APPLICATION OF BLOCKCHAIN TECHNOLOGY AMONG AGRIBUSINESSES IN SRI LANKA

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Abstract

The agricultural sector plays a crucial role in Sri Lanka's economy, significantly contributing to the nation's overall economic output. Several scholarly investigations have highlighted challenges in the agricultural sector, particularly in the domain of trade. Considering these challenges, blockchain technology, an advanced database mechanism that facilitates transparent information sharing within a business network, emerges as a promising tool for effectively administering value chain activities. Therefore, this study aims to explore the potential applicability of blockchain technology in addressing prevalent challenges within the Sri Lankan agricultural sector. Qualitative interviews were conducted with purposively selected twenty-four agri-exporters, and a thematic analysis was carried out. The outcomes of the expert interviews revealed several key insights and key themes were identified. The most significant issues raised by agribusinesses include problems related to intermediaries, transparency, traceability, payments, and misuse and manipulation of records. The majority of agribusinesses highlighted blockchain technology as a potential solution and identified its benefits: reducing the involvement of intermediaries, ensuring traceability, auditability, and secure payment methods, increasing transparency, and confirming the quality of the final products. Conversely, challenges associated with the adoption of blockchain technology in the agri sector were identified, encompassing issues such as a lack of knowledge in the field, legal and regulatory considerations, costs related to establishing and maintaining blockchains, unawareness of the technology by front-end value chain actors (i.e., farmers), and coordination required for adoption. The research underscores the issues faced by agribusinesses, the benefits of adopting blockchain technology, and the challenges of adopting this technology. In conclusion, the study posits that the integration of blockchain technology has the potential to alleviate a substantial array of challenges within the agriculture sector in Sri Lanka.

Keywords: Agribusinesses, Blockchain Technology, Sri Lanka, Value-chain

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