

STRATEGIC APPRAISAL OF THE INTERDEPENDENCE OF DIGITAL TECHNOLOGIES IN EMERGING ENTREPRENEURIAL MODELS

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ABSTRACT

The purpose of this paper is to investigate some consequences of the assumption that digitalization can benefit small and medium-sized enterprises (SMEs). In the digital economy, SMEs are key players. For example, there are 33 million small businesses in the U.S. and 31 million SMEs in the EU. SMEs are important as the primary source of new job creation and the dissemination of new business practices, and they make a substantial contribution to GDP. If the e-economy is to make real progress, there must be active and substantial SME participation. This basic reality applies to SMEs worldwide. The potential offered by e-business to SMEs is considerable through enhanced productivity, reduced transaction costs, increased management efficiency, access to potential new markets, and better penetration of the existing customer base. The majority of these entrepreneurial firms base their sustainable competitive advantage on optimizing core competencies through the introduction and wider application of digital technologies. From an entrepreneurial perspective, and especially from a strategic point of view, the processes of creating new entrepreneurial firm models and reengineering existing ones should involve digitalization. In this paper, the authors examine and discuss three major competitive entrepreneurial models focused primarily on achieving strategic goals and reengineering the current "classical entrepreneurial firm structure" into a "virtual entrepreneurial firm structure". The authors consider improving sustainable competitive advantage by enhancing overall entrepreneurial firm performance through the design and implementation of different complementary and profitable digital technologies. Finally, conclusions are drawn, and recommendations are made based on the researched digitalization models and findings.

Keywords: Digital economy, Digital entrepreneurship, Digital reengineering, Entrepreneurial firm models, SMEs, Digital technologies, Sustainable competitive advantage, Strategy

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AN INTRODUCTION TO THE IMPACT OF DIGITALIZATION ON SMALL AND MEDIUM-SIZED ENTERPRISES AND ENTREPRENEURIAL FIRMS

Until the late 1970s, the use of telephones was considered a public service rather than a commercial activity. The telephone system was usually owned by the national postal service. However, technological developments were making the traditional public service status of the telephone system increasingly untenable.

The application of new digital technologies greatly increased the capacity of the telecommunications infrastructure. The introduction of mobile telephones in the late 1980s provided an alternative to fixed-line systems. The convergence of emerging computer technologies and telecommunications enabled data, as well as voice transmission, over telephone lines, giving rise to e-mail and the Internet as major means of communication. A new economic sector, Information and Communications Technology (ICT), was born.

Traditional government perceptions of telecommunications changed. National postal and telephone services were separated, and governments established commercial, publicly owned companies to operate their telecommunications systems. In most countries, the new national telecommunications companies were wholly or partly privatized. Most importantly, telecommunications are now regarded as a market in which competition should be encouraged rather than as a service provided by public institutions.

During the second half of the 1990s, there was an enormous increase in ICT activity, giving rise to new expressions such as "e-business", "e-commerce", "e-government", "Information Society", and the "Digital Age". Most governments now regard the development of their national ICT sectors as crucial to economic development and international competitiveness and adopt their policies accordingly. The implementation of these policies is already having a major impact on SME development.

There are three aspects of fundamental importance to SMEs arising from the Digital Age and the Information Society resulting from advances in Information and Communications Technology: (1) e-business, which is the use of ICT for business purposes; (2) e-commerce; and (3) e-government, which is the application of ICT to communication between, on the one hand, public administration and, on the other, citizens and enterprises. Simply put, the Internet is bringing about major changes in the ways SMEs conduct their operations, whether through marketing and promotion, direct transactions (e.g., booking airline tickets and hotel accommodation, Internet banking, online shopping, and many other activities), or electronic compliance with regulations and administrative formalities.

The Information Society and the Digital Age are of vital importance to both advanced and developing countries, which face major challenges in adopting the emerging business models discussed hereinafter.

EMERGING STRATEGIC DEVELOPMENT OBJECTIVES FOR REENGINEERING ENTREPRENEURIAL FIRMS THROUGH DIGITAL TECHNOLOGIES

The reengineering of the "industrial economy" into an "emerging digital economy" was mainly initiated and accelerated by the strategic reengineering of entrepreneurial firms, i.e., the emergence and reengineering of new entrepreneurial firm models contingent on the more dynamic development and application of digital technologies [Marković et al., 2020, pp. 505–518]. The strategic reengineering of entrepreneurial firms in the digital economy is significantly contingent on the broader application of digital technologies and is "essential for enhancing the ability of entrepreneurial firms to survive and thrive due to the challenges caused by rapid innovation in the environment". Indeed, it is not restricted to isolated or incremental innovation but introduces radical innovation through the reengineering and restructuring of entrepreneurial firm models [Radosavljević, 2022; Krasulja and Ilić, 2023, p. 223; Vemić, Grečiškina, and Samohovec, 2021]. According to Cruise (2023) and Krasulja and Ilić (2023, p. 223), strategic reengineering implies a radical and profound reshaping of the essence of the entrepreneurial firm, i.e., a reshaping of the entrepreneurial firm model. As Ilić (2021) indicated, the strategic reengineering of entrepreneurial firms, at its core, "implies reshaping the existing and introducing radically new management models aimed at fundamentally innovating and modernizing the ongoing performance and practices of entrepreneurial firms, thereby providing the capacity to adequately initiate and respond to developments and upcoming challenges in the Digital Economy". Similarly, Anthony (2016), together with Krasulja and Ilić (2023, p. 223), suggests that strategic reengineering enables the implementation of a dual reengineering process contingent on strengthening the current entrepreneurial firm model while efficiently developing its future core competencies.

Emerging entrepreneurial firm models, together with the strategic reengineering of existing enterprises, are contingent on the dynamic development and application of new digital technologies, which currently include Artificial Intelligence (AI), the Internet of Things (IoT), 3D printing, blockchain technology, and virtual (VR) and augmented reality (AR). These technologies are becoming the most important foundations for reengineering the global economy into a truly digital economy. The basic reengineering aspects of innovative digital technologies, as well as the influence of key business factors on the modern entrepreneurial firm, can generally be identified through the following segments [OpenText, 2016; Ilić, 2018, p. 55; Marković et al., 2020, pp. 505–518; Ilić, 2021]:

- New technologies;
- A shift in consumer behavior toward "digital consumption" (2010), i.e., the Digital Consumer/Customer;
- The reengineering of safety standards and procedures;
- The reengineering of the labor market and workforce qualifications;
- A shift in regulations toward innovative regulatory frameworks;
- The reengineering of entire supply chains into "digital supply chains".

Emerging entrepreneurial firm models involving radical reengineering of organizational structure, culture, business processes, and entire value chains are fundamentally contingent on digitalization and digital reengineering in the Fourth Industrial Revolution (Industry 4.0). Consequently, researchers distinguish between "digitalization" and "digital reengineering". Namely, digitalization requires the development and broader use of both new and existing technologies, as well as the dissemination of business information aimed at creating new and optimizing existing entrepreneurial firm business processes. This creates a more conducive environment for the digital entrepreneurial firm, in which high-quality information plays a central role [Startit.rs, 2020; Marković et al., 2020, pp. 505–518].

The term "*digital reengineering*", in relation to the "structuring of organizations" [Mintzberg, 1979] through digitalization, is broader and suggests "the incorporation of digital technologies into all structures of the entrepreneurial firm, producing radical innovation" [Vemić, Grečiskina, and Samohovec, 2021] and creating value for clients. Thus, the authors refer to the application of digital technologies that radically transform entrepreneurial firm models, generate new cash flows, and fundamentally restructure business processes [Startit.rs, 2020; Marković et al., 2020, pp. 505–518]. Digital reengineering introduces an action plan, together with guidance and processes for transforming existing entrepreneurial firm models into new ones. Here, the authors refer to "pathways for the ongoing transformation toward new forms of business life in the digital entrepreneurial firm". Such a firm is characterized by the deep integration of physical, logical, and business processes, resulting in a high degree of efficiency and optimized overall business performance. Digital reengineering requires the incorporation of new digital technologies to transform heterogeneous, independent, or loosely connected structures into more integrated value models, which are most often characterized by the following reengineering innovations [Marković, 2019; Marković et al., 2020, pp. 505–518]:

1. Optimizing customer satisfaction through deeper value creation;
2. A higher degree of customer integration into entrepreneurial firm business processes;
3. Establishing the broader application of new digital technologies, including new sales, financial, and production channels, as a new standard;
4. Optimizing the overall efficiency of the entrepreneurial firm;
5. Deepening the knowledge base and skills required in the digital economy;
6. Optimizing relationships within entrepreneurial value chain processes;
7. Transforming and optimizing firm outputs into "smart products and services".

ELEMENTS OF REENGINEERING A DIGITAL STRATEGY REQUIRED BY THE BUSINESS PROCESSES OF THE ENTREPRENEURIAL FIRM

An effective strategy for designing and implementing the digital reengineering of an entrepreneurial firm requires a structured management approach [Marković, 2019]. When defining business objectives, they should, of course, be realistic, well defined, and achievable within the specified time frame, while at the same time being set neither "too low" nor "too high" [Marković, 2019; Marković et al., 2020, pp. 505–518]. Addressing strategy, Jovanić (2007, p. 12), as well as Krasulja and Ilić (2023, p. 224), define it as "a plan of action that guides the entrepreneurial firm towards the achievement of future goals. This clearly directs the positioning and reengineering of the entrepreneurial firm in an emerging business environment." Similarly, Coulter (2010, p. 6), together with Krasulja and Ilić (2023, p. 224), defines strategy as "a set of viable decisions and processes within a particular entrepreneurial firm, integrating formal capabilities and organizational resources with external opportunities and threats." Figure 1 illustrates this approach by integrating the elements, steps, and activities required to achieve the defined objectives of digital reengineering and create a new entrepreneurial dynamic.

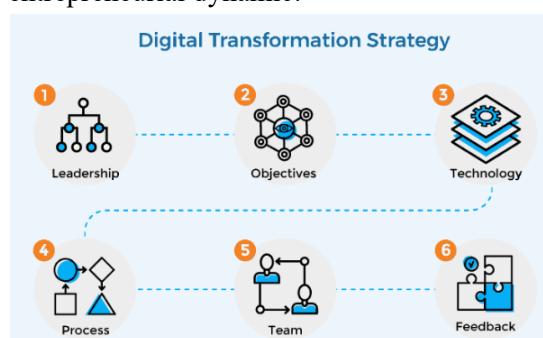


Figure 1. Elements, activities, and basic steps in the process of formulating and implementing the digital reengineering strategy of the entrepreneurial firm.

Adapted from: Plutora (2019). *Digital Reengineering Strategy: Your 6 Steps for Success*; Marković, B., Ilić, D., & Ivannikov, N. (2020). *Strategic Development Objective for Digital Entrepreneurial Firm Reengineering in the New Economy*, ANTIM 2020, 7th International Conference Application of New Technologies in Management, Proceedings, p. 511.

Similarly, for the purpose of designing and implementing the digital reengineering of an entrepreneurial firm, the authors proceed from the following interconnected "building blocks", as shown in Figure 2.

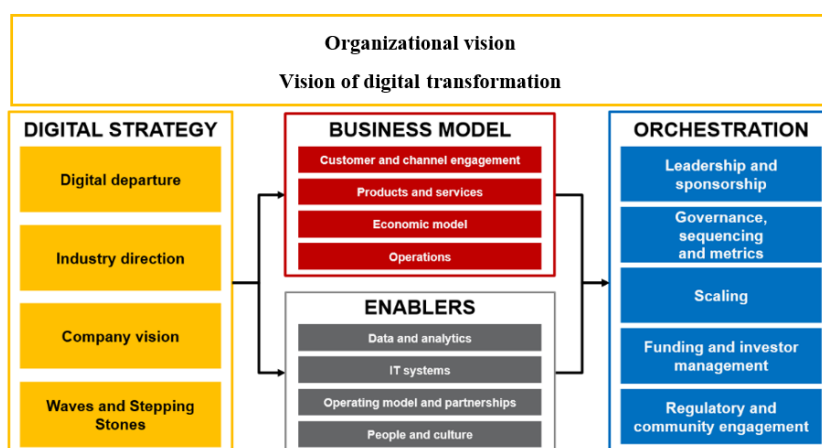


Figure 2. Building blocks and their interdependence in the process of digital reengineering.

Adapted from: World Economic Forum (2019). *A Step-by-Step Guide to Digital Reengineering* (online); adapted by the authors.

The roadmap of the major processes within the Digital Reengineering Strategy Development Objective is presented in Figure 3.

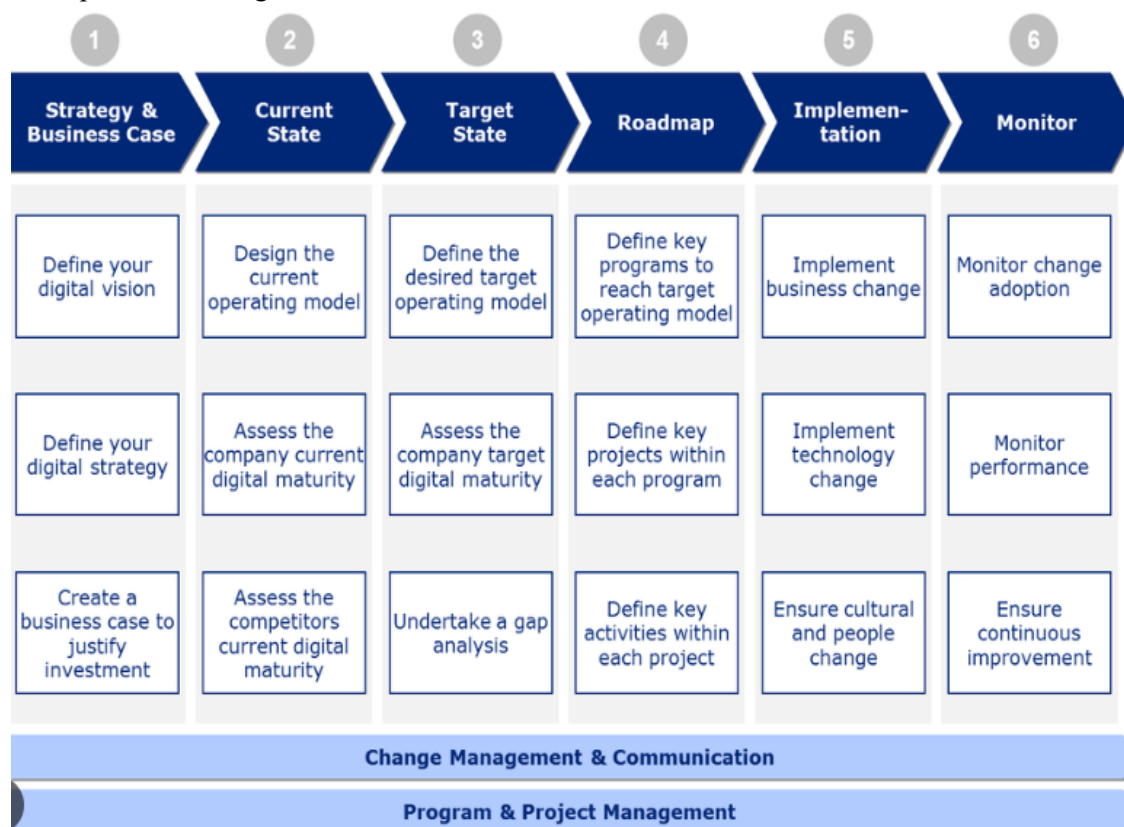


Figure 3. Digital Reengineering Strategy Development Objective.

Adapted from: Digital Reengineering Strategy Development Objective (2020) (online); Marković, B., Ilić, D., & Ivannikov, N. (2020). Strategic Development Objective for Digital Entrepreneurial Firm Reengineering in the New Economy, ANTIM 2020, Proceedings, p. 517.

Marković et al. (2020) compared different approaches in their research, and Figure 3 presents the initial step of the *Digital Reengineering Strategy Development Objective*. It requires creating a vision for digital reengineering, followed by the formulation of strategies and the implementation of the practical measures identified by Accenture, the Markle Foundation, and the UNDP (2001). The next step involves examining the operating model that leads to the digital maturity of the entrepreneurial firm, as well as those of its direct and indirect competitors within the value chain. The third step in this strategic reengineering process is the design of the target state, together with the desired future business performance of the entrepreneurial firm. This stage includes precisely determining the gap between the current and projected business model, as well as between the current and expected digital performance of the entrepreneurial firm. The fourth step involves designing the most important programs, projects, and activities related to process reengineering, while the fifth focuses on implementing the digital strategy. The sixth step includes monitoring, evaluating, and improving digital business processes through corrective measures, followed by the final step, which addresses the long-term development of business culture, as well as further research, development, and innovation.

In Figure 4, the authors illustrate an innovative, i.e., radically transformed entrepreneurial firm model required by Industry 4.0.

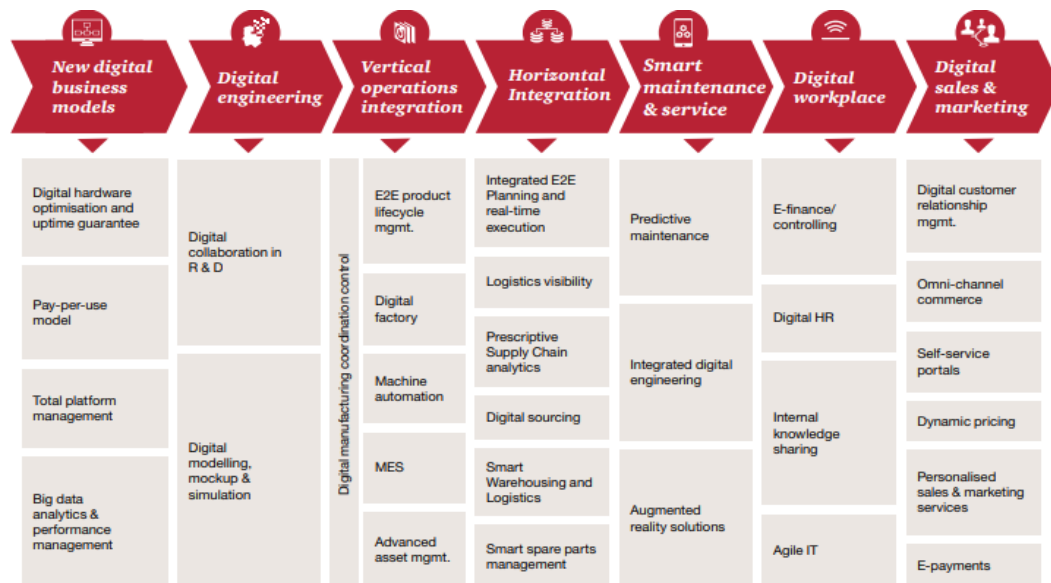


Figure 4. A new entrepreneurial firm model after the implementation of digital reengineering.

Source: PwC (2016). *Industry 4.0: Building the Digital Enterprise*, Global Industry Survey (online); Ilić, D., Marković, B., & Milošević, D. (2017). *Strategic Entrepreneurial Firm Reengineering: An Industry 4.0 Perspective*, *International Journal of Economic & Law*, 7(20), 49–59; Krasulja, N., & Ilić, D. (2023). *The Impact of the Fourth Industrial Revolution and the Crisis on the Strategic Reengineering of Entrepreneurial Firms and Employees*, *Yearbook of the Faculty of Business Studies and Law*, 1(1), 223–248.

APPRAISAL OF THE INTERDEPENDENCE OF DIGITAL TECHNOLOGIES IN THE EMERGING ENTREPRENEURIAL FIRM MODEL

Digital reengineering of the entrepreneurial firm, as well as the evolution of a new entrepreneurial firm model, must not become an end in itself. Sustainable competitive advantage achieved through digital reengineering should become the primary goal of the new entrepreneurial firm model [Marković et al., 2020, p. 518]. In the digital economy and Industry 4.0, modern entrepreneurial firms are required to possess emerging knowledge and skills, coupled with the ability to continuously evaluate, select, and apply optimal and profitable digital technologies that are aligned with the new entrepreneurial firm model. Ilić et al. (2022, p. 129) proposed the strategic imperatives of the "new normal of the entrepreneurial firm", based on the appraisal and selection of optimal digital technologies aligned with the goals of digital reengineering and corporate strategies. Strategic management, as it evolves through such business processes, enables the achievement of strategic goals, such as optimizing customer satisfaction, optimizing value chains while creating and delivering added value, and optimizing the efficiency of new communication channels required to enhance entrepreneurial knowledge and sustainable competitive advantage in the digital economy [Ilić et al., 2022, p. 129]. Therefore, the appraisal and selection of the most compatible digital technologies have evolved into a "very prominent tool in itself" [Ilić et al., 2022, p. 129]. Digital, and especially disruptive, technologies in the open business models [Chesbrough, 2003] of Industry 4.0 have a significant reengineering impact on entrepreneurial business models. Although numerous technologies exist and cannot all be discussed here, some of the most important [Ilić et al., 2017a, pp. 169–172; Marković, 2019; Marković et al., 2020, pp. 505–518] include:

- Internet of Things (IoT);
- Artificial Intelligence (AI);
- Big Data;
- Digital twin;
- Low-code development platforms (LCDPs);
- Microservices;
- Social media.

Regarding the appraisal and selection of optimized digital technologies with the capacity to support the reengineering of the new entrepreneurial firm model, Ilić et al. (2022, pp. 129–142) suggest three models: the "Hierarchical Model" developed by Mei-Chen Lo et al. (2007, p. 1), the model and methodology presented by Aznar (2007), and the model presented on the Vera Solutions website (2019).

The results of this research indicate that the first model, entitled the "*Hierarchical Model*", was developed and published by a group of authors led by Mei-Chen Lo et al. (2007, p. 1). It is based on internal strengths and opportunities, external opportunities and risks, and the systemic characteristics of enterprise products and their technology life cycle. The "Hierarchical Model" is illustrated in Figure 5.

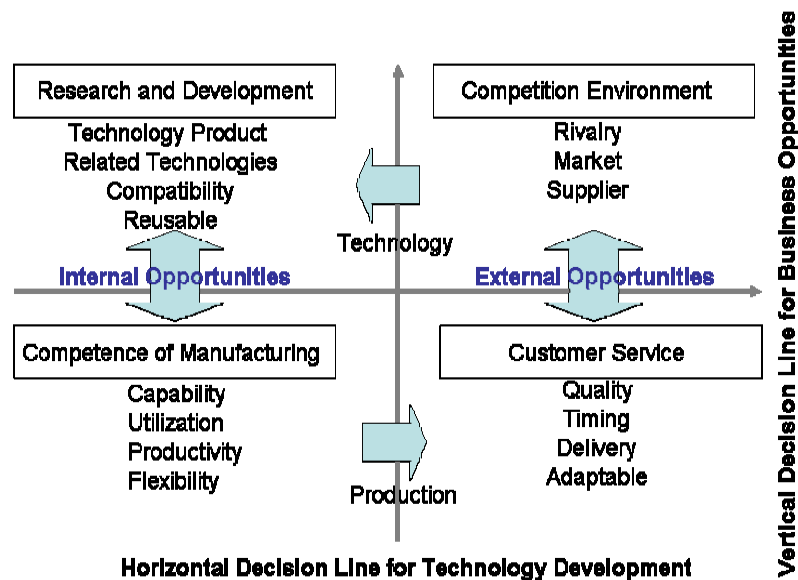


Figure 5. Hierarchical model: Strategic Development Objective for the appraisal and selection of technologies (digital technologies).

Source: Mei-Chen Lo, Jerzy Michnik, & Li-Ping Alfred Cheng (2007). *Technology Assessment as a Guidance to Entrepreneurial Firm Management of New Technologies*, 2007 IEEE International Conference on Industrial Engineering and Engineering Management, pp. 75–79; Ilić, I., Ilić, D., & Marković, B. (2022). *Assessment of the Application of New Technologies in Entrepreneurial Firms. ANTIM 2022, 8th International Conference Application of New Technologies in Management and Economy, Proceedings, Vol. 1, Belgrade, Serbia*, pp. 129–142.

As illustrated in Figure 5, the main advantages of the "Hierarchical Model" are based on the traditional SWOT/TOWS analysis (*Strengths, Weaknesses, Opportunities, and Threats*). External analysis (the analysis of opportunities and threats in the external environment) is followed by internal analysis (the analysis of core competencies and weaknesses originating within the organization). The model focuses on a systems approach characterized by complex thinking and the interconnection of horizontal and vertical decision-making processes. Systematic and hierarchical decision-making contributes to improving and optimizing the competitive environment, business process structure, organizational integrity, and the intensity of competition. Ultimately, this affects market size and potential, as well as enterprise supply chains developed on the basis of new digital technologies.

The second segment of the "Hierarchical Model" enables researchers to analyze the quality of products and services, the timing of market entry and exit, and the impact of digital technologies on business communication with customers and stakeholders. The model enables entrepreneurial firms to identify the gap between product and service performance and customer expectations. In addition, it facilitates the analysis of internal strengths, core competencies, and the work of the R&D sector in determining whether they contribute to the technological and digital maturity of entrepreneurial firm processes, products, and services. Finally, through the fourth segment, the entrepreneurial firm focuses on systems integration, flexibility, the impact of digital technologies on productivity optimization, and the sustainable strengthening of relationships with customers and other stakeholders.

Other authors, such as Pope et al. (2004), supported and further developed the "Hierarchical Model", demonstrating that "integrated assessment, i.e., the strategic assessment of digital technologies, is a useful

business process based on the analysis of technological development and its consequences, which positively affects the overall business performance of the entrepreneurial firm". Similarly, Ilić et al. (2022, pp. 129–142) observed that "analyzing implemented, as well as evaluating digital technologies, supports strategic and entrepreneurial decision-making. In this way, numerous opportunities and advantages can be exploited while reducing or even eliminating potential risks." The same authors, Ilić et al. (2022, pp. 129–142), proposed the following three key questions for analyzing the "Hierarchical Model":

a) Is the current strategic development objective sufficient to evaluate and select the digital technologies that are most compatible with the strategic vision of the new entrepreneurial firm model, or does it require reengineering?

b) Can the proposed hierarchical model adequately quantify the benefits of digital technologies in an entrepreneurial firm?

c) To what extent can the flexibility of this model contribute to assessing the compatibility of digital technologies with the new entrepreneurial firm model in Industry 4.0 and its overall performance?

The authors also present the "ICE-9 Essential Questions of Digital Technologies Appraisal" model. This approach represents a strategic development objective based on the methodology of nine fundamental questions proposed by Aznar (2007). Aznar (2007) identified the nine structural questions illustrated in Figure 6.

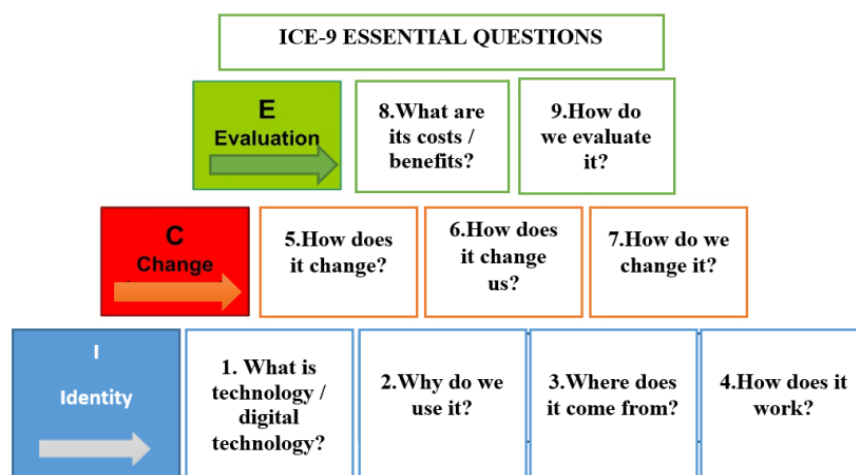


Figure 6. ICE-9 Essential Questions of Digital Technologies Appraisal

Source: Aznar, M. F. (2007). *Understanding and Evaluating Technology*. Knowledge Context, customized ed. (online); Ilić, I., Ilić, D., & Marković, B. (2022). *Assessment of the Application of New Technologies in an Entrepreneurial Firm*. ANTIM 2022, 8th International Conference Application of New Technologies in Management and Economy, Proceedings, Vol. 1, Belgrade, Serbia, pp. 129–142.

As illustrated in the framework presented in Figure 6, the advantages of the nine proposed questions are evident and numerous. However, certain limitations and weaknesses have also been identified. The main disadvantage, highlighted by critics of this methodology, relates to the risk of subjective analysis when answering Question No. 9: *How do we assess digital technologies in an entrepreneurial firm?* Furthermore, several authors critical of this model, such as Ilić et al. (2022, pp. 129–142), identified the following insufficiently defined aspects: "whether and in what way digital technologies evolve, as well as what their basic goals, development objectives, and evaluation criteria are". To address the identified shortcomings of the "ICE-9 Essential Questions of Digital Technologies Appraisal" model, additional answers are required in the following areas of analysis [Udell, 2019; ITONICS, 2022; Ilić et al., 2022, pp. 129–142]:

- To what extent does the current or proposed entrepreneurial firm model integrate the processes and contextual aspects of present and future entrepreneurial firms and their existing and emerging technologies (this may be referred to as Entrepreneurial Firm Model Fit);
- What is the future technological potential for improving the market position and development of the entrepreneurial firm (this may be referred to as Entrepreneurial Firm Potential);

- What is the cost structure associated with the development and transfer of digital technologies, requiring a cost-benefit analysis of their implementation and integration into the future entrepreneurial firm model (this may be referred to as Entrepreneurial Firm Cost-Benefit Analysis);
- Determine the disruptive innovation potential of digital technologies in existing and emerging markets (this may be referred to as Innovation Disruptive Potential);
- Assess the application and potential of digital technologies within the existing business domain (this may be referred to as Enterprise Application Scope);
- Assess the knowledge and skills generated through the application of digital technologies (this may be referred to as Enterprise Internal Know-How);
- Determine whether digital technologies positively influence user experience and customer satisfaction with the entrepreneurial firm's products and services [Udell, 2019];
- Assess the urgency of changing the business model through radical measures;
- Analyze and determine the gap between currently used technologies and emerging digital technologies (this may be referred to as the Enterprise Technology Gap);
- Analyze and determine the enterprise's integration capacity, i.e., the extent to which digital technologies can be flexibly integrated into the existing technical, organizational, or ICT system (this may be referred to as Enterprise Integration Capability);
- Review the legal and regulatory framework governing the potential use of digital technologies, including existing requirements and standardized development objectives for implementing new technologies;
- Analyze and assess the security risks associated with the application of new digital technologies (this may be referred to as Enterprise System Safety and Security);
- Analyze and assess the social and cultural dynamics of the enterprise resulting from the application of digital technologies (this may be referred to as Enterprise Social and Cultural Dynamics).

The third model examined in this paper was published on the Vera Solutions website (2019). Entitled "Ten Criteria for Digital Technologies Assessment", it is illustrated in Figure 7.

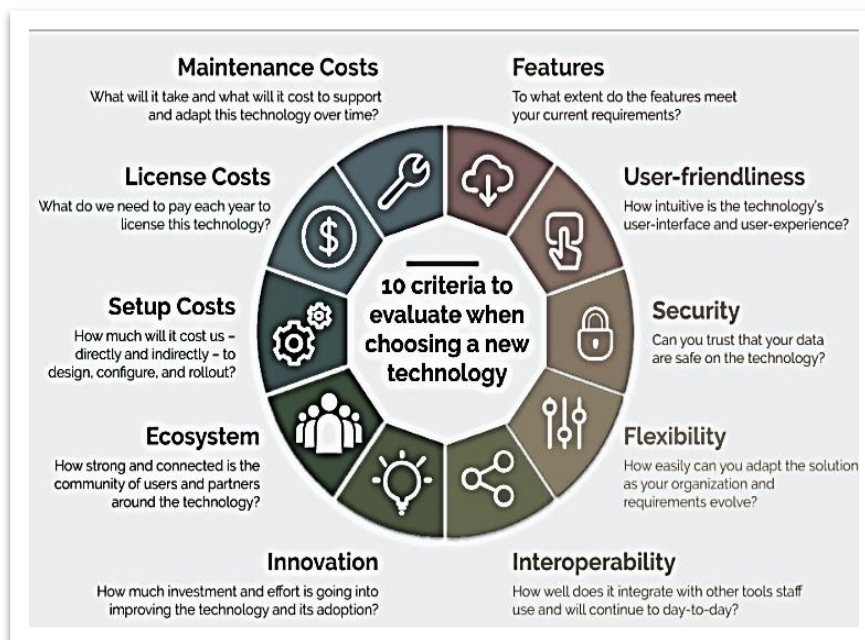


Figure 7: Ten Criteria for Evaluating Digital Technologies.

Source: Vera Solutions (2019). 10 Criteria to Evaluate When Choosing a New Technology.

<https://www.verasolutions.org/10-criteria-to-evaluate-when-choosing-a-new-technology/?locale=en>; Ilić, I., Ilić, D., & Marković, B. (2022). Assessment of the Application of New Technologies in an Entrepreneurial Firm. *ANTIM 2022, 8th International Conference Application of New Technologies in Management and Economy, Proceedings, Vol. 1, Belgrade, Serbia, pp. 129–142.*

Figure 7 is based on three essential questions that entrepreneurial firms should consider when evaluating and selecting new digital technologies, each supported by a set of ten assessment criteria [Vera Solutions, 2019]. The three essential questions are:

1. "To what extent will this digital technology meet our needs today?"
2. "To what extent will this digital technology meet our future needs?"
3. "To what extent does this digital technology fit within your budget?"

It is crucial *to determine the extent to which a digital technology meets current organizational needs*, as this initiates the research and development of a particular technology, tool, or digital platform capable of creating and delivering new value in the short term. The following three criteria are proposed to answer the first question:

1. Question 1 / Criterion 1 – *Characteristics*: Do the key characteristics of the digital technology meet the requirements of the entrepreneurial firm and the new entrepreneurial firm model? If they do not fully or partially meet these requirements, can the identified gap be addressed through the reengineering of the selected digital technology?
2. Question 1 / Criterion 2 – *Ease of Use*: From the customer/user perspective, how intuitive, useful, and user-friendly are the digital technologies in terms of user interface and user experience?
3. Question 1 / Criterion 3 – *Data Security*: Have the digital technologies contributed to improving data security? These criteria are directly related to the GDPR (General Data Protection Regulation) and ISO/IEC 27001 information security standards.

A similar methodology is applied when addressing the second question, "To what extent will digital technologies meet our future needs?", for which the following four criteria are proposed:

1. Question 2 / Criterion 1 – *Flexibility*: How effective and user-friendly is the implementation of the technological solution used by the entrepreneurial firm, and what are its technological requirements? Does the technology create new opportunities and operating models, or does it merely respond to existing market trends?
2. Question 2 / Criterion 2 – *Interoperability*: What is the degree of innovation diffusion [Vemić, 2008]? How effectively and easily can digital technologies be integrated with the existing technologies of the entrepreneurial firm?
3. Question 2 / Criterion 3 – *Innovation*: To what extent, and with what level of investment and resources, is the diffusion [Vemić, 2008] and further development of digital technologies supported? How many complementary and innovative technologies emerge annually within the new entrepreneurial firm model, and what additional value do they generate?
4. Question 2 / Criterion 4 – *Ecosystem*: How developed and interconnected is the community of customers, users, and stakeholders involved in the application of digital technologies? To what extent is knowledge shared to solve business problems and improve the use of digital technologies?

The third question, concerning whether the selected technology fits within the available *budget*, also includes several important criteria:

1. Question 3 / Criterion 1 – *Adjustment Costs*: What is the composition and value of the costs, and what is the structure of the direct and indirect costs associated with developing and reengineering digital technologies?
2. Question 3 / Criterion 2 – *License Costs*: If the entrepreneurial firm is a licensee, what are the benefits and costs associated with the licensing agreements for the selected digital technology?
3. Question 3 / Criterion 3 – *Maintenance Costs*: What is the structure and value of the direct and indirect maintenance costs associated with the selected digital technologies?

CONCLUSION

Governments across the world are increasingly committed to steering development towards building a digital knowledge society, or Information Society. One of the essential prerequisites for achieving this ambitious goal is the widespread and successful implementation of ICT and e-business technologies. This is a priority for the general public and all business entities, but it is particularly beneficial to SMEs, as it helps them lower market entry barriers, especially in global markets. Given the sheer number of SMEs, it is clear that their successful adoption of digital e-business is essential to their success in the Knowledge Society.

The roadmap towards the Digital Society is no longer uncharted territory. With the rapid pace of technological and legal changes, considerable knowledge and experience have been accumulated. Based on scientific and professional literature, this paper selected and presented what are arguably the three most important models for the appraisal and selection of digital technologies that are most compatible with the objectives of digital reengineering and the new entrepreneurial firm model in the Digital Economy. The authors presented a structured collection of rules, guidelines, advice, warnings, and examples of both successful and unsuccessful implementation. Furthermore, the experience gained by SMEs and entrepreneurs who were early adopters can be effectively utilized by later adopters, helping them avoid common pitfalls.

The primary role of governments and public institutions is to create an environment that encourages the use of digital technologies. Specific interventions range from legislative initiatives to targeted programmes that directly support certain industries (for example, the software industry), create demand for new services, and at the same time assist less advantaged SMEs in adopting those services in a timely and efficient manner.

SMEs need people with vision and courage to make crucial decisions and support their implementation, as well as people with the necessary e-skills to integrate existing and emerging technologies into everyday business practice for the benefit of businesses and society as a whole. SMEs represent one of the most important sectors of the economy due to their large number, the number of people they employ, and the entrepreneurial spirit that drives them. The implementation of e-technologies in business and government processes, when carried out in a socially responsible manner, will remain one of the key factors contributing to a successful and competitive global economy.

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