

# Navigating the Digital Chasm: An Analysis of Digital Transformation Failures, Organizational Readiness Assessment Methods, and Their Limitations

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**Abstract**— Digital transformation has become a critical imperative for organizations across industries, yet the success rate of such initiatives remains alarmingly low, with up to 95% failing to achieve their intended outcomes. This research paper provides a comprehensive analysis of the common causes of digital transformation failures, with a particular focus on the limitations of existing organizational readiness assessment methods. The study examines factors such as lack of clear goals, organizational and cultural barriers, insufficient leadership support, technological and resource constraints, and human capital and skills gaps that contribute to the high failure rate of digital transformation projects. The paper also explores various frameworks and methodologies used to evaluate organizational digital readiness, highlighting their shortcomings, including reliance on self-reported data, lack of standardization, emphasis on quantitative metrics, and the dynamic nature of digital technologies. The findings underscore the need for a more holistic and continuous approach to assessing digital readiness to ensure successful digital transformation initiatives. The study concludes by emphasizing the importance of addressing these limitations to enhance the success rate of digital transformation efforts.

**Keywords**— Digital transformation, failures, digital readiness, assessing digital readiness.

## I. INTRODUCTION

As companies across different fields endeavor to respond to the quickly changing digital realm, digital transformation has become a fundamental strategic requirement. However, the path to successful digital transformation is fraught with challenges, and many organizations have struggled to effectively navigate this complex process. Despite its critical importance, the success rate of digital transformation initiatives remains alarmingly low. Numerous organizations struggle to bridge the "digital chasm," where ambitious transformation efforts fail to

yield the anticipated results, often leading to financial losses, operational inefficiencies, or even organizational stagnation.

Understanding the factors that contribute to digital transformation failures is crucial, as these insights can inform more effective strategies and better allocation of resources. This research paper provides a comprehensive analysis of the common causes of digital transformation failures, with a particular focus on the limitations of existing organizational readiness assessment methods. An organization's ability to successfully undergo digital transformation is closely tied to its preparedness and adaptability.

Accurately assessing an organization's digital transformation readiness is essential for several reasons:

- 1) It helps identify gaps and challenges early on, enabling targeted interventions before significant resources are invested.
- 2) It allows for the development of tailored change management strategies that address the unique needs and constraints of the organization.
- 3) It facilitates more informed decision-making regarding technology investments, organizational restructuring, and talent development.
- 4) It enables organizations to better anticipate and reduce the risks associated with digital transformation initiatives.

Existing readiness assessment methods frequently fail to provide a comprehensive and nuanced understanding of an organization's digital transformation preparedness. This shortcoming can lead to suboptimal transformation initiatives and higher failure rates, as organizations invest in solutions that do not adequately address their specific needs and challenges.



## II. UNDERSTANDING DIGITAL TRANSFORMATION

Digital transformation represents a concept that is occasionally utilized in a broad manner to delineate the adoption of novel technologies aimed at enhancing operational processes within an organization. Consequently, it is essential to explain its fundamental nature and to differentiate it from the mere introduction of new technologies or information technology systems.

Digital transformation in an organization refers to the comprehensive integration of digital technologies into all aspects of business operations, fundamentally altering how the organization operates and delivers value to its customers. It encompasses not only the adoption of new technologies but also a shift in organizational culture, processes, and strategies to leverage these technologies effectively. This transformation is aimed at enhancing operational efficiency, improving customer experiences, and fostering innovation to meet changing market demands (Nadeem et al., 2018).

Digital transformation differs significantly from merely implementing software or IT systems. While the latter often involves the installation of specific applications or tools to automate tasks or improve efficiency, digital transformation is a holistic approach that requires a fundamental redesign of business models and processes. According to Vogelsang et al. (2018), the core of digital transformation is the combination of various technologies and resources to create new operational capabilities and customer experiences, rather than just the deployment of isolated IT solutions. Digital transformation is about creating a cohesive strategy that aligns technology with business objectives.

One of the key aspects of digital transformation is its focus on cultural change within the organization. Successful digital transformation requires a shift in mindset among leaders and employees. It implies assuming new roles, learning new skills, and creating organizational structures to support digital initiatives. It results from the need to respond to external pressures, such as evolving customer expectations and competitive dynamics.

Organizations must not only implement new technologies but also adapt their business strategies to leverage these technologies effectively. This includes reengineering processes, enhancing customer engagement, and developing new business models that capitalize on digital capabilities (Nadeem et al., 2018; O'Leary, 2022). The integration of data analytics and artificial intelligence enables organizations to gain insights into customer behavior, allowing them to tailor their offerings and improve service delivery.

In contrast, implementing software or IT systems may not require such a comprehensive approach. Organizations might adopt a new software solution to address a specific operational challenge without fundamentally changing their business processes or culture. This can lead to a situation where technology is underutilized or fails to deliver the expected benefits if it is not integrated into the broader organizational strategy (Hausberg et al., 2019).

## III. THE SIGNIFICANCE OF DIGITAL TRANSFORMATION ACROSS VARIOUS SECTORS

Digital transformation is very significant in the manufacturing industry, where it drives innovation and enhances production efficiency. The manufacturing industry has experienced a continuous evolution from basic digitization to more sophisticated forms of digital intelligence, which are now seen as core components of enterprise competitiveness. This transformation is not just about adopting new technologies; it involves a fundamental shift in how organizations operate, aiming to enhance customer experience and streamline operations (Warner & Wäger, 2019). The integration of technologies like the Industrial Internet of Things (IIoT) facilitates real-time data sharing and operational improvements (Danuso, Giones, & da Silva, 2022; Ghosh, S. et al., 2022).

Resource and energy sectors have been slower to adopt digital technologies compared to others like retail and manufacturing. Despite the potential benefits, such as reducing operational expenses and enhancing sustainability, the resource and energy sectors face significant barriers to digital transformation (Maroufkhani et al. 2022). The slow pace is attributed to the sectors' inherent complexity and the high cost of implementing new technologies.

Digital transformation in corporate and non-manufacturing industries contributes to expanding labor employment and enhancing competitiveness. The impact is more pronounced in state-owned enterprises and non-manufacturing industries, where digital technologies help reduce costs and improve service delivery (Han et al. 2023).

Digital transformation has been found particularly important during the COVID-19 pandemic as it has shown digital technologies are crucial in maintaining business continuity and meeting consumer demands.

While digital transformation is undeniably important, its implementation and impact are not the same across all industries. Factors such as technological readiness, market dynamics, and regulatory environments play significant roles in shaping the digital transformation journey. Industries like manufacturing and non-manufacturing sectors have shown significant progress, while others, such as resource and energy, continue to face hurdles. While digital transformation is crucial across these industries, its urgency and impact can differ. For instance, sectors like retail and finance have also embraced digital transformation, but the pace and nature of this transformation may vary based on consumer expectations and regulatory environments (Schneider & Kokshagina, 2021; Nwaiwu, 2018). In contrast, industries with more traditional operational models, such as agriculture, may experience a slower adoption rate due to infrastructural and educational barriers (Leng & Tong, 2022; Garzoni et al., 2020).

## IV. DIGITAL TRANSFORMATION FAILURES

The implementation of digital transformation initiatives is considered a crucial undertaking in numerous industries.

Digital transformation has emerged as a critical endeavor for organizations seeking to remain competitive in an increasingly digital world. However, despite the growing emphasis on digital initiatives, a significant number of these transformations fail. Various studies indicate that approximately 70% of digital transformation projects do not achieve their intended outcomes, with some reports suggesting that this figure can be as high as 95% in certain sectors (Mohammadi, Heidari, & Navkhsi, 2023). This phenomenon is prevalent also among small and medium-sized enterprises (SMEs), where the scarcity of resources and skills further complicates successful digital transformation, leading to a high percentage of initiatives failing to meet expectations (Silva et al., 2023).

However, the success of these initiatives is contingent upon the varying levels of digital readiness observed within the organizations in question. The term 'digital readiness' encompasses a range of factors, including the technological infrastructure in place, the proficiency of employees in relevant skills, the prevailing organizational culture, and the degree of commitment demonstrated by leadership. It is the interaction of these factors that ultimately determines the outcome of digital transformation initiatives.

#### V. DETERMINANTS OF FAILURE IN DIGITAL TRANSFORMATION INITIATIVES

Digital transformation has emerged as a critical process for organizations aiming to enhance their operational efficiency and competitiveness in an increasingly digital world. However, a significant number of digital transformation initiatives fail to achieve their intended outcomes.

The reasons for these failures are multifaceted and can be categorized into several key areas: lack of clear goals, inadequate leadership and organizational culture, insufficient understanding of technology, and the complexity of the transformation process itself.

##### Lack of coherent strategy

A frequent and significant factor contributing to the failure of digital transformations is the lack of a coherent and comprehensive strategy. Organizations often undertake digital transformations without possessing a thorough understanding of their objectives or the necessary actions to achieve them. This lack of strategic direction may lead to a disconnect between technological investments and organizational goals, resulting in the misallocation of resources and the loss of potential opportunities.

Many organizations fail in their digital transformation efforts due to a lack of clear understanding and strategic vision. The literature indicates that organizations often categorize digital transformation under broad terms like 'technology' and 'management' without delving into the specific aspects that contribute to its success or failure (Oludapo et al., 2024). A common mistake is focusing too heavily on technology itself rather than on how it integrates with business processes and culture. Successful digital transformation requires a holistic approach that includes people, processes, and technology. The

lack of strategic vision leads to misalignment with business goals. Without such alignment, digital transformation efforts become isolated projects that do not contribute to the organization's success. Ignoring the impact on customer experience can lead to failure. Successful digital transformation should enhance customer satisfaction and engagement.

##### Organizational and Cultural Barriers

Cultural resistance within organizations is a significant barrier. Many small and medium-sized enterprises (SMEs) exhibit a risk-averse culture and rely on outdated legacy systems, which hinder the adoption of new digital technologies (Kallmuenzer et al., 2024). Many SMEs are hesitant to adopt new technologies due to the fear of potential risks and uncertainties associated with digitalization. This cultural mindset can slow down or even prevent the adoption of digital technologies. In such culture employees and management may be reluctant to alter established processes and workflows, which can hinder the integration of new digital tools and practices.

A culture that values continuous learning and skill development can facilitate digital transformation. SMEs need to invest in training and upskilling their workforce to ensure they have the necessary digital skills to leverage new technologies effectively. A collaborative culture that promotes open communication can enhance digital transformation efforts. When employees feel involved and informed, they are more likely to support and contribute to the transformation process.

Organizations often underestimate the cultural shift required to implement digital changes effectively. Without proper change management strategies that address employee concerns and foster a culture of innovation, organizations may find themselves facing significant pushback, which can derail transformation efforts (Herzog et al., 2022).

One can recognize a culture that is risk-averse by a number of symptoms. The most apparent of these is resistance to change. This situation occurs when both personnel and management exhibit reluctance toward the adoption of novel concepts and technological advancements, opting instead to adhere to established processes and systems. In risk-averse culture there is a pervasive fear of making mistakes, leading to a lack of experimentation and innovation. Employees may avoid proposing new ideas due to fear of negative consequences. Another symptom is overemphasis on short-term results that manifests itself in the focus on immediate outcomes rather than long-term growth and innovation.

This specific manifestation of organizational culture may be profoundly rooted in historical accomplishments. Management may hold the perspective that previously effective methods and tools ought to remain unchanged. The reluctance to change may arise from concern that new developments could jeopardize the organization's established success. Specific leadership style also shapes this culture. Cautious leaders who prefer maintain status quo and avoid uncertainty may discourage experimentation and risk-taking. Much depends also on industrial norms and regulations. In industries with strict regulations, companies may develop a risk-averse culture to ensure compliance and avoid penalties. This focus on

compliance can overshadow the pursuit of innovative solutions.

#### Insufficient Leadership and Management Support

Successful digital transformation requires strong leadership and management support. The involvement of C-level executives is often necessary. The purpose is to ensure that transformation efforts are prioritized and adequately resourced (Setzke et al., 2021). Leaders should articulate a clear vision and strategy for digital transformation. It is their task to explicitly point out the benefits and objectives of digital initiatives, ensuring that all stakeholders understand and support the transformation process. Therefore leaders should centralize decision-making as digital transformation efforts must be cohesive and aligned with organizational goals. They are also responsible for fostering a culture of adaptability and encouraging innovation, allowing the organization to respond effectively to challenges and opportunities presented by digital technologies.

Leadership styles play a crucial role in digital transformation. Agile and transformational leadership styles, which emphasize fast decision-making, participation, and adaptability, are essential for successful digital transformation, yet not all leaders possess these qualities or recognize their importance (Rialti & Filieri, 2024). The digital transformation process is complex and requires a shift in organizational culture and employee attitudes towards technology, which some leaders may find challenging to manage or sustain. Ineffective leadership can lead to resistance and a lack of engagement from employees, further hindering the transformation process. Finally, the rapid pace of technological change and the associated digital inequality can also contribute to leaders' reluctance to get involved in digital transformation. They may feel overwhelmed by the need to continuously learn and adapt to new technologies (Puckett, 2020).

#### Technological and Resource Constraints

Many organizations face technological and resource constraints that limit their ability to implement digital transformation effectively. Organizations in healthcare sector often lack the internal capacity and resources to invest in digital capabilities (Cross & Adler-Milstein, 2022). Due to resource constraints, organizations may experience delays in implementing digital transformation initiatives. This can lead to missed opportunities for improving efficiency, enhancing patient care, and staying competitive in the market. Organizations facing technological constraints may rely on outdated systems that are costly to maintain. This can increase operational expenses and reduce the overall financial efficiency of the organization. The common issues that prevent organizations from fully realizing the benefits of digital transformation are also the absence of active knowledge management and underestimation of digitalization's importance (Wolf et al., 2018).

Digital transformation is not merely a technological upgrade; it involves a comprehensive rethinking of business processes, customer interactions, and organizational structures (Herzog et al., 2022). This complexity can overwhelm organizations, particularly small and medium-sized enterprises (SMEs) that may lack the necessary resources and expertise to navigate such

extensive changes (Li et al., 2017).

#### Human Capital and Skills Gap

The success of digital transformation is heavily dependent on human capital. Organizations need individuals with the requisite skills and motivation to use digital technologies effectively. Without investing in education and training to build these capabilities, some employees may be unable to take advantage of new opportunities that digital transformation presents and cope with digital tools. Continuous skill development and training are crucial to ensure that employees can adapt to new digital tools and processes (Eden et al., 2019).

The failure to retain knowledge workers who can effectively leverage digital technologies is a significant barrier for many organizations, particularly small and medium-sized enterprises (SMEs) (Yen, 2024). Knowledge workers are essential for collecting and disseminating information, and their absence can hinder the successful execution of digital initiatives. Organizations must prioritize talent retention and development to ensure they have the necessary skills and expertise to drive digital transformation forward.

## VI. ASSESSING DIGITAL READINESS IN ORGANIZATIONS

Organizational digital readiness is defined as the degree to which an organization is ready to digitally transform its operations. It is a prerequisite for successful digital transformation, which can enhance operational efficiency, competitiveness, and innovation. Assessing digital readiness involves evaluating various factors, including technological infrastructure, human resources, organizational culture, and strategic alignment.

Various frameworks and methodologies have been developed to evaluate organizational digital readiness. They have focused on multiple dimensions such as technological infrastructure, employee skills, leadership support, and organizational culture.

One effective method for measuring digital readiness is the use of structured questionnaires that assess various dimensions of readiness. Kontić & Vidicki (2018) use a measurement tool developed by MIT Sloan Management and Capgemini Consulting that evaluates an organization's readiness based on four critical dimensions: digital-first mindset, digital practices, empowered talent, and data access and collaboration tools. In this way one can receive a comprehensive overview of organization's digital readiness.

The concept of organizational readiness for digital innovation can be assessed through specific constructs. Xie et al. (2022) developed a seven-dimension scale to evaluate how prepared organizations are to innovate using digital technologies. This scale includes dimensions such as innovative resources, organizational culture, and leadership support, allowing organizations to identify areas that require improvement to enhance their readiness for digital transformation.

Another approach involves assessing the perceptions of different stakeholders within the organization. Gfrerer et al.

(2020) highlight the differences in perceptions of digital readiness between managers and employees, suggesting that understanding these varying perspectives is crucial for a holistic assessment. By gathering insights from both groups, organizations can better understand the barriers to digital readiness and develop strategies to address them.

The assessment of digital readiness can also incorporate elements of e-readiness, which refers to the extent to which an organization is prepared to benefit from the digital economy. One can define e-readiness as a measure of an organization's willingness and capability to adopt and utilize digital technologies effectively (Naseebullah et al., 2011). This broader perspective can provide valuable insights into the overall readiness of an organization to engage in digital transformation.

In addition to quantitative assessments, qualitative methods can also be used to gain deeper insights into digital readiness. Qualitative interviews and focus groups can be conducted to explore employees' attitudes towards digital technologies and their perceived barriers to adoption. This approach can complement quantitative assessments, providing a more nuanced understanding of an organization's readiness for digital transformation (Qomariyah et al., 2020).

Nonetheless, the evaluation of digital preparedness reveals significant limitations. One significant limitation of many digital readiness assessment methods is their reliance on self-reported data. For instance, assessments often involve surveys or questionnaires where employees and managers provide their perceptions of the organization's digital capabilities. This can lead to biased results, as individuals may overestimate or underestimate their organization's readiness based on personal experiences or expectations (Gfrerer et al., 2020). Self-reported data can be influenced by various factors, including individual biases, organizational culture, and the specific context in which the assessment is conducted.

Another limitation is the lack of standardization in measurement instruments. Different studies and organizations may use varying criteria and indicators to assess digital readiness, leading to inconsistencies in results. Some measurement tools may focus on technological infrastructure, while others - on employee skills or organizational culture (Huang, 2022; Ubaidillah et al., 2020). These differences make difficult comparisons of digital readiness between various organizations and industries and applicability of findings.

Many digital readiness assessments tend to focus on quantitative metrics, such as the number of digital tools implemented or the level of digital skills among employees. While these metrics are important, they may not capture the qualitative aspects of digital readiness, such as organizational culture, leadership support, and employee engagement (Xie et al., 2022). These qualitative factors are critical for successful digital transformation but are often overlooked in traditional assessment methods, leading to an incomplete understanding of an organization's readiness.

The dynamic nature of digital technologies and the fast-paced environment in which organizations operate can make digital readiness assessments quickly outdated. Technologies

evolve and new digital trends emerge and due to these factors organizations must continuously reassess their readiness to adapt to these changes. Static assessments conducted at a specific point in the past may not sufficiently represent the rapid changes in digital skills and market demands, thereby possibly leaving organizations inadequately prepared to confront future challenges.

Digital transformation is not merely about technology adoption; it involves a comprehensive rethinking of business processes, customer interactions, and organizational structures. The complexity of digital transformation poses a challenge for readiness assessments. Therefore, assessments that focus solely on technological readiness may miss critical aspects of the transformation journey.

## VII. CONCLUSIONS

Digital transformation constitutes a complex phenomenon that surpasses the simple execution of a specific information technology framework. A notable fraction of companies that engage in such endeavors confront failures.

Numerous governmental agencies allocate financial resources to facilitate the digital transformation of enterprises. There exists a potential for misinterpretation regarding this concept. A flawed articulation of its fundamental nature may result in the involvement of organizations that lack the necessary capabilities to pursue such initiatives. This situation of unpreparedness encompasses several fields. It manifests in the lack of integration of digital transformation with organizational strategy, the inadequacy of personnel across various hierarchical levels, and the constraints of both human and technological resources. The mindset of business executives can represent a considerable obstacle if they do not acknowledge the imperative for such initiatives and fail to understand how digital transformation reshapes their business structure, improves customer interaction, and reduces competitive lags. Various studies highlight the critical role of having a workforce equipped with the right digital skills. It implies the need for investing in employee training and development to facilitate successful digital transformation, which might be underestimated by some SMEs.

The research also emphasizes the need for a strategic interplay of various elements, such as appropriate technologies and skilled workforce, for effective digitalization. This holistic approach might be surprising to those who view digital transformation as merely a technological upgrade rather than a comprehensive organizational change.

A notable concern relates to the expectations held by enterprise management regarding the swift results of the digital transformation process. Many studies indicate that digital transformation does not typically yield immediate profits. Jardak and Hamad (2022) note that firms undertaking digital transformation often face initial financial difficulties that negatively affect their return on assets (ROA) and return on equity (ROE) in the short term. This is primarily due to the substantial investments required for technology adoption,

process reengineering, and employee training, which can strain financial resources before any benefits are realized. Research indicates also that digital transformation creates opportunities and drives the value and productivity of businesses over the long term, ultimately contributing to economic growth (Lieu et al., 2022).

Assessing the digital readiness of an enterprise necessitates an examination of various dimensions within the organization. Yet, the evaluation itself proves to be insufficient, as the techniques for measuring digital readiness are not exempt from deficiencies. The complexity of digital transformation itself poses a challenge for readiness assessments. Digital transformation is not merely about technology adoption; it involves a comprehensive rethinking of business processes, customer interactions, and organizational structures.

Measuring digital readiness is vital for organizations pursuing digital transformation, various limitations exist in the methods used for assessment. These include reliance on self-reported data, lack of standardization, an emphasis on quantitative metrics, the dynamic nature of digital technologies, contextual specificity, and the complexity of digital transformation itself. Organizations must be aware of these limitations and consider adopting a more holistic and continuous approach to assessing their digital readiness to ensure successful transformation initiatives.

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