Торайғыров университетінің
ҒЫЛЫМИ ЖУРНАЛЫ

НАУЧНЫЙ ЖУРНАЛ
Торайгыров университа

Торайғыров университетінің ХАБАРШЫСЫ

Экономикалық сериясы
1997 жылдан бастап шығады

ВЕСТНИК Торайгыров университета

Экономическая серия
Издается с 1997 года
ISSN 2710-3552

№ 1 (2026)
Павлодар

НАУЧНЫЙ ЖУРНАЛ
Торайгыров университета

Экономическая серия
выходит 4 раза в год

СВИДЕТЕЛЬСТВО
о постановке на переучет периодического печатного издания,
информационного агентства и сетевого издания
№ KZ93VPY00029686

выдано
Министерством информации и коммуникаций
Республики Казахстан

Тематическая направленность
публикация материалов в области экономики, управления,
финансов, бухгалтерского учета и аудита

Подписной индекс – 76133

https://doi.org/10.48081/BGQF1791

SRSTI 06.35.31

https://doi.org/10.48081/BGQF1809

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EXPERIENCE IN IMPLEMENTING 1C, SAP, AND ORACLE PROGRAMS

This article examines the implementation of enterprise management systems such as 1C, SAP, and Oracle. These programs enable the automation of business processes, effective data management, and streamlined decision-making. The study examines the key stages of implementation, the challenges encountered, and solutions. It also analyzes the successful experiences of Kazakhstani and international companies, as well as prospects for further digitalization. The author pays special attention to the adaptation and integration of software solutions, as well as assessing their impact on enterprise operations. As a business grows, its management processes become more complex. Making sound management decisions requires a significant amount of information from various sources. Using multiple interconnected systems complicates data exchange procedures, as integrating individual systems is complex and inefficient. ERP systems allow for the integration of all company business processes into a single, powerful system, thereby solving this problem.

Successful implementation of implementation projects requires a detailed analysis of current processes, adaptation of the software solution to the specifics of the enterprise, as well as staff training. The main difficulties are the high cost, long customization periods, and the need to change the corporate culture. Experience shows that with proper project management, a step-by-step approach, and active involvement of 1C, SAP, and Oracle system users, it significantly increases the transparency of operations, the quality of management decisions, and the competitiveness of the organization.

Keywords: 1C, SAP, Oracle, enterprise management systems, digitalization, automation.

Introduction

Today, the rapid development of digital technologies is fundamentally changing enterprise management systems. The use of automated systems in various industries allows for the optimization of business processes, efficient data management, and improved strategic decision-making. Enterprise management systems such as 1C, SAP, and Oracle are widely used in this area. These software solutions play a vital role in automating financial reporting, logistics and supply chain management, human resources management, and other critical organizational functions.

Materials and methods.

Modern businesses utilize a variety of software solutions to effectively manage their operations. Enterprise resource planning (ERP) systems are among the most important tools for automating and optimizing key business processes. In this regard, software platforms such as 1C, SAP, and Oracle, widely used worldwide, occupy a special place. These systems are designed to effectively manage financial, accounting, production, logistics, HR, and other business processes. Each system has its own characteristics, design principles, and scope of application [1] .

1C is a widely used accounting and management system in the CIS countries. It is designed to automate the financial and economic activities of enterprises and is characterized by its flexibility and affordability. The 1C platform is advantageous for small and medium-sized businesses, as its configurations are easily adapted to their specific needs. The system is developed in accordance with national accounting standards and can also be widely used for production process management, inventory control, payroll, and tax reporting. The program's advantages include its relatively low cost, ease of training, and implementation [2] .

SAP is a powerful ERP system widely used worldwide, providing comprehensive business process management for large corporations. SAP solutions have a modular structure, allowing companies to select the functionality they need and implement the system in stages. SAP fully covers finance, logistics, supply chain management, human resources, and customer relationship management (CRM). One of its key features is a unified database, allowing all business units to work within a single information space. SAP complies with international standards and can be adapted to the legal requirements of various countries. However, this software suite is expensive and requires lengthy implementation [3, 415–420p.] .

Oracle is one of the world's largest database management systems (DBMS) and offers ERP solutions for automating complex corporate processes. Oracle

solutions are characterized by high performance, security, and flexibility. Many banks, financial institutions, government organizations, and large industrial enterprises use Oracle ERP systems. This system is capable of processing large volumes of data and is designed to manage complex computing processes. Oracle solutions are often combined with cloud technologies, allowing enterprises to expand remote management capabilities and reduce IT infrastructure costs. However, the complexity of the Oracle system creates certain difficulties in its implementation and use, so its use requires specialized specialists [4, 67–76p.].

When implementing ERP systems, each company selects a specific platform based on its needs and capabilities. While 1C is cost-effective for small and medium-sized businesses, international corporations and multinational companies prefer the advanced capabilities of SAP and Oracle systems. The table below compares the functionality of these systems, highlighting their advantages and disadvantages [5, 123–126p.].

Table 1 – Comparative characteristics of 1C, SAP and ORACLE systems

Indicator	1C	GLANDS	Oracle
Use the industry	Tobacco and medium-sized businesses	First internation-al corporation	Banks, industry, public sector
Target	Accounting, finance, ware-housing and trade operations	All business processes are complex. auto-mation	Database man-agement, ERP solutions
Price	Average	Very long	High
Adaptation oppor-tunity	High	Average	Average
Security level	Average	High	Very long
Data processing speed	Average	High	Very long
B national techno-logical support	Partially	Food	Food
Compliance with in-ternational standards	Average	High	High

Table 1 summarizes the key characteristics of 1C, SAP, and Oracle systems. 1C is optimized for small and medium-sized businesses, while SAP is designed for complex ERP platforms. For large corporations, Oracle offers high-speed data processing and security, which is especially important for banks, financial institutions, and the public sector. Each system has its own advantages and disadvantages, and the choice depends on the company's needs, financial capabilities, and management strategy [6, 8–12p.].

In general, ERP systems leverage a company's time to make important strategic decisions, as this business process system automates data, one of the core management mechanisms, and contributes to improved enterprise efficiency. However, each data entry process requires extensive time planning and financial and personnel mobilization. For this reason, companies implement ERP solutions. When choosing between their advantages and disadvantages, it's important to carefully weigh their pros and cons. The 1C system is an effective option for small and medium-sized businesses, while SAP and Oracle solutions offer a high level of integrated capabilities for large manufacturing facilities and financial institutions. Therefore, ERP systems for enterprise data entry are closely linked to strategic development plans, and their business processes should be optimized for this purpose.

Results and discussion.

The implementation of ERP systems is widespread in many countries worldwide, including Kazakhstan, although the methods used vary from company to company. An analysis of the experience of Kazakhstani and international enterprises has shown that successful ERP implementation largely depends on the level of infrastructure readiness, technological capabilities, human resources, and the organization's management strategy. Although ERP systems are a relatively new phenomenon in Kazakhstan, domestic companies are beginning to recognize the need for digitalization and are actively moving toward automating their business processes [7, 98–102p.].

The 1C system is one of the most widely used ERP platforms among Kazakhstani enterprises. This is due to its user-friendliness, affordability, and flexibility for small and medium-sized businesses. This system is particularly widely used in accounting, cash flow management, and tax reporting. Furthermore, the 1C platform easily adapts to the tax and accounting legislation of the Republic of Kazakhstan, making it very convenient for the local market. Kazakhstani manufacturing and trading companies have been able to create their own management systems based on 1C, automating data processing, inventory control, personnel management, and other processes [8, 167 p.].

Furthermore, the SAP system is being widely implemented by large enterprises in Kazakhstan. For example, national companies, major players in the oil and gas sector, financial institutions, and government agencies are improving their management systems by migrating to the SAP platform. SAP solutions enable enterprises to integrate production, logistics, accounting, and HR processes. When implementing the SAP system, Kazakhstani companies are taking into account international experience and striving to create a management model that meets international standards. However, the high cost of this system and the complex implementation period pose significant challenges for some companies [9, 210–212p.].

Foreign companies' experience implementing ERP systems is much more extensive and complex than that of Kazakhstan. Leading global corporations—Siemens, General Electric, Toyota, Amazon, Microsoft, and other large companies – have successfully optimized their production and commercial processes and increased efficiency through the use of ERP systems. For example, the German concern Siemens was able to fully digitize and automate its production processes using the SAP system. The implementation of this company's ERP system not only increased production capacity but also facilitated the optimization of areas such as logistics, supply chain, quality control, and financial reporting [10, 47–49p.].

Among the companies that have successfully implemented ERP systems is the Japanese corporation Toyota. The company's use of SAP and Oracle ERP solutions is considered one of the best methods for managing production and logistics. By improving its ERP system, Toyota reduced production costs, improved product quality, and took customer service to a new level. Furthermore, when implementing the ERP system, Toyota adhered to a policy of continuous improvement of business processes, using the philosophies of lean manufacturing and kaizen [11, 25–26p.].

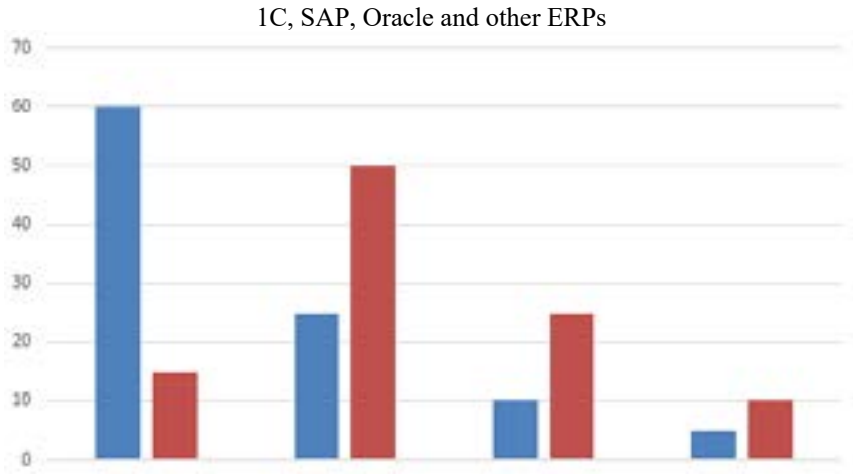

Figure 1 – Level of use of ERP systems in companies in Kazakhstan and abroad

This table shows the share of ERP systems used by companies in Kazakhstan and abroad. The data is presented as a percentage, allowing us to identify key trends in both markets. It is clear that 60 percent of Kazakhstani companies use the 1C system. This system is well adapted to the local market, is relatively inexpensive, and is convenient for accounting, which explains its popularity. The share of 1C among foreign companies is only 15 %, as this system has not achieved widespread adoption internationally and is primarily focused on Russia and the CIS countries [12, 117–119p.].

SAP is used by 25 % of Kazakhstani enterprises, while its share abroad reaches 50 %. This demonstrates that SAP is a comprehensive and effective ERP solution for large corporations that meets international standards. Oracle is used by only 10 % of Kazakhstani enterprises, while its share abroad is 25 %. This demonstrates that Oracle is primarily used in the financial sector and large manufacturing companies. Other ERP systems (e.g., Microsoft Dynamics, NetSuite) are used by only 5 % of Kazakhstani enterprises, while their share in international companies reaches 10 % [13, 313 p.].

These data highlight key differences in ERP system choices in Kazakhstan and the international market. Kazakh companies often use local software, while foreign companies rely on international solutions such as SAP and Oracle [14, 362 p.].

Global giants like Amazon and Microsoft are streamlining their global business processes by improving their cloud ERP systems. Amazon has achieved

significant success in sales management, customer data analysis, financial operations, and logistics automation using Oracle ERP solutions. Microsoft, on the other hand, uses its ERP system not only to manage internal processes but also to provide cloud ERP solutions to its customers. ERP platforms such as Microsoft Dynamics enable many companies to optimize business processes using cloud technologies [15, 450 p.].

Thus, an analysis of international experience shows that the implementation of ERP systems depends on the company's strategy, the level of employee training, and the technical infrastructure. Kazakhstani companies need to improve their business processes, taking into account international experience in implementing ERP systems. Furthermore, despite the high efficiency of ERP solutions, it is important to consider the challenges that arise during their implementation and conduct phased planning and adaptation. It is crucial for Kazakhstani companies to correctly evaluate the benefits of solutions such as SAP, 1C, and Oracle and adapt them to their business models [16, 320 p.].

Conclusions

The implementation of ERP systems plays a vital role in ensuring the efficient operation and competitiveness of modern enterprises. These systems enable the automation of all business processes, data management from a single central location, and improved decision-making efficiency. This study comprehensively examines the functionality of the main types of ERP systems – 1C, SAP, and Oracle platforms – as well as their areas of application and implementation challenges. The stages of software implementation at enterprises, the difficulties encountered, integration and adaptation issues, and proposed solutions are analyzed [17, 726 p.].

The study compared the implementation experiences of ERP systems in Kazakhstani and international companies. The 1C system, due to its adaptability, relatively low cost, and suitability for small and medium-sized businesses, has become the most widely used system among Kazakhstani enterprises. SAP and Oracle systems, which enable comprehensive automation of business processes and are powerful solutions for large corporations, have gained wide recognition internationally. However, the implementation of ERP systems faces various challenges, including high financial costs, the need for employee training, and problems with data migration and integration. To overcome these challenges, it is recommended to implement systems in stages, with preliminary data standardization and comprehensive employee training [18].

Development prospects and new trends in ERP systems were also discussed. These domestic ERP solutions provide companies with flexibility and cost-effectiveness, while simultaneously reducing infrastructure costs. Artificial intelligence (AI) and machine learning (ML) help effectively automate business

processes by integrating intelligent analytics capabilities into ERP systems. Furthermore, big data and business analytics tools facilitate real-time data processing and management decision-making. The integration of Internet of Things (IoT) technologies with ERP systems facilitates the optimization of production and logistics, while blockchain technologies enhance data security and simplify financial transactions [19].

Overall, ERP system implementation is a critical stage in the digital transformation of enterprises. Kazakhstani companies should strive to improve their business processes, taking into account international ERP implementation practices. When choosing ERP solutions, it's important to consider the company's needs and capabilities, paying particular attention to the phased implementation of the system and employee training.

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Received 23.01.26.
Received in revised form 30.01.26.
Accepted for publication 11.02.26.

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23.01.26 ж. баспаға түсті.
30.01.26 ж. түзетулерімен түсті.
11.02.26 ж. басып шығаруға қабылданды.

1С, SAP ЖӘНЕ ORACLE БАҒДАРЛАМАЛАРЫН ЕНГІЗУ ТӘЖІРИБЕСІ

Бұл мақалада 1С, SAP және Oracle сияқты кәсіпорынды басқару жүйелерін енгізу қарастырылады . Бұл бағдарламалар бизнес-процестерді автоматтандыруға, деректерді тиімді басқаруға және шешім қабылдауды оңтайландыруға мүмкіндік береді. Зерттеу іске асырудың негізгі кезеңдерін, туындайтын қиындықтар мен оларды шешу жолдарын қарастырады. Сондай-ақ қазақстандық және халықаралық компаниялардың табысты тәжірибесі, одан әрі цифрландыру перспективалары талданады. Автор кәсіпорынның қызметіне әсерін бағалай отырып, бағдарламалық шешімдерді бейімдеуге және біріктіруге ерекше назар аударады. Бизнес өскен сайын басқару процестері күрделене түседі. Дұрыс басқару шешімдерін қабылдау үшін әртүрлі көздерден өте үлкен ақпарат қажет. Бірнеше өзара байланысты жүйелерді пайдалану деректерді бөлісу процедураларын қиындатады, өйткені жеке жүйелерді біріктіру күрделі және тиімсіз. ERP жүйелері компанияның барлық бизнес-процестерін бір қуатты жүйеге біріктіруге және осы мәселені шешуге мүмкіндік береді.

Іске асыру жобаларын сәтті жүзеге асыру ағымдағы процестерді егжей-тегжейлі талдауды, бағдарламалық шешімді кәсіпорынның ерекшелігіне бейімдеуді, сондай-ақ қызметкерлерді оқытуды талап етеді. Негізгі қиындықтар-жоғары шығындар, ұзақ уақыт Орнату және корпоративтік мәдениетті өзгерту қажеттілігі. Тәжірибе көрсеткендей, жобаны сауатты басқару, қадамдық тәсілді қолдану және 1С, SAP жәнеacacle жүйелерін пайдаланушыларды белсенді тарту арқылы операциялардың ашықтығы, басқару шешімдерінің сапасы және ұйымның бәсекеге қабілеттілігі айтарлықтай артады.

Кілтті сөздер: 1С , SAP ,acacle , кәсіпорынды басқару жүйелері, цифрландыру, автоматтандыру.

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Республика Ингушетия, Магас.
Поступило в редакцию 23.01.26.
Поступило с исправлениями 30.01.26.
Принято в печать 11.02.26.

ОПЫТ ВНЕДРЕНИЯ ПРОГРАММНОГО ОБЕСПЕЧЕНИЯ 1С, SAP И ORACLE

В данной статье рассматривается внедрение систем управления предприятием, таких как 1С, SAP и Oracle. Эти программы позволяют автоматизировать бизнес-процессы, эффективно управлять данными и оптимизировать процесс принятия решений. В исследовании рассматриваются основные этапы внедрения, возникающие трудности и пути их решения. Также будет проанализирован успешный опыт казахстанских и международных компаний, перспективы дальнейшей цифровизации. Особое внимание автор уделяет адаптации и интеграции программных решений, оценке их влияния на работу предприятия. По мере роста бизнеса усложняются процессы управления. Для принятия правильных управленческих решений необходима информация из различных источников, объём которой весьма велик. Использование нескольких взаимосвязанных систем усложняет процедуры обмена данными, поскольку интеграция отдельных систем становится затруднительной и неэффективной. ERP-системы позволяют объединить все бизнес-процессы компании в единую мощную систему и решить эту проблему.

Успешная реализация проектов внедрения требует детального анализа текущих процессов, адаптации программного решения под специфику предприятия, а также обучения персонала. Основными трудностями являются высокая стоимость, длительные сроки настройки и необходимость изменения корпоративной культуры. Опыт показывает, что при грамотном управлении проектом, использовании поэтапного подхода и активном вовлечении пользователей системы 1С, SAP и Oracle значительно повышают прозрачность операций, качество управленческих решений и конкурентоспособность организации.

Ключевые слова: 1С, SAP, Oracle, системы управления предприятием, оцифровка, автоматизация.

Теруге 02.03.2026 ж. жіберілді. Басуға 30.03.2026 ж. қол қойылды.
Электронды баспа
4,18 Mb RAM
Шартты баспа табағы 34,78
Таралымы 300 дана. Бағасы келісім бойынша.
Компьютерде беттеген: З. Ж. Шокубаева
Корректоры: А. Р. Омарова, Д. А. Кожас
Тапсырыс № 4520
Сдано в набор 02.03.2026 г. Подписано в печать 30.03.2026 г.
Электронное издание
4,18 Mb RAM
Усл.п.л. 34,78 Тираж 300 экз. Цена договорная.
Компьютерная верстка: З. Ж. Шокубаева
Корректорлар: А. Р. Омарова, Д. А. Кожас
Заказ № 4520

«Toraighyrov University» баспасынан басылып шығарылған
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