Digital Readiness

00436 Digital Readiness

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Abstract

Digital transformation, an undisputed initiative of the digital age, and digital readiness are closely intertwined concepts that underpin the evolution of digital businesses. The former refers to the integration of digital technologies across all aspects of a business, ranging from products and services to processes and business models, fundamentally altering how a digital business operates and proposes value to its stakeholders. However, its success heavily depends on the latter as it encompasses the organization′s ability to adapt to and leverage digital technologies effectively, including its infrastructure, processes, workforce skills, and cultural mindset. A digitally ready business not only possesses the necessary technological infrastructure (or tries to gain them) but also cultivates a culture of innovation, transformation and agility. It empowers its workforce with different skills, knowledge and competencies required to navigate the digital landscape and embrace emerging technologies. Furthermore, it entails the capacity to anticipate and respond to changing business ecosystems, market dynamics and customer expectations swiftly. Ultimately, businesses that prioritize digital readiness are better positioned to capitalize on the opportunities presented by digital transformation, driving growth, efficiency, and competitiveness in today′s fast-paced digital age.

Key Points

- Due to the varying definitions of digital readiness and the diverse terminologies used to describe it, a universally accepted definition does not currently exist. This research aims to develop a clear and comprehensive review of the concept and propose a more precise definition.
- The research presents a twelve-dimensional framework to share a comprehensive review of digital readiness which can be evaluated further as part of future research agenda by measuring the variable and expanding the proposed model to fit different academic and practice needs.

Introduction

The digital readiness of an organization is a process likely to bring about fundamental change. The digital transformation promises to reduce firm operational overheads and improve service capabilities, a trend that is gaining ground in many countries around the world (**Ren and Mohd Isa, 2023**). By involving technology, it not only demonstrates creative organization efforts but can also be described as a way to meet the expectations of stakeholders and shareholders who demand convenient and digitized exchange. Digital transformation is a strategic effort to seek the digital age in order to boost competitiveness and productivity (**Alakrash and Razak, 2021**).

While digital readiness is a widely referred term, it lacks a commonly understood definition and is interpreted differently due to various people's perspectives (**Nasution *et al*., 2018**). The main reason behind multiple definitions is that the term can be used in different levels of analysis and with a connection to a wide range of practical applications. Not having a globally accepted definition makes it difficult to reach a consensus on it, however, it also builds higher levels of flexibility to customize and use this term in different contexts (**Soomro *et al*., 2020**). This is why the current research tries to share a bird-eye view of it while not limiting the application of the term in different contexts (**Silva *et al*., 2022**).

Digital readiness has many similar equivalents such as e-readiness, networked readiness, e-business readiness, technology readiness and so on (**Nasution *et al*., 2018**). While each one of these terms vary in their core contexts, they are commonly used interchangeably.

Multiple studies on digital readiness can be found, some focus on individuals (ie. **Muehlburger *et al*., 2022**), other on organizational/institutional (ie. **Machado *et al*., 2020**), industry (**Alzhanova *et al*., 2020**) or country levels (ie. **Kireyeva *et al*., 2022**). While each one of these research initiatives share a slightly different definition of digital readiness, the main theme on the ability of utilizing digital technologies to gain higher positive benefits or impacts from them (in different levels of analysis) cuts across all of them. However, a very important point which need not be ignored is that on all above levels of analysis, the measurement happens at the individual level.

To commence the process of digital transformation, an inevitable option for a majority of organizations in the current era, a thorough analysis of digital readiness is crucial (**Ashvini *et al*., 2023**), as it takes into account the needed capabilities and competencies for a better utilization of digital/technological tools as well as approaches in developing processes, systems, organizations and business models (**Salamzadeh *et al*., 2024**).

The current research tries to share a comprehensive approach towards digital readiness which can be the start of the customization process for different contexts and helps academics and practitioners develop better frameworks considering more and more diverse perspectives.

Pillars of Digital Readiness

This research offers different pillars of digital readiness to be used in developing a comprehensive framework for it. Below you can find sub-sections to elaborate more on each pillar.

Digital Literacy

This pillar focuses on different levels of digital literacy such as basic technological knowledge, information literacy and media literacy.

Having an acceptable level of digital literacy guarantees the capability of identifying false and valid data and information and competency of using them for organizational or individual goals (**Deja *et al*., 2021**). Lacking sufficient digital literacy skills makes it challenging for people to work with digital systems and to gain the maximum benefits out of them.

Digital Access

This pillar is mainly common at national levels but also can be used on organizational levels. It mainly focuses on connectivity and having access to digital devices. It is seen as an infrastructural factor in the ability to use digital technologies properly (**Van De Werfhorst *et al*., 2022**).

Digital Inclusion

This dimension of digital readiness is also very common in national level analysis but can easily be used in organizational analysis as well. The pillar addresses three sub-dimensions; namely affordability which is related to being able to afford access to internet and digital services; accessibility which is about ensuring that digital tools and content are accessible to all including people with disabilities; and finally, equity, which focuses on addressing the digital divide to ensure that all people have equal opportunities to benefit from digital technologies and systems (**Gallardo *et al*., 2021**).

Digital Skills and Competencies

As discussed in another chapter of the current encyclopedia, there are four main categories of digital skills and competencies including personal (cognitive) competencies (such as analytical and critical thinking, digital mindfulness, digital visionary skills and complexity tolerance), technological competencies (such as digital maturity, digital alignment and digital knowledge), interpersonal (behavioral) competencies (such as emotional intelligence, inclusiveness, coaching and mentoring and digital communication) (**Maruthuvellu *et al*., 2022**), and leadership competencies (such as networking skills, social intelligence, change management and problem solving skills) (**Salamzadeh *et al*., 2023**).

Talking about digital skills and competencies, it is impossible not to mention digital talents who have a more complex attraction, retention and development compared to less-digital human capital of the organization.

Digital Policies and Regulations

This pillar includes digital governance which refers to the existence of policies and frameworks to support digital transformation and regulate the digital space. Ethical considerations are also under this pillar and also cover data privacy and digital rights (**Bharatula and Murthy, 2020**). Not having these policies and regulations can present a huge barrier to moving towards a better digital future on organizational or national levels.

Digital Culture

This pillar of digital readiness mainly focuses on organizational level and talks about cultural adaptation of digital technologies in everyday life. It can start from digital values and a culture shift towards openness to change, and can also include employee engagement, recognition and all other digital processes of performing tasks in an organization (**Nguyen *et al*., 2019**).

Technology Infrastructure

Technology Infrastructure is the hard side of the digital readiness which focuses on having access to needed infrastructure such as internet, digital technologies and tools, cloud computing and cybersecurity (**Silva *et al*., 2022**). This is the only dimension in digital readiness which can directly be bought, but the level of getting benefitted from its capabilities, there will be a need for many other dimensions shared on the current paper.

Data and Analytics

This pillar of digital readiness is not only about the access to data and data management practices but it also covers the analytics capability of people (and organizations) on using advanced analytics tools and having the skills to derive insights from data (**Rafiah *et al.*, 2022**).

It is noteworthy that another important aspect of this pillar is data-driven decision making both in operational and strategic levels, which is among the top criteria on measuring and profiling the digital readiness of an organization (**Sánchez and Zuntini, 2018**).

Customer Experience

Customer Experience (or citizen experience in public sector and national levels) talks about providing seamless channels for digital and multi-directional interactions (**Savytska *et al.*, 2022**). Using these platforms and UX/UI approaches, organizations will be able to personalize and customize their customer experiences and it helps them to perform better in digital world and to be more digitally ready.

Digital Innovation and Agility

This pillar of digital readiness has some links to some other pillars but due to its importance we decided to separate it from other pillars. Digital innovation is linked to digital culture of the organization and its openness to innovate, change and transform (**Nasution *et al.*, 2018**). On the other hand, digital innovation and agility dimensions talk about collaboration tools as well, while they can be included in digital technologies dimension (**Jain and Jain, 2022**). However, the main differentiating factor under this pillar is the agile practices in

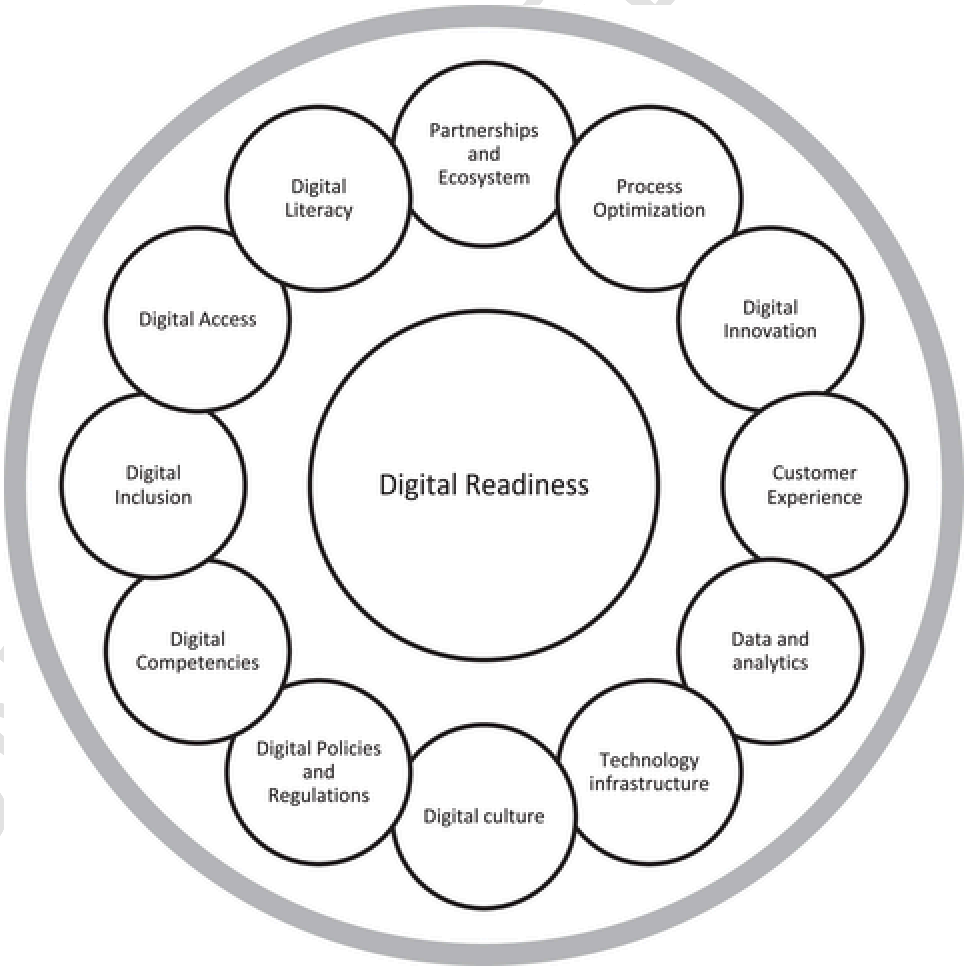

Fig. 1 Digital readiness model. (Developed by authors).

product and process development which are an important part of the innovation process and is rooted in dynamic changes in technologies and strategies in digital era.

Process Optimization

The pillar is about process optimization which is a critical dimension and makes organizations ready for change and digital transformation. As in many cases process optimization is a common first thought about digital transformation. Automation and digitalizing the processes using different digital technologies results in a digitalized workflow and higher efficiency, accuracy and impact (**Philipp, 2020; Damij *et al*., 2008**).

Partnerships and Ecosystem

The last pillar of digital readiness on the current framework is about digital partnerships and living in a digital ecosystem (**Roulston *et al*., 2023**). The more organizations collaborate or build partnerships with technology start-ups, high-tech organizations and digital policy making bodies, the higher their digital readiness. The reason behind this is that in order to develop and sustain a successful partnership with digital players, the more digitally ready the organization needs to be. This engagement in digital ecosystem is a good signal of digital readiness of any organization (**Silva *et al*., 2022**).

Conclusion

As a conclusion, this research proposes the 12-dimensional model for digital readiness in **Fig. 1** below and should be viewed as a starting point, enabling further customization and personalization of digital readiness for any type of organization.

Based on **Fig. 1**, user-friendly digital application will promote the readiness of the new technology. The tendency to use the new technology is higher if less effort is required to use the system technology (**Fadhina *et al*., 2022**). In addition, the performance expectancy is also a key factor influencing user intention to accept technology (**Venkatesh, 2003; Maznorbalia and Awaluddin, 2021**). When individuals perceive that the necessary tools, resources, and support are readily available, they are more likely to engage with and use the digital services. Therefore, effective facilitating conditions can streamline the processes associated with digital readiness.

While the current study is not aiming to develop a globally accepted definition for digital readiness, it has built a comprehensive multi-dimensional review on the current definitions in the field. Future research agenda can investigate how to design a measurement instrument based on the above dimensions to gauge the level of digital readiness in different organizations.

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