

reduction in the level of competition and higher barriers to entry, which could affect MSMEs disproportionately (Cong, 2018).

Although the technology can facilitate the participation of MSMEs and small producers in international trade, like any innovation, it also carries with it the risk of disrupting some sectors and categories of workers. Opportunities and benefits may not be shared equally.

2. Success is not a given

Blockchain opens interesting opportunities in terms of cost reductions, efficiency, traceability, and security, but a number of challenges have to be overcome before the technology can be used widely.

(a) Technological challenges

(i) The scalability challenge: can Blockchain be deployed widely?

While some observers believe that blockchain technology has the potential to make fundamental changes to the ways in which our societies operate (Boucher, 2017), many also point to the limited scalability of blockchains due to the predetermined size of blocks and energy consumption issues. This is particularly true for public blockchains, but less so for consortium and private blockchains, which do not face the same limitations.

Scalability is probably one of the biggest challenges faced by public blockchains, and it has become an active area of discussion within the Blockchain community. For example, although Bitcoin has a theoretical limit of 4,000 transactions per second, the Bitcoin network processes about 7 transactions per second on average¹³ and Ethereum about two times that of Bitcoin.¹⁴ In comparison, mainstream payment processors like Visa can process 2,000 transactions per second on average, with peaks at 56,000 transactions per second (Croman *et al.*, 2016). With the number of blockchain transactions increasing at an exponential rate – daily transactions on the Ethereum network, for example, increased by 500 per cent between early 2016 and early 2017 (Croman *et al.*, 2016) – public blockchains are growing increasingly more congested, leading to further delays in the validation of transactions.

The rapid growth in the number of transactions has led the cryptocurrency community to ponder over possible solutions to address the scalability issue. A