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Title: A Secure Data-Centric Model for SMMEs Across Africa: Bringing Stakeholders Together

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Abstract

Cybersecurity continues to be a threat to many sectors and individuals within Africa. As a result, Small, Medium, and Micro Enterprises (SMMEs) are also affected. SMMEs face numerous challenges related to data security, particularly as they increasingly rely on digital tools and platforms for their operations. The situation is worse for SMMEs, particularly those in rural or underserved areas. There have been differently initiatives currently in palace to alert the African community on cybersecurity. However, implementing a Secure Data-Centric Model for SMMEs in Africa comes with several challenges due to the unique socio-economic and technological landscape of the continent. Additionally, researchers seem to have noticed that cybersecurity initiatives are mainly dominated by those in the Information Technology space, which seems not to be enough. To overcome these challenges, African SMMEs may need support from governments, industry bodies, and international organizations in the form of funding, training, and access to affordable. Collaborative efforts to raise awareness, improve regulatory frameworks, and build local cybersecurity capacity are also crucial in helping SMMEs in Africa implement effective secure data-centric models. Despite growing accessibility, the cost of advanced cybersecurity solutions can be prohibitive for many SMMEs.

A systematic review on current cybersecurity data and interviews with cybersecurity experts was done. This was supported by the recently completed Pan African Information Communication Technology Association Cybersecurity Conference held in August 2024. The data from the presenters and may points raised during the conference were noted and considered for this talk. The main research question for this talk is:

How can secure data-centric model for SMMEs across Africa be designed through stakeholders engagements?

Results are clear on the specific stakeholders that are required, and the key components of the data centric model components are well documented. As an example, collaboration among these stakeholders—government, industry, academia, and civil society—is essential to create an enabling environment where secure data-centric practices can flourish among SMMEs across the continent. The Secure Data-Centric Model for SMMEs is designed to address these challenges by creating a robust framework that prioritizes data security while fostering collaboration among key stakeholders. We argue that the Secure Data-Centric Model for SMMEs is a comprehensive approach to ensuring data security while fostering collaboration among key stakeholders. By focusing on secure data practices, stakeholder engagement, and regulatory compliance, the model empowers SMMEs to thrive in the digital economy while protecting their most asset i.e. data. In summary, a Secure Data-Centric Model for SMMEs is about creating a comprehensive, scalable, and collaborative approach to data security, ensuring that small businesses can protect their valuable information.

Key words: Cybersecurity, data centric, data security, SMMEs.