

# IS BLOCKCHAIN FOR SMES?

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As Singapore ramps up efforts to drive mainstream adoption of blockchain technology, SMEs will need to keep abreast of developments to effectively assess the opportunities offered



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**B**LOCKCHAIN as an emerging technology is gaining interest with many governments driving the ecosystem for mainstream adoption of blockchain technology as a national-level agenda.

On Aug 21, 2019, OpenNodes, a government-backed Web-based engagement platform was launched to bring together more than 20 government agencies, blockchain companies and corporates – including EY – to foster innovation and collaboration in the Singapore blockchain community.

Usage of blockchain to date have been largely limited to multinationals and certain industries. Among small and medium-sized enterprises (SMEs) with limited resources and knowledge, the proliferation of multiple, disparate and siloed blockchain networks may be confusing.

In a poll of over 500 Asia-Pacific attendees of an EY webcast in June 2019, two-thirds of the participants believed they require a better understanding of the possibilities, risks and benefits of blockchain before thinking about applying the technology to their organisations.

Blockchain is a decentralised ledger of transactions that occurs across a network, allowing for a “shared record book”. Transactions in the network are validated by the individual entities before being grouped into blocks, and then subsequently linked to the previous block chronologically, and secured using cryptography.

The value of blockchain lies in its ability to integrate end-to-end operations – not within but across enterprise

boundaries – across an entire business ecosystem. In a blockchain-based ecosystem, the need for intermediaries is eliminated as the user transacts directly with the provider, or even a host of stakeholders along the value chain, driving efficiency, reducing cost and improving transparency.

## BUILDING A BLOCKCHAIN-BASED ECOSYSTEM

For some industries such as food and beverage (F&B), there are compelling propositions to deploy blockchain solutions to address supply chain opportunities and issues. An example is the EY OpsChain Solution, which helps clients use blockchain technology for the traceability of their food and agriculture products.

This solution is increasingly being adopted by farmers, producers, food retailers and other players in the F&B manufacturing ecosystem globally and in Asia. An example of its use includes the collaboration with Blockchain Wine Pte Ltd to determine the provenance and reduce counterfeits for European wines being sold in China, Japan, South Korea, Thailand and Singapore, as well as to improve traceability of sake brewing in Japan.

The solution can also be used to verify that the sustainability practices of palm oil plantations are compliant with No Deforestation, No Peat, No Exploitation (NDPE) standards, as well as by food retailers to provide assurance to their shoppers on the safety and traceability of fresh produce sold on their premises.

In each of these use cases, all stakeholders along the

supply chain – and not just the individual company which initiated the implementation – benefitted from the use of blockchain technology. What this means is that resource-constrained SMEs can explore participating in an existing blockchain network that is applicable to them, instead of setting up a new blockchain network from scratch, which requires a lot more effort and investment.

This is also important from an ecosystem perspective. Blockchain networks require participation to reach critical mass to realise the efficiencies of the technology, which means that blockchain network owners need to also solicit and negotiate participation across the entire value chain – to which companies can respond positively.

## CONSIDERATIONS FOR SMES

SMEs should seek to understand how each network works before selecting one to participate in. Blockchain networks work differently depending on the platform used and how the network is designed. Some private blockchain networks have administrators with special access privileges that are similar to centralised systems.

Also, it is important to know if the blockchain software is “open sourced”, which means it is free to use, or if there is a cost to participate, so as to assess the sustainability of joining the network.

While a technology like blockchain may solve certain issues, it can introduce new ones as well. It pays for SMEs to note that while blockchain promises “immutable” and “unhackable” records – which is true – it does not mean that the applications built on top of the platform is just as secure.

SMEs will also need to understand their data rights, privacy and access to the network’s data. SMEs should recognise and leverage their bargaining power, given that blockchain networks require mass participation, to negotiate their terms of participation.

Given the complexity of the blockchain platform, its implementation will need to be carefully managed, with sufficient privacy tools, legal considerations and integration with the business ecosystem.

In essence, SMEs should ask these five questions:

- Is blockchain the most effective technology to address the business issue, or can the problem be solved using a centralised database?
- Which business function is responsible for overseeing and managing the implementation of blockchain?
- What is the strategy to manage the implications of blockchain for the business?
- What are the digital trust and information security concerns raised by customers, partners and suppliers, and how are they addressed?
- What are the regulations governing blockchain currently, and how can the business comply?

As blockchain technology adoption accelerates, the opportunities for SMEs to participate in blockchain networks will only increase. SMEs will need to increase their knowledge of the technology and keep abreast of its usage in their respective industries to effectively assess and make astute business decisions about the technology. ■

*The author is EY Asia-Pacific blockchain leader. The views in this article are those of the author and do not necessarily reflect the views of the global EY organisation or its member firms.*