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FROM DIGITAL TRANSFORMATION TO AI-DRIVEN STRATEGY: THE GENERATIVE AI IMPERATIVE

DA TRANSFORMAÇÃO DIGITAL À ESTRATÉGIA IMPULSIONADA POR IA: O IMPERATIVO DA IA GENERATIVA

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ABSTRACT

Digital Transformation (DT) is becoming a strategic necessity for business models, processes, and organizations. Generative Artificial Intelligence (GenAI), currently being introduced across markets, customer processes, and internal processes, will give companies a competitive edge and create new ecosystems. This study incorporates GenAI into the DT framework of the Boston Consulting Group and presents an AI-Ready model, which connects the technological capabilities with human capital and governance. A narrative literature review and several case studies are used to identify the crucial prerequisites for a successful application of GenAI. These are the risk reskilling of employees, adequate data management, and adaptive management. The study provides practical help for companies that want to transform successfully to AI-driven business models.

Keywords: Digital Transformation; Generative AI; Strategic Management; Innovation Ecosystems.

RESUMO

A Transformação Digital (DT) está se tornando uma necessidade estratégica para modelos de negócios, processos e organizações. A Inteligência Artificial Gerativa (GenAI), atualmente sendo introduzida em mercados, processos de clientes e processos internos, dará às empresas uma vantagem competitiva e criará novos ecossistemas. Este estudo incorpora a GenAI ao framework de DT do Boston Consulting Group e apresenta um modelo AI-Ready, que conecta as capacidades tecnológicas ao capital humano e à governança. Uma revisão narrativa da literatura e vários estudos de caso são usados para identificar os pré-requisitos cruciais para uma aplicação bem-sucedida da GenAI. São eles a requalificação de riscos dos funcionários, a gestão adequada de dados e a gestão adaptativa. O

estudo oferece ajuda prática para empresas que desejam se transformar com sucesso em modelos de negócios baseados em IA.
Palavras-chave: Transformação Digital; IA generativa; Gestão Estratégica; Ecossistemas de Inovação.

1. INTRODUCTION

Digital Transformation (DT) has been explored by academia, stemming from a concept first introduced by Shannon and Weaver, establishing the foundation for digitization (1949), where “technology has caught up with Shannon’s methods of digitalizing and quantifying continuous phenomena” (Littlejohn; Foss, 2009, p. 617). To date, DT remains a multifaceted phenomenon that entails profound changes in business models, products, and organizational structures, representing a significant challenge for contemporary enterprises (Alos-Simo; Verdu-Jover; Gomez-Gras, 2017). While academic literature has delved into the technological and organizational dimensions of DT, scholarly attention has increased markedly, particularly given the subject's growing significance (Nadkarni; Prügl, 2021). According to a bibliometric review by Shi *et al.*, references to the meaning of DT have been progressively evolving, with 4,853 academic publications from 1999 to 2021, and a consistent increase from 2016 onwards (2022). Their analysis further suggests an emerging ‘monopoly of research influence’, concentrated in a few developed economies and leading institutions, making it necessary to seek an alternative approach to this concept. Viewed as a ‘convergence of core characteristics’ centered on the notion that DT has not merely been a technological priority, but also a matter of skilled human capital’ and ‘organizational readiness (Westerman; Bonnet; McAfee, 2014), it has been noted that a need for skilled employees and executives is

currently underscored (Sanchez & Zuntini, 2018), given that the successful implementation of DT necessitates the strategic convergence of digital capabilities with an expert workforce (Marchiori *et al.*, 2022). Furthermore, the interplay between technology and human capital is crucial, as the effectiveness of transformation efforts hinges on the synergistic integration of these elements (Fenech *et al.*, 2019; Khubulova *et al.*, 2022).

To allow our research to provide firm ground for generating new insights, the academic and marketplace 'DT landscape' overview must transcend disciplinary and practitioner silos, providing a holistic understanding of the phenomenon (Lyytinen *et al.*, 2015; Majchrzak *et al.*, 2016). An estimated 90% of organizations across industries have increasingly been undergoing some manner of DT process, involving one or more strategic business units (SBUs) or administrative processes (McKinsey, 2018, 2023). But not only is the leadership concerned with how to rollout DT initiatives, but the workforce is also sensitive to its impact on their job performances and capability building. It is estimated that about 93% of workers across industries and geographies believe that digital savviness will be a top priority for remaining competitive and employable (Schrage *et al.*, 2021), while DT engagement throughout the organization has become essential for deploying sustainable business strategies (Kokorev *et al.*, 2025). Regarding innovation technologies relevant to leveraging the DT process, i.e.: Artificial Intelligence (AI) systems, it is important to explore an organization's sociotechnical status and its readiness to fully leverage value-adding initiatives (Holmström, 2022; Sanchez & Zuntini, 2018). However, established organizations currently face considerable challenges due to legacy technologies and bureaucratic structures, highlighting the necessity of a corporate entrepreneurship approach to effectively manage DT

towards new business models (Berman, 2012; Hinterhuber & Nilles, 2021).

As such, HR departments are keen on improving their human capital's digital skills as they implement new services and DT processes, notably aided by AI systems to achieve optimal operational levels (Kumar *et al.*, 2025). AI is increasingly a 'go-to' resource in overall DT implementation efforts, with 81% of organizations worldwide reportedly already using some form of GenAI in SBUs, generating high expectations from leadership across markets that it will bring digital capabilities and enhance competitiveness (Databricks, 2024). Always hand in hand, there is no AI performance without some manner of data governance, making Big Data and data analytics management another key area where organizations are looking to develop at scale. Reportedly, 61% of organizations are already implementing data-focused strategies (Gartner, 2024). AI technologies are becoming an essential part of optimal DT integration in business initiatives. Therefore, to ensure the firm's competitiveness, being 'AI-ready' is considered a key success factor for furthering DT enablement (Silva, 2025; Tehrani *et al.*, 2023).

Following this perceived gap where innovation may leverage business strategic approaches (Bohren *et al.*, 2024), positively impacting existing business models (Marlina *et al.*, 2024), and the practical integration with institutionalized organizational processes for long-term benefit realization with business strategies (Kumar *et al.*, 2025), we therefore aim at answering the following question (RQ): 'How can organizations implement GenAI-supported processes to leverage a DT-based strategic approach?' We will unpack how adopted GenAI applications can be integrated into a DT strategy

model to positively impact a given organization's competitiveness in its marketplace. This article is structured as follows: an introduction to DT and GenAI, outlining their dyadic impact on a firm's business strategies going forward. Next, we outline the BCG model for DT and unpack its main elements, linking each one with GenAI potentially beneficial tools to be considered; we follow up with a methods description, focused on real-world case studies, and then present our discussion and conclusions, along with considerations on practitioner relevance and theoretical implications, contextualized by our work limitations and future research propositions.

2. LITERATURE REVIEW

The impact of GenAI, which is fast becoming the center of both academic research and organizational demands across several markets (Gupta *et al.*, 2024) and focused on DT-based strategic and innovation management (Mariani & Dwivedi, 2024), is clear. For the sake of conciseness and proximity to practitioners adopted terminology, we define GenAI as 'AI that can create original content —in response to a prompt or systems request' (Finn & Downie, 2025; Stryker & Scapicchio, 2024). GenAI, although it has been a developing domain of AI since the 1950s and - since 2010, has received R&D traction with the advent of Big Data and Cloud systems (Gartner, 2025), has been a more recent phenomenon when applied at scale, rapidly impacting consumers, markets, and organizations alike. In the same way that Big Data and AI have transformed the digital landscape over the past decade, GenAI has become a significant influence on digital business strategies (Marlina *et al.*, 2024). It has been extensively explored, in the literature, from technological, ethical, social, political, economic, and sustainability viewpoints (Obreja *et al.*, 2025). AI, as a whole, has

evident ties to DT – notably through DT's structural makeup, namely: human capital, technology adoption, and organizational governance (Oyekunle & Boohene, 2024). GenAI has also been extensively explored outside similar areas, such as creative, social, and technological perspectives (Sengar *et al.*, 2024). Although the exploration of the impact of GenAI has already caught the attention of scholars in the specific domain of strategy management (Bohren *et al.*, 2024; Doshi *et al.*, 2025), research has yet to unpack how DT drivers may link to and/or overlap with specific GenAI market applications.

Digital Transformation Evolutionary Overview

DT was first viewed as a marketing buzzword, only to become a fundamental survival imperative for organizations aiming at sustainable growth in the modern economy (Chang, 2022). Encompassing a larger challenge than technological upgrades, it involves a radical rethinking of how an organization manages resources concerning technology, manpower, strategic thinking, and processes, ultimately impacting business performance. DT can be defined as a 'process aiming to improve a business organization by way of implementing significant changes to its structure and systemic dynamics, reorganizing information management, technology leveraging, communication processes, and connectivity. Thus, to achieve successful DT institutionalization goals, organizations must adopt a holistic strategy that dismantles existing functional silos to embed digital technologies at the very core of value creation (Pagani, 2013; Vial, 2019). These organizations navigate an ever-more complex digital transformation journey, in which traditional business models are continually disrupted by interdependent ecosystems and multi-sided platform models. One

key area concerns the integration of a unified data architecture bridging business intelligence and artificial intelligence systems. As generative and agentic AI become more prevalent, organizations need to establish clear policies and guidelines regarding algorithmic transparency, data security, and workforce (up/re)skilling (Patel *et al.*, 2025). More DT-mature organizations already show signs of outperforming competitors by aligning strategy with a clear transformation roadmap, while aiming to create an adaptive organizational culture (McKinsey, 2024). Ultimately, the integration of AI-driven DT initiatives, supported by human expertise, creates a synergistic, self-sustaining environment where technology augments decision-making and reshapes organizational design, while also directing more efficient ways to integrate innovation back into the organization itself. To unpack the determinants of AI-powered DT strategy, it is important to first determine the existing parameters through which the organization has been reshaped by the adoption of digitized processes and artifacts (Schilirò, 2024). Such understanding is required to evaluate the current organizational maturity level, thereby situating the organization's momentum within a continuous evolutionary process of transformation (Aras & Büyüközkan, 2023). By mapping the existing digital organizational structure and pinpointing the organization's DT status, researchers can contextualize its resource governance status and, ultimately, its core value propositions. In other words, by unpacking the areas where AI applications might generate greater value and ultimately increase competitiveness, the organizational DT potential may be assessed (Pai *et al.*, 2025).

While striving to unpack the meaning of DT, it is also relevant to compare similarities and differences between the academic definition of what DT represents with the marketplace perspective,

crystallized by global consultancy firms (although representing the aforementioned monopoly), which are recognizably influential in managerial circles, shaping the mindsets of practitioners worldwide (McCarthy *et al.*, 2022; Mergel *et al.*, 2019). In that way, one well known actor - McKinsey and Co.'s defines DT as "the rewiring of an organization, with the goal of creating value by continuously deploying tech at scale" (2023, p. 1). Another, PriceWaterhouseCoopers (PwC), views DT as the fundamental integration of digital technologies across an organization's processes, operations, and culture to create new value, improve efficiency, and enhance customer/employee experiences, moving beyond just technology adoption to achieve lasting, outcome-driven business change (2025). A third leading actor, Boston Consulting Group (BCG), defines DT as a strategic imperative to rebuild an organization with digital capabilities, blending tech and human skills to enhance competitiveness and growth, thus transforming operations, culture, and customer interactions for continuous innovation and value creation (BCG, 2025a). This perspective outlines the importance of keeping benefits maximization as a priority, made viable by enhancing technology, organizational adoption readiness, and human capital management. As approaches vary in terms of optimal strategy, all three reflect the complexity of organizational efforts to continuously (re) structure DT processes – at this juncture, a sustainable, incremental AI adoption throughout the organization becomes a key success factor.

Approaches to structuring Digital Transformation processes

To better manage their digital transformation journey (DTJ), organizations adopt different approaches to structuring strategies. Some organizations initiate their processes with a long-term

strategic vision that supports their business model. Planning mainly takes place in executive committee sessions, board meetings, or collaborative environments involving partners such as academics, consultants, and investment bankers, mostly from a 'top-down' perspective. According to Venkatraman (1994), organizations that subscribe to this vision can develop a portfolio of opportunities, advance execution, and address operational challenges necessary to enable transformation (GorjianKhanzad & Gooyabadi, 2022). An alternative approach widely used is more 'customer-centric orientation', in which organizations prioritize the customer experience as the foundation of their value-delivery framework, aiming to create seamless and impactful interactions across the organization. Through user-centric design, established processes unfold detailed customer journeys and enable process adaptation to ongoing requirements, as they emerge (Lemon & Verhoef, 2016).

A third path follows a 'bottom-up' approach. Organizations initiate DT by focusing on specific initiatives in different business areas and, as they succeed, iteratively expand these practices across the organization. By centering DT efforts on a specific SBU (e.g.: a given product line or an outlined market region) and subsequently scaling up to other areas, such as digital marketing and operations management departments, organizations can progressively establish 'short-term ROI' goals across front and back-office areas, building a strategic approach to DT from the 'ground up' (Leuven, 2023; Pagani, 2013). Regardless of the chosen path, successful DTJ requires organizations to continuously assess all elements of this structure. They must ask what is necessary to sustain and strengthen their competitive advantage and define their trajectory amid the changes driven by digital technologies (Vial, 2019). As organizations face DT-related challenges, using an established

strategic framework would greatly improve their chances for successfully overcoming them. Different types of organizations will face different issues, such as organizational size and structure, and the effort required to adapt legacy systems, making these less of an issue for startups than for larger enterprises. As different organizations shape their client or consumer base individually, a 'case-by-case' approach to transforming their relationship impacts the client journey itself. Therefore, organizations cannot follow a strategy based on the 'one model fallacy'; each company must adapt to its specific needs and market realities.

The BCG original DT model adaptation

Among several models created to interpret and guide them toward more secure pathways, one notable example is BCG's Digital Transformation framework (BCG-DT), depicted in Figure 1, which emphasizes the importance of a 'strategy driven by a digital outline (Riedl *et al.*, 2018). We have selected it as a stepping stone to developing a new conceptual framework for an AI-based DT model.

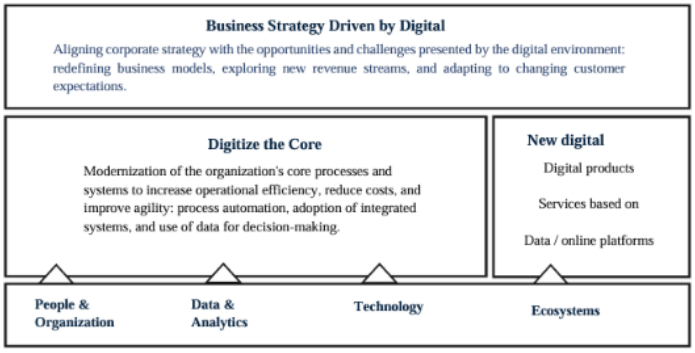

Figure 1 – BCG's Digital Transformation Framework.

Source: adapted by the author from Riedl et al., 2018

The framework is centered on three distinct layers: the first focuses on 'digitalizing the core', where firms should reinvent customer

touchpoints by uncovering new methods of interacting, to establish new experiences with the company at a more fundamental level. One path is to redesign and automate customer relationship management (CRM) systems to significantly improve sales effectiveness. Another way concerns the adoption of digitally driven pricing strategies, specifically, personalized and omnichannel pricing models. To promote personalized interactions and foster consumer loyalty, deploying these TD strategies must prioritize integrating areas with shared relevance. CRM system automation in sales management can lead to best practices that employ AI-based technologies and predictive analytics to enhance operational effectiveness, improve lead acquisition, and anticipate consumer trends with data-driven accuracy. Likewise, data-driven marketing techniques enable organizations to enhance the precision of customer segment targeting. Digital marketing initiatives must evolve beyond their conventional outreach (relative to more traditional competitors), aiming to provide precision-targeting techniques (e.g.: big data predictive modeling, optimized engagement across multiple platforms, conversion rate maximization, etc.).

In addition to improving client relationships and perceptions of value, organizations must also look inward. In this first layer, while reaching out to the marketplace remains a strategic priority, organizations must also focus on enhancing core internal processes, primarily through automation and digitization initiatives. By integrating intelligent workflow automation, robotic process automation (RPA), and AI-powered decision-making systems (among other possibilities), organizations can achieve substantial reductions in transaction costs, streamline administrative functions, and enhance overall operational agility. This holistic approach to

digital integration will not only minimize existing inefficiencies, but also empower businesses to reallocate resources, maximizing strategic innovation and leveraging their competitive advantage in an increasingly digitized economy. The automation and digitization of internal core processes, aimed at significantly reducing administrative and transaction costs, have become a critical requirement. Along the same lines, specific functions such as enabling product design and innovation, enhancing operational strengths, accelerating 'go-to-market' based lifecycles, and organizational support, will potentially lead to a sustainable 'digital growth'. By and large, this layer focuses on the reshaping of critical core functions aided by AI applications, which can enable companies to allocate significant investments toward reshaping these critical functions while reinventing new products and services to foster long-term competitive advantage, rather than focusing solely on everyday task deployments (BCG, 2025b).

The second layer also concerns the external environment, where digital assets can be managed at scale, looking beyond the existing core business to uncover new frontiers of value. Unlike optimizing current operations, it involves creating new revenue streams, business models, and ecosystems. More specifically, organizations move beyond their internal boundaries to build new digital ecosystems, such as incubating spin-offs, developing new partnerships (with other specialized companies, suppliers, etc.), and investing in venture acquisition initiatives in order to acquire new technology resources and insights, adjacent to the core business, in order to unlock new benefits. Such expansions should be incremental, in response to specific client needs (e.g.: faster, more efficient logistics, operating in customized modes tailored to market segments, and operating independently of the parent organization).

To drive growth at scale, organizations must build new structures that operate as 'digital accelerators', shared by (or developed for) different SBUs and extend current digital initiatives beyond traditional boundaries. In the context of AI-leveraged strategies, this acceleration may use AI to amplify efficiency and (re)invent products and services altogether, aligning innovation with the core business. The emergence of generative and agentic AI enables these systems to plan, act, and continuously learn independently from other organizational management units, leading to potential revenue expansion. These agentic 'coworkers' help organizations to differentiate themselves from competitors by enabling adaptive, scalable workflows that cannot be easily replicated by other human resources. With the help of AI, organizations can create 'compound value' by interlacing AI capabilities across business functions, rather than applying them to isolated endpoints, thereby enabling a continuous, adaptive, and dynamic environment and enhancing value creation (Lukic *et al.*, 2022). Organizations will thus shift from standard growth processes to the creation of new, unique value propositions through an AI-powered innovation approach (Ransbotham *et al.*, 2025; Sjödin *et al.*, 2021).

At the base of this model, the third layer contains four sub-domains that support the firm's efforts towards its DTJ. These drivers must be managed according to the available organizational resources: (a) technology adoption, (b) data & analytics expertise, and (c) operational ecosystem identification. These components should provide a robust framework for implementing digital initiatives, while fostering organizational agility. A fourth driver: (d) 'people and organization', is particularly relevant for ensuring the successful execution of DT initiatives, while being the most challenging to manage. The adoption of new technologies and workplace practices

is highly dependent on employee engagement (and organizational culture feature), with ecosystems that enable enhanced partnership collaboration and unlock innovation potential.

In our research, we aim to explore the BCG-DT contextualized by AI systems, focusing on points of contact in the framework's structure. While technology plays a role in enabling businesses to adopt digital strategies, balancing the need to reshape human resources can enhance operational efficiency and improve customer-centric experiences. More specifically, outlining how AI stands out as a transformative driver within the BCG-DT, and how organizations can enact on actionable insights extracted from large real time datasets (i.e.: Big Data), automate operational processes, and personalize customer interactions. It may be possible to unpack how organizations can establish new opportunities for value creation and set themselves apart from competitors.

3. METHODOLOGY

The primary research method employed in this study was a qualitative–conceptual design. A two-phase research methodology was used in this study. First, in the first phase of the study, a narrative literature review of research on digital transformation towards a digital, AI-savvy business was conducted, and a synthesis of academic definitions and practitioner frameworks from major companies, including McKinsey, PwC, and BCG, on digital transformation was created. The narrative approach to the literature review was chosen due to the rapidly changing landscape of Generative AI and corresponding digital strategies. In the second phase of the research, four illustrative case studies— three companies: Uber, Alexa and Zapier, and the hospitality services

market—were analyzed separately to describe how GenAI components could be aligned with the core drivers of DT: customer & marketing engagement, process optimization, and ecosystem & supply chain expansion. The results from the case studies were then triangulated with those from the literature review to develop our conceptual AI-Ready DT Framework and provide a conceptual model in which GenAI is embedded within DT strategies. Three key factors were also identified that determine whether an organization is ready for DT, what governance is required, and what human capital development is necessary.

4. RESULTS DATA ANALYSIS

4.1. The Paradigm Shift Towards Digital Transformation

In today's world of digitalization, companies are confronted with the necessity of change and thus adopting a DT orientation. While the implementation of new technologies is often the focus of interest, the transformation of the organizational structure and how employees work together is just as important. New ways of working are necessary that are more flexible than more traditional methods, enabling a faster adaptation to new situations. In order to achieve this, companies need to acquire new capabilities. According to Skog *et al.* (2018), in the context of DT, so-called digital disruptions lead to the creation of new domain-specific paradigms. Here, companies need to develop ambidextrous leadership and work in an executive mode. Furthermore, experimental ways of working are necessary that are implemented in an iterative manner. It is known that start-ups and small enterprises are more inclined to implement new ways of working than larger enterprises with their complex structures and rigid corporate cultures.

There are three common DT strategies. First, DT can be implemented in a decentralized manner by distributing Digital Activities across existing SBUs. Within these, digitized processes can be optimized in order to increase efficiency by using technology (Santos *et al*. 2023). A central 'Digital Office' or hub can be created as a 'Center of Excellence' in order to prepare and implement a company-wide DT strategy, by setting priorities and allocating resources (Vitellaro *et al*. s.d.). The second strategy involves creating a completely new 'Digital SBUs' (DSBUs), which can run in parallel to preexisting ones. The new DSBU can either complement or even compete with other units. Managing risks and conflicts in order to keep DSBUs aligned with the core business of a mature organization with experienced leadership is crucial for success (Sjödin *et al*. 2023). A hybrid strategy is also possible; for example a central office with local incubation labs or even digital teams. The strategy that is best to apply depends on an organization's strategic objectives and on the organization's degree of digital maturity. The main point in all cases is a fundamental rethinking of the current state of an organization in order to avoid so-called 'me-too' strategies that fail to identify specific challenges of an organization (Deswindi *et al*. 2025; Niewöhner *et al*. 2021).

The implementation of a decentralized approach is used by a large number of companies. In these organizations, a central office and local incubation labs or digital departments are established in running SBUs. The variety of different designs corresponds with the various strategic goals and their respective digital maturity level. The design of the company DT level, however, requires a fundamentally different view of its organizational reality. Me-too-strategies which (usually) do not take account of the specific pain points, will likely not be successful (Deswindi *et al*., 2025; Niewöhner *et al*., 2021).

Therefore, a forward-looking vision and a corresponding road map with concrete and measurable goals is required. This vision has to be transparently communicated to the whole of the organization. Management must ensure that all departments are aligned with the company's DT goals, in order to successfully change its business model. This transition is more than the change of an organization; it is also a change of the mind-set, processes and management of a company.

A relevant example to illustrate such disruptions is the entry of Uber to the Brazilian market, in the short distance urban mobility sector – thern dominated by state-regulated taxi services, in 2014. The reactions of local taxi cooperatives were mostly of a negative kind, opposing and protesting against the new competitor. However, data provided by Uber - as well as other service providers, indicate that rather than 'devouring' the whole taxi service industry, in fact, Uber managed to increase the volume of rides in cities where it operated, as it was able to capture a segment of demand that had not been serviced by the pre- existing operators in the market such as taxi services. The changes brought about due to the services provided by Uber is attributed to two factors, namely: the algorithmic pricing adopted by the company and the option provided to its customers to pre-book their respective rides through Uber's smartphone app (Esteves, 2015b; Resende & Lima, 2018; Taxi Drivers Protest against Uber in Rio, 2015).

DT technology can be best supported by flexible IT services and smart use of data throughout the value chain. Yusuf *et al*. (2025) proposes that all products and services are based on data, making its effective use critical for businesses that need to remain competitive. Large investments in technology are needed to support

a company's DTJ, but the crucial point is to use the technology to support business objectives. There are many examples of effective use of data to support business processes – as well as of failed attempts to use of data to create value. In a fast-changing business environment, focus should be on tangible use cases that create value for business and customers. Many organizations use technology just for the sake of it, which is not sustainable in the long run. Organizational maturity is critical for effective adoption of technology. Effective use of data throughout the value chain also requires diverse and skilled teams. Institutionalizing data mechanisms within an organization is critical, and this can only be achieved by making data streams an integral part of daily operations.

Within the hotel industry, such shift towards technology integration can be seen in various ways, with many hotels now adopting technology in order to manage customer services, creating personalized and proactive applications for their guest base. On the other hand, AI-based systems can better adapt to the full circumstances of a given situation, allowing it to deal with the stakeholders involved in the most appropriate way. This can help to create a seamless customer service experience which can lead to increased loyalty levels (Belibasakis *et al.*, 2025; Kaptagayev, 2021; Lozić *et al.*, 2025). Furthermore, AI technology can also be used by hotels in order to forecast future occupancy levels, manage guest inquiries and to automate a variety of administrative tasks. This would allow staff to focus on a variety of more complex tasks (more suitable to human managers) in order to ensure that guests receive the best possible service (Wang *et al.*, 2025). Data is also being used within hotels creating dynamic pricing capabilities and for the upselling of a variety of additional products and services. The use of

technology in the hospitality industry is continually evolving, with many ventures being invested into the development of a variety of innovative solutions that will allow actors of different sizes to remain competitive (Santos *et al*., 2023).

Technologies need to be seen as strategic assets, not just tools. IT departmental services has traditionally been used in an internal support role within the organizational structure. More recently, its involvement technology has now become a cornerstone approach (and actor) for ensuring differentiation strategies, towards the external marketplace (Saura *et al*. 2023). As such, new technologies must be assessed as strategic assets – a part of the business core, to create value to the company (Chaudhuri *et al*. 2024). Thus, as the barriers between internal and external environments become more porous, AI technologies may create stronger, more sophisticated value networks through intraorganizational exchanges (Azevedo *et al*. 2023; Braga *et al*. 2024). A technology-bound DTJ requires that companies' IT operations be more flexible and adaptable, and for data to be used in a smarter way throughout the value chain (Yusuf *et al*. 2025). The various applications of AI in companies today enable IT to become a key driver for differentiation. These tools support the company's efforts to increase value by predicting trends, optimizing processes, and reducing transaction costs. This is more than enough to allow companies that adopt this approach to be more competitive than those that do not. It is up to the leadership to create an environment of trust (both in the technology being employed and as a key success factor in managing the workforce adopting them) and to make sure that these technologies are embedded into the organizational culture in order to capture sustainable value.

A strategic use of technology - a ‘technology-bound’ DT, implies on organizations the need of more flexible IT structures and smarter use of data throughout the value chain. Technology-bound DT requires new ways of managing an organization’s IT structures and services, and smarter uses of data. According to Yusuf *et al.* (2025), every product and service today relies on data, which must be used effectively in order for the organization to achieve its goals. Simply committing to large technology investments is not sufficient to achieve desired results; they must be preceded by clear business objectives, as noted by Gadekar and Hiwarkar (2023).

4.2. Fostering New Digital Ecosystems Leveraged By AI

Technology is evolving at an exponential rate. This change calls for a corresponding update in a company’s strategic scope and a view on new, broader digital environments, i.e.: DT. These new digital ecosystems are no longer simple linear value chains, but rather dynamic, interconnected environments for creating value (Hyrynsalmi, 2022). ‘Co-opetition’ is the term for simultaneous cooperation and competition. In the Five Forces analysis (Kızıldağ & Özlem, 2023) of a company’s environment, the competitors are represented. In DT ecosystems, however, the same external parties are also potential partners and value multipliers (i.e.: ‘co-operators’) Thus, in addition to optimizing a company’s internal processes and creating value from within, the ability to extend a company's collaboration networks and create value with other collaborators is even more important (Nawaz, 2024).

A company’s position in a digital ecosystem is defined by its delivered core values. A company can function as an orchestrator and, as such, it may design the market and manage a network of

partners. Another approach is the so-called ‘niche player’. The niche player is delivering specialized services within a given platform. Digital ecosystems are often multi-layered, structured in stacks, where companies can develop applications on top of each other. An innovative company functions as a collaborator, placed between the application layers. Foundational actors in a digital ecosystem operate at lower layers of the stack, delivering the necessary infrastructure. A company’s digital transformation strategy connects several layers, manageable through standardized development kits, APIs, and open database structures. External partners and even customers of a given company can develop new services through these aforementioned connections. AI functions as a neutral data facilitator. Using AI systems, data provided by partners is integrated equally. The data is anonymized to prevent companies' proprietary assets from being compromised. By sharing AI system outputs cooperatively, companies can extract industry-wide insights, which can be used for several purposes, such as determining demand patterns and assessing efficiency levels. In a digital ecosystem, companies need to shift from a strategy based only on business processes to one based on data. The shared AI systems enable greater support for this new approach.

There are many ways in which organizations can outperform competitors in these digital ecosystems. For example, either through forming partnerships or through acquisitions. Incumbent actors as well as new entrants can achieve these connection by setting up SaaS (Software as a Service) or PaaS (Platform as a Service) type of partnerships. In addition, organizations can engage their suppliers and customers in any manner that delivers the most value to the organization. Cloud-based digital management systems make it easier to integrate with partners than traditional management

methods (DigitalApplied, 2026). AI systems operate across the different layers of the ecosystem and, through machine learning, measure the ecosystem's overall health and can highlight underperforming and overperforming partners. Since digital ecosystems are dynamic, it is very important for organizations to be able to scale their participation in the network. A good infrastructure collaborator can very rapidly support innovation at the application layers of the stack (Ali *et al.*, 2024). The newly created ecosystems can function horizontally or vertically. The horizontal type consists of companies that are operating at the same level in the value chain. By joining together, they aim to overcome the limitations of current systems and establish a joint infrastructure to create new services for customers on a platform. The vertical type, on the other hand, comprises all players in the value chain, from suppliers to end customers. In addition to traditional suppliers, customers are becoming prosumers and participating in co-creation processes (Hyrynsalmi, 2022). A good example of cross-industry collaboration are banks and telecommunications companies. In joint projects, they are developing hybrid business models and are testing out new fields of application in niche markets.

Digital technologies enable organizations in digital ecosystems to reduce transaction costs and establish flexible structures through collaboration. On platforms that enable the connection of many different parts of value chains, it is easy to reorganize processes to generate value as market requirements change. The more organizations participate in a given ecosystem, the more data they share. Such data contains information about customers' future needs, current stock levels, the organization's own processes and those of partners, suppliers, and financial institutions, among others. All this information is relevant for organizational decision making

processes. AI systems can reduce transaction costs of organizations in digital ecosystems in two ways: 1) by automating processes of matching and coordination, and 2) by continuously improving such processes (Katta, 2025). By reprogramming their partnerships, ecosystems are also adaptive. Thus, incremental value is generated by ecosystems in which more and more organizations participate, because each organization brings new capabilities that can be used to maximize the ecosystem's overall value (Márton, 2024). It is, nonetheless, important to avoid increased complexity. Digital ecosystems should be easy to use and adaptable to different stakeholders and organizational cultures alike. It is key to 'hide' complexity without diminishing precision and efficacy (Information Design) and to offer their users an easy-to-use interfaces (UI). Such systems combine data from many sources. These principles are already prominently applied by successful social media advertisers, retailers who use various marketplace platforms, logistics providers, and others. The systems create low-friction channels for customers and for predictive and prescriptive analytics for organizations.

The field of so-called Integration Platforms as a Service (IPaaS) has been evolving in recent years. Leaders in this IPaaS space are traditionally MuleSoft, Talend, and Microsoft. However, the pioneer among IPaaS solutions is, without a doubt, Zapier (Obed, 2025; Reber, 2025). Founded in 2011 and valued at $5 billion by 2017 (Ali *et al.*, 2024; DigitalApplied, 2026), Zapier presents an proactive interface, where it allows users to integrate with various AI agents and systems. The functionality of their collective work goes far beyond that of purely deterministic programming, and supports the implementation of contextual, intelligent solutions. Thus, Zapier also facilitates the development of so-called 'cognitive architectures' that are required to manage complex business requirements (Brinker,

2025). Zapier is also successful in reducing organizations' transaction costs by automatically processing data within and between their applications. By using machine learning in their platform, mapping and error correction between applications are done much faster than they would be by a human. Also, the number of process inefficiencies caused by manual interventions is reduced. In addition, Zapier's virtual infrastructure for digital ecosystems supports the applications used by organizations and their end users. The applications are frictionlessly integrated and used by the users. The organizations also use the applications effectively. The number of applications used by organizations is generally very large. If these applications were not integrated, users would not be able to use them properly. In that sense, the digital ecosystems supported by Zapier can self-reconfigure in a highly dynamic way, enabling ecosystems to quickly adapt to market changes without major issues. The markets are changing rapidly, and organizations must adapt quickly to compete.

In summary, companies need to develop ecosystems in order to utilize AI for business purposes. Companies within those ecosystems must learn how to collaborate and cope with new forms of competition as well as with the responsible use of data. In those DT-enabled ecosystems, AI systems can serve as orchestrators to help networks recover from problems, reduce transaction costs, and generate predictions. With the help of those systems, complex problems can be solved through collaboration on the digital platform. However, the complexity of the network and the services offered must strive to enable user-friendly interfaces and smooth user experiences. As a platform for DT, AI can orchestrate processes, enabling companies to respond to market changes strategically and quickly. Overall, AI is the basis for new forms of value creation in

digital ecosystems and, therefore, for new forms of collaboration that underpin competitive advantages in the digital world.

4.3. AI Capabilities Built Over a New AI-Based BCG-DT Conceptual Framework

To improve on the original BCG DT framework, it is necessary to move beyond viewing AI as only a technological enabler, although a very powerful one. Generative and Agentic AI systems have become ontological elements of the business strategy, integrated with its core. Rather than operating through traditional top-down directives or bottom-up experimentations, an AI-First organization can adopt a more dynamic, self-optimizing approach (Hanelt *et al.*, 2021).

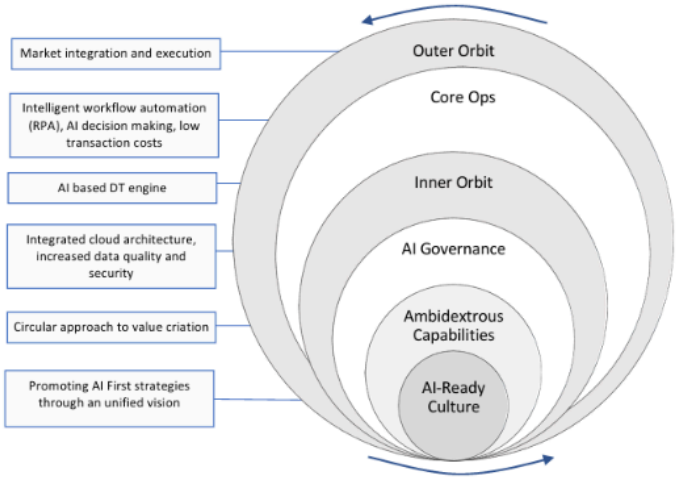

Figure 2 – AI-Ready DT conceptual framework

Source: elaborated by the author

While the original BCG-DT framework is inherently layered and hierarchical (i.e.: enablers at the base, driving the business core, leading to new growth), our proposed AI-First leveraged model does not operate in a linear or strictly ambidextrous (i.e.: top-down vs. bottom-up) manner; it allows for incremental improvements, given that AI systems - such as agentic and ML thrive on continuous feedback loops. Thus, this new model promotes a virtuous cycle,

illustrating the concept of 'digital dynamics' (Ortiz De Guinea; Raymond, 2022), which may leverage the organizational efficiency in terms of process institutionalization acceleration and efficacy. We unfold the above eight (8) AI-driven components listed through a conceptual narrative, as follows:

(1) *The Nucleus (core):* AI-ready culture & DT strategy (component 8), becomes, such as in the original version, the heart of our framework. It radiates algorithmic transparency, ethical guidelines, and overarching business vision outward.

(2) *The Inner Orbit (engine / enablers):* constitutes a 'rotating' ring which depicts the organization's 'AI-ready data governance (5), strategic Human Resource Management (HRM) & Accountable Artificial Intelligence-based Systems (AAIS) processes (7), and the hybrid implementation hubs (2). Instead of being a static foundation, this inner space acts as a continuous engine, constantly processing incoming data and optimizing the human-machine workforce structure.

(3) *The Outer Orbit (value co-creation / execution):* a second ring contains the 'market-facing' components: redefined core operations (1), predictive intelligence systems (3), and prosumerism at scale (4).

The framework's dynamic ('continuous loop') is structured to provide a fresh overview over traditional hierarchical arrow-based models. The framework shows, instead, circular, bi-directional loops connecting the Inner and Outer orbits, encapsulating the ambidextrous capabilities (6) component. Through this structure, the Outer Orbit gathers real-time market/prosumer data (in continuous flow) and feeds it into the Inner Orbit. Consequently, the

Inner Orbit's Agentic AI learns from this data stream, optimizes existing workflows, and generates enhanced Predictive Intelligence outputs back out to the Outer Orbit. The circular approach stresses an important point in current business strategies - AI-driven DT is never 'complete'. The system appreciates in value the more it is used, as AI agents autonomously plan, execute, and learn from every rotation of the cycle, making digital readiness an ongoing organizational state rather than a final destination (Holmström, 2022).

5. DISCUSSION AND IMPLICATIONS

It remains to be seen how BCG's BCG-DT model will mature and unpack into more practical tools. In order to expand its framework, significant changes to the current model will be needed. Our new conceptual framework will also require the incorporation of various types of AI, including generative and more importantly Agentic AI. As has already been mentioned, the use of such automation of tasks will eventually lead to the organizational core being redefined as the place where the planning, learning and action take place. The core will remain embedded within the rest of the organization and managed by it. At the same time, the organization will become more adaptable and, by using AI embedded new tools, it will be able to provide hyper-personalization at scale. It will also be able to anticipate future trends and remain competitive in a volatile environment. Hybrid approaches to planning, processes and projects can be steered and accelerated across departments, enabling companies to develop and implement a solid DT strategy that creates value for the entire organization. As already mentioned above, the transition from purely processing-based tools to Predictive Intelligence Systems (PIS) is another crucial step. PIS

enables companies to manage even very complex processes and to execute them in real time. Thus, companies can implement completely new business models and stand out from their competitors in very commoditized markets, creating value in new ways. Another area in which AI can be used is as a Shared Digital Accelerator (SDA). SDAs are digital interfaces that customers use on a daily basis, such as Amazon's Alexa. SDA's enable co-creation with customers in order to reach even more customers than a normal support tool. In the context of Digital Ecosystem Orchestration (DEO) AI systems function as neutral brokers of a digital ecosystem. They process data from multiple sides and extract industry-wide insights without exploiting assets of single participants in a value network. As such, they foster collaboration between industries.

Another crucial dimension that can contribute to increased competitiveness of companies on the marketplace is a large-scale promotion of 'prosumerism'. With the aid of interfaces that support consumers in co-creating products and services, they are free to initiate and develop autonomously executed services, with minimal or no direct interaction with the service offering organization (a paradigm shift from more traditional conceptualization of value co-creation). This form of value creation leads to a huge reduction of transaction costs, and through the involvement of consumers in the value-creation process of a company, the typical distinction between producers and consumers is leveled, thereby incorporating the innovation process into the market as well. To support such large-scale prosumerism trends, companies need to integrate AI-ready systems into their company structures in a way that their 'DT potential' is either increased or - in failure cases, even diminished, given the way in which it uses its human-machine dynamics through AI-based employed systems.

With a view to developing the organization's ambidexterity, their current business models have to be operated in parallel to new AI - based business models being developed and implemented. For this purpose, existing structures and processes must be dissolved much faster than usual and, in the course of time, respective new structures have to be developed and implemented. Agentic AI systems can play a particularly important role here. Currently, these systems are being developed in various markets. In the future, they can also change the Strategic Human Resource Management (SHRM) area from having a mere transactional support role to acting as a cooperative and synergistic collaboration partner for the organization's technology-base expansion. In contrast to the Generative AI, Agentic AI systems do not only work based on the explicit commands given to them, but also proactively. For this purpose, they collect data, execute processes and continuously learn from their respective environments. The organizational leadership must, therefore, adopt an AI-first mindset. As a consequence, large groups of employees will need to be upskilled. Communication and measures to build trust are needed to change the employees' perception of Agentic AI, and to make them happy to work with it as a co-worker in order to make the organization more agile and to improve its service delivery. Strategic Human Resource Management will thus change from employee management to curation of an organization's innovation in order to create sustainable new structures.

As always, there are some caveats. The speed of technology development is not necessarily in line with the maturity of organizations. Consequently, DT strategies incorporating AI should be developed in organizations that are already AI-ready, or working in that direction. If not, adopting new tools and transforming

processes can quickly turn into liabilities, since their application is neither clearly visible, nor properly contextualized to all stakeholders. The hype around new topics, such as DT and border technologies (e.g.: quantum computing, IoT, etc.), always has the danger that the focus is put on novelty rather than on value creation. In the worst case, the novel aspect of DT is then used to pursue the current 'one-size-fits-all' approach, as happens with most innovations. To create sustainable value by means of AI, it is crucial for leadership to develop new structures and to work on changes required by the AI-enabled workforce. To this end, employee engagement and algorithmic transparency are essential aspects in the DTJ. In addition, adequate data governance as well as security are key challenges. Biased data, a lack of privacy as well as non-compliance with rules and regulations can cause a lot of harm, even if the best tools and the best processes are in place. Hence, AI must be used as a lubricant to support value creation across the entire value chain, and not as a siloed tool to create value in isolation. Finally, the BCG-DT model should be improved for better integration of currently emerging technologies and their application in companies. Generative - and especially Agentic AI, already are established on the market of many industries and thus becomes an ontological element for business strategies. Newly emerging forms of organizations (Hanelt *et al.* 2021, S. 3ff.), to be successful in the long run, will need to be self-optimizing. These organizations will be working in a top-down - as well as in a bottom-up mode of operations. In contrast to former types of organizations, this new actor is emerging which is following a completely different logic.

6. CONCLUSION

Expanding the BCG-DT framework with Generative and Agentic AI, we can see that while AI is currently enabling businesses to compete, it is increasingly becoming the core of the business. Thus, the traditional notion of the business core, which was to mainly automate, will shift to being proactive and to making adaptive decisions. In terms of operations, this will become largely predictive and, in terms of marketing and sales, it will be possible to engage in hyper-personalization on an unprecedented scale and scope and, by using AI, to orchestrate the entire business ecosystem. In terms of HRM, this will be transformed from a traditional socio-technical system to one where intelligent technology are harnessed to enhance human potential, and to create organizations where leaders can develop an AI-first mindset, promote transparency, trust and foster workforce upskilling, in order to remain relevant in the face of rapid change. The key issue is not to (only) deploy AI, but to create AI-ready strategies that leverage predictive intelligence and create collaborative ecosystems that can deal with uncertainty and operate in increasingly competitive markets.

7. FUTURE RESEARCH

This study extends the BCG-DT framework into the AI era. To further advance research, two main avenues can be pursued: a) the impact of new agentic AI systems on strategic HRM issues, trying to pinpoint the degree to which employees will be automated by the company; and b) the use of new AI-driven predictive intelligence to boost an organization's competitiveness and resilience in a variety of industries over time. Alongside these main research directions, an array of other very pressing topics for research is presented, such as the necessary AI governance structures, as well as new challenges to data privacy, AI transparency (xAI), and AI bias. Finally, future

research should investigate the effects of large scale prosumerism (i.e.: very large numbers of customers co-create value in all phases of a value chain), and how this in turn will affect the innovation of organizations. Such a line of research will eventually provide theoretical underpinnings to the use of AI in DT, and a multitude of actionable recommendations for managers embarking on a DTJ.

REFERENCES

ALI, W.; KHAN, A. Z.; ALI, M. A.; AMIN, M. A.; KAMRAN, M. Influence of artificial intelligence on cost efficiency and organizational performance with the mediating role of cost management control systems in tra. **Bulletin of Management Review,** v. 1, n. 4, p. 59–91, 2024.

ALOS-SIMO, L.; VERDU-JOVER, A. J.; GOMEZ-GRAS, J. How transformational leadership facilitates e-business adoption. **Industrial Management & Data Systems,** *[s. l.]*, v. 117, n. 2, p. 382–397, 2017. DOI: 10.1108/IMDS-01-2016-0038.

ARAS, A.; BÜYÜKÖZKAN, G. Digital transformation journey guidance: a holistic digital maturity model based on a systematic literature review. **Systems,** v. 11, n. 4, p. 213, 2023. DOI: https://doi.org/10.3390/systems11040213.

AZEVEDO, A. C.; BOAVENTURA, J. M. G.; WEGNER, D.; GIGLIO, E. M.; BOARI, C. Network management and value creation in strategic networks: evidence from Brazil. **Measuring Business Excellence,** v. 27, n. 3, p. 364–378, 2023. DOI: https://doi.org/10.1108/MBE-05-2022-0064.

BCG. Digital transformation. **BCG Global,** 2025a. Disponível em: https://www.bcg.com/capabilities/digital-technology-data/digital-transformation/overview.

BCG. From potential to profit – closing the AI impact gap. **Boston Consulting Group,** 2025b. Disponível em: https://www.bcg.com/publications/2025/closing-the-ai-impact-gap.

BELIBASAKIS, N.; GIANNAROS, A.; GIANNOUKOU, I.; SIOUTAS, S. Enhancing hotel recommendations with AI: LLM-based review summarization and query-driven insights (arXiv:2510.18277). **arXiv,** 2025. DOI: https://doi.org/10.48550/arXiv.2510.18277.

BERMAN, S. J. Digital transformation: opportunities to create new business models. **Strategy & Leadership,** p. 16–24, 2012.

BOHREN, N.; HAKIMOV, R.; LALIVE, R. Creative and strategic capabilities of generative AI: evidence from large-scale experiments. **SSRN Electronic Journal / IZA Discussion Paper No. 17302,** p. 40, 2024.

BRAGA, T. G.; FILHO, N. C.; WEGNER, D.; BRAMBILLA, F. R.; FERREIRA, B. M. Strategic networks' dynamics: evidence of member firms' retention and departures in Brazil. **Administrative Sciences,** v. 14, n. 4, p. 65, 2024. DOI: https://doi.org/10.3390/admsci14040065.

BRINKER, S. AI agents are the new iPaaS and the next frontier of intense competition in digital ops orchestration. **Chiefmartec,** 2 jan. 2025. Disponível em: https://chiefmartec.com/2025/01/ai-agents-are-the-new-ipaas-and-the-next-frontier-of-intense-competition-in-digital-ops-orchestration/.

CHANG, M. Investigating the impact of digital transformation on business and management research. **Global Science Research Journal,** v. 16, n. 3, p. 1, 2022.

CHAUDHURI, R.; CHATTERJEE, S.; MARIANI, M. M.; WAMBA, S. F. Assessing the influence of emerging technologies on organizational data-driven culture and innovation capabilities: a sustainability performance perspective. **Technological Forecasting and Social Change,** v. 200, p. 123165, 2024. DOI: https://doi.org/10.1016/j.techfore.2023.123165.

DA SILVA, R. R.; LARIEIRA, C. L. C.; MEIRELLES, F. D. S.; DOS REIS, A. M. P. Organizational ambidexterity: a path to digital transformation in small and medium enterprises. **Cognitionis Scientific Journal,** v. 6, n. 2, p. 480–504, 2023. DOI: https://doi.org/10.38087/2595.8801.207.

DATABRICKS. Unlocking enterprise AI: opportunities and strategies. **The Economist Group,** p. 53, 2024. Disponível em: https://impact.economist.com/new-globalisation/unlocking-enterprise-ai.

DESWINDI, L.; ZAKUAN, N.; YAACOB, T. Z. Integrating digital transformation and ambidextrous innovation for organizational resilience under environmental dynamism. **International Journal of Academic Research in Business and Social Sciences,** v. 15, n. 12, p. 1541–1552, 2025. DOI: https://doi.org/10.6007/IJARBSS/v15-i12/27278.

DIGITALAPPLIED. AI workflow orchestration platforms: 2026 comparison. **Digital Applied,** 23 jan. 2026. Disponível em: https://www.digitalapplied.com/blog/ai-workflow-orchestration-platforms-comparison.

DOSHI, A. R.; BELL, J. J.; MIRZAYEV, E.; VANNESTE, B. S. Generative artificial intelligence and evaluating strategic decisions. **Strategic Management Journal,** v. 46, n. 3, p. 583–610, 2025. DOI: https://doi.org/10.1002/smj.3677.

ESTEVES, L. A. Rivalidade após entrada: o impacto imediato do aplicativo Uber sobre as corridas de táxi porta-a-porta (Government report N. 003/2015; Documentos de Trabalho 003/2015, p. 26). **CADE – Conselho Administrativo de Defesa Econômica,** 2015a. Disponível em: https://cdn.cade.gov.br/Portal/centrais-de-conteudo/publicacoes/estudos-economicos/documentos-de-trabalho/2015/documento-de-trabalho-n03-2015-rivalidade-apos-entrada-o-impacto-imediato-do-aplicativo-uber-sobre-as-corridas-de-taxi.pdf.

ESTEVES, L. A. Uber: o mercado de transporte individual de passageiros — regulação, externalidades e equilíbrio urbano. **Revista de Direito Administrativo,** n. 270, p. 325–361, 2015b. DOI: https://doi.org/10.12660/rda.v270.2015.58746.

FENECH, R.; BAGUANT, P.; IVANOV, D. The changing role of human resource management in an era of digital transformation. **[Periódico não identificado],** v. 22, n. 2, 2019.

FINN, T.; DOWNIE, A. Agentic AI vs. generative AI. **IBM,** 11 fev. 2025. Disponível em: https://www.ibm.com/think/topics/agentic-ai-vs-generative-ai.

FRENDS. The best integration platforms (iPaaS) for mid-sized companies in Europe. **Frends,** 2025. Disponível em: https://frends.com/insights/the-best-integration-platforms-ipaas-for-mid-sized-companies-in-europe.

GADEKAR, B. P.; HIWARKAR, T. From business objectives to analytics and machine learning solutions: a framework for conceptual modeling. **International Journal of Advanced Research in Science, Communication and Technology,** v. 3, n. 1, p. 277–285, 2023. DOI: https://doi.org/10.48175/IJARSCT-7876.

GARTNER. Enterprise guide to generative AI: expert insights on ROI, use cases, and cost management. Gartner experts answer the top generative AI questions for your enterprise. **Gartner,** 2025. Disponível em: https://www.gartner.com/en/topics/generative-ai.

GARTNER. Gartner survey finds 61% of organizations are evolving their D&A operating model because of AI technologies. **Gartner,** 2024. Disponível em: https://www.gartner.com/en/newsroom/press-releases/2024-04-29-gartner-finds-61-percent-of-organizations-are-evolving-their-data-and-analytics-operating-model-because-of-ai-technologies.

GORJIANKHANZAD, Z.; GOOYABADI, A. A. Digital strategizing: the role of the corporate culture. **Open Journal of Business and Management,** v. 10, n. 6, p. 2974–2995, 2022. DOI: https://doi.org/10.4236/ojbm.2022.106147.

GUPTA, G.; LIM, W. M.; CHAUDHURI, N.; SHARMA, D. Alexa, it's not just us! Voice commerce through the lens of service providers and consumers. **Journal of Service Management,** (September), p. 1–36, 2025. DOI: https://doi.org/10.1108/JOSM-01-2024-0016.

HANELT, A.; BOHNSACK, R.; MARZ, D.; ANTUNES MARANTE, C. A systematic review of the literature on digital transformation: insights and implications for strategy and organizational change. **Journal of**

Management Studies, v. 58, n. 5, p. 1159–1197, 2021. DOI: https://doi.org/10.1111/joms.12639.

HINTERHUBER, A.; NILLES, M. Digital transformation, the holy grail and the disruption of business models. **Business Horizons,** v. 65, n. 1, p. 261–265, 2021. DOI: https://doi.org/10.1016/J.BUSHOR.2021.02.042.

HOLMSTRÖM, J. From AI to digital transformation: the AI readiness framework. **Business Horizons,** v. 65, n. 3, p. 329–339, 2022. DOI: https://doi.org/10.1016/j.bushor.2021.03.006.

HYRYNSALMI, S. M. The state-of-the-art of the integration platforms as a service research. **Proceedings of the 5th International Workshop on Software-Intensive Business: Towards Sustainable Software Business,** p. 17–22, 2022. DOI: https://doi.org/10.1145/3524614.3528634.

KAPTAGAYEV, A. Disney magic with big data [Harvard University Case Repository]. **Digital Innovation and Transformation,** 2021. Disponível em: https://d3.harvard.edu/platform-digit/submission/disney-magic-with-big-data/.

KATTA, T. B. Comparative analysis of AI-powered iPaaS solutions for enterprise integration. **World Journal of Advanced Research and Reviews,** v. 26, n. 1, p. 2524–2533, 2025. DOI: https://doi.org/10.30574/wjarr.2025.26.1.1326.

KHUBULOVA, V. V.; SMAGINA, M. V.; IVANCHENKO, I. V.; MARFUTENKO, T. A. Development of human capital in the era of digital transformation. **European Proceedings of Social and Behavioural Sciences,** p. 613–622, 2022. DOI: https://doi.org/10.15405/epsbs.2022.12.79.

KIZILDAĞ, D.; ÖZLEM, Y. U. "Digitalization and Business: A View From Porter's Five Forces." . **New Perspectives and Possibilities in Strategic Management in the 21st Century: Between Tradition and Modernity,** ed. Javier Martínez-Falcó, et al., 69-85. Hershey, PA: IGI Global Scientific Publishing, 2023. https://doi.org/10.4018/978-1-6684-9261-1.ch004

KOKOREV, I. A.; KISELEV, V. M.; VELIKOROSSOV, V. V.; POLTARYKHIN, A. L.; UKUBASSOVA, G. S. Use of AI technologies in improving the business processes of companies. **Economic Consultant,** n. 4, p. 4–16, 2025. DOI: https://doi.org/10.46224/ecoc.2025.4.1.

KUMAR, P. A.; SHARMA, A.; INDUJI, R. T.; SINGATHURAI, S.; PRIYADARSHINI, S. AI-driven employee engagement transforming HR strategies for the digital workforce. **Journal of Marketing & Social Research,** p. 181, 2025.

LEMON, K. N.; VERHOEF, P. C. Understanding customer experience throughout the customer journey. **Journal of Marketing,** v. 80, n. 6, p. 69–96, 2016. DOI: https://doi.org/10.1509/jm.15.0420.

LEUVEN, K. Towards achieving competitive advantage through making the right operating model choices. **PoEM Companion 2023. Working Conference on the Practice of Enterprise Modeling and the 13th Enterprise Design and Engineering Working Conference,** 2023. Disponível em: https://ceur-ws.org/Vol-3645/forum10.pdf.

LITTLEJOHN, S. W.; FOSS, K. A. **Encyclopedia of communication theory.** Thousand Oaks (Calif.): Sage, 2009.

LOZIĆ, J.; FOTOVA ČIKOVIĆ, K.; BAČIĆ, L. The Disney+ platform: the Walt Disney Company's digital business transformation. **Polytechnic**

and Design, v. 12, n. 3, p. 226–234, 2025. DOI: https://doi.org/10.19279/TVZ.PD.2024-12-3-18.

LUKIC, V.; CLOSE, K.; GREBE, M.; DE LAUBIER, R.; FRANKE, M. R.; CHARANYA, T.; NOPP, C. Show me the digital value. **BCG Global,** 2022. Disponível em: https://www.bcg.com/publications/2022/assessing-digital-value-gap.

LYYTINEN, K., YOO, Y., BOLAND JR., R. J. Digital product innovation within four classes of innovation networks. **Info Systems J,** 2016, 26: 47–75. doi: 10.1111/isj.12093.

MAJCHRZAK, A.; MARKUS, M. L.; WAREHAM, J. Designing for digital transformation: lessons for information systems research from the study of ICT and societal challenges. **MIS Quarterly,** v. 40, n. 2, p. 267–277, 2016. DOI: https://doi.org/10.25300/MISQ/2016/40:2.03.

MARCHIORI, D.M., RODRIGUES, R.J.d.A.G., MAINARDES, E.W. POPADIUK, S.,Information technology capabilities: a bibliometric vision of the conceptual and intellectual structures and the past and future research directions, **VINE Journal of Information and Knowledge Management Systems,** 2024, https://doi.org/10.1108/VJIKMS-10-2023-0253

MARLINA, A.; FAZRIANSYAH, D. T.; BIMO, W. A.; SINAGA, H. Z.; MAULANA, H. A comprehensive guide to bibliometric analysis for advancing research in digital business. **Journal of Intelligent Management Decision,** v. 3, n. 3, p. 187–201, 2024. DOI: https://doi.org/10.56578/jimd030305.

MÁRTON, A. Ecosystems as collections of actors and artefacts. In: CENNAMO, C.; DAGNINO, G. B.; ZHU, F. (org.). **Research Handbook**

on Digital Strategy. Edward Elgar Publishing, 2024.

MCCARTHY, P.; SAMMON, D.; ALHASSAN, I. 'Doing' digital transformation: theorising the practitioner voice. **Journal of Decision Systems,** v. 31, supl. 1, p. 341–361, 2022. DOI: https://doi.org/10.1080/12460125.2022.2074650.

MCKINSEY. How the implementation of organizational change is evolving. **McKinsey & Company,** p. 8, 2018. Disponível em: https://www.mckinsey.com/capabilities/implementation/our-insights/how-the-implementation-of-organizational-change-is-evolving.

MCKINSEY. Rewired and running ahead: digital and AI leaders are leaving the rest behind. **McKinsey & Company,** p. 9, 2024. Disponível em: https://www.mckinsey.com/capabilities/tech-and-ai/our-insights/rewired-and-running-ahead-digital-and-ai-leaders-are-leaving-the-rest-behind#/.

MCKINSEY. The future of agentic AI in travel and hospitality. **McKinsey & Company,** 2025. Disponível em: https://www.mckinsey.com.br/our-insights/remapping-travel-with-agentic-ai.

MCKINSEY. What is digital transformation? **McKinsey & Company,** p. 6, 2023.

MERGEL, I.; EDELMANN, N.; HAUG, N. Defining digital transformation: results from expert interviews. **Government Information Quarterly,** v. 36, n. 4, p. 101385, 2019. DOI: https://doi.org/10.1016/j.giq.2019.06.002.

NADKARNI, S.; PRÜGL, R. Digital transformation: a review, synthesis and opportunities for future research. **Management Review Quarterly,** [s. l.], v. 71, n. 2, p. 233–341, 2021. DOI: 10.1007/s11301-020-00185-7.

NAWAZ, F. Why and how iPaaS wins over legacy systems in modern integration. **Accelirate,** 2024. Disponível em: https://www.accelirate.com/why-ipaas-wins-over-legacy-systems-integration/.

NIEWÖHNER, N.; LANG, N.; ASMAR, L.; RÖLTGEN, D.; KÜHN, A.; DUMITRESCU, R. Towards an ambidextrous innovation management maturity model. **Procedia CIRP,** v. 100, p. 289–294, 2021. DOI: https://doi.org/10.1016/j.procir.2021.05.068.

OBED, D. E. How Zapier built a $5B empire without the Silicon Valley playbook. **Medium,** 11 ago. 2025. Disponível em: https://letters.ehoneahobed.com/how-zapier-built-a-5b-empire-without-the-silicon-valley-playbook-281917f7c143.

OBREJA, D. M.; RUGHINIȘ, R.; ROSNER, D. Mapping the multidimensional trend of generative AI: a bibliometric analysis and qualitative thematic review. **Computers in Human Behavior Reports,** v. 17, p. 100576, 2025. DOI: https://doi.org/10.1016/j.chbr.2024.100576.

ORTIZ DE GUINEA, A.; RAYMOND, L. A complex adaptive systems view of digital ecodynamics for business performance among manufacturing SMEs. **Hawaii International Conference on System Sciences,** 2022. DOI: https://doi.org/10.24251/HICSS.2022.791.

OYEKUNLE, D.; BOOHENE, D. Digital transformation potential: the role of artificial intelligence in business. **International Journal of Professional Business Review,** v. 9, n. 3, e04499, 2024. DOI: https://doi.org/10.26668/businessreview/2024.v9i3.4499.

PAGANI, M. Digital business strategy and value creation: framing the dynamic cycle of control points. **MIS Quarterly,** v. 37, n. 2, p. 617–632, 2013. DOI: https://doi.org/10.25300/MISQ/2013/37.2.13.

PAI T, V.; KAMATH, B. S.; POPESCU, V.; BIRAU, R. AI-driven digital transformation: enhancing competitiveness and sustainability in the modern business landscape. In: IDOWU, S. O.; SITNIKOV, C.; BĂNDOI, A.; ÖZEN, E. (org.). **Competitiveness and Sustainability in the Digitization Era.** Springer Nature Switzerland, p. 245–268, 2025. DOI: https://doi.org/10.1007/978-3-031-91778-3_12.

PATEL, K.; SHAH, M.; QURESHI, K. M.; QURESHI, M. R. N. A systematic review of generative AI: importance of industry and startup-centered perspectives, agentic AI, ethical considerations & challenges, and future directions. **Artificial Intelligence Review,** v. 59, n. 1, p. 7, 2025. DOI: https://doi.org/10.1007/s10462-025-11435-z.

PRICEWATERHOUSECOOPERS. Digital transformation. **PwC,** 2025. Disponível em: https://www.pwc.com/id/en/services/consulting/digital-transformation.html.

RANSBOTHAM, S.; KIRON, D.; KHODABANDEH, S.; IYER, S.; DAS, A. The emerging agentic enterprise: how leaders must navigate a new age of AI. **MIT Sloan Management Review,** 2025. DOI: https://doi.org/10.63383/jAXE2583.

REBER, D. State of agentic AI adoption survey [2026]. **Zapier,** 2025. Disponível em: https://zapier.com/blog/ai-agents-survey/.

RESENDE, G. M.; LIMA, R. C. de A. Competition effects of the sharing economy in Brazil: has Uber's entry affected the cab-hailing app market from 2014 to 2016? (Government report N. 002/2018; p. 40). **CADE – Conselho Administrativo de Defesa Econômica,** 2018. Disponível em: https://cdn.cade.gov.br/portal-ingles/topics/publications/papers/working_paper_uber.pdf.

RIEDL, J.; JENTZSCH, A.; MELCHER, N. C.; GILDEMEISTER, J.; SCHELLONG, D.; HOFER, C.; WIEDENHOFF, P. Why road freight needs to go digital—fast. **BCG Global,** 2018. Disponível em: https://www.bcg.com/publications/2018/why-road-freight-needs-go-digital-fast.

SANCHEZ, M. A.; ZUNTINI, J. I. Organizational readiness for the digital transformation: a case study research. **Revista Gestão & Tecnologia,** v. 18, n. 2, p. 70–99, 2018. DOI: https://doi.org/10.20397/2177-6652/2018.v18i2.1316.

SANTOS, Á. O. D.; DA SILVA, E. S.; COUTO, L. M.; REIS, G. V. L.; BELO, V. S. The use of artificial intelligence for automating or semi-automating biomedical literature analyses: a scoping review. **Journal of Biomedical Informatics,** v. 142, p. 104389, 2023. DOI: https://doi.org/10.1016/j.jbi.2023.104389.

SAURA, J. R.; SKARE, M.; RIBERIO-NAVARRETE, S. How does technology enable competitive advantage? Reviewing state of the art and outlining future directions. **Journal of Competitiveness,** v. 14, n. 4, p. 172–188, 2023. DOI: https://doi.org/10.7441/joc.2022.04.10.

SCHILIRÒ, D. Digital transformation and its impact on organizations. **International Journal of Business and Management,** v. 19, n. 6, p. 71, 2024. DOI: https://doi.org/10.5539/ijbm.v19n6p71.

SCHRAGE, M.; PRING, B.; KIRON, D.; DICKERSON, D. Leadership's digital transformation: leading purposefully in an era of context collapse (Future of Leadership Global Executive Study and Research Project, p. 25). **MIT Sloan Management Review,** 2021. Disponível em: https://sloanreview.mit.edu/projects/leaderships-digital-transformation/.

SENGAR, S. S.; HASAN, A. B.; KUMAR, S.; CARROLL, F. Generative artificial intelligence: a systematic review and applications. **Multimedia Tools and Applications,** v. 84, n. 21, p. 23661–23700, 2024. DOI: https://doi.org/10.1007/s11042-024-20016-1.

SHANNON, C. E., WEAVER, W. **The Mathematical Theory of Communication,** 1949, University of Illinois Press

SHI, L.; MAI, Y.; WU, Y. Digital Transformation: A Bibliometric Analysis. **Journal of Organizational and End User Computing,** 2022, v. 34, n. 7, p. 1–20, 2022. DOI: 10.4018/JOEUC.302637.

SILVA, D. W. What it means to be "AI-ready". **Forbes,** 16 jun. 2025. Disponível em: https://www.forbes.com/councils/forbestechcouncil/2025/06/16/what-it-means-to-be-ai-ready/.

SJÖDIN, D.; PARIDA, V.; KOHTAMÄKI, M. Artificial intelligence enabling circular business model innovation in digital servitization: conceptualizing dynamic capabilities, AI capacities, business models

and effects. **Technological Forecasting and Social Change,** v. 197, p. 122903, 2023. DOI: https://doi.org/10.1016/j.techfore.2023.122903.

SJÖDIN, D.; PARIDA, V.; PALMIÉ, M.; WINCENT, J. How AI capabilities enable business model innovation: scaling AI through co-evolutionary processes and feedback loops. **Journal of Business Research,** v. 134, p. 574–587, 2021. DOI: https://doi.org/10.1016/j.jbusres.2021.05.009.

SKOG, D. A.; WIMELIUS, H.; SANDBERG, J. Digital disruption. **Business & Information Systems Engineering,** v. 60, n. 5, p. 431–437, 2018. DOI: https://doi.org/10.1007/s12599-018-0550-4.

TAXI drivers protest against Uber in Rio. **Agência Brasil,** 2015. Disponível em: https://agenciabrasil.ebc.com.br/en/geral/noticia/2015-07/taxi-drivers-protest-against-uber-rio.

TAXI, C.; SCAPICCHIO, M. What is generative AI? **IBM,** 22 mar. 2024. Disponível em: https://www.ibm.com/think/topics/generative-ai.

TEHRANI, A. N.; RAY, S.; ROY, S. K.; GRUNER, R. L.; APPIO, F. Decoding AI readiness: an in-depth analysis of key dimensions in multinational corporations. **Technovation,** v. 131, n. 1, 2023. DOI: https://doi.org/10.1016/j.technovation.2023.102948.

VENKATRAMAN, N. IT-enabled business transformation: from automation to business scope redefinition. **MIT Sloan Management Review,** 15 jan. 1994. Disponível em: https://sloanreview.mit.edu/article/itenabled-business-transformation-from-automation-to-business-scope-redefinition/.

VIAL, G. Understanding digital transformation: a review and a research agenda. **The Journal of Strategic Information Systems,** v. 28, n. 2, p. 118–144, 2019. DOI: https://doi.org/10.1016/j.jsis.2019.01.003.

VITELLARO, F.; SCHIFILLITI, V.; BURATTI, N.; CESARONI, F. I won't become obsolete! Exploring the acceptance and use of GenAI by marketing professionals. **European Journal of Innovation Management,** 2025. https://www.emerald.com/ejim/article/29/3/745/1251670/I-won-t-become-obsolete-exploring-the-acceptance

WANG, T.; CHENG-XI AW, E.; WEI-HAN TAN, G.; STHAPIT, E.; LI, X. Can AI improve hotel service performance? A systematic review using ADO-TCM. **Tourism and Hospitality Research,** 2025. DOI: https://doi.org/10.1177/14673584251356817.

WESTERMAN, G.; BONNET, D.; MCAFEE, A. **Leading Digital: Turning Technology into Business Transformation.** Boston,. Massachusetts: Harvard Business Press, 2014.

YUSUF, S. O.; IKHINE, I. V.; NYAMEKEH, R.; OLUWADARE, O. E.; AFOAKWAH, B.; YUSUF, N. The impact of AI on supply chain operations: a comparative analysis of traditional vs AI-enabled processes. **World Journal of Advanced Research and Reviews,** v. 27, n. 2, p. 1688–1700, 2025. DOI: https://doi.org/10.30574/wjarr.2025.27.2.3027.

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