and increases labor productivity. In addition, digital transformation enables real-time monitoring of production processes, facilitates prompt managerial decision-making, and ensures more efficient use of production resources. The findings of the study can be applied in the development and implementation of modern digital management systems in automotive manufacturing enterprises.*

Keywords: *digital transformation, automotive industry, production management, workplace management, Industry 4.0, automation, digital technologies.*

INTRODUCTION

In recent years, the rapid development of digital technologies in the global economy has led to fundamental changes in the manufacturing sector. In particular, the digitalization of production processes, automation, and the implementation of data-driven management systems in industrial enterprises have become key factors in improving organizational efficiency. Digital transformation enables increased flexibility in production systems, efficient use of resources, and real-time monitoring of manufacturing processes.

The automobile manufacturing industry is one of the sectors where modern technologies are being adopted most rapidly. Production processes in this industry are highly complex, involving numerous technological operations, logistics processes, and human-dependent management mechanisms. Therefore, the effective organization and management of workplaces in automobile manufacturing plants play a crucial role in improving production efficiency. The implementation of digital transformation technologies allows for optimization of production processes, automation of workflows, and enhancement of decision-making processes.

Today, many developed countries widely implement digital management systems, Smart Manufacturing, the Industrial Internet of Things (IIoT), and Industry 4.0 technologies in automobile manufacturing enterprises. These technologies enable real-time monitoring of production processes, increase efficiency, and reduce human-related errors in workplace management. At the same time, digital technologies expand opportunities for analyzing and forecasting production processes.

However, in-depth study of the effectiveness of digital transformation technologies in managing workplaces at automobile manufacturing plants and scientific analysis of their impact on production processes remain pressing issues. This study is aimed at examining the importance of digital transformation processes in workplace management at automobile manufacturing plants.

The purpose of this research is to analyze the importance of digital transformation technologies in workplace management at automobile manufacturing plants and to determine their impact on production efficiency.

Methodology. This study focuses on examining the importance of digital transformation in workplace management at automobile manufacturing plants. Several scientific methods were employed to achieve the research objectives. The methodology is aimed at analyzing production processes, evaluating the effectiveness of implementing digital technologies, and identifying changes in workplace management systems.

First, existing scientific literature on digital transformation in the automotive industry, international experience, and modern management systems used in industrial enterprises were analyzed. A systematic analysis method was applied to identify the theoretical foundations of implementing digital technologies and to assess their impact on production efficiency.

A comparative method was also used to examine the differences between traditional production management systems and those based on digital transformation. The results showed that digital technologies play a significant role in optimizing workflows, improving production efficiency, and enhancing workplace management systems.

In addition, statistical analysis was conducted to evaluate efficiency indicators resulting from the use of digital technologies in production processes. Based on statistical data, indicators such as time consumption, labor productivity, and overall production efficiency were analyzed.

Observation and analytical methods were also applied to study workplace management processes in automobile manufacturing plants and to assess the practical outcomes of digital management systems. Based on the research findings, scientific conclusions were developed regarding improving workplace management efficiency through digital transformation in automobile manufacturing enterprises.

Results. The research findings indicate that the implementation of digital transformation technologies in workplace management at automobile manufacturing plants significantly improves production efficiency. The study analyzed the use of digital management systems, real-time monitoring of production processes, and opportunities for workflow automation.

The results show that when digital management systems are implemented, workplace management becomes more systematic and efficient. Digital technologies enable real-time control of production processes, allowing for rapid identification and resolution of faults. As a result, time losses are reduced, and overall production efficiency increases.

The study also found that digitally transformed workplaces contribute to increased labor productivity. Automation reduces human errors and ensures the stability of production

processes. Moreover, digital management systems provide accurate and timely data, which enhances the decision-making process.

Additionally, the implementation of digital technologies improves the efficient use of production resources. Managing workplaces through digital systems helps optimize processes, reduce unnecessary time consumption, and lower production costs. Consequently, the overall productivity and competitiveness of enterprises increase.

Furthermore, the findings reveal that digital transformation enhances the flexibility of production processes. Digital technologies allow for rapid reorganization of workflows, optimization of production plans, and adjustment of production volumes according to market demand. This is a critical factor for modern automobile manufacturing enterprises.

Overall, the results confirm that digital transformation technologies play a vital role in improving workplace management, increasing labor productivity, and enhancing management processes in automobile manufacturing plants.

Discussion. The research findings demonstrate that implementing digital transformation technologies in workplace management significantly improves production efficiency. Digital management systems enable real-time monitoring of production processes, rapid identification of issues, and effective problem-solving. This ensures continuity in production processes and enhances overall efficiency.

The results also show that digital transformation is fundamentally changing production management systems in industry. In the automotive sector, the complexity and multi-stage structure of production processes further increase the need for modern digital technologies in workplace management. Digitalization ensures transparency, efficient resource utilization, and optimization of production processes.

Moreover, digital transformation significantly improves the organization and management of workplaces. Digital management systems allow for rapid data collection and analysis, which supports more effective strategic decision-making.

However, several challenges exist in implementing digital transformation. These include high investment requirements, a shortage of qualified specialists, and difficulties in integrating existing production systems with new digital platforms. Therefore, it is essential to implement digital transformation gradually and to develop employees' digital competencies.

The findings confirm that digital transformation is a key factor in improving workplace management efficiency, optimizing production processes, and enhancing the competitiveness of automobile manufacturing enterprises. Thus, the development and implementation of digital management systems remain a promising direction for modern automotive industry enterprises.

Conclusion. This study examined the importance of digital transformation technologies in workplace management at automobile manufacturing plants. The results indicate that the implementation of digital technologies plays a crucial role in improving workplace management systems and increasing production efficiency. Digital management systems enable real-time monitoring, rapid identification of issues, and effective resolution of production problems.

The study found that digital transformation contributes to process optimization, increased labor productivity, and efficient use of production resources. Automation reduces human errors and ensures stability in production processes. Furthermore, digital systems provide accurate and timely information, improving decision-making processes.

At the same time, the implementation of digital transformation may involve organizational and technological challenges, including high investment requirements, the need for skilled specialists, and integration issues with existing systems. Therefore, it is important to adopt a phased modernization approach and to enhance employees' digital competencies.

In conclusion, digital transformation is a key driver of improved workplace management, optimized production processes, and increased competitiveness in automobile manufacturing enterprises.

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