

Chapter 1

Sustainable Adaptability of the Library Ecosystem in the 4.0 Era: A Routeway for Achieving Sustainable Development Goal 4 (SDG4)

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ABSTRACT

The adaptable nature of the library ecosystem into the Fourth Industrial Revolution (4thIR) technological era has been fundamental to its sustainability even in the actualization of sustainable development goals (SDGs) most especially the SDG4 knowing fully well that this is instrumental to the achievements of other SDGs. It is on this premise that this chapter explored the sustainable adaptability of the library ecosystem in the 4.0 era as the routeway for achieving SDG4. The study was underpinned by the three pillars of sustainability model and the Ranganathan laws of library and information science by situating library ecosystem 4.0 within the sustainability research. The study recommended that library professionals should embrace the changing realities of the knowledge economy and strategically situate themselves in achieving SDG4.

INTRODUCTION

Advancement in technology has transcended into the 4.0 era that is characterized by revolutionizing service-oriented institutions globally of which the Library Ecosystem is not an exception. This advancement hinged on the principles of Industry 4.0 also known as the Fourth Industrial Revolution (4thIR) is going a long way in promoting the adaptability of the library ecosystem to fit the dictates of contemporary times to showcase its significance in solving all identified societal problems being the hub of human

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knowledge. Hence, its sustainability ought to be ensured without compromising the needs of the future generation, which is in tandem with the principles of the Sustainable Development Goals (SDGs) most especially the SDG4 which is meant to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all without any iota of discrimination. This is an absolute opportunity to showcase the institution of the library's adaptability in addition to being the bedrock of the education ecosystem knowing fully well that the 4thIR is indispensable within this domain.

The adaptability of the library ecosystem to different technological eras has always been a contentious issue within the discourse of Library and Information Science (LIS) as Librarians have always fallen into the categories of either innovators, early adopters, early majority, late majority, or laggards based on Rogers Model of Diffusion (Lund et al. 2020). These categories vary whether the librarian is domiciled in the Global South or the Global North as the latter finds technological evolution herculean due to the myriads of challenges the Library ecosystem is facing in these climes. Thus, inhibiting the infusion of 4.0 tech such as Artificial intelligence (AI), Big data analytics, Social Media Technologies (SMTs), Blockchain technology (BTCT), Gamification, Augmented Reality, Data visualization, etc. into the actualization of SDG4 which will be a veritable opportunity of exhibiting the sustainability and adaptability of the library ecosystem across all strata of human existence. For the Global South on the other hand, Librarians in this space accept technological innovations with the heart of making informed decisions (Adekunle, Omoba & Tella, 2007) in the actualization of SDG4 knowing fully well the survival of the library ecosystem is sacrosanct to embracing tech trends of each era.

Bakare (2023, p. 2) averred that even though emerging technologies (EMTs) that make up the 4.0 era are indispensable to the discourse of the sustainability of the library ecosystem, "howbeit, libraries within the Nigerian ecosystem are good in mouthing its adoption in addition to the usage of these technologies but its applicability to the sustainability of the library services is most times a mirage". On the other hand, Igbinovia and Osuchukwu (2018) asserted the indispensable role of Librarians in boosting the attainment of SDGs through proper channels of information dissemination and knowledge sharing which can be uninterrupted in contemporary times due to tech 4.0. More this reason, Bakare and Okuonghae (2022) affirmed an intricate nexus between the activities of the library ecosystem and the actualization of SDGs as librarians are deemed change agents of inestimable value.

Therefore, it is necessary to explicate the sustainable adaptability of the library ecosystem in the 4.0 era as the routeway for achieving sustainable development goal 4 (SDG4). This will factor in sub-themes on the Library as a Critical Component of the Knowledge Economy; Fourth Industrial Revolution (4th IR) as Enablers for Sustainable Development Goals (SDGs); Library Ecosystem and Sustainable Development Goal 4 (SDG 4); Library Ecosystem 4.0 and Customer Experience; Sustainable Adaptability of the Library Ecosystem in the 4.0 Era as the Routeway for Achieving SDG4; and Challenges Associated with Library Ecosystem 4.0 in Achieving Sustainable Development Goal 4 (SDG 4). The discussion from the above is expected to broaden people's horizons on the subject of discourse

LIBRARY AS A CRITICAL COMPONENT OF THE KNOWLEDGE ECONOMY

There is no disputing the fact that the library plays a fundamental role within the knowledge ecosystem which is the foundation on which the knowledge economy is built. This social institution is saddled with the responsibility of ensuring that everyone irrespective of age, creed, or location has unhindered access to varied information resources that meet their information needs. These information resources

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