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The editorial board would like to express their heartfelt appreciation for the contributions made by the authors, co-authors and all who were involved in the publication of this bulletin.

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RECTOR'S MESSAGE

Congratulations Faculty of Business and Management of Universiti Teknologi MARA Cawangan Kedah, Kampus Sungai Petani on the publication of the 6th Volume of FBM Insights!

I am very pleased to know that there are more than 40 authors and more emerging issues are being presented in this latest volume of FBM Insights. This portrays that UiTM Kedah Branch is actively involved in disseminating business related information and knowledge to the public.

I hope this bulletin can provide an opportunity for the Faculty of Business and Management staff to produce more academic materials and develop their skills in academic and creative writing. Furthermore, more initiatives should be launched to support this life-long process.

Again, well done to the Faculty of Business and Management and those who were involved directly and indirectly with the publishing of FBM Insights Vol.6. I wish FBM Insights all the best and continue to grow and move rapidly forward in the future.

Prof. Dr. Roshima Haji Said
Rector
Universiti Teknologi MARA (UiTM)
Cawangan Kedah

السلام عليكم ورحمة الله وبركاته

Assalamualaikum warahmatullahi wabarakatuh

Welcome to the 6th Edition of FBM Insights 2022. This edition boasts 40 articles by the academics of Faculty of Business and Management UiTM Kedah Campus. The topics involved a broad range of business and management knowledge. Congratulations to all authors for your endless support and valuable contribution to the newsletter.

FBM Insights was mooted in 2020 and it came about with the intention to encourage and improve research writing activities among the lecturers of UiTM Kedah's Business and Management Faculty. As the editions progressed, the support from the academics has not faltered. I hope the support continues in editions to come.

I would like to congratulate the editors and the committee for the hard work and perseverance in managing the newsletter. All the best to everyone and thank you again.

Dr. Yanti Aspha Ameira Mustapha
FBM Insights Advisor

THE ADOPTION OF BLOCKCHAIN- SUPPLY CHAIN FRAMEWORK AMONG HALAL FOOD PRODUCERS

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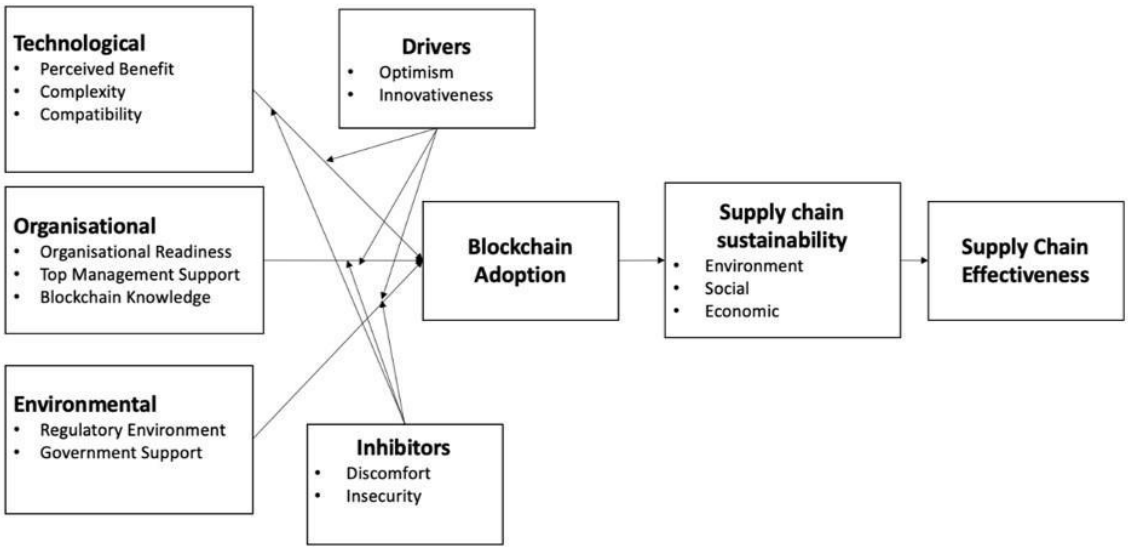
The halal food industry has developed into a significant global food industry. This industry is no longer a new economic growth sector but a competitive economy. Moreover, Halal is now becoming an essential source of the economy. The growth of the Halal sector is expected to reach USD5.0 trillion in 2030 (HDC, 2020). In Malaysia, the Halal market growth is expected to reach USD113.2 billion in 2030 (HDC, 2020). This development of this Halal economy was motivated by the Muslims that assert their values and a large Muslim population in Malaysia that reached 20 million (DOSM, 2021). Engaging in what is Halal (permitted) and avoiding that which is Haram (prohibited) is one of the practices of Islam, a Muslim must only choose Halal food to be consumed. However, this situation leads to more complex and become a major challenge to secure a consistent process related to halal food supply chain. Blockchain technology seems to give the halal food supply chain a new era (Ali et al., 2021). There is a need for more exploration and investigation on the blockchain technology implementation into the industry that integrated with the Halal food supply chain environment. Therefore, this paper aims to discuss the necessity of blockchain technology in the Halal food supply chain industry especially the Halal food producer. Besides, this paper also trying to conceptualize and identify the impact of environment, innovation, individual, technology, and organization on intention to adopt blockchain in Halal food supply chain among Halal food producers. This framework of Blockchain-Supply chain is used to provides important insights into the variables influencing the decision of Halal food manufacturers to use blockchain technology in their supply chain.

Stuart Haber and W. Scott Stornetta first introduced the blockchain concept in 1991 (Narayanan, et al., 2016). Blockchain is a peer-to-peer transaction network that uses distributed ledger technology (DLT). This technology can determine the guidelines for how information is updated and is used to store any kind of data. As computer-based nodes in the blockchain technology, various entities participate in the transaction. In addition to having a copy of the distributed ledger, each participating node will also be further connected to other nodes in the distributed peer-to-peer networks. Blocks (commercial transactions) will be stored in the distributed ledgers in the main chain, and the distributed ledger technology (DLT) will manage the ledgers of each node of the chain. The block is chained and linked to the previous block in the main chain using a hash number to grow the ledger (Derks et al., 2018). A typical supply chain usually involves multiple partners, including manufacturing plants, suppliers, transporters, distribution centers, and intermediaries. All these parties usually participate in information, material, and cash flow (Bhardwaj et al., 2021). On the other hand, the global supply chains involve import, export, forwarding, and delivery in international trading, increasing supply chain complexity. Through the numerous enhancing activities enabled, such as recording, tracking, and accurately exchanging information, blockchain integration is projected to improve the overall performance and dependability of the Halal food supply chain. The real-time digital ledger of transactions and the movement for all stakeholders in their supply chain network can improve the Halal food supply chain.

Blockchain technology will assist the Halal food supply chain in tracking the product journey from a raw material supplier to a consumer. This situation helps in eliminating the counterfeited

goods vias traceability of the origin of the good (Mackey & Nayyar, 2017). Since the data can be gathered in real-time and cannot be readily changed to be manipulated by other parties, it facilitates the tracking of all transportation activities more transparent. Blockchain technology will prevent any form of backdated alterations or data manipulation in the Halal food supply chain due to its immutability and timestamp feature. It increases the transaction's reliability and usability's transparency. Bringing food from around the world is now possible due to the modern global food supply chain. However, ensuring food safety, reducing food fraud, and maintaining low operating costs are the primary challenges facing the food sector. In the fresh food supply chain, blockchain and IoT sensors can improve freshness, quality, and safety. They can also substantially increase the industry's fresh product margins by cutting waste almost in half. Additionally, because of the blockchain system, businesses can guarantee transparency, which will significantly boost customer loyalty and brand value. According to Alharthi et al., (2020), the framework proposed includes three aspects of the technological, organizational, and environmental aspects of an organization that may affect the adoption of blockchain. Consequently, the adoption of blockchain will affect the sustainability of the supply chain in the organization which will result in its supply chain effectiveness. The variables that must be considered to integrate the blockchain in the company while simultaneously ensuring the efficacy of its operations are shown in Figure 1.

Figure 1: Blockchain Supply Chain Adoption Framework



Source: Alharthi et al., (2020)

Kamilaris, Fonts, and Prenafeta-Boldú, (2019), said there is a need for more exploration and investigation on the blockchain technology implementation into the industry even though there are still unresolved issues and challenges beyond technicality. Even though extensive literature focus on the Halal food supply chain model (Wan Omar et al., 2015; Lodhi, 2019), there is still limited study that integrates the blockchain technology in the Halal food supply chain environment. The limited study on the integration of blockchain and the Halal food supply chain leaves a significant gap in the knowledge. Even though several studies focus on blockchain technology and Halal food supply chain, prior studies overlook the acceptance level among Halal food producers. Therefore, the implementation of blockchain technology remains difficult and complex for Halal food producers and policymakers. Other than that, most studies focus on large organizations rather than small-medium enterprises (Kamilaris et al., 2019). Thus, a novel extension to the opportunities and readiness among Halal food producers is required to understand the level of understanding and readiness to implement the blockchain technology in the Halal food supply chain among Halal food producers. This may also help and serve as a guide for policymakers in increasing the implementation of the Halal supply chain in the Malaysian Halal economy. This initiative is in tandem with Malaysia’s inspiration to propel the Halal economy in Malaysia. More

importantly, is to adapt to the changes to the Industrial Revolution 4.0 and towards Digital Economy that aligned with the Shared Prosperity Vision 2030 (SPV 2030).

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