

DIGITALIZATION – MORE THAN AN INSTRUMENT, A BUSINESS MODEL

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Abstract

In the digital era, organizations worldwide are racing to adapt to the relentless wave of technological developments. Unfortunately, nowadays, the mere incorporation of digital tools and strategies is no longer sufficient. The current paper explores the profound transformation of digitalization from a mere instrument into a comprehensive business model, which is reshaping industries and economies. Digitalization has evolved from a tactical approach to a strategic imperative, fundamentally altering the way businesses operate and deliver added value. This study examines and provides a short overview of the multifaced dimensions of this paradigm shift, emphasizing that it also transcends the adoption of technology. The main aim of the study is to describe how businesses, large and small, have reimagined their business approaches, including their operations, revenue streams, and customer interactions in order to leverage the full potential of digitalization. By analyzing the previous scientific literature published on the same research theme, this study aims to show how successful organizations have employed to harness digitalization as a core business model, discussing the integration of data-driven decision-making, platform-based ecosystems, and agile organizational structures. As digitalization continues to redefine industries, this paper concludes by highlighting the importance of digital transformation for organizations, specifically for embracing digitalization not merely as a tool, but as a holistic business model, offering both opportunities for innovation and sustainability in the current business environment.

Keywords: *digitalization, digital technologies, business model, instruments, digital economy.*

JEL Classification: *D23, L29, O14, O33.*

Introduction

In the contemporary landscape of global business and economic environment, the term “*digitalization*” has transcended its initial connotation as a technological instrument for facilitating the operations and the business procedures, and it is currently evolving into a transformative force that has been imposed the reshaping of the business models, almost entirely. Therefore, the interplay between digitalization and business models has been strongly emphasized by the multifaceted dynamics that are currently defining the symbiotic relationship between *digitalization* and *business environment* [Bouncken et al., 2021].

The relatively fast pace of technological advancements, constrained by the latest COVID-19 pandemic, considered simultaneously with the persuasive influence for using the digital technologies across industries, has prompted a shift in the traditional economic paradigm, driving businesses to reconsider their approaches of their business model, focusing on how businesses operate, compete, and innovate in the current economic environment [Acciarini et al., 2021].

1. Literature review

As the Industry 4.0, considered to be the fourth industrial revolution, might be understood as an incubator for developing business strategies and business models, implementing the latest digital technologies in their business activities emerged to be a mandatory step for organization, in order to be competitive in the current economic and business environment. Hence, many businesses have started to adapt to the contemporary digital economy trends, by adopting the latest digital technologies into their operations, considering that this is not just a development step in their business, but also a strategic movement for optimizing costs, reducing resource waste, increasing reliability, and overall, sustaining a better business performance [Maffei et al., 2019].

Therefore, the evolution of digitalization into a comprehensive business model can be attributed to its impact on fundamental business elements. The convergence of big data analytics, artificial intelligence (AI), the Internet of Things (IoT), and other transformative technologies implemented in the business operations and business models, have provided the framework in order for a data-centric ecosystem to be established. It should be taken into consideration also the fact that digitalization has enabled numerous innovations in business models, such as: providing numerous digital technologies that can be implemented in business processes and models; enhancing quantity and quality of information required for automatizing and improving decision-making processes; and reshaping the ecosystem partnership, driving to the establishment of new and stronger strategic alliances [Mostaghel et al., 2022].

This ecosystem not only facilitates the generation of actionable insights, but also serves as the cornerstone for developing innovative business models, that are aiming to be agile, adaptive, and more than ever, customer centric. Nevertheless, to sustain their agility and their adaptability, organizations should permanently improve their business performance by allocating more resources, both human and financial, for business model experimentation, enhancing organizations' capacity to innovate, and increasing the usage of the small innovations provided by the Research and Development departments. This is an important aspect, primary because the majority of the studies regarding digitalization or business models have been highlighting the fact that innovation is a key factor for increasing organization's performance [Bowman et al., 2019].

Meanwhile, digitalization has surpassed traditional industry boundaries, foresting a business environment where collaboration and partnerships thrive across sectors, focusing on the importance of connectivity alongside the agents of the economic environment, especially since nowadays, after the strong impact of the COVID-19 pandemic on businesses and on economy in general, digitalization trends contains the power to disrupt the way in which organizations are doing business, in particularly if the organization is not able or prepared to adopt the latest digital technologies or to innovate its business model [Caputo et al., 2020].

As it has been formerly stated by the scientific community, the literature and the research on business models are focusing mostly on three important categories: the use of IoT, mobile and information technology; strategic issues and concerns regarding organizational performance and value creation; and research, development, innovation, and technology management [Bouwman et al., 2017]. But unfortunately, those areas are not enough to cover the wide range of benefits and opportunities that have been carried out by the emerging of digitalization.

The primary area of the current focus on business development and business strategies implementation has been the use of digitalization mainly as an instrument in doing business, but over the time, the integration of digital technologies into the business procedures and operations, lead digitalization *the power* to reshape the business environment by facilitating the development of new business models. Hence the increase in businesses' willingness to experience more with their business models, actively pursuing innovation activities, business strategies, competitive intensity, and technology turbulence, for determining new valuable business model practices that might lead to innovation and that will affect the outcome of the overall performance [Bouwman et al., 2018].

Therefore, the latest business models that have been determined by the emergence of digitalization, besides utilizing digital technologies in innovating and doing business, are also focusing on the importance of maintain a good relationship with the ecosystem, because nowadays, the present economic environment has been strongly renewed the relationships between organizations, stakeholders, communities and clients [Loock, 2020].

2. Research Question and Methodology

As nowadays, digitalization has been widely used by organizations to maintain their operations and to sustain their businesses, the following question has been raised between academics and entrepreneurs: *What is the role of digitalization, considered to be the integration of digital technologies, in going beyond its limits as an instrument for businesses and instead, evolving to be a comprehensive business model, impacting various aspects of the business environment, for instance: organizational culture, customer engagement, and value creation?*

It is a complex question, so therefore it is difficult to provide an answer for such an open question, that must take into consideration several factors, such as: industry, clients, competition, local business environment, market size, share value, investment in digital technologies and in human resources training, research, and development of the digital technologies et cetera. Therefore, the research question might be reconsidered as following: *Why is digitalization considered to be a business model, not just a key instrument anymore?*

This question is more suitable for a theoretical approach, taking into account the fact that just by summarizing the latest scientific papers published on similar topics, a brief answer must be provided. Therefore, by reviewing the scientific literature, the authors will gather, synthesize, present, and analyze the outcomes of contemporary scientific literature for providing a short summary of the current state of knowledge, highlighting the reasons why digitalization alongside the implementation of the latest digital technologies determined the business environment to experiment more with its strategies and to reconsider their business model for the current state of digital economy.

3. Findings

The 21st century has witnessed an unprecedented surge in the integration of digital technologies into every aspect of organizational operations. Digitalization, once perceived merely as the adoption of digital tools and processes, has now matured into a strategic imperative that extends beyond operational efficiency. At its core, digitalization is transforming into a holistic business model, redefining at the same time the very essence of value creation, delivery, and capture.

This is the reason why, in order to implement the emerging digital technologies into their business models efficiently, organizations should consider three important steps: understanding the existing business model; identifying existing and potential digital value drivers; and utilizing the strategic relevance of digitization [Bleicher & Stanley, 2017].

Table 1.

Transforming Digitalization into Business Models

Authors (Year)	findings
Laudien & Pesch, 2018	<p>Business models nowadays have been evolving into a highly accepted framework that can be used in order to analyze the uncovering change processes, as it requires a holistic perspective and takes organization's both internal and external aspects into account.</p> <p>As the digital technologies have been continuously emerging, digital business models can be categorized in four categories, based on organization's level of adoption and implementation of digitalization in its strategy and business procedures:</p> <ul style="list-style-type: none"> • Digital beginner service firm business model; • Customization-focused service firm digital business model; • Distance-bridging service firm digital business model; • Full scale digital service firm business model. <p>Due to those aspects, it is easily understandable that the organizations should not consider that the slightest implementation of digital technologies will provide them from the beginning with a high increase in revenues. Therefore, organizations should lower their resistance and join the current trends of the digital business environment.</p>
Rachinger et al., 2018	<p>The implementation of digitalization into the business environment should be realized only while keeping in mind that it must be applied to all the levels involved in the innovation process. Therefore, in order to sustain the chain <i>value creation – value proposition – value capture</i>, the digital technologies should be adopted into organization's activities on three levels:</p> <ol style="list-style-type: none"> a) Implementation level: reorganizing the business procedures; b) Architectural level: creating new business models while focusing on business model innovation; c) Planning level: adopting new business strategies, that should be dynamic and ready to be strategically followed.
Linde et al., 2021	<p>Numerous organizations are using digital technologies to innovate their business models and to explore new business strategies. Therefore, various digital business models can be implemented for:</p> <ul style="list-style-type: none"> • Outcome-based contract based on used network capacity; • Proactive maintenance contract for fleet management; • Site optimization service; • Cost-per-tone contract for milling; • Life-cycle services for smart motors; • Control system; • Fleet management system;

Trzaska et al., 2021	Digital transformation has determined businesses to develop new business strategies, focusing on the use of digital technologies, especially for following the trends in the business environment. Hence, the digital technologies implemented should be use for developing and adopting digital strategies, that should represent the starting point for shaping new digital business models.
Reim et al., 2022	<p>A change in the business model is required if the organization is looking forward to operating on the international market, especially if the organization is considered to be part of the Small and Medium Enterprises (SMEs) category, since the SMEs' business model is built in order to adapt to the local business environment.</p> <p>Digital technologies can be implemented in order to assist SMEs to manage their limited resources and to increase their efficiency for higher revenues.</p> <p>Therefore, digitalization activities for internationalization can be pursued for:</p> <p>a) Value creation:</p> <ul style="list-style-type: none"> • Use of digital service from support organizations for internationalization; • Use of targeting online advertising; • Offering on global multi-sided platforms. <p>b) Value delivery:</p> <ul style="list-style-type: none"> • Implementation of remote access interface; • Use digital channels and technology to attract global workforce; • Use online collaboration software for business understanding. <p>c) Value capture:</p> <ul style="list-style-type: none"> • Use international payment services and accounting; • Use online communication tools to reduce costs; • Offer remote-monitoring services. <p>Hence, the use of digital technologies is highly recommended to operate on the international market, and the SMEs should emphasize digitalization in developing their strategy for elaborating their business model.</p>

(Source: Information collected by the authors from the available scientific literature)

As summarized in Table 1., implementing the digital technologies by themselves is not the final step into adopting the business model tot the current economical environment reshaped by the digitalization, Organizations should be focusing also on determining the best business strategy that might defend their vision of doing business

in the current state of digital economy, strategy that has to represent the starting point for developing a business model that once is implemented, is able to provide *the direction* for achieving a well desired business goal: sustainability and efficiency. Nevertheless, as it can be clearly observed, there is no common background or groundbreaking strategy for implementing digitalization into the business activities. The instruments provided by digitalization can help business to be more efficient and to improve their operations, but there is no recipe for success that can be generally valid. Digitalization provides the instruments, but the outcome is generated by how efficient the organizations are using the instruments.

Concomitantly, the blurring lines between industries necessitate a reevaluation of conventional business models, determining organizations to adopt a more interconnected and ecosystem-driven approach, while navigating and leveraging digitalization to create and sustain competitive advantages in the current shift of the economic paradigm.

Meanwhile, even if the use of digital technologies might help businesses to overcome their capacities and to be more efficient in the current business environment in which competitiveness is an important attribute, organizations should be working proactively for avoiding the common traps that might lead to business failures, such as: forcing a digital business model without fully understanding their customer value; guaranteeing additional revenue without being aware of the value delivery process; and just adopting the digital business model opportunity without making the beforehand calculations correctly, by deeply understanding their revenues and their application of the profit formula [Linde et al., 2021].

Nevertheless, before taking the big leap into the digital economy and into implementing the latest digital technologies into their business operations, organizations, especially the SMEs and the small local businesses, should really considered if the future profit will provide them a sustainable return on investment. This is an important aspect to be considered, due to the main goal of digitalization and of implementing the digital technologies into business operations, business models, and business strategies – increasing organization's efficiency [Bican & Brem, 2020].

Conclusion

In conclusion, the present scientific paper aims to provide a short summary of the evolving narrative of digitalization as more than just a technological instrument. Instead, nowadays, digitalization is positioned as a transformative business model that reshapes industries, foster innovation, and propels organizations into a future where adaptability is driving success and vice versa, especially in the current state of the economic environment in which data are considered to represent the core factor in production development, and in increasing organizations' efficiency [Wang et al., 2023].

Hence, even if the current state of the economic environment is situating in a continuously transformation determined by the emergence of digital technologies and the magnitude of digitalization, imposing the trends of digital business models, organizations should be taking into account, that implementing the digital technologies as it comes, it is not a sustainable solution. The implementation of digital technologies into the business processes should be followed by an innovation in the business operations, increasing organization's revenues and business efficiency, innovation that only occurs if the transition to the digital economy is sustained by a proper digital business strategy, mandatory for obtaining the benefits of a digital business model.

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