

## **COMPLEX DYNAMICS IN THE SOCIO-TECHNICAL INFRASTRUCTURE: THE CASE OF THE NIGERIAN HEALTH MANAGEMENT INFORMATION SYSTEM**

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**Abstract:** This paper discusses the results of an ongoing research which contributes to the current discourse of how the application of information and communications technologies can foster socio-economic development. Specifically, it discusses the socio-technical dynamics associated with the implementation of a computer-based health management information system as well as factors that contributed to a successful implementation. The Nigerian health system continues to negotiate a dramatic turn with the implementation of a computer-based public health information system, based on the principles of primary health care. Important findings in this study have included: the realization of the role of political buy-in as crucial for successful implementation; the HMIS is an installed base in constant evolution; democratization and political decentralization contribute to the success of the primary health care-based information; and the implementation of a free and open-source solution reduces total cost of ownership.

**Keywords:** Nigeria, health management information system, socio-technical, primary health care, dynamics, complexity, DHIS