

“Is It Hype or Reality?”: A Global Study of Assessing the Rate of Digitalization



Mahikala Niranga

Southern Cross University, Australia

Darshana Sedera

Southern Cross University, Australia

INTRODUCTION

Digitalization has become one of the most pronounced buzzwords in the corporate literature and academic press in the last decade (Adikari et al., 2021; Frost & Duan, 2020; Gavrilu & De Lucas Ancillo, 2021; Lokuge et al., 2019; Sedera, Tan, et al., 2022; Webb et al., 2021). The impact of digitalization has been attributed to high productivity (Kravchenko et al., 2019; Niranga et al., 2022a; Sedera & Lokuge, 2019), hyper-customization (Jain, 2018; Lokuge & Sedera, 2014; Sedera et al., 2016) and more broadly high competitiveness (Chung et al., 2017; Langley et al., 2021). Business operations can be made more effective, consistent, and high-quality with the help of digitization, which facilitates improved customer service (Lokuge et al., 2018). Additionally, it has given businesses a number of distinctive skills and improvement prospects (Rachinger et al., 2019; Reis et al., 2020). As such, much of the anecdotal commentary reported in the commercial press suggests that the world has never seen this rate of increase in digitalization, especially during the past decade (Gorenšek & Kohont, 2018; Sedera, Lokuge, et al., 2022).

Digitalization prior to the advent of digital technologies like social, mobile, analytics and cloud was expensive (Sedera et al., 2002; Urbach & Röglinger, 2019). It required substantial resources, and appropriately there were substantial differences between rich countries and developing countries, creating a digital divide that favors more resourceful countries (Aissaoui, 2021; Qureshi & Davis, 2007). However, with the cost of digital technologies reaching near zero (Lokuge et al., 2021; Sedera & Lokuge, 2018, 2020b; Sedera, Lokuge, et al., 2022) in some applications, and with the purported productivity benefits of digitalization, countries are said to be embarking on a rapid rate of digitalization (Kravchenko et al., 2019; Niranga et al., 2022a). Such endeavors are further supported by the high rate of internet coverage, where over 66.2% of the world is now having regular Internet usage (Internet World Stats, 2021).

Especially with the lockdowns and remote working required by the COVID-19 restrictions, there is a growing assumption that the whole world is moving fast in digitalization than in previous years (Frost & Duan, 2020; Gavrilu & De Lucas Ancillo, 2021). The effects of COVID-19 changed the very nature that organizations operate, with an immediate transition to the digitalization of processes in sectors like education, finance, and health (Alshubiri et al., 2022; Lokuge & Duan, 2021; Niranga et al., 2022b). Similarly, interactions with employees, decision-making, and corporate communications shifted more to online platforms (Anthony Jnr & Abbas, 2021; Niranga & Sedera, 2022). One of the pandemic's fastest-growing apps was Zoom in remote working, with meeting participants rising by 2900% to 350 million by December 2020 (Molla, 2020).

DOI: 10.4018/978-1-6684-7366-5.ch049

This article, published as an Open Access article in the gold Open Access encyclopedia, Encyclopedia of Information Science and Technology, Sixth Edition, is distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>) which permits unrestricted use, distribution, and production in any medium, provided the author of the original work and original publication source are properly credited.

Therefore, it is evident that an exponential rise was foreseen as a result of the COVID-19’s abrupt rate of digitalization transition, which compelled everyone to move quickly to digital (Lokuge & Duan, 2023). Accordingly, the state of global digitalization in various parts of the globe is investigated in this study, as the explosive growth of digitalization opens more contacts between nations and social groupings at all levels of development. More specifically, the paper observes whether there *‘Is there evidence of exponential growth of digitalization universally visible because of COVID-19 pandemic?’*. As such, this study examines the behavioral patterns of the rate of digitalization using the event study methodology, covering annual panel data from 2018 to 2020 by looking at 7 regions from 157 countries.

While every researcher and practitioner expected that digitalization would grow faster, especially in light of COVID-19, *the results of this study indicate controversial evidence, that the rate of digitalization in most parts of the world is slowing down*. As such, the data analysis presented herein does not support a fundamental assumption of a high rate of digitalization, which has been employed in critical strategies. In the remainder of this paper, the theoretical foundation is first introduced, followed by the research methodology. Then, the study presents preliminary results. Finally, the conclusion outlines the expected contributions. It sums up the findings and argument for a new approach to studying the rate of digitalization from a combined country and region perspectives.

BACKGROUND

Digitalization and The Rate of Digitalization

Digitalization is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities; it is the process of moving to a digital business (Parida et al., 2019). It has changed how people produce goods and services, innovate, and interact with other firms, workers, consumers, and governments (Graupner et al., 2021; OECD, 2019). These digital technologies seem to propose an enormous potential to develop a country’s productivity and, ultimately, living standards (Alshubiri et al., 2022). Similarly, digitalization has brought positive changes to business corporations, such as increased productivity, cost efficiency, enhanced security, enhanced information preservation, disaster recovery space-saving, staying competitive, and environmentally friendly digital transformation (Gorenšek & Kohont, 2018; Vilkas et al., 2022).

Overall, literature addressing digitalization has received increased attention from the firm and country perspectives (GSMA Intelligence, 2021; OECD, 2020). Over the past few years, there has been a surge in digital tools and technologies (Aly, 2020). As a result, digitalization has significantly altered the business landscape in every nation; corporate leadership has become more involved in decision-making and has delegated authority to others, employees have become much more collaborative and encouraged to work in teams, and agility has become a buzzword everywhere (Atapattu et al., 2016; Sedera & Atapattu, 2019; Sedera et al., 2017). Equally, it has parted everyone from being in one place to operate business activities due to more accessible, available, and transparent digital technologies (Langley et al., 2021). Nevertheless, it has progressed to 24x7 flexible work schedules with work remotely approach.

Apparently, there is consensus in recent times that the world has become gradually digitalized, mainly due to the COVID-19 pandemic (Venkatraman, 2020). Given the global developments ushered in by COVID-19, it’s no wonder that digitalization has made and will continue to make huge technological adaptations that have altered how people produce goods and services, innovate, and engage with other businesses, workers, consumers, and governments (Forums, 2020; Graupner et al., 2021; Hess, 2020;

25 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/is-it-hype-or-reality/322410

Related Content

RoboSTEAM Project: Integrating STEAM and Computational Thinking Development by Using Robotics and Physical Devices

Miguel Á. Conde, Francisco J. Rodríguez-Sedano, Camino Fernández-Llamas, Maria João Carvalho Ramos, Manuel Domingos Jesus, Susana Celis, Jose Gonçalves, Jose Lima, Daniela Reimann, Ilkka Jormanainen, Juha Paavilainen and Francisco J. García-Peñalvo (2021). *Information Technology Trends for a Global and Interdisciplinary Research Community* (pp. 157-174).

www.irma-international.org/chapter/robosteam-project/270004

Digital Gifts at the Workplace: An Exploratory Study on the Impact of E-Hongbao

Chiachi Chang, Eddy Fang, Yuliani Suseno and Marek Hudik (2023). *Journal of Global Information Management* (pp. 1-25).

www.irma-international.org/article/digital-gifts-at-the-workplace/316832

Determinants of Online Purchasing Behaviour

Bill Doolin, Stuart Dillon and James L. Corner (2006). *Advanced Topics in Global Information Management, Volume 5* (pp. 199-225).

www.irma-international.org/chapter/determinants-online-purchasing-behaviour/4567

Business Model Adaptation of Small and Medium-Sized Information Technology Firms: The Role of Dynamic Capabilities

Yulong Liu and Yang Yu (2021). *Journal of Global Information Management* (pp. 1-15).

www.irma-international.org/article/business-model-adaptation-of-small-and-medium-sized-information-technology-firms/272247

Dysfunctional Development Pathways of Information and Communication Technology: Cultural Conflicts

G. Roland Kaye and Stephen Little (2000). *Journal of Global Information Management* (pp. 5-13).

www.irma-international.org/article/dysfunctional-development-pathways-information-communication/3532