

Artificial Intelligence as an Efficient Tool for Company Internationalization**الذكاء الاصطناعي كأداة لتدويل الشركات بكفاءة****Asmae CHERRAK¹, Taieb FETTANE²**

¹ Doctorate student, University of Tlemcen, MIFMA Research Laboratory: Money and Financial Institutions in the Arab Maghreb -Tlemcen (Algeria), asmae.cherrak@univ-tlemcen.dz ,

² University of Tlemcen, MIFMA Research Laboratory: Money and Financial Institutions in the Arab Maghreb - Tlemcen (Algeria), fettane26@hotmail.com ,

Received: 02/07/2024**Accepted:** 27/09/2024**Published:** 30/09/2024**Abstract:**

The world is witnessing a radical transformation in how organizations are managed and expand their operations, thanks to modern technologies, particularly Artificial Intelligence (AI). AI has become a key driver of innovation and development across various sectors, opening new horizons for organizations to spread and expand globally.

This study aims to highlight the pivotal role that AI can play in supporting companies' internationalization efforts. We will explore how companies can leverage AI technologies to facilitate their international expansion process, overcome challenges associated with this process, and reach informed internationalization decisions.

Keywords : Artificial Intelligence; Internationalization; Companies; International Expansion; Digital Transformation.

JEL Classification Codes: O32, F23, M16.

ملخص:

يشهد العالم تحولا جذريا في كيفية إدارة المؤسسات وتوسيع نطاق عملها بفضل التقنيات الحديثة، و في مقدمتها تقنيات الذكاء الاصطناعي (AI). حيث أصبح هذا الأخير محركا رئيسيا للابتكار والتطور في شتى القطاعات، مما يفتح للمؤسسات افقا جديدة للانتشار والتوسع على المستوى العالمي. سنحاول في هذه الدراسة تسليط الضوء على الدور المحوري الذي يمكن للذكاء الاصطناعي أن يلعبه في دعم جهود تدويل الشركات من خلال استكشاف كيف يمكن للشركات الاستفادة من تقنيات الذكاء الاصطناعي لتسهيل عملية توسعها الدولي، والتغلب على التحديات المرتبطة بهذه العملية، والوصول إلى قرارات تدويل مستنيرة.

كلمات مفتاحية: ذكاء اصطناعي، تدويل، شركات، توسع دولي، تحول رقمي.

تصنيفات JEL : O32 ، F23 ، M16.

INTRODUCTION:

In the context of accelerating technological progress, Artificial Intelligence (AI) has become a fundamental driver of innovation, development, and expansion in the business world. AI encompasses a set of technologies that enable machines to simulate human intelligence through techniques such as Machine Learning, Natural Language Processing, and Computer Vision. This allows for data analysis, interpretation, decision-making, and execution of complex tasks with exceptional efficiency.

In this context, the importance of company internationalization emerges as a vital growth strategy. Companies are no longer confined within local geographical boundaries; success and survival in a competitive global market now require them to transcend these boundaries and seek growth opportunities in new markets worldwide. This process aims to enhance growth, increase profitability, diversify revenue sources by reaching a broader customer base, and exploit new opportunities in international markets.

However, the internationalization process is not without challenges. Expanding into new markets means dealing with different cultures and multiple languages, understanding diverse local consumer behaviors and needs, managing teams distributed across multiple geographical locations, and making crucial strategic decisions about how to effectively enter these markets.

In this complex reality, AI emerges as one of the most influential tools that can help companies overcome obstacles associated with the internationalization process. Technologies such as machine learning, machine translation, computer vision, and big data analytics hold enormous potential for breaking down language and cultural barriers, understanding the needs of different consumers, managing human resources across borders, and providing accurate insights to help companies make strategic decisions for international expansion.

Integrating AI into internationalization strategies can enable companies to achieve prominent competitive advantages, including improving customer experience through service personalization, increasing operational efficiency, and responding quickly to changes in global markets. However, implementing AI requires a thoughtful and integrated approach that takes into account challenges related to privacy and security, investment costs, and adaptation to local regulations.

Based on the above, we can pose the following research question: **How can companies strategically and effectively leverage AI capabilities to overcome barriers to their internationalization and facilitate their international expansion process?**

Importance of the Study:

Studying the role of Artificial Intelligence in the internationalization of organizations - including companies - is an imperative step to keep pace with technological advancements and business digitization on one hand, and to enhance the global competitiveness of companies on the other. In light of the digital revolution and accelerating technological developments, it has become crucial for companies to adapt to this transformation to achieve success and excellence. Undoubtedly, AI will play a pivotal role in shaping the future of businesses and various industries. Therefore, studying how to employ these advanced technologies in the field of internationalization is of utmost importance to keep up with this digital transformation, overcome barriers to international expansion, and achieve competitive excellence on the global stage.

Objectives of the Study:

This research paper aims to highlight the potential of Artificial Intelligence in addressing challenges and strategically leveraging them to overcome obstacles faced by companies in their internationalization and global expansion process. It also aims to identify best practices for integrating AI technologies comprehensively with human expertise and traditional management strategies to maximize their benefit in the internationalization process.

1- Digital Transformation as a Driving Force for Business Evolution in the Modern Era

"Digital is worth its weight when all parts of the choir sing their respective parts in harmony to achieve a higher purpose and make a unique impact."

(Zhu, 2018)

1-1 Concept of Digital Transformation:

Over the past two decades, the world has witnessed a radical transformation driven by the digital revolution, which has changed both the lifestyle of societies and the way economies function. This digital transformation, reflecting the transition from traditional systems to those supported by modern technologies, has created a dynamic, rapidly evolving environment that requires organizations to continuously adapt to new developments and innovations. Digital transformation involves integrating digital technology into all aspects of business, leading to a fundamental change in how operations are conducted and value is delivered to customers (Samir, 2024).

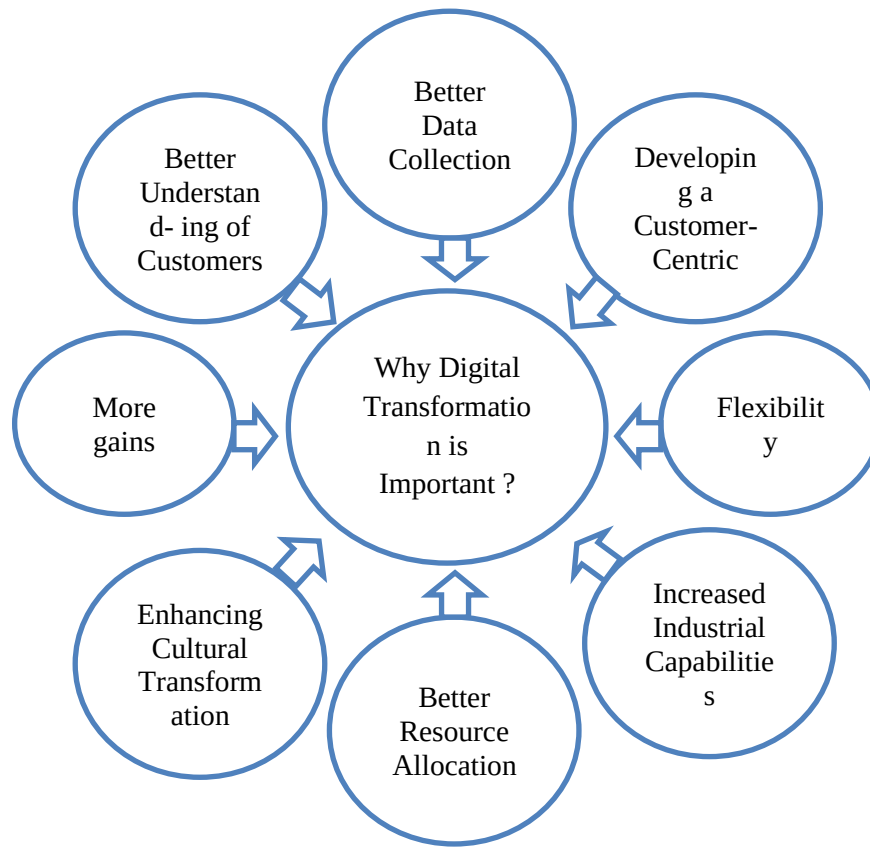
Digital transformation is a comprehensive path that radically changes how organizations operate and interact with their customers and business partners. It is not limited to adopting the latest technologies but also includes redesigning operational processes and updating business models to align with new digital requirements. This strategic transformation necessitates that organizations align their strategies and organizational structures to seize opportunities available in the constantly changing digital business environment.

(Gartner, 2018) provides a definition of digitalization that focuses more on business: "Digitalization is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities. It is the process of moving to a digital business".

1-2 Importance of Digital Transformation:

Digital transformation provides companies with tremendous opportunities to improve their performance and increase their competitiveness in various aspects by strategically leveraging advanced digital technologies. The following points represent the main reasons why a company might want to experience digital transformation:

Figure (1): The importance of digital transformation



Source: (Al-Ariki, 2022)

- **Better data collection:** Digital technologies such as the Internet of Things and sensors can collect vast amounts of data more accurately and effectively, providing companies with valuable insights for informed decision-making.
- **Better understanding of customers:** By analyzing digital data related to customer behaviors and preferences, the company will be able to understand their needs more deeply and better anticipate their expectations.
- **Enhancing cultural transformation:** Digital transformation requires a radical change in company culture to become more flexible and accepting of change and innovation, enhancing its ability to adapt to the changing environment.
- **Flexibility:** Digital technologies help companies develop new products and services faster and enable them to adapt to market changes with greater flexibility.
- **Increasing industrial capabilities:** Digital technologies such as robotics and automation enable companies to improve industrial processes and increase productivity and efficiency.
- **More gains:** By adopting digital technologies and improving processes, companies can achieve cost savings and increase revenues and profits.
- **Developing a customer-centric approach:** Digital transformation helps companies enhance the customer experience by adopting a more customer-focused approach, providing connected and personalized experiences for customers across all digital channels.

- **Better resource allocation:** By leveraging digital analytics and data, companies can allocate their resources more efficiently and target the most profitable opportunities.

1-3 Key Technologies of Digital Transformation:

Digital transformation technologies refer to the tools and techniques that help organizations transform their traditional operations and activities into digital processes, benefiting from modern technology and digital innovations. The main goal of these technologies is to improve operational efficiency, increase productivity, provide a better customer experience, and enable organizations to make decisions effectively. The main elements of digital transformation include the use of:

- **Cloud Computing:** It is a computing method to enable access to a scalable set of shared computer resources, providing self-service and on-demand management (SDAIA, 2022) .
- **Internet of Things (IoT):** This technology allows connecting devices and machines to the network to collect and analyze data, contributing to improving operations and better decision-making.
- **Artificial Intelligence and Machine Learning:** AI differs from machine learning, but they are used side by side, where machine learning is used to implement and develop AI processes. In other words, machine learning is a branch of artificial intelligence that focuses on developing algorithms and systems capable of learning and improving automatically through exposure to data and experience, without the need for explicit programming. These technologies are used in demand forecasting, improving customer experience, analyzing big data, etc.
- **Robotic Process Automation (RPA):** It is a system that uses software and artificial intelligence to automatically perform repetitive and systematic tasks. The main goal of RPA is to automate routine processes that can be performed by humans, contributing to improving work efficiency, saving time and cost, and reducing human errors. This system relies on software capable of replicating activities performed by humans on computers, for example: data entry, information processing, and simple decision-making. This software is trained to complete specific tasks based on specific rules and guidelines (Bakkah, 2024).
- **Blockchain Technology:** Or block chain, it is a type of distributed and secure database that stores transactions or data in digital blocks linked to each other in a chain connected using encryption techniques. This technology is characterized by transparency, security, and decentralization, where all participants in the network can view and confirm all recorded transactions, in addition to preventing any party from manipulating or changing data alone. Blockchain technology is mainly used in encrypted digital currencies such as Bitcoin, but it also has wide applications in other fields such as supply chain management, banking services, copyright data management, asset and property tracking, smart contracts, and others.
- **Virtual Reality/Augmented Reality (VR/AR) Technologies:** Virtual Reality (VR) and Augmented Reality (AR) are advanced technologies that fall under the technologies associated with digital and virtual environments. These technologies are widely used in various fields such as training, marketing, education, industry, medicine, product design, and other fields, providing unique and immersive experiences for users by combining the real and virtual worlds in innovative ways.

- **Big Data Analytics:** It is the process of collecting, processing, and analyzing huge amounts of large, complex, and diverse data using specialized techniques and tools. This process aims to discover valuable insights and trends that can be used to make better decisions and anticipate expectations (Tim & Cole , 2024).

Big data analytics help organizations better understand customers and their behaviors, in addition to improving operations, discovering business opportunities, and identifying risks. This technology is used in various fields such as e-commerce, banking services, healthcare, industry, national security, and others.

- **Cybersecurity:** It is a set of technologies, procedures, and practices that aim to protect systems, networks, programs, and electronic devices from cyber threats (such as hacks, viruses, electronic fraud..), therefore it is considered one of the top priorities for companies and institutions in light of the continuous increase in cyber threats, where many institutions work on employing teams and experts specialized in this field, with the aim of protecting data and technical assets, and ensuring business continuity and company reputation.

1-4 Digital Maturity and Digital Transformation Performance:

Digital maturity refers to the extent of an organization's progress and development in integrating digital technology into its operations, structures, and strategies. It also reflects the organization's ability to leverage digital technology to achieve sustainable growth and improve overall performance.

Organizations with higher digital maturity can achieve much better results from digital transformation. A recent survey conducted by Deloitte showed a strong correlation between a company's digital maturity and its financial performance after implementing a digital transformation project. The survey uses "seven digital pivots" to assess an organization's progress towards digital maturity, including (Stefan , 2022) :

- Flexible and secure infrastructure,
- Data mastery,
- Digital talent,
- Ecosystem engagement,
- Intelligent workflows,
- Unified customer experience,
- Business model adaptability.

Higher-maturity companies reported industry-leading revenue growth and profit margins

Percentage of respondents reporting metrics significantly above industry average, by level of digital maturity



Note: Comparisons to industry averages were self-reported by the respondents.
Source: Deloitte analysis.

Deloitte Insights | deloitte.com/insights

The study found that organizations with higher digital maturity were more likely to achieve financial performance significantly exceeding their industry average in key financial metrics, compared to organizations with lower digital maturity. For example, companies with high digital maturity achieve revenue growth at three times the rate of companies with low digital maturity.

More digitally mature organizations have a significant advantage in the digital transformation process, as they can better leverage the opportunities offered by this transformation. Advanced digital infrastructure and high human competencies in modern technologies, along with an organizational culture supportive of creativity and innovation, make these organizations more capable of facing challenges and overcoming them effectively. Additionally, the presence of leadership aware of the importance of digital transformation and effective strategic planning for the transformation process contribute to ensuring the successful implementation of digital initiatives and achieving better returns. Therefore, it is logical that digitally leading organizations reap the benefits of digital transformation much better compared to less mature organizations in this field.

Digital transformation represents a great opportunity for growth and international expansion. (Stoian, Rialp, & Dimitratos, 2017) argue that knowledge of foreign markets enhances the international performance of companies. In this context, digitization provides social data about market networks and cognitive data about market needs in foreign markets earlier and faster compared to traditional methods. Digitization also improves companies' attractiveness to foreign consumers and supports decision-making processes and decision-makers' capabilities. When deciding to enter a new market in a given year, this decision is often based on historical market data from a few years ago (such as two or more years prior), but its practical effects (such as gaining new customers and generating new revenues) will not be realized until about two years later. Therefore, prediction algorithms should be used to accurately assess the attractiveness of future markets. Although they cannot completely eliminate uncertainty, they can improve resource allocation and project priorities (Neubert, 2018).

2- Artificial Intelligence and Internationalization:

2-1 The Concept of Internationalization:

Internationalization can be defined as the process of expanding a company's or organization's activities and operations to include international and global markets, with the aim of increasing its market share and seizing new opportunities for growth and profitability. This process includes exporting products and services, establishing branches or factories abroad, and concluding international partnerships and investments.

In another definition, internationalization is synonymous with the geographical expansion of economic activities undertaken by companies beyond the borders of their home country (Mitja, Robert D., & Bostjan, 2006).

There are many challenges that companies face in their international expansion, the most important of which are:

- Challenges related to cultural diversity and differences in values and customs between countries and target markets, which may affect how products and services are presented, as well as marketing and communication methods with customers.
- Language differences in new markets pose a significant barrier to effective communication with customers, business partners, and employees, requiring precise translation of content and documents to avoid misunderstandings and lack of clarity.
- Differences in laws and regulations between countries, such as labor laws, taxes, data protection, and environmental regulations, necessitating careful study and legal consultations.
- The need to manage supply chains and coordinate shipping and distribution operations across international borders, in addition to dealing with complex customs procedures and varying infrastructures.
- Strong competition from established local companies in new markets, which have a better understanding of the local environment and customs.
- Recruiting and managing employees from different cultures, ensuring their appropriate training and qualification, and managing talent on a global level.
- Working on understanding the needs and trends of customers in new markets, and adapting marketing and promotion strategies accordingly.

2-2 Artificial Intelligence:

2-2-1 Definition of Artificial Intelligence:

Artificial Intelligence (AI) is defined as one of the cutting-edge computer sciences that investigates advanced methodologies for performing tasks and drawing inferences that emulate, albeit within constrained parameters, those ascribed to human cognition. Its objective is to reconstruct intelligent thinking processes and procedures using artificial means, primarily computers (Athamnia, 2019).

Patterson conceptualizes AI as a branch of computer science dedicated to the study and development of computational systems that exhibit certain forms of intelligence. These systems possess the capacity and capability to generate valuable inferences regarding the problem at hand, as well as comprehend natural languages, process sensory perception, and execute other functions that necessitate intelligence when performed by humans (Sheikh, 2018).

An alternative definition posits AI as the automation of activities associated with human cognitive processes, such as decision-making, problem-solving, and learning (Athamnia, 2019).

Artificial intelligence operates on the principle of learning from input data (historical) to identify patterns, make predictions, comprehend linguistic structures, and perform image recognition tasks. This is achieved through the utilization of machine learning algorithms, a subset of artificial intelligence, which possess the ability to "learn" and "adapt" based on the data they process (Stuart & Peter , 2009) .

In general terms, artificial intelligence can be defined as an endeavor to simulate human cognitive abilities such as learning, thinking, reasoning, and decision-making through computer programs and machines. It encompasses multiple subdisciplines, including machine learning,

natural language processing, deep learning, knowledge representation, computer vision, expert systems, intelligent robotics, neural networks, and others.

2-2-2 Objectives of Artificial Intelligence:

The objectives of artificial intelligence are diverse and field-specific, but they ultimately converge on enabling machines to perform tasks more intelligently and effectively for the benefit of humanity. These objectives include:

- Simulating human cognitive capabilities such as thinking, learning, planning, problem-solving, and interacting with the environment intelligently through programs and machines.
- Enhancing efficiency and productivity across various sectors by automating tasks and improving decision-making through advanced analytics.
- Developing the capacity to analyze and comprehend vast amounts of data, extracting valuable knowledge and insights for the benefit of diverse industries.
- Creating intelligent systems capable of addressing complex problems that exceed traditional human capabilities in certain domains (e.g., drug discovery).
- Providing more sophisticated and interactive user experiences through virtual assistants, natural language interaction, and virtual reality applications.
- Improving safety and security in numerous fields, including autonomous driving, traffic management, and healthcare.
- Exploring new frontiers in scientific research and technological development by generating novel ideas and innovative discoveries.

2-3 Harnessing Artificial Intelligence in Corporate Internationalization:

The strategic application of artificial intelligence in corporate internationalization presents a significant opportunity to accelerate global growth and enhance competitive advantage. AI offers innovative solutions to the complex challenges companies face when expanding their operations internationally. Over the past 15+ years, artificial intelligence has been increasingly integrated into corporate business processes, demonstrating a positive impact on business performance while facilitating companies' international expansion (Gaston & Maria , 2023) .

The internationalization process commences with a meticulous analysis of target markets. Companies attempting to penetrate new markets encounter vast quantities of data concerning market trends, consumer behavior, regulatory environments, and competition across various countries. In this context, artificial intelligence algorithms, particularly those employing machine learning techniques, can process and analyze this data at a scale and speed unattainable by human analysts. By identifying patterns, trends, and correlations within this data, AI systems can provide valuable insights that inform companies' strategic decision-making processes. For instance, AI-powered predictive analytics can forecast market demand, identify potential risks, and highlight product localization opportunities—representing a potential to increase a company's success in foreign markets by making its products more suitable and attractive to local consumers—thereby enabling the company to design its internationalization strategies with greater precision and confidence.

Once companies have identified their target markets, the phase of adapting to different cultures and languages ensues. Here, the importance of AI-supported machine translation becomes evident, offering rapid and accurate translation of marketing content, legal documents, and product interfaces. Natural Language Processing (NLP)-a branch of AI focusing on the interaction between computers and human language-plays a crucial role in overcoming language barriers that often impede companies in their international expansion. Advanced NLP systems can provide real-time translation services, facilitate communication between teams across different countries, and enable companies to interact with local customers in their native languages. Additionally, NLP techniques can perform sentiment analysis on social media posts, customer reviews (i.e., opinions or comments provided by customers about the company's products or services), and other textual data sources across multiple languages, offering insights into brand perception and customer satisfaction in various markets.

The products and services offered by the company must be tailored to the needs and preferences of each market. AI can assist in analyzing local consumer preferences and suggesting product modifications to suit each market individually. This customization enhances the appeal of the offering and strengthens the company's global competitive position.

As operations expand internationally, supply chain management becomes increasingly complex. AI significantly enhances supply chain management and logistics, which are critical components for successful internationalization. Machine learning algorithms can optimize logistical efficiency by improving shipping routes, optimizing inventory management, and predicting potential problems to mitigate their impact. This ensures that products reach customers in a timely manner and at the lowest possible cost. Furthermore, AI-supported demand forecasting can help the company anticipate fluctuations in different markets, allowing for more effective inventory allocation and reducing the risks of stock-outs or inventory surpluses.

Another area where AI can significantly contribute to successful internationalization is customer service, which serves as the company's interface in each market. AI-powered chatbots and virtual assistants can provide round-the-clock support in various languages, improving customer experience and fostering loyalty.

In the realm of marketing, AI can analyze online user behavior and create customized marketing campaigns targeting appropriate audiences in each market. This intelligent approach increases the effectiveness of advertising expenditure and improves return on investment, making marketing efforts more efficient and impactful.

On another front, the importance of compliance and risk management in the internationalization process cannot be overlooked. AI systems can continuously monitor changes in international regulations, tax laws, and trade policies, alerting companies to any modifications that may affect their operations, thus ensuring ongoing compliance and proactive avoidance of legal risks. Additionally, AI-based risk assessment models can analyze geopolitical, economic, and operational risks in new markets, enabling companies to make more effective decisions regarding their international expansion strategies.

Regarding the recruitment process, which poses a significant challenge for companies during international expansion, AI tools can assist in the selection and recruitment of international talent by screening resumes, scheduling interviews, and assessing candidate

suitability using advanced algorithms. Moreover, AI ensures compliance with various legal requirements, making the recruitment process more efficient and legally sound.

***The Role of Companies:**

There is an important point that must be addressed: when we talk about "harnessing" artificial intelligence, we are actually referring to using it effectively to serve the company's internationalization goals. While AI is considered a powerful tool, it is ultimately just that-a tool. Here, the role of companies emerges as they guide this tool by:

- Identifying where this tool-AI-can add value in the internationalization process.
- Selecting or developing AI applications that suit their needs.
- Integrating these applications into the company's existing processes and systems.
- Training and equipping employees to use these technologies effectively.
- Continuously monitoring and improving the performance of AI applications.
- Ensuring human oversight of AI decisions and recommendations.
- Leveraging the results by using the information and insights provided by AI to make strategic decisions.

Conclusion:

Adapting AI in the internationalization of companies represents a qualitative leap in the business world, providing powerful tools that help companies overcome traditional barriers to international expansion and open up new horizons for growth and innovation. However, the success of this endeavor depends not only on adopting the technology but also on its wise and responsible use. Therefore, companies must balance leveraging AI capabilities with maintaining human and ethical values. The real challenge lies in achieving integration between technical efficiency and cultural sensitivity. With the accelerating pace of technological development, new opportunities will emerge for using AI in internationalization. Companies that wisely adopt these technologies and invest in developing their capabilities in this field will be better positioned to face the constantly changing global market challenges and achieve growth and development on an international scale. Ultimately, the human element remains crucial in guiding and interpreting AI results. The integration between human and artificial intelligence will lead companies towards success on the global stage.

Bibliography List:

- Sheikh, H. (2018). The role of Artificial Intelligence in Managing the Electronic Customer Relationship of the Algerian Popular Loan (CPA). *Journal of the Academy for Social and Human Studies*, 10(2), 81-90.
- Al-Araki, W. T. (2022). *Digital Transformation Strategy and Key Trends in 2022*. Retrieved 04 09, 2024, from Technology Community: <https://tech-ye.com/%D8%A7%D8%B3%D8%AA%D8%B1%D8%A7%D8>
- Athamnia, A. (2019). The Basic Concepts of Artificial Intelligence. In *THE APPLICATION OF ARTIFICIAL INTELLIGENCE AS A MODERN TREND TO ENHANCE THE COMPETITIVENESS OF BUSINESS (IN ARABIC)* (p. 252). Berlin, Germany: The Arab Democratic Center for Strategic, Political, and Economic Studies.
- Bakkah. (2024). *Robotic Process Automation (RPA) System: Importance, Objectives, Elements, Fields, and How It Works*. Retrieved 06 07, 2024, from Bakkah: <https://bakkah.com/ar/knowledge-center/%D9%86%D8%B8%D8%A7%D9%85-rpa>
- Gartner. (2018). *IT Glossary: Digitalization*. Consulté le 04 01, 2024, sur Gartner: <https://www.gartner.com/it-glossary/digitalization>
- Gaston , F., & Maria , A. (2023). Artificial Intelligence and International Business. Dans *Digitalization, Technology and Global Business* (éd. 1, p. 136). Palgrave Pivot Cham.
- Mitja , R., Robert D. , H., & Bostjan , A. (2006). SME internationalization research: past, present, and future. *Journal of Small Business and Enterprise Development*, 13(4), 476-497.
- Neubert, M. (2018). The Impact of Digitalization on the Speed of Internationalization of Lean Global Startups. *Technology Innovation Management Review*, 8(5).
- Samir, K. (2024). *Digital Transformation: Its Definition, Importance, Features, Strategy, Stages, Requirements, Essential Steps, Fields, and Technologies*. Retrieved 04 01, 2024, from Zamn: <https://blog.zamn.app/%D8%A7%D9%84%D8%AA%D8%AD%D9%88>
- SDAIA. (2022). *Dictionary of Data and Artificial Intelligence: Arabic-English* ("First Edition ed.). Saudi Arabia.
- Stefan , F. (2022). *What is Digital Maturity, How to Measure, Tools & Models*. Consulté le 06 06, 2024, sur Digital Leadership: <https://digitalleadership.com/blog/digital-maturity/>
- Stoian, M.-C., Rialp, J., & Dimitratos, P. (2017). SME Networks and International Performance: Unveiling the Significance of Foreign Market Entry Mode. *Journal of Small Business Management*, 55(1), 128–148.
- Stuart, J., & Peter , N. (2009). *Artificial Intelligence: A Modern Approach* (éd. Third Edition). PEARSON.
- Tim , M., & Cole , S. (2024). *What is big data analytics?* Consulté le 06 08, 2024, sur IBM: <https://www.ibm.com/topics/big-data-analytics>
- Zhu, P. (2018). *Digital Maturity: Take a Journey of a Thousand Miles from Functioning to Delight*. Lulu.com.