Chapter 2
Causality of Digitalization With Social Sustainability in Selected Countries

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ABSTRACT

The theoretical review argued that digitalization is favourable to increase social sustainability. However, research communities could not develop the empirical association between digitalization and social sustainability. Hence, this chapter develops an empirical tool to examine the association between digitalization and social sustainability across 34 countries during 2000-2018 using panel data investigation. It creates a social sustainability index (SSI) and information & communication technology index (ICTI). The time trend analysis is used to explain the relative performance of these countries in social sustainability and digitalization. The results claim a high diversity in social sustainability and digitalization across countries. The above-mentioned indicators have a positive causality. Science & technological advancement, production of manufacturing sector, FDI and merchandise trade are found supportive to increase social sustainability and digitalization. Environmental degradation creates complications to increase social sustainability.

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1. INTRODUCTION

The initiation of digitalization emerged in the 1990s and that time the European countries implemented effective policies in the area of digitalization for improving the performance of social and economic sectors (Singh & Jyoti, 2023a; Demin et al., 2023). Recently, the government of China is giving more preference to digitalization to achieve high-economic development (Luo et al., 2023). Most scholars explained the importance of digital technologies and digital transformation in multiple activities (Myovella et al., 2020; Carbo-Valverde, 2017; Tiutiunyk et al., 2021; Truong, 2022). Nosratabadi et al. (2023) explained the role of digital transformation (DT) in social sustainability in G-27 countries. Productivity of factors and resource efficiency could be improved significantly due to adoption of digitalization and digital technologies (Grybauskas et al., 2022). Digital technology is useful to discover new products and it also suggests scientific processes to achieve various tasks in social and economic sectors (Benjamin & Woerter, 2019; Demin et al., 2023). Thus, it develops new paradigms for social and economic changes (Hernandez et al., 2016). Though, few countries could not get crucial benefits from digitalization due to lack of physical infrastructure, poor R&D ecosystem, low per capita income, low accessibility and usability of ICT, people's involvement in digitalization and existence of traditional technologies that enhance digitalization.

Digital technologies are favourable to increase the demand of skills workers in labour market (Kutsuri et al., 2019; Li & Gospodarik 2021), create jobs (Ogloblina et al., 2020), increases social communication and network of the people (Katz et al., 2013; Grybauskas et al., 2022), increase transparency, extension and monitoring of government policies (Dahlman et al., 2016), increase easily availability of data among the large group of users (Dahlman et al., 2016; Ogloblina et al., 2020), increase easy transactions of money (Jyoti & Singh, 2023), improve financial stability (Carbo-Valverde, 2017), create online trading of products, reduce cost of transport and materials (Ogloblina et al., 2020; Siyal et al., 2021), nurture online business, reduce the physical presence of customers and producers, create new markets and functioning (Hernandez et al., 2016), increase satisfaction level of customers and producers, nurture appropriate entrepreneurship ecosystem (Carbo-Valverde, 2017), increase competition across firms, reduce high dependency of manufacturing sector on ecosystem service (Jyoti & Singh, 2023), increase resource efficiency, change production pattern and methods (Benjamin & Woerter, 2019; Ma & Zhu, 2022), develop new business models (Demin et al., 2023; Alojail & Khan, 2023), increase e-business and e-commerce (Katz et al., 2013; Ogloblina et al., 2020), enhance foreign trade, create online platform for students and academicians (Jyoti & Singh, 2023), increase transfer of knowledge, ideas, skills across regions, increase the science and technological advancement (Singh et al., 2020a), promote scientific research