CONTEMPORARY ISSUES AND RISKS IN THE IMPLEMENTATION OF ARTIFICIAL INTELLIGENCE TOOLS AND AUTOMATION IN SMALL BUSINESS COMPANIES

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Abstract. Today's market is becoming tough for small businesses. Competition is growing, and digital technologies are evolving so fast that it is becoming difficult to keep up. Small companies, in particular, often struggle more than larger firms because they usually work with limited budgets, depend heavily on manual tasks, and do not always have standardized processes in place. Yet despite these challenges, automation and AI can become a real game-changer for them. By automating the most time-consuming and vulnerable parts of their work, small businesses can save resources, reduce errors, and operate more confidently. This article explores what kind of challenges small businesses are currently facing while automating their operations. It also identifies the main risks involved and suggests practical software tools that can help small companies choose solutions that truly meet their needs.

Keywords: small business automation, AI tools, business processes, automation risks, financial resources, data control, business operations, company resources, cost reduction.

KICHIK BIZNES KORXONALARIDA SUN'IY INTELLEKT VOSITALARI VA AVTOMATLASHTIRISHNI JORIY ETISHDAGI ZAMONAVIY MUAMMOLAR VA XAVFLAR

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Annotatsiya. Bugungi bozor sharoitida keskin kuchayib borayotgan raqobat va raqamli texnologiyalarning jadal rivojlanishi kichik biznes korxonalari faoliyati uchun sezilarli qiyinchiliklar tug'dirmoqda. Cheklangan moliyaviy resurslar, qo'lda bajariladigan jarayonlarga yuqori darajadagi qaramlik hamda standartlashtirilgan boshqaruv tizimlarining yetarli emasligi ular uchun asosiy to'siqlardan biri hisoblanadi. Shu bilan birga, avtomatlashtirish va sun'iy intellekt texnologiyalari kichik biznes subyektlari uchun jarayonlarni optimallashtirish, xatoliklarni kamaytirish va operatsion barqarorlikni oshirish imkonini beradi. Mazkur maqolada kichik biznes korxonalarida avtomatlashtirishni joriy etish jarayonidagi asosiy muammolar va xavflar tahlil qilinadi, shuningdek, minimal xarajat bilan maksimal samaradorlikka erishish imkonini beruvchi dasturiy yechimlar bo'yicha amaliy tavsiyalar beriladi. Tadqiqot natijalari kichik bizneslar uchun avtomatlashtirish jarayonini samarali rejalashtirish va boshqarishda metodik asos bo'lib xizmat qilishi mumkin.

Kalit so'zlar: kichik biznesni avtomatlashtirish, sun'iy intellekt vositalari, biznes jarayonlari, avtomatlashtirish jarayonidagi xatarlar, moliyaviy resurslar, ma'lumotlarni nazorat qilish, biznes operatsiyalari, kompaniya resurslari, xarajatlarni kamaytirish.

СОВРЕМЕННЫЕ ПРОБЛЕМЫ И РИСКИ ПРИ ВНЕДРЕНИИ ИНСТРУМЕНТОВ ИСКУССТВЕННОГО ИНТЕЛЛЕКТА И АВТОМАТИЗАЦИИ В КОМПАНИЯХ МАЛОГО БИЗНЕСА

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Аннотация. *В современных рыночных условиях резко растущая конкуренция и стремительное развитие цифровых технологий создают значительные трудности для деятельности малого бизнеса. Ограниченные финансовые ресурсы, высокая зависимость от ручных процессов и отсутствие стандартизированных систем управления являются одними из основных препятствий для них. В то же время, технологии автоматизации и искусственного интеллекта позволяют малому бизнесу оптимизировать процессы, сократить количество ошибок и повысить стабильность работы. В данной статье анализируются основные проблемы и риски при внедрении автоматизации в малом бизнесе, а также даются практические рекомендации по программным решениям, позволяющим достичь максимальной эффективности при минимальных затратах. Результаты исследования могут служить методологической основой для эффективного планирования и управления процессом автоматизации для малого бизнеса.*

Ключевые слова: *автоматизация малого бизнеса, инструменты искусственного интеллекта, бизнес-процессы, риски в процессе автоматизации, финансовые ресурсы, контроль данных, бизнес-операции, ресурсы компании, снижение затрат.*

Introduction.

In today's fast-moving economy, business process automation and the use of AI are no longer just a popular trend — it has become a necessity for companies that want to stay competitive and relevant. Business process automation involves integrating modern information technologies into daily operations to enhance work quality, improve employee productivity, and strengthen a company's market position. As the business landscape continues to change rapidly, traditional management approaches are no longer enough. Companies now face faster decision-making cycles, increasingly complex asset management, and the urgent need to minimize risks. In this context, comprehensive automation offers a practical response to both internal and external challenges. By automating routine and repetitive tasks, organizations can save valuable time and resources. This allows business leaders to shift their attention away from day-to-day operational issues and focus instead on strategic planning, long-term development, and the core priorities that drive growth (Prokina, 2022).

Business process automation and the implementation of AI tools into the business processes are becoming increasingly relevant for companies of all sizes. Small businesses are no exception, as they face numerous challenges: intense competition, rising customer expectations, the need to optimize costs, and adapt to rapidly changing market conditions. Successful business process automation can help small businesses not only survive challenging conditions but also pursue sustainable growth and development (Sazanova, 2024).

Literature review.

The issue of automation of small businesses was actively discussed among different authors and specialists. Among them we can point out the works of Beverly E. Rio & Richard Cardinali (1993) «Automation dynamics: a small business dilemma. In the article, the authors

note that automating administrative functions in small businesses can provide significant benefits – for example, cost reduction and office space optimization – but there is a dilemma: limited resources, a lack of funding, and the need to properly assess the cost-benefit ratio make automation risky for small businesses.

In a systematic review, "Technology-driven Sustainability in Small and Medium-sized Enterprises Selvi Kannan & Nicolás Gambetta (2025) show that small and medium-sized enterprises can use technology (including automation) as a means of increasing business resilience, innovating, and meeting sustainability goals, but technology is only a tool—success depends on organizational culture, knowledge, structure, and the external environment.

Wilczyńska (2024) works assess how this technology affects the innovation and financial performance of small and medium-sized enterprises. The study showed that the introduction of artificial intelligence technology in small and medium-sized enterprises should lead to an improvement in their financial performance, as well as the subsequent more active introduction of other innovations.

The studies conducted by Amponsah, Adanuvor, Frimpong, Buame, and Arhin, (2025) concentrated on barriers of automation such as organizational rigidity to change, insufficient financial resources and insufficient skilled personnel, among others. This study also found that these opportunities and challenges are diverse across the world, with each region experiencing its obstacles. This study concludes that although the implementation of automation bears undeniable growth opportunities for small businesses globally, it also presents several challenges which call for multidimensional solutions and cross-border collaborations to help these firms overcome these challenges and cultivate potential opportunities.

The findings of the author Le. Dinh (2025) emphasize the importance of workforce training, robust technological infrastructure, data-driven cultures, and strategic partnerships for small business companies. Furthermore, the research highlights methods for measuring and optimizing automation's value, such as tracking key performance indicators and improving customer satisfaction.

Methods.

To study the problem and features of small business management in the region, an analysis of literary sources, comparative analysis was applied, and abstraction and generalization, system analysis research methods were also used. This research highly depends on a systematic and comprehensive review of secondary data and available literature.

Results and discussion.

One of the most significant advantages of business automation is its ability to boost efficiency and overall productivity. Automated systems help complete tasks faster, minimize human errors, and ensure greater precision and consistency in outcomes. In the context of small businesses, automation is usually applied in two key areas. The first involves core operational processes—such as automating sales activities or managing customer interactions. The second covers supportive functions that may not directly generate revenue but remain vital to business stability, including accounting, reporting, and administrative workflows (Demiroglu, 2020).

Furthermore, process automation also helps reduce personnel costs and improve business management. Automation frees employees from routine tasks and allows them to focus on more important activities. Another benefit of the automation process in business is improved communication and collaboration. Automation allows for faster and more efficient information exchange between employees and departments (Gluhov, 2021).

Despite its many advantages, business process automation and AI implementation into the small businesses also carry certain risks and challenges (Picture 1).
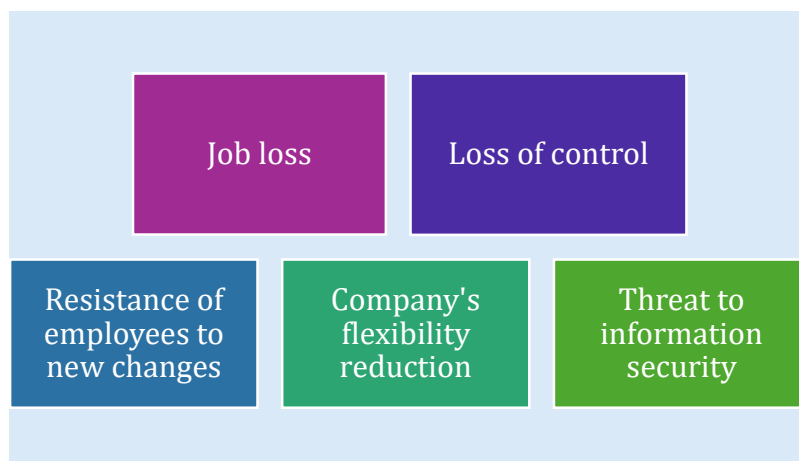
Picture 1. The risks of automation process in small business companies
Source: developed by the author using information from open internet resources.

One of the main ones is potential job losses. Staff reductions resulting from the implementation of automated systems can negatively impact both employees and society as a whole. Furthermore, companies often face difficulties retraining or reskilling workers whose roles become redundant due to automation.

Another significant risk associated with process automation and AI implementation is the loss of control. When a company automates operations, and in the case, it doesn't fully understand or control the process, it can lead to errors and undesirable consequences. Some automated systems prove to be ineffective or even harmful to business. For example, if an automated supply chain process doesn't provide the necessary level of control, it can Automation, despite its advantages, can also introduce significant risks. Technical failures, system errors, or data leaks may disrupt a company's operations and lead to serious consequences. One of the most notable threats for small businesses is the reduction in organizational flexibility. When automated systems cannot be quickly adjusted or reconfigured, the company becomes less capable of responding to fast-changing market demands. As a result, it may lose its competitive edge, miss emerging opportunities, and struggle to adapt to external changes. For this reason, full automation of all processes is not always the best solution. It is crucial to automate only those activities where it truly adds value, while preserving sufficient flexibility for strategic decision-making.

Another major risk lies in information security. If data protection systems are insufficient, corporate information becomes vulnerable to cyberattacks and malicious interference, which can result in confidentiality breaches and financial losses. To prevent this, businesses must implement advanced security measures such as data encryption, controlled access, and continuous cybersecurity monitoring.

In addition, cultural and social factors should not be overlooked during automation. Employees may initially resist new technologies, slowing down digital transformation. Therefore, it is essential to invest in employee training, build a positive attitude toward technological change, and provide support throughout the entire implementation process. Automation may also raise concerns about job displacement, so companies should strive to strike a balance between reducing operational costs and preserving employment. Maintaining this balance helps foster trust, stability, and long-term workplace engagement (Nazarova, & Sulimin, 2023).

Along with the risks of implementing the process of automation, there are the challenges as well.

• Difficulty in choosing the right solution.

Today's market provides an extensive selection of automation systems, which makes choosing the most suitable one a challenging task – particularly when companies lack professional consulting support or when managers and employees have limited knowledge in this area. When integrating automation tools, it is essential to take into account the unique characteristics of the industry, clearly define the functional requirements of the system, and carefully evaluate the financial costs involved in its implementation.

• Limited availability of simple software solutions.

Most automation tools offered by large IT companies are primarily aimed at the needs of medium and large businesses. Consequently, a significant portion of the functionality of such software remains unused when applied to small and micro-enterprises, reducing the effectiveness of implementation.

• Financial constraints.

Small businesses generally have limited financial resources, which makes it difficult to acquire expensive software and hardware. This factor often leads to the selection of less effective or outdated systems that do not fully meet business needs, or to the complete abandonment of automation solutions.

• Need for technical support and maintenance.

Once an automation system is introduced, it requires continuous technical support and maintenance to guarantee stable and uninterrupted performance. For small businesses, however, this stage often becomes a serious challenge due to limited financial resources and a lack of understanding of how crucial maintenance is within the automation cycle. As a result, many companies struggle to find qualified specialists who can provide timely and professional system support.

• Staffing Constraints.

Financial limitations also influence the human resource component of automation. Many small businesses face challenges in recruiting employees with the required skills in business process automation—such as system administrators or specialists who work with automated customer service platforms. As a result, companies are often compelled to invest in additional staff training or hire external consultants, both of which generate extra expenses and place further pressure on the organization's budget.

• Integration with existing systems.

In cases where a company already uses individual automation elements, implementing a new system may present difficulties related to ensuring data compatibility and synchronization.

• Determining priority processes for automation.

At the initial stage of project implementation, it is important to clearly define which business processes should be automated. Excessive or misdirected automation not only fails to improve operational efficiency but can also lead to unnecessary resource expenditure and increased organizational complexity (Dokshina, 2021).

Conclusion.

Overcoming the challenges described above will allow small businesses to gain the benefits of automation and the use of artificial intelligence tools, such as increased employee efficiency, reduced costs, and improved service quality.

To successfully overcome these challenges, it is necessary to carefully plan the automation process, select appropriate solutions, conduct staff training, and provide post-implementation support. It is also important to consider long-term goals and business development prospects when choosing an automation system. It is important to remember that, when approached correctly, automation is an excellent tool for increasing business efficiency and competitiveness.

As a recommendation for further development and future references, we would like to numerate some of the current popular software tools in the business industry: 1. Automation of general business process management (legal and accounting support, strategic management, budgeting). Systems of this type include 1C:Enterprise and SAP ERP.

2. Manufacturing (supply and distribution, logistics, production process). Systems used here include Galaktika ERP, Parus ERP, Kraft, USU, AVA ERP modules, VOGBIT, Sage, Super Sklad, and Sklad i Sell.

3. Marketing and sales tasks are addressed with CRM systems: Oracle SCM, SAP Ariba Buying and Invoicing, Galaktika AMM, and 1C:Bitrix24.

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