

A Digital Platform for Sustainable Book Sharing and Exchange

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Abstract: The concept of digitalization has become a common practice for adoption and integration across the economy in recent years. The rapid prospects of a spillover from digitalization quickly became the interest of countries and researchers, especially in the interest of sustainable development based on the SDGs of the United Nations. With several subsectors of the economy surfacing as a product of the digital economy, this study intends to identify the relationship between the digital economy and sharing economy, as well as their role in sustainable development. To achieve the objectives laid out, this study employs the use of bibliometric analysis and systematic literature review (SLR) to organize and extract the contents of the selected literature. The findings show that

the contemporary sharing economy is driven by the digital economy and is reliant on its digital infrastructure, whereas there are mixed findings on the role of digitalization on sustainability.

Keywords: digital economy; sharing economy; sustainable development; bibliometric analysis; systematic literature review

Digitization and digitalization have become an integral, necessary change in the

global economy, changing the trends of society and business in both the short and long term (Ailisto et al. 2016). As stated by Ojanperä et al. (2019), the digital revolution is a holistic one which has seeped into all aspects of the economy, systemically superseding inferior traditional systems with the transformative power of an informational revolution.

The growing interest and the adoption of digitalization across all sectors in the economy has birthed digitally centric sectors of the economy, such as the digital economy and sharing economy, which call to attention the bounds and parameters of these sectors. As core interests, digitization and digitalization are seen to be the byproducts of accelerated globalization, where digitization is the conversion of information into digital form and digitalization is the application or adoption of digital technologies (OECD 2020).

The rapid acceleration of the digital revolution was spurred by the highly connected global economy with little to no blockades, along with the demanding

nature of the COVID-19 pandemic and its stringent health regulations. Being forced into confinement through social distancing while having to keep economic activities going requires a fastacting solution—the digital solution. At its center is the usage of digital technologies to increase connectivity (OECD 2015), along with its rapid diffusion into the economy, creating prospects of digitally fueled economic growth (Bukht and Heeks 2017). Having become an undeniable source of national income and a stimulus for further growth and development, understanding the digital economy and sharing economy is necessary to map the digital solution. The definition of the digital economy (DE) is a prevalent issue within economics, as the saturation of digitalization can be seen spread across the entirety of the economy, which then poses the problem of inclusion. Early definitions of the DE showed no direct or fixed definition, as explained by Tapscott (2014) and Lane (1999), where the DE is defined as the networking and communication of machines in parallel with the networking of humans through technology resulting in the flow of information and technology. More

recent definitions remain general, such as the socioeconomic functions and activities carried out by means of digital technology which encompasses physical infrastructures and the functionality they provide (Dahlman et al. 2016). The lack of a fixed definition has created a market void where there is no fixed framework of measurement of the DE, and all measurements are subject to domestic conditions and data availability. Where there is a literary gap, theorists often strive to fill it, and in the case of the DE, the works of Bukht and Heeks (2017) have often been cited to observe the performance or progress of the DE within

a specific locality based on the concept of the segmented digital economy. The concept posits three stages of the DE, which start with the core digital sector, digital economy, and finally, the digitalized economy. Each stage requires specific milestones of the DE to be achieved before the domestic market can move on to the next stage. The sharing economy, however, seems to have taken on more tangible definitions on its bounds and parameters. A more common consensus on the sharing economy (SE) has been understood as an economic model driven by the peer-to-peer exchange of goods and services supported by the factor of digitalization seen in the form of digital platforms (Dabbous and Tarhini 2021; Daunorien'e et al. 2015; Hernandez-Carrion 2021; Mi and Coffman 2019; Yeganeh 2021). Similarly, Botsman (2015) referred to the sharing economy

as the valuation of unused assets through a decentralized network as a departure from the traditional economic system, which is enabled by capitalization and pricing. The relevance of the modern sharing economy system is seen in the role which

digitalization and technological innovation and adoption play. The recurring role of digitalization can be observed in the work of (Liu and Chen 2020), where the sharing economy is said to provide an avenue for value and utility creation from underused assets, with digital platforms as a medium. Establishing the basis of the digital economy and sharing economy then brings the question of the role these segments play in the rhetoric of sustainable development. The increasing focus on sustainable development, especially amidst disrupted supply chains

and economic and political warfare from Ukraine–Russia war and the US–China trade war, calls for the eradication of dependency on traditional systems based on nonrenewable energy and inefficient governance of the economy. The growth of socioeconomic and political unrest in recent times has impacted the flow of energy in the global economy.

Taking the case of Germany, for example, the impact of the Russian invasion of Ukraine has the German government scrambling for alternative energy sources which, prior to the invasion, was heavily reliant on Russia’s natural gas, comprising 55% of the total gas consumed in the country (Oltermann 2022). The role of digitalization in the usage of energy lies in the dissemination of energy, where digitalization has a stake hold in the supply value chain. Additional systemic diffusion of digitalization paired with a somewhat monopolized market creates a heavy reliance on market powerhouses.

Recent trends and expectations of the flow of natural gas see the gas pipelines policy from Russia to remain tight as shown in Figure 1, with expectations of further reduction in supplies to Europe International Energy Agency (2022b). This news comes as the Federation retaliates against the sanctions imposed on them as a response to the Ukraine invasion,

which is a sour note as the European continent makes its way into the winter season, as well as for any other external markets which rely on the supply of liquefied natural gas (LNG). The most visible impact of economic impact of this invasion is seen in the scrambling of resources to procure LNG through various means, causing the tightening of the market and demand destruction, leading to the price crisis that is presently being felt across the entire economy.

References

- Abendin, Simon, and Pingfang Duan. 2021. International Trade and Economic Growth in Africa: The Role of the Digital Economy. *Cogent Economics and Finance* 9: 1911767. [CrossRef]
- Ahamer, Gilbert, and Karl A. Kumpfmüller. 2014. Education and Literature for Development in Responsibility: Partnership Hedges Globalization. In *Handbook of Research on Transnational Higher Education*. Edited by Siran Mukerji and Pernendu Tripathi. Hershey: IGI Global, pp. 526–84.
- Ailisto, Heikki, Marjaana Komi, Päivi Parviainen, Hannu Tanner, Tuomo Tuikka, and Kristiina Valtanen. 2016. The Industrial Internet in Finland: On Route to Success? Edited by Maarit Tihinen and Jukka Kääriäinen. Espoo: VTT Technology.
- Alshater, Muneer M., Irum Saba, Indri Supriani, and Mustafa R. Rabbani. 2022. Fintech in Islamic Finance Literature: A Review. *Heliyon* 8: 1–21. [CrossRef] [PubMed]
- Azevedo, Graça, Ana Fialho, Teresa Eugénio, and Maria D. Tavares. 2022. Bibliometric Analysis of Social and Environmental Accounting Research and United Nations SDG Achievement. In *Modern Regulations and Practices for Social and Environmental Accounting*. Edited by Teresa Eugénio, Graça Azevedo and Ana Fialho. Hershey: IGI Global, pp. 26–44.
- Bai, Guo, and S. Ramakrishna Velamuri. 2021. Contextualizing the Sharing Economy. *Journal of Management Studies* 58: 977–1001. [CrossRef]