Modern American Journal of Business, Economics, and Entrepreneurship
ISSN (E): 3067-7203
Volume 01, Issue 09, December, 2025
Website: usajournals.org
This work is Licensed under CC BY 4.0 a Creative Commons Attribution 4.0 International License.

DEVELOPMENT OF ORGANIZATIONAL AND ECONOMIC MECHANISMS TO ENHANCE ENTERPRISE EFFICIENCY IN THE DIGITAL ECONOMY

Mamarakhimov Bekzod Erkinovich
TSUE, Head of Macroeconmic Policy and Forecasting Department, Professor
e-mail: b.mamaraximov@tsue.uz

Abstract
This article examines the mechanisms for improving enterprise efficiency in the context of the digital economy. Digital technologies, such as artificial intelligence, big data, and automation, provide modern enterprises with opportunities to optimize workflows, reduce costs, and strengthen customer relationships. The article analyzes digital transformation processes, new business models, and innovative strategies.
Furthermore, the study offers recommendations and practical examples aimed at enhancing enterprise efficiency. As a result, the effective implementation of these mechanisms contributes to increasing the competitiveness of enterprises, responding swiftly to market demands, and ensuring long-term sustainable development. The article provides important practical guidelines for improving enterprise efficiency in the digital economy.

Keywords: Digital, Transformation, Enterprise, Efficiency, Technological.

Annotatsiya
Ushbu maqola raqamli iqtisodiyot sharoitida korxonalarning samaradorligini oshirish mexanizmlarini takomillashtirishni o‘rganadi. Sun’iy intellekt, katta ma’lumotlar va avtomatlashtirish kabi raqamli texnologiyalar zamonaviy korxonalarga ish jarayonlarini optimallashtirish, xarajatlarni kamaytirish va mijozlar bilan aloqalarni mustahkamlash imkoniyatlarini yaratadi. Maqolada

Modern American Journal of Business, Economics, and Entrepreneurship
ISSN (E): 3067-7203
Volume 01, Issue 09, December, 2025
Website: usajournals.org
This work is Licensed under CC BY 4.0 a Creative Commons Attribution 4.0 International License.

raqamli transformatsiya jarayonlari, yangi biznes-modellar va innovatsion strategiyalar tahlil qilinadi.
Shuningdek, tadqiqotda korxonalar samaradorligini oshirishga qaratilgan tavsiyalar va amaliy misollar keltiriladi. Natijada, ushbu mexanizmlarning samarali tatbiqi korxonalarning raqobatbardoshligini oshirishga, bozor talablariga tezkor javob berishga va uzoq muddatli barqaror rivojlanishni ta'minlashga yordam beradi. Maqola raqamli iqtisodiyot sharoitida korxonalarning samaradorligini oshirish uchun muhim amaliy yo'l-yo'riqlarni taqdim etadi.

Kalit so'zlar: Raqamli, Transformatsiya, Korxona, Samaradorlik, Texnologik

Аннотация
В данной статье рассматриваются механизмы повышения эффективности предприятий в условиях цифровой экономики. Цифровые технологии, такие как искусственный интеллект, большие данные и автоматизация, предоставляют современным предприятиям возможности для оптимизации рабочих процессов, сокращения затрат и укрепления взаимодействия с клиентами. В статье анализируются процессы цифровой трансформации, новые бизнес-модели и инновационные стратегии.
Кроме того, исследование содержит рекомендации и практические примеры, направленные на повышение эффективности предприятий. В результате эффективное внедрение этих механизмов способствует увеличению конкурентоспособности предприятий, оперативному реагированию на требования рынка и обеспечению долгосрочного устойчивого развития. Статья представляет важные практические рекомендации для повышения эффективности предприятий в условиях цифровой экономики.

Ключевые слова: Цифровой, Трансформация, Предприятие, Эффективность, Технологический
Mana sizning kirish qismingizning ingliz tiliga akademik tarzda tarjimasi:

Modern American Journal of Business, Economics, and Entrepreneurship
ISSN (E): 3067-7203
Volume 01, Issue 09, December, 2025
Website: usajournals.org
This work is Licensed under CC BY 4.0 a Creative Commons Attribution 4.0 International License.

Introduction

The digital economy is currently one of the most significant global trends, driving profound changes across all sectors. The development of innovative technologies and digital solutions not only creates new opportunities but also plays a crucial role in enhancing enterprise efficiency, ensuring competitiveness, and improving financial stability. Digital transformation involves automating internal organizational processes, introducing new digital products and services, and effectively managing customer relationships through digital platforms.

The digital transformation of Uzbekistan's economy and the widespread implementation of digital technologies are recognized as key factors in ensuring economic growth. However, one of the main challenges associated with adopting digital technologies is managing them effectively and achieving tangible results within enterprises. Therefore, improving mechanisms to enhance enterprise efficiency, as well as optimally managing digital infrastructure and business processes, is a pressing issue in the context of the digital economy.

This article examines the mechanisms aimed at improving enterprise efficiency in the digital economy. The study analyzes the impact of digital technologies and innovations, digital transformation processes, and the effectiveness of existing mechanisms for enhancing efficiency, as well as ways to improve them. Furthermore, it explores successful cases of enterprises that have implemented effective digital transformations based on practical applications of digital technologies, identifying effective methods to increase efficiency. The study also investigates how enterprises leverage new opportunities in the digital economy and address emerging challenges.

The approaches and mechanisms proposed in this article are intended to significantly enhance enterprise efficiency during the transition to a digital economy.[1]

[1] Butaboev, M., O'rinov, A., Mulaydinov, F., & Tojimamatov, I. (n.d.). *Digital Economy* [Textbook], pp. 7–39.

Modern American Journal of Business, Economics, and Entrepreneurship
ISSN (E): 3067-7203
Volume 01, Issue 09, December, 2025
Website: usajournals.org
This work is Licensed under CC BY 4.0 a Creative Commons Attribution 4.0 International License.

Literature Review

The topic of improving mechanisms to enhance enterprise efficiency in the digital economy has been widely studied and is grounded in extensive theoretical research. The literature highlights various important perspectives on digital transformation processes, the impact of innovative technologies on enterprises, and strategies for improving efficiency.

Brynjolfsson and McAfee discuss how digital technologies influence economic changes and the role they play in creating new opportunities for enterprises. They emphasize that, in order to succeed in the digital economy, enterprises must enhance their competitiveness. Porter examines the importance of implementing digital technologies in developing competitive strategies. He analyzes how digital innovations can reduce costs and improve service quality.

Davenport highlights the role of data analysis and artificial intelligence in enterprise processes, viewing these technologies as effective tools for decision-making. With their help, enterprises can further optimize their operations.

Additionally, Peppers and Rogers present strategies for managing customer relationships (CRM) aimed at increasing efficiency, which is crucial for enterprise success in the digital economy.

This literature review helps identify key aspects and modern approaches relevant to improving mechanisms for enhancing enterprise efficiency in the context of the digital economy. As a result, it provides a deeper understanding of the core principles and strategies of digital transformation.

Methodology

The study on improving mechanisms to enhance enterprise efficiency in the context of the digital economy employs the following methodological approaches. First, the mechanisms aimed at increasing enterprise efficiency in the digital economy are identified, and ways to improve them are examined. The study analyzes the impact of digital technologies and innovations on enterprise efficiency and evaluates digital transformation processes. In this process, underperforming mechanisms are identified, and the most effective ways to enhance them are determined.

Modern American Journal of Business, Economics, and Entrepreneurship
ISSN (E): 3067-7203
Volume 01, Issue 09, December, 2025
Website: usajournals.org
This work is Licensed under CC BY 4.0 a Creative Commons Attribution 4.0 International License.

The research involves reviewing relevant scientific articles, books, and practical cases, as well as collecting opinions on digital transformation and efficiency through surveys conducted among enterprise managers and employees. In-depth interviews are conducted with experts and practitioners in the field of the digital economy, and the collected data are subjected to qualitative analysis to identify key trends and critical factors.

Data collected through statistical and analytical tools are analyzed to examine the relationship between the digital economy and enterprise efficiency. The experiences of enterprises that have successfully implemented digital transformation are studied to determine the factors contributing to their success. Pilot projects for the implementation of digital technologies are carried out, and the results are evaluated.

To assess enterprise efficiency, financial and operational indicators such as revenue, costs, and production volume are analyzed. Additionally, competitiveness is evaluated in the context of the digital economy, and digital competitive advantages are identified.

Based on the research findings, recommendations are developed to help enterprises enhance efficiency in the digital economy. Directions for future research are also outlined.

This methodology enables a comprehensive and in-depth study of the mechanisms for improving enterprise efficiency in the context of the digital economy.

Results and Analysis

This study presents several key findings aimed at improving mechanisms to enhance enterprise efficiency in the context of the digital economy. The results indicate that when enterprises are prepared to successfully transition through digital transformation processes, their operational efficiency significantly improves. Digital technologies, such as artificial intelligence and big data, assist enterprises in making timely decisions. Through these processes, enterprises reduce costs and save time.

The implementation of innovative strategies plays a crucial role in enhancing enterprise competitiveness. Offering innovative solutions tailored to customer

Modern American Journal of Business, Economics, and Entrepreneurship
ISSN (E): 3067-7203
Volume 01, Issue 09, December, 2025
Website: usajournals.org
This work is Licensed under CC BY 4.0 a Creative Commons Attribution 4.0 International License.

needs creates opportunities for enterprises to enter new market segments. The research shows that successful innovative strategies help strengthen customer relationships and improve product quality. Analysis results demonstrate that enterprises applying digital technologies significantly improve efficiency indicators, such as production volume, revenue, and costs. Financial performance increases through digital mechanisms and automation, which further optimize operational processes.

Organizational structure and culture are also critical for successful digital transformation. As indicated by the study, employees in enterprises open to innovation exhibit high motivation to adopt and effectively utilize digital technologies. Organizational changes and cultural adaptation are necessary to succeed in the digital economy.

Based on the findings, the following recommendations were developed. Enterprises should develop their internal resources and culture to enhance readiness for digital transformation processes. Developing innovative strategies and strengthening customer relationships are crucial for the successful implementation of digital technologies. To improve efficiency, it is necessary to automate operational processes and implement data analysis systems.

These results and analyses provide an important foundation for improving mechanisms to enhance enterprise efficiency in the digital economy. By implementing digital transformation, enterprises gain the opportunity to modernize their operations and increase their competitiveness.

Modern American Journal of Business, Economics, and Entrepreneurship
ISSN (E): 3067-7203
Volume 01, Issue 09, December, 2025
Website: usajournals.org
This work is Licensed under CC BY 4.0 a Creative Commons Attribution 4.0 International License.

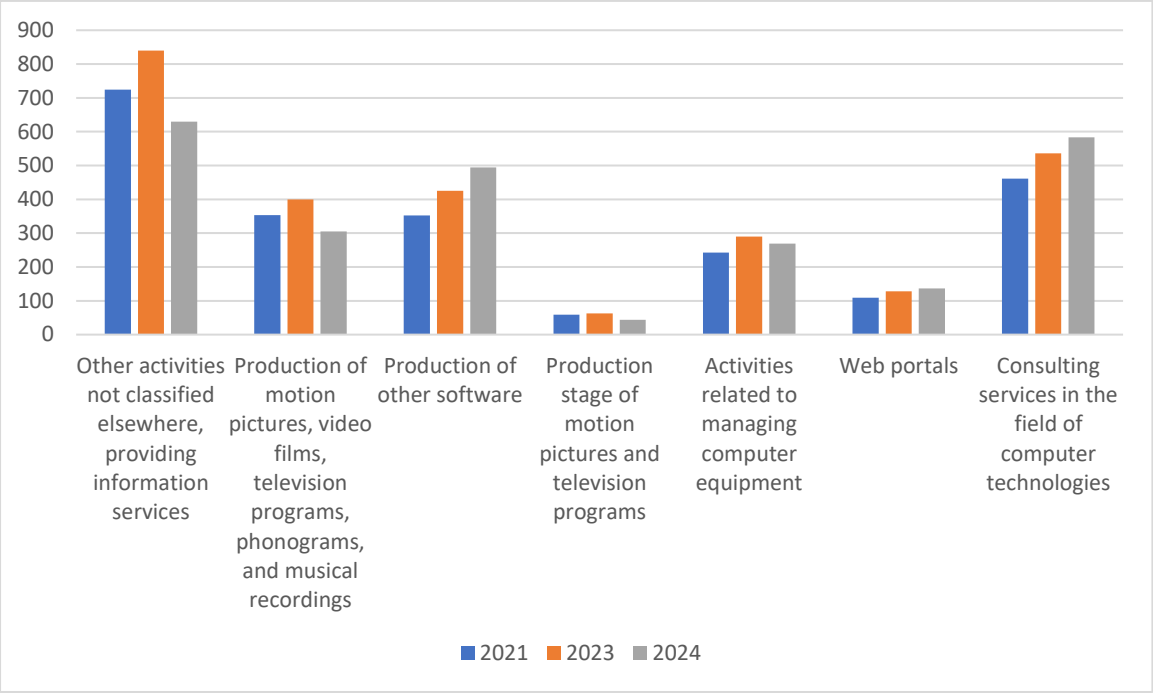

Figure 1. Analysis of Changes in the Information and Communication Sector in Uzbekistan[2].

Activities not included in other categories, related to providing information services, increased by 116 units (15.99% growth) from 2021 to 2023, but by 2024 the number decreased to 210 units (nearly 25%). A sharp decline is observed in this sector, which may be associated with a decrease in market demand or changes in technology.

The production of films, video programs, television shows, phonograms, and musical recordings increased by 47 units (13.3%) between 2021 and 2023; however, in 2024, a significant decrease of 95 units (23.75%) was observed. After several years of growth, this sector shows a decline in 2024, which may be related to significant changes in the film and television industry or the market's saturation level.

The release of other software continues to grow: from 2021 to 2023, an increase of 73 units (20.7%) was recorded, and from 2023 to 2024, an additional growth

[2] https://stat.uz/uz/rasmiy-statistika/services-2

Modern American Journal of Business, Economics, and Entrepreneurship
ISSN (E): 3067-7203
Volume 01, Issue 09, December, 2025
Website: usajournals.org
This work is Licensed under CC BY 4.0 a Creative Commons Attribution 4.0 International License.

of 69 units (16.2%) was observed. These figures indicate the rapid development of software production and high market demand.

Although the production stage of films and television programs saw growth between 2021 and 2023 (an increase of 4 units, or 6.78%), a significant decline of 19 units (30.2%) occurred in 2024. The decrease in the production stage of films and television programs may be related to the optimization of the production process or other factors.

Sizning matningizni ingliz tiliga akademik uslubda quyidagicha tarjima qilish mumkin:

Activities related to computer equipment management increased by 47 units (19.3%) between 2021 and 2023, but by 2024, a decrease of 21 units (7.2%) was observed. A slight decline after 2023 in this sector may be associated with technological updates and changes in the demand for new equipment.

Web portals show a continuous growth trend: from 2021 to 2023, there was an increase of 19 units (17.4%), and from 2023 to 2024, a further growth of 9 units (7.0%) was recorded. The rising demand for internet and online services is likely the main factor driving this growth.

Consulting services in the field of computer technologies also continue to grow: between 2021 and 2023, there was an increase of 75 units (16.3%), and from 2023 to 2024, a further increase of 47 units (8.8%) was observed. The ongoing growth in the need for computer technologies and consulting services indicates a high demand in this sector.

Growth is observed in sectors such as software production (20.7%), web portals (17.4%), and consulting services in computer technologies (16.3%).

Declines are observed in activities not included in other categories related to information services (25%) and in film and video production (23.75%).

Relative stability is noted in areas such as the production stage of films and television programs and activities related to computer equipment management, where changes are minor but include both positive and negative variations.

The results of the sector analyses indicate overall trends and changes in market demand.

Modern American Journal of Business, Economics, and Entrepreneurship
ISSN (E): 3067-7203
Volume 01, Issue 09, December, 2025
Website: usajournals.org
This work is Licensed under CC BY 4.0 a Creative Commons Attribution 4.0 International License.

Table 1 Share of Enterprises and Organizations Owning Personal Computers (in %)[3].

Classifier	2020	2021	2023	2023
Republic of Uzbekistan	49.3	46.3	40.7	37.1
Republic of Karakalpakstan	60.1	54.2	44.8	39.7
Andijan Region	43.3	35.8	30.9	26.1
Bukhara Region	56.3	51.6	47.4	41.4
Jizzakh Region	25.1	27.4	20.3	17
Qashqadaryo Region	51.9	51.8	47	42.2
Navoi Region	60.6	54.1	55.1	50.3
Namangan Region	48.2	47	37.8	35.2
Samarkand Region	67.7	60	53.5	50.3
Surkhandarya Region	26.3	24.9	19.7	16.8
Sirdarya Region	38.1	41	36.2	31.4
Tashkent Region	39.4	39.5	35.2	30.2
Fergana Region	49.1	45.9	38.8	35.9
Khorezm Region	60.8	58	50.9	43.8

The above table presents the share of enterprises and organizations in Uzbekistan that own personal computers for the periods 2020, 2021, and 2023. The analysis can be compared across each region. **Overall Situation in Uzbekistan t**he share of enterprises owning personal computers in the Republic of Uzbekistan sharply declined from 2020 to 2023. In 2020, this share was 49.3%, decreased to 46.3% in 2021, and reached 37.1% by 2023. This overall downward trend may indicate a reduction in investments in technology or market saturation.

Republic of Karakalpakstan the region experiences changes, but compared to other regions, it shows higher stability. From 2020 to 2023, a decline of 20.4% was observed. This decrease may be associated with market saturation and slower technological updates. **Andijan Region** a significant decline was observed, with a 17.2% decrease from 2020 to 2023. This indicates a reduction

[3]. https://stat.uz/uz/rasmiy-statistika/services-2

Modern American Journal of Business, Economics, and Entrepreneurship
ISSN (E): 3067-7203
Volume 01, Issue 09, December, 2025
Website: usajournals.org
This work is Licensed under CC BY 4.0 a Creative Commons Attribution 4.0 International License.

in investments in technology within the region during this period. **Bukhara Region** from 2020 to 2023, the share decreased by 14.9%. Compared to other regions, Bukhara demonstrates relative stability, with a moderate rate of decline. Changes in technology implementation in this region occur at an average pace.

Jizzakh Region the share of organizations owning personal computers is the lowest in this region. From 2020 to 2023, the share decreased by 8.1%, indicating a decline in demand for technology or the presence of challenging economic conditions.

Qashqadaryo Region a decrease is observed, but it is relatively small compared to other regions, with a decline of 9.7%. This suggests that technological changes in this region are progressing more slowly than elsewhere.

Navoi Region the decline in the share from 2020 to 2023 is minimal, only 5.3%. This indicates stable demand for technology and very limited changes in this region. **Namangan Region f**rom 2020 to 2023, the share decreased by 13%. Economic and technological processes have slowed in this region, and investments in computer technologies have declined. **Samarkand Region t**he decline from 2020 to 2023 amounts to 17.4%. Despite ongoing technological integration, a decrease in the share is observed.

Surkhandarya Region a decline continues in this region as well, with a decrease of 9.5% from 2020 to 2023. This may indicate a reduction in demand for technology or issues in technology supply.

Sirdarya Region from 2020 to 2023, the share decreased by 6.7%, showing a moderate decline in demand and investment in technology.

decrease is also observed, though it is moderate compared to other regions. From 2020 to 2023, the share declined by 9.2%, indicating a reduction in the need for technology.

Fergana Region from 2020 to 2023, the share decreased by 13.2%. This reflects both a decline in demand for technology and instances of market saturation.

Khorezm Region from 2020 to 2023, the share decreased by 17%. This may indicate a decline in demand for technology or the influence of market changes.

Overall Situation in Uzbekistan the share of enterprises owning personal computers has sharply declined from 2020 to 2023. Across the regions, a reduction in demand for personal computers, market saturation, or slower

Modern American Journal of Business, Economics, and Entrepreneurship
ISSN (E): 3067-7203
Volume 01, Issue 09, December, 2025
Website: usajournals.org
This work is Licensed under CC BY 4.0 a Creative Commons Attribution 4.0 International License.

investments in technology is apparent. Significant declines are observed in regions such as Jizzakh, Andijan, Surkhandarya, and Fergana, where economic conditions and technological updates have slowed.

Regions such as Karakalpakstan, Navoi, and Khorezm show relative stability, although decreases are still present. In Tashkent city and region, a moderate decline is observed, indicating a gradual slowdown in the demand for technology.

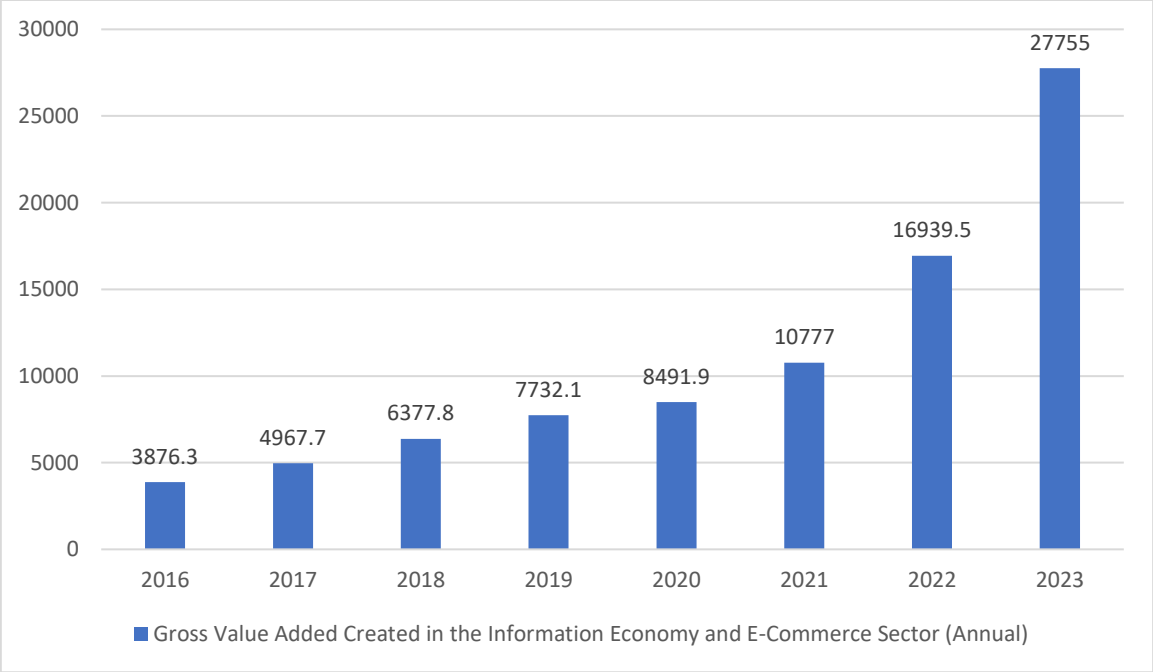

Figure 2. Gross Value Added Created in the Information Economy and E-Commerce Sector (Annual)[4].

In Uzbekistan, the gross value of investments in the information economy and e-commerce sector (GDP contribution) showed a stable growth trend from 2016 to 2019, reaching 8,491.9 million by 2019. The sector's contribution to the economy was positive, and significant growth was observed. From 2020 to 2023, the GDP contribution increased to 10,777 million. This growth is

[4]. https://stat.uz/uz/rasmiy-statistika/services-2

Modern American Journal of Business, Economics, and Entrepreneurship
ISSN (E): 3067-7203
Volume 01, Issue 09, December, 2025
Website: usajournals.org
This work is Licensed under CC BY 4.0 a Creative Commons Attribution 4.0 International License.

associated with the wider adoption of digital technologies and the expansion of e-commerce, likely influenced by the COVID-19 pandemic.

The rising GVA figures indicate the growing importance of this sector in Uzbekistan's overall economic landscape, supporting economic growth and development. The COVID-19 pandemic may have accelerated digital transformation, as businesses and consumers shifted to online platforms. The increasing contribution of the sector highlights its role in ensuring economic growth and development.

Conclusion

In the context of the digital economy, improving mechanisms to enhance enterprise efficiency is essential for achieving success in the modern business environment. The research results indicate that digital technologies, such as artificial intelligence, big data, and automation, provide opportunities for enterprises to optimize operational processes, reduce costs, and improve product quality.

To successfully implement digital transformation processes, enterprises need to adopt innovative strategies, strengthen customer relationships, and transform organizational culture. Organizational changes and resource optimization necessary for improving efficiency contribute to enhancing the competitiveness of enterprises in the digital economy.

Overall, digital transformation not only brings economic benefits to enterprises but also enables them to respond to market demands quickly and effectively. The success of these processes will serve to make enterprises more sustainable and competitive in the digital economy in the future.

References

1. Brynjolfsson, E., & McAfee, A. (2014). *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies*. W. W. Norton & Company.
   - Digital technologies and changes in the economy.
2. Porter, M. E. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*. Free Press.

Modern American Journal of Business, Economics, and Entrepreneurship
ISSN (E): 3067-7203
Volume 01, Issue 09, December, 2025
Website: usajournals.org
This work is Licensed under CC BY 4.0 a Creative Commons Attribution 4.0 International License.

- Competitiveness strategies and digital innovations.

3. Davenport, T. H. (2018). *Artificial Intelligence for the Real World*. Harvard Business Review.
   - Artificial intelligence and its impact on business processes.
4. Peppers, D., & Rogers, M. (2016). *Managing Customer Experience and Relationships: A Strategic Framework*. Wiley.
   - Strategies for managing customer relationships.
5. Chaffey, D. (2019). *Digital Business and E-Commerce Management*. Pearson Education.
   - Digital business and e-commerce management strategies.