

The 7th International Conference on Economics and Social Sciences
**Exploring Global Perspectives:
The Future of Economics and Social Sciences**
June 13-14, 2024
Bucharest University of Economic Studies, Romania

**Leveraging Digital Technologies
for Sustainable and Inclusive Development Strategy
in Leading Innovative Nations**

Larysa ANTONIUK¹, Yehor DAVYDENKO^{2*}

DOI: 10.24818/ICISS/2024/066

Abstract

The widespread implementation of digital technologies is considered a key prerequisite for increasing the sustainable competitiveness of national economies. Information and communication technologies not only offer economic restructuring potential but also provide new opportunities for all citizens in access to various services, including high-quality education and medicine. Consequently, such advancements contribute substantively to the implementation of the UN Sustainable Development Goals and foster inclusive growth. This study aims to undertake a comprehensive analysis of both theoretical and practical frameworks concerning the implementation of sustainable development and to evaluate the potential of leveraging digital technologies to advance sustainable competitiveness. This study examines the link between digital inclusion and its long-term impact on global economic development. Systematisation of the relationship between digital transformation and sustainable competitiveness is carried out in the context of the impact of digital technologies on market dynamics and the distribution of sustainable competitive advantages between countries. The potential of digital transformation within a sustainable development framework can trigger significant economic transformations aimed at improving living standards and strengthening international competitiveness. The study's forecasting of the impact of sustainable competitiveness on economic growth underscores the need for national economies to adopt appropriate strategies for inclusive growth.

Keywords: sustainable development, sustainable competitiveness, digital technologies, digitalisation, digital inclusion, inclusive growth.

JEL Classification: Q01, Q56, O33, L86.

¹ Kyiv National Economic University, Kyiv, Ukraine, antoniuk@kneu.edu.ua.

² Kyiv National Economic University, Kyiv, Ukraine, degori7@gmail.com.

* Corresponding author.

1. Introduction

From a sustainable development perspective within the SDGs agenda, economic prosperity, environmental conservation, and social well-being are not disjointed components but part of an integrated system. The combination of global, multidimensional, and intergenerational characteristics of SDGs brings out complexity in structuring the policies and strategies for implementation. Improving one socio-economic or environmental dimension could impact other dimensions and there may be trade-offs between various SDGs and targets. From scholarly materials, a very good example is the concept of sustainable competitiveness itself (Corrigan et al., 2014). Sustainable competitiveness is based on a core strategy, one that tends to long-term competitive benefits that do lead to positive economic effects, and thus fulfilling the mission of the economic entity. Concurrently, obtaining competitive advantages in the present business environment is almost ill-achievable without acknowledging the role of environmental and social components in the activities of enterprises that have appeared to be the business's response to the corresponding demands of the society. Foremost, therefore, considerations of economic growth should be done in terms of sustainable competitiveness, since sustainable competitive economies become more innovative, more resilient, and better-capacitated in the responsiveness to external shocks. In addition, this uses the power of digital technologies toward fostering innovation in the quest to drive economic advance and finding solutions to societal challenges for sustainable and inclusive growth.

2. Problem Statement

Despite the cyclical pattern of economic development and the evolving landscape of research determinants, achieving sustainable competitiveness remains a central focus of economic science. This dynamic shift is connected with the pressure of challenges of various origins (including climate, energy, migration, changes in local labour markets, pandemics, etc.).

The main methodologies for measuring sustainable competitiveness, progress in achieving SDGs and the corresponding use of ICT are the following methodologies analysed by international organisations: the UN SDG Index (UN, 2023), the Global Sustainable Competitiveness Index (Solability, 2023), the IMD Digital Competitiveness Index (IMD, 2023), the ITU ICT Accessibility Self-Assessment Toolkit (ITU, 2021), and the Digital Inclusion Index (Berger, 2021). The United Nations is responsible for measuring countries' progress in achieving sustainable development goals.

The most significant research on international competition and the theory of competitive advantages of countries, as well as the factors determining competitiveness on micro- and macro- levels, was conducted by the American scholar Michael Porter (1985). The concept of “sustainable value” and the role of innovation in creating competitive advantage through environmental and social initiatives were explored by Hart and Milstein (2003). Environmental management and corporate strategy, particularly how firms can align environmental objectives

with competitive goals to achieve long-term success, was researched by Reinhardt et al. (2005). Corporate sustainability, including the integration of environmental and social considerations into corporate strategy, performance measurement, and reporting, were explored by Epstein and Buhovac (2014). The strategy of integrating economic, social, and environmental performance metrics into business decision-making for sustainable competitiveness was researched by Elkington (2004), who is also credited with coining the term “Triple Bottom Line”. Several researchers have researched a bridge between sustainability and leadership at different levels (Glynn, 2013; Laszlo, 2008; Kanter, 2009; Andreola & Meloni, 2016). Separate studies focus on the potential for businesses to drive positive environmental and social change through innovative approaches to sustainability (Hawken, 1994; Jones, 2017; van Dijk, 2020). Studies on sustainability science emphasise the need for fundamental shifts in societal values and systems thinking to address sustainability challenges and foster sustainable competitiveness (Pankaj & Pisano, 1997; Ehrenfeld, 2005; Henderson, 2015).

Separate attention requires research on the investigation of the model of Ukraine's digital economy, the impact of ICT on human capital, which involved developing a roadmap for human capital (Antoniuk et al., 2021). The commercial perspective on economic development is focused on science-based decision-making in building sustainable competitive advantage (Bayer, 2023).

This study is focused on the relationship between digital transformation and sustainable competitiveness and forecasting of the impact of sustainable competitiveness on economic growth.

3. Research Questions / Aims of the Research

This study aims to undertake a comprehensive analysis of both theoretical and practical frameworks concerning the implementation of sustainable development and to evaluate the potential of leveraging digital technologies to advance sustainable competitiveness. Therefore, the research questions, which arise are, firstly, how digital technologies could be used in advancement of sustainable competitiveness and, secondly, how impact of sustainable competitiveness on economic growth could be measured.

4. Research Methods

In addition to general research methods utilised such as the literature review and Document Analysis, the study employed specialised research methods, including econometric methods, specifically forecasting the impact of sustainable competitiveness on economic growth through the construction of an econometric model. A multifactor linear regression model was built, valid for the entire population. Factors x_1 , x_2 , x_3 are non-random variables, independent of each other. For each i -th observation, the expected value of the random variable i equals zero, and the variance is constant regardless of the observation number. The model errors are not correlated for different observations. The model was constructed using the ordinary method of least squares.

5. Findings

The contemporary outlook of the digital economy is shaped by the convergence of various streams of economic activity within an information society that is based on a number of digital ecosystems and the Internet. Digital technologies act as cornerstones in the process of the digital transformation of the traditional sectors of world economic society. Digitalization, in that matter, within the paradigm of the digital society, may well be the driver in further implementation of SDGs. By improving the pace and enabling a broader scale of economic and social transformation, digitalization assumes center stage in cross-sectoral outcomes of sustainable development and is able to diffuse into society integratively. Its multi-dimensional systemic impact underlines the fact that digitalization is highly important for the future design of the trajectory of societal progress towards sustainable development. On the economy, digital technologies have huge potential to facilitate the acceleration and scale of many state-of-the-art technologies, applications, and digital platforms, thereby helping low-income countries to meet some of the critical development milestones onto economic growth. Several elements are involved in the rapid and successful deployment of digital technologies, as indicated in Figure 1. Essential are policies and institutions that shape the foundational system of the ICT sector: They oversee the deployment of physical infrastructure, regulate the necessary workforce skills at the state level, determine the local operational presence of the digital technologies industry, and influence the readiness of key sector stakeholders to adopt key solutions within the digitisation process. This insight underscores the importance of the policy and institutional frameworks in driving the effective integration of digital technologies into national development strategies.

Figure 1. Interconnected Components for Successful Digital Technologies Deployment in Achieving SDGs



Source: authors' own research contribution.

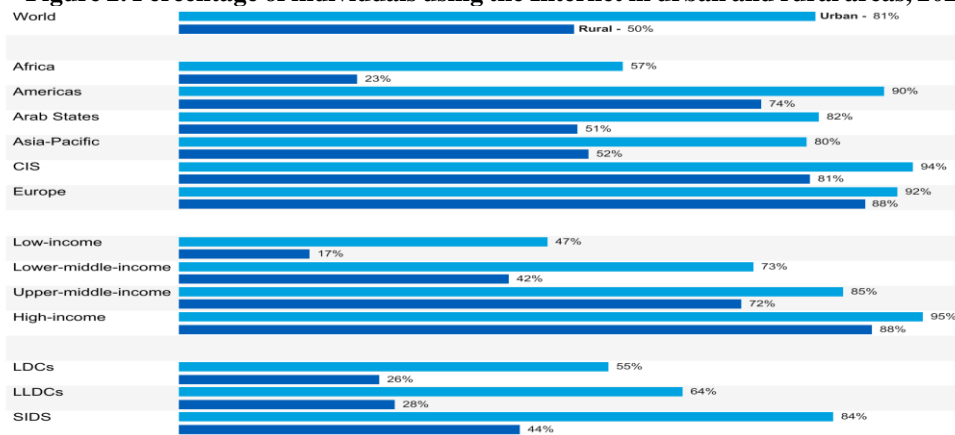
Digital technologies have both direct and indirect impacts on achieving the sustainable development. ICTs are explicitly mentioned in four SDGs (SDG 4, SDG 9, SDG 5 and SDG 17), which recognise the transformative power of digital technologies in fostering economic growth and promoting social inclusion. Digital technologies are also presented as a cross-cutting category for sustainable development, where the acceleration of their adoption has the potential to increase the competitiveness of non-ICT sectors.

The digital divide is a crucial issue in the context of advancing economic growth and ensuring sustainable competitiveness. Such a gap poses a serious challenge to the achievement of a reduction in digital inequality among the population. Digital inclusion is extremely important both for an increase in one's individual income and, more broadly, for economic development at large. Acquiring digital skillsets by the population demonstrably leads to enhanced long-term economic competitiveness, promoting an overall rise in the quality of life with advanced development of the digital sector. The need for increased digital integration became especially realized during the COVID-19 pandemic, in which digital tools played a big role in facilitating everyday business. The pandemic has exposed further a rift between the 'included' and the 'excluded.' As such, in most cases, these marginalized groups lacked the required support systems necessary for critical updates on the COVID-19 situation, therefore being more vulnerable to the virus and misinformation.

On the contrary, this has been made possible by the deployment of fixed and mobile connectivity in developing countries, reduction in costs of data transmission tariff plans, increase in the usage of mobile devices (smartphones and tablets), and faster speeds accessed on the Internet.

"According to the 2019 estimates by UNCTAD, more than half of the world's population used the Internet compared to slightly more than one-tenth at the beginning of the 2000s. The percentage of worldwide households with access and use of the Internet in 2023 is about 81 percent in urban areas, more nearly by a third than in rural areas – about 50 percent – according to Figure 2."

Figure 2. Percentage of individuals using the Internet in urban and rural areas, 2023

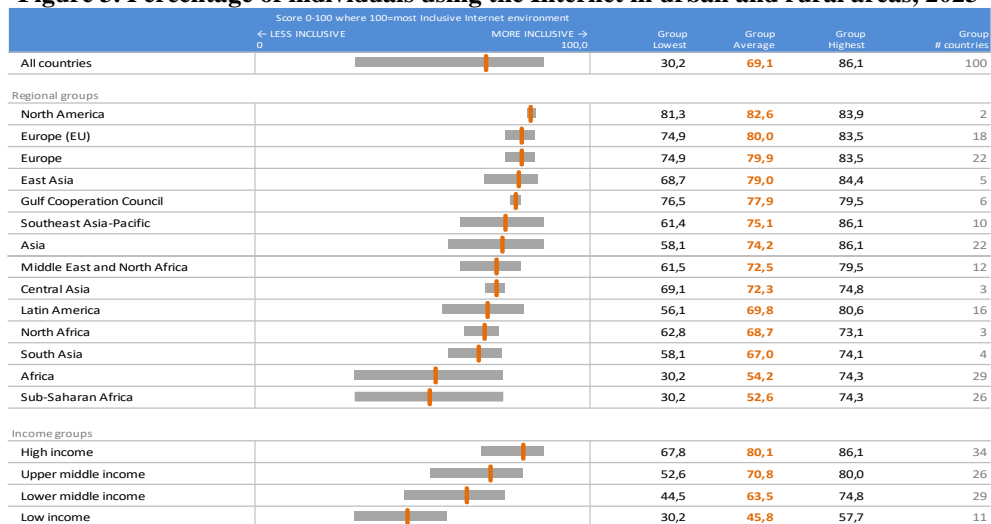


Source: compiled by the authors based on data from ITU, 2023.

Although the urban-rural gap was relatively narrow in high-income nations, Internet access in urban areas of low-income nations was 2.8 times higher than in rural areas.

Over the last half-decade, there has been a noticeable reduction in the digital gap between those with robust internet access and those with limited connectivity, by results of the Inclusive Internet Index. In 2022, most countries, including developing countries, improved their results in different dimensions of Inclusive Internet, however, the pace of improvement over the last years is disappointingly slow (Figure 3). The nature of the divide has also changed from a “coverage gap” associated with insufficient network coverage to a “usage gap” marked by people unable, unwilling, or uninterested in using the Internet.

Figure 3. Percentage of individuals using the Internet in urban and rural areas, 2023



Source: compiled by the authors based on data from The Economist, 2022.

Achieving inclusive growth for the effective management of the digital divide and reducing poverty, which is an outline of an inclusive economy, is directly related to sustainable competitiveness. Contemporary trends of digitalisation confirm that economic growth needs to encapsulate social inclusiveness and resilience for the achievement of long-term benefits for human development (WEF, 2020).

Sustainable competitiveness therefore tries to emphasize the dimension associated with economic competitiveness in driving prosperity and lasting growth while underlining issues of environmental and social consideration. Sustainable development is a multi-dimensional concept, integrating the principles of economic, environment, and social aspects for the well-being and advancement of the societies. Sustainable competitiveness addresses those issues that go far beyond the mere economic results and focuses on other critical components important to the stability and prosperity of societies through the assurance of quality growth. A different angle to the definition of sustainable competitiveness is reflected in its assessment not only

of a country's ability to generate long-term growth but also of whether the process of national development generates a society in which people would want to live.

As these critical sustainability trends—globalization, climate change, energy and resource shortage, water constriction, aging population, and so forth—go on to influence the corporate setting, correspondingly will their importance to sustainable management practices increase in the future. Hence, an integrated corporate sustainability strategy that is comprehensive and underpinned by a long-term perspective might optimize intangible assets with bottom-line and competitive benefits while working toward societal and environmental well-being.

The following are the key priorities of using digital technologies in advancing sustainable development at the current stage of society development:

1. Increase the financial inclusiveness of the population;
2. Accelerate the modernization of the most critical services in the spheres of health care and education;
3. Introduction of innovative technologies of smart agriculture and systems of low-carbon power production;
4. Decrease in the cost of resolution of complex urbanization-related problems;
5. Engagement of the widest circle of the populace in the management of socially creative procedures;
6. Labour productivity-oriented improvement in different ICT sectors;
7. Improving the quality of services and creating more employment.

On the other hand, digital technologies appear to have an explicit role in financial inclusion, which is one of the factors crucial for achieving sustainable competitiveness. Universal access to finance among various segments of the population lays the basis for effectively dealing with no fewer than 9 different SDGs – from eradicating hunger and poverty to ensuring gender equality and fostering the financial prospects of SMEs.

Probably the most important cause of financial inclusiveness is FinTech innovation, especially the turning of regular mobile phones into channels for access to financial services. Worldwide, during the decade 2011-2021, account ownership grew from 50% to 76% of the global adult population (World Bank, 2021). Given that a significant portion of the global population remains unbanked and even lacks access to a bank account, simplified mobile applications offer the opportunity for many impoverished segments of society to engage in the financial market without relying on traditional banking services. For example, the mobile-based system for money transfers, financing, and microfinance known as "M-pesa" is currently used by 33 million residents of Kenya and has been successfully introduced in 10 other countries worldwide (ITU, 2020).

To examine the role of sustainable competitiveness in driving economic growth, an econometric model was constructed utilizing statistical databases from UNCTAD, GSCI, HDI, and UN SDG for over 90 countries worldwide. The multifactor linear regression equation for the model is as follows:

$$\ln Y = -17,38 + 0,55 \ln x_1 + 5,24 \ln x_2 + 0,47 \ln x_3 + \varepsilon \quad (1)$$

where:

Y – per capita GDP (USD)

x_1 – Global Sustainability Competitiveness Index (only Natural Capital Competitiveness, Resource Intensity Competitiveness, and Governance Efficiency Competitiveness)

x_2 – Human Development Index (excluding GNI)

x_3 – UN SDG Index for Goal 9

ε – Model error

Since the factors have different units of measurement, their indicators were logarithmically transformed for calculations. The model was estimated using the ordinary least squares (OLS) method.

$R^2 = 0.907$, which means that the variation in GDP per capita between countries is explained by the variation in factor values by 90.7%. The following statistical tests were conducted to assess the adequacy and validity of the model:

- F-test: The F-value calculated ($F = 257.12$) was significantly higher than the critical F-value ($F = 3.96$), indicating that the model is statistically significant overall.
- t-tests: The individual t-values for each parameter ($t = 2.20, 9.40, 2.07$) were all significantly higher than the critical t-value ($t = 1.99$), implying that all three independent variables have a statistically significant impact on the dependent variable.
- Goldfeld-Quandt test for heteroscedasticity: F calculated ($F = 2.27$) was lower than the critical F-value ($F = 2.40$), indicating that the model's variance is homoscedastic (i.e., constant), and heteroscedasticity is not present.

Therefore, it can be concluded that the model is adequate and can be used for further analysis and assessment of changes. The analysis performed suggests that a 1% increase in a country's Global Sustainability Competitiveness Index is associated with a 0.47% increase in its per capita GDP, holding other factors constant. A 1% increase in a country's Human Development Index is associated with a 5.24% increase in its per capita GDP, holding other factors constant. A 1% increase in a country's UN SDG Index for Goal 9 is associated with a 0.55% increase in its per capita GDP, holding other factors constant. A forecast performed on the basis of this model indicates that with a 5% increase in all independent variables, the per capita GDP will be 28% higher than the initial value.

This econometric model, as presented in this research, confirms the positive influence of sustainable competitiveness on economic welfare. Results underpin significant potential economic and social gains to be acquired from policies aimed at creating an enabling environment to promote inclusive digital development. Considering the high positive relationship between the technological structure of production and economic productivity, the foregoing is evidence that digital inclusive transformation will not only affect productivity but will also entrench major changes in competition dynamics and the configuration of value creation chains. Notwithstanding, new business models have increased participation by new stakeholders and are, per se, digital market players.

To that end, achieving higher levels of sustainability will require the government, businesses, and civil society to act in unison to address emerging challenges. Addressing the challenges will require a lot of harmony among the stakeholders, just as in environmental regulation, where there is a need to ensure a balance between productivity and sustainability, and social integration, where businesses can be counted upon to contribute to the development of human capital. This cooperation is also indispensable for more pragmatic progress to be achieved and thus help countries make a transition to more sustainable growth models.

6. Conclusions

Digital technologies and Information and Communication Technologies stand at the core of infrastructural platforms for achieving Sustainable Development and offer significant potential for scalability towards sustainable competitiveness. Within these two sides of the potential of digital technologies, the gaps are very substantial that exist between the developed and developing countries, and between the well-off and underprivileged groups within countries. A meticulous analysis of the Digital Inclusion Index should reveal that availability indeed corresponds well to economic development. Much stronger, however, is the correlation that casts a different light—that concerning the disparity of internet use between actual access to the internet. This means an individual might have the physical means to connect himself to the Internet yet not be active with it. It is key to managing the "usage gap" in designing an online environment and digital ecosystem that extracts the best possible experience from the user. The scaling of digital services is seen to stem from the actual adoption of the digital technologies and the creation of complete ecosystems among the regulators and the digital industry. This is to be followed by the establishment of an enabling environment in which regulations will support transparency and the development of digital literacy. Indeed, research on a model showed that the enhancement of sustainable competitiveness has far-reaching implications for the economic growth of nations across the globe, and the concretization of the potentials of digital technologies and ICT, from the perspective of the Southern nations, into the constraints of sustainable societal and economic development, is leading to formidable economic transformations aimed at reshaping and improving the quality of life. This should be accompanied by the creation of a regulatory environment conducive to transparency and the promotion of digital literacy development. A forecast based on a model revealed that enhancing sustainable competitiveness leads to long-term effects on the economic development of countries worldwide, and the expansion of the potential of digital technologies and ICT within the framework of sustainable development in countries worldwide triggers significant transformative economic changes aimed at improving the quality of life and enhancing international competitiveness. To achieve sustainable development goals, an organic synthesis of digital technologies with national innovation and economic policies is required to ensure the transformation of societal development at unprecedented speed and scale.

Acknowledgment

The academic study came into being within The 7th International Conference on Economics and Social Sciences: Exploring Global Perspectives: The Future of Economics and Social Sciences, June 13-14, 2024, Bucharest University of Economic Studies, Romania.

Bibliography

- [1] Andreoni, V., Miola, A. (2016). Competitiveness and Sustainable Development Goals. Luxembourg (Luxembourg): Publications Office of the European Union. Retrieved from: <https://publications.jrc.ec.europa.eu/repository/handle/JRC103576>.
- [2] Antoniuk, L., Ilnytskyi, D., Ligoenko, L., Denisov, O. et al. (2021). Цифрова економіка: Вплив інформаційно-комунікаційних технологій на людський капітал та формування компетентностей майбутнього [Digital Economy: The Impact of Information and Communication Technologies on Human Capital and the Formation of Competencies for the Future]. Kyiv: KNEU. 337 pp. Retrieved from: https://drive.google.com/file/d/15yCTUJyr0YJu_4K6aZGwlEecawQ0Var0/view.
- [3] Bayer (2023). Sustainable competitiveness: Bayer's vision for the next European Commission 2024-2029. Retrieved from: <https://www.bayer.com/sites/default/files/bayer-sustainable-competitiveness-eu-manifesto.pdf>.
- [4] Berger, R. (2021). Bringing Digital Divide. Retrieved from: <https://www.rolandberger.com/en/Insights/Publications/Bridging-the-digital-divide.html>.
- [5] Corrigan, G., Crotti, R., Hanouz M.D., Serin, C. (2014). Assessing Progress toward Sustainable Competitiveness. The Global Competitiveness Report 2014–2015. World Economic Forum. Retrieved from: https://www3.weforum.org/docs/GCR2014-15/GCR_Chapter1.2_2014-15.pdf.
- [6] Hart, S.L., Milstein, M.B. (2003). Creating Sustainable Value. *Academy of Management Perspectives*, 17, 56-67. Retrieved from: <https://doi.org/10.5465/ame.2003.10025194>.
- [7] Ehrenfeld, J.R. (2005). The Roots of Sustainability. *MIT Sloan Management Review*, Cambridge Vol. 46, Iss. 2: 23.
- [8] Elkington, J. (2004). Enter the Triple Bottom Line Chapter 1. Retrieved from: <http://www.johnelkington.com/archive/TBL-elkington-chapter.pdf>.
- [9] Epstein, M.J., Rejc Buhovac, A. (2014). *Making Sustainability Work: Best Practices in Managing and Measuring Corporate Social, Environmental and Economic Impacts* (2nd ed.). Routledge. Retrieved from: <https://doi.org/10.4324/9781351276443>.
- [10] Glynn, M. (2013). Staying the same while changing: organisational density in the face of environmental challenges. Change and Sustainability Conference, Harvard Business School, May 9-10, 2013. Retrieved from: <https://www.hbs.edu/faculty/Shared%20Documents/conferences/2013-change-and-sustainability/GLYNN.pdf>.
- [11] Hawken, P. (1993). *The Ecology of Commerce: a Declaration of Sustainability*. New York: HarperCollins Publishers. Retrieved from: <https://p2infohouse.org/ref/31/30233.pdf>.

- [12] Henderson, R. (2015). "Making the Business Case for Environmental Sustainability." Discussion Paper 2015-64. Cambridge, Mass.: Harvard Environmental Economics Program. Retrieved from: https://heep.hks.harvard.edu/files/heep/files/dp64_henderson.pdf?m=1434644814.
- [13] IMD (2023). The World Digital Competitiveness Ranking 2020. Retrieved from: <https://www.imd.org/centers/wcc/world-competitiveness-center/rankings/world-digital-competitiveness-ranking/>.
- [14] International Telecommunication Union (ITU). (2023). Measuring Digital development: Fact and Figures 2023. Retrieved from: <https://www.itu.int/itu-d/reports/statistics/facts-figures-2023/>.
- [15] International Telecommunication Union (ITU). (2021). "Towards building inclusive digital communities": ITU toolkit and self-assessment for ICT accessibility implementation. Retrieved from: <https://www.itu.int/en/myitu/Publications/2021/03/26/13/06/Towards-building-inclusive-digital-communities-2021>.
- [16] International Telecommunication Union (ITU). (2020). Reality Cheque for Startups: M-Pesa. Retrieved from: <https://www.itu.int/en/ITU-D/Regional-Presence/Africa/Documents/E-Application/Presentations/Mpesa.pdf>.
- [17] Jones, G. (2017). Profits and Sustainability: A History of Green Entrepreneurship. New York: Oxford University Press.
- [18] Kanter, R.M. (2009). SuperCorp: How Vanguard Companies Create Innovation, Profits, Growth, and Social Good. Crown Business, an imprint of the Crown Publishing Group.
- [19] Laszlo, C. (2008). Sustainable Value. Problems of sustainable Development, 3(2), 25-29, Retrieved from: <https://ssrn.com/abstract=1481164>.
- [20] OECD (2019). Measuring the Digital Transformation: A Roadmap for the Future, OECD Publishing, Paris. Retrieved from: <https://doi.org/10.1787/9789264311992-en>.
- [21] Pankaj, G., Pisano, G. (1997). Sustaining Superior Performance: Commitments and Capabilities. Harvard Business School Background Note 798-008.
- [22] Porter, M.E. (1985). The Competitive Advantage: Creating and Sustaining Superior Performance. NY: Free Press. (Republished with a new introduction, 1998.)
- [23] Reinhardt, F. L., Stavins R.N., Vietor, R.H. (2008). Corporate Social Responsibility Through an Economic Lens. NBER Working Paper No. 13989. Retrieved from: https://www.nber.org/system/files/working_papers/w13989/w13989.pdf.
- [24] Solability – Sustainable Intelligence (2023). Global Sustainability Competitiveness Index 2023. Retrieved from: <https://solability.com/the-global-sustainable-competitiveness-index/downloads>.
- [25] The Earth Institute, Columbia University & Ericsson (2017). ICT & SDGs – How Information and Communications Technology can Accelerate Action on the Sustainable Development Goals. Retrieved from: <https://onestoneadvisors.com/wp-content/uploads/2017/09/ICT-and-the-SDGs.pdf>.
- [26] The Economist (2022). The Inclusive Internet Index 2022. Retrieved from: <https://impact.economist.com/projects/inclusive-internet-index/>.
- [27] The World Bank (2020). Global Findex Database 2022. Retrieved from: <https://www.worldbank.org/en/publication/globalfindex/Report>.

- [28] United Nations Statistics Division Development Data and Outreach Branch (2023). The Sustainable Development Goals Report 2023. Retrieved from: <https://unstats.un.org/sdgs/report/2023>.
- [29] van Dijk, J. A.G.M.. (2020). Role of Digital Technologies on Social Development, Well-Being of All and the Approach of the Covid-19 Pandemic. University of Twente (NL), United Nations. Retrieved from: <https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/07/Closing-the-Digital-Divide-by-Jan-A.G.M-van-Dijk.pdf>.
- [30] WEF (2020). Global Competitiveness Report 2020. Retrieved from: <https://www.weforum.org/reports/the-global-competitiveness-report-2020>.