Chapter 3
A Comparative Performance of Digitalization and Health Sector in Selected Non-OECD Countries:
Digitalization and Health Sector

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ABSTRACT

This book chapter investigates the impact of digitalization on healthcare quality in selected non-OECD countries, aligning with SDG-1's focus on ICT for progress. It creates digital infrastructure and public health indices and analyzes WHO eHealth survey data (2010-2023) through regression analysis. Variables include ICT, health expenditure, mortality life expectancy, causes of mortality, maternal and infant mortality, number of physicians, number of nurses available and caring personnel, hospital bed size, Primary care, patient experience, patient safety, and Number of Hospital healthcare indicators. The findings suggest that GDP and health expenditure positively influence life expectancy in selected non-OECD countries economies. The chapter aims to guide policies to enhance healthcare quality and patient experience. Despite its strengths in practical policy-making and achieving SDGs, it emphasizes the importance of digital healthcare for accessibility and usability, suggesting further research directions in the field.

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INTRODUCTION

Healthcare services have experienced digitalization in non-OECD countries. The research study, based on secondary data, explores various global aspects in non-OECD nations to identify ICT platforms enabling patients to consult on health expenditure, life expectancy, causes of mortality, maternal and infant mortality. To enhance healthcare delivery, digital health records and electronic health management systems assist healthcare providers in non-OECD countries in patient care, and reducing patient waiting time. Empowering patients through digital health enables them to access health information, track patient health, and adhere to treatment plans, facilitating lifestyle changes. Preventive care and digital health facilitate health promotion in non-OECD countries. Outreach efforts via digital channels raise awareness regarding vaccinations, disease prevention strategies, and lifestyle modifications. Digitalization fosters better coordination of care among healthcare providers in non-OECD countries, exchanging patient information between different healthcare settings to ensure treatment continuity and reduce the risk of medical errors.

The systematic research study aims to determine the number of physicians, nurses, caring personnel or healthcare workers, along with the number of hospital beds available, and comparing the aforementioned variables in non-OECD countries. It evaluates the availability of primary care, patient experience, and patient safety in non-OECD nations. The research study outcome is expected to assist care workers and policymakers in non-OECD countries in analyzing large datasets to identify trends and monitor disease, providing evidence-based insights for healthcare policies and interventions. Digital health systems in non-OECD countries innovate and research healthcare delivery models, medical technologies, and therapy interventions, revolutionizing healthcare. They offer better opportunities to provide high-quality services and enhance patient experience. Healthcare systems in non-OECD nations can address existing healthcare disparities to improve health outcomes, and achieve the Sustainable Development Goals (SDGs).

Health indicators are directly involved in health quality, health systems, and the countries' development. ICT plays a more crucial role in connecting healthcare systems and the well-being of the population (Megbowon & David, 2023). Rouleau et al. (2015) examined that digital development supports various aspects of healthcare such as electronic data storage, processing, and exchange of information through telephone, mobile, internet, and broadband. Khan and Majeed (2018) noted that ICT has significantly revolutionized societies around the world. It is incorporated into almost all activities of human life, including economic growth, education, agriculture, finance, health, and governance. Khelfaoui et al. (2022a) emphasized the decrease in infant and child mortality rates because ICT plays a vital role; mobile devices and internet usage in low-income countries have benefited health outcomes and led

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