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Potential of Smart Tawarruq in Islamic Banking: A Literature Review

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Abstract

Smart Tawarruq is an application concept that uses two related instruments, namely the use of a smart contract system based on the Bay' Al-Tawarruq guidelines, a type of sale and purchase contract used as one of the instruments in Islamic finance. This study discusses and examines the concepts of Tawarruq and Smart Contract and both in a combination of making it a new concept, Smart Tawarruq. This study also touched on the views of past and contemporary jurists in the ruling of applying *Smart Contract* with Bay' Al-Tawarruq to realize Smart Tawarruq. In addition, this study discusses how Smart Tawarruq should be implemented as one of the Shariah-compliant products in the Islamic banking world.

Keywords: Bay' Al-Tawarruq, Smart Contract, Smart Tawarruq, Products Based on Sharia Demands

Introduction

Tawarruq is a type of transaction where a person buys a commodity on a deferred basis and then sells it to a third party other than the original seller in the cash price immediately. It is usually used to describe a transaction in which a bank sells a commodity to a customer on a deferred payment at a cost together with the profit, and the customer then sells the commodity directly to the third party in cash.

The role of the bank as a financial institution plays a role in providing deposit acceptance services from customers and the public. The Bank also works to provide loans or financing to customers and the public in need. So this is where the role of banking lies in the development of the country's economy. Banks will provide loans to individuals, corporations, companies or government development plans. The source of the loan or financing is taken either from its original capital as well as deposits received from its clients (Latif, 1974).

Imam al-Syafi'i discussed the question of Bay Al-Inah, that he did not explain the concept of Bay Al-Tawarruq. However, he has touched on this principle in the Bay Al-Ajal section (Al-Syafi'i, 2001). Contemporary Islamic scholars also discussed the application of Tawarruq among them that discusses the definition and opinions of previous scholars and

current scholars on the ruling of Bay' Al-Tawarruq. In addition, he also touched on its application in Islamic banking products (Al-Ghamidi, 2007).

While smart contract applications are one of the latest innovations, which is decentralized programming that is implemented according to the instructions triggered and has been programmed in a structured manner. Smart contracts also act similarly to traditional agreements or contracts but negate the need to involve third-party involvement. However, there are challenges and weaknesses in certain aspects that can be categorized as being able to challenge the sustainability of this technology.

Through this study, the authors will explain the definition of Smart Tawarruq together with the method of application in a generalized manner, as well as discussing the status of the application and explaining the guidelines implemented in the banks involved in the Smart Tawarruq application service. In addition, this study also discusses the weaknesses and shortcomings found in the application of this system as well as solutions and alternatives that can be raised and proposed in the improvement of the Smart Tawarruq system in banks in Malaysia.

Problem Statement

Lately, there is no doubt that the fintech era is currently booming. The usage of modern technology applications is very rapid and develops over time. Furthermore, technologies based on *blockchain* systems such as *smart contracts* are formed in the enterprise and conventional industries (Zheng, et al., 2019)

Tawarruq is a contract that is often used to solve the problem of financing and liquidity in the financial markets. The majority of contemporary scholars agree with the views of previous scholars based on their consent in the usage of Tawarruq. Widespread use can be attributed to a simpler structure. In this fintech era, the Tawarruq application can be innovated and expanded using smart contract-based services as a new alternative in Islamic banking that is called Smart Tawarruq.

Next, there is a study that touches on the proposed mechanism for the Smart Tawarruq application implementation model. This has been evidenced by a study conducted by Roslan, et al (2020) entitled "Application of Tawarruq in *Islamic Banking in Malaysia: Towards Smart Tawarruq*". However, there is still no specific enablement for the Smart Tawarruq application to be implemented in Islamic institutions and banks to date.

In addition, according to Roslan et al (2020) in his study, to formulate or design this Smart Tawarruq, structural studies should be carried out by the relevant institutions and responsible for their implementation. However, in this study the researchers found no specific guidelines for the Smart Tawarruq application. This study only focuses on the method of implementation proposed specifically for Smart Tawarruq only.

This is very important as the advice services and views of Shariah experts are indispensable and emphasized in building guidelines based on the Shari'a demands in line with the legal innovation of the use of Blockchain and Smart Contract in building the Smart Tawarruq application, the Bay' Al-Tawarruq application based on the use of the *Smart Contract* system through *Blockchain* technology.

Based on the statements that have been linked, there are three questions which are what exactly the definition of Smart Tawarruq in the context of Islamic banking is how the enablement in the Smart Tawarruq application is that it needs to be implemented and what guidelines should be followed and set in a Shariah-compliant manner in Smart Tawarruq.

Methodology of the Study

The research method is the analysis of how research is carried out in order to be able to obtain almost accurate results and results and data and obtain quality results. The recommendations for the implementation of this study are mentioned as follows.

This study is a qualitative study by design in the analysis of the content of studies, reports and articles focusing on *Smart Contract* and Tawarruq applications. The design of this study is applied and used to understand the Smart Tawarruq system to be implemented, analyze, and know the guidelines and status of the Shariah-compliant implementation of the Smart Tawarruq application.

The data collected are through references such as previous and current books, articles, studies, and journals have been used in completing this study. Analysis of referred documents from articles and libraries issued specifically by Islamic financial and banking publishing companies.

The researchers have conducted a thematic analysis of the data obtained to answer the objectives of the study. In addition, researchers used the NVivo software as a tool to manage and analyze data to be more systematic. At the first stage, the researcher will collect all the information and data obtained through the analysis of documents. At the second stage, the researcher will perform the process of categorizing and classifying each data obtained from the data collection technique based on the objectives to be achieved. And at the third stage, after all the data and information is ready to be categorized, the researchers will work out and present the data descriptively to answer the objectives of the study.

Literature Review

The term Tawarruq was originally introduced by Imam Hanbali in his book *Syarh Muntaha Al-Iradat*, known as *Daqaiq Awla An-Nahyu Li syarhi Al-Muntaha*, to distinguish the concept of 'Inah from the classical Tawarruq. 'Inah has been widely adopted in Southeast Asian countries as an alternative to cash liquidity.

The word Tawarruq is rarely found in Arabic dictionaries and cannot be traced directly in Arabic. It is derived from *the word al-warq* referring to dirham or any silver used to be intended as a medium of exchange. Tawarruq is arguably the most suitable medium to meet cash liquidity needs (Al-Ghazali & Ab. Rahman, 2014).

Based on the opinion obtained from the scholars of madhhab Syafi'i, although Tawarruq is not explicitly mentioned between their agreements, it is accepted due to the separation of contracts between the two transactions which are considered independent and separated from each other unless there are conditions stipulated in the contract for subsequent trade dealings. Imam Shafi'i stated that when explaining the impossibility of 'inah which is not prohibited if a person sells his property which he bought on loan or withholding payment in cash as long as he sells it to a third party other than the original seller (Al-Syafi'i, 2001).

According to ISRA (2010), Tawarruq was introduced in 2000 by several banks in Saudi Arabia then followed by other banks in the Gulf and since then it has been the most controversial topic discussed in the Islamic banking industry. Basically, Tawarruq is one of the Shariah-compliant modes in providing cash liquidity and this concept has become popular in Malaysia and has become one of the alternatives to 'Inah which was adopted at the beginning before Tawarruq was introduced.

Islamic banks have used Tawarruq as it is secured against depositors to continue doing business with them and in addition gives them the opportunity in the dilution of assets that make it one of the main movers (Bouheraoua, 2013).

Technically, Tawarruq involves a series of sales contracts in which the buyer (al-Mustawriq) buys the asset from the seller for deferred payment and thereafter sells the asset (at a low price) to a third party. This is done without the intention of using the acquired assets but with the main objective of obtaining cash or liquidity at a certain time. The classic Tawarruq (Tawarruq al-Fiqhi) which can also be referred to as Tawarruq which is generally accepted and considered permissible by the public of various scholars earlier from madhhab Hanbali, Shafi', Hanafi. However, it should be noted that Tawarruq should be in a clear form as a contract that was not directly discussed by previous scholars (Roslan, et al., 2020).

Moving away from the contentious nature of implementing Tawarruq, it is very confident that *fintech* holds the key towards more innovative and good contract execution. In reality, the market has already begun to benefit from the merger of *fintech* and Tawarruq applications, such as Sedania As-Salam Sdn. Bhd., which is through the As-Sidq platform, a service that offers instant liquidity solutions with prepaid telcos in the form of *airtime credit*. as a traded commodity, although it is an intangible underlying asset, it is permissible due to criteria that are in line with Shariah principles that benefit the general public (Ismail et al., 2016).

In the meantime, smart contracting technology or *smart contracts* have reshaped conventional industries and business processes. Embedded in the *blockchain* system, this smart contract allows the terms of the contract agreement to be automatically enforced in the absence of interference from third parties who need to be appointed third parties. As a result, smart contracts can reduce administrative affairs and save the cost of services, increase the efficiency of business processes and reduce risks (Zheng, et al., 2019).

According to Szabo (1997), blockchain technology has mobilized and enabled the use of smart contracts that were once proposed and proposed in the 1990s.

In terms of financial management according to Cant (2016), smart contracts have the potential to reduce financial risks, reduce administrative and service costs and improve the efficiency of financial services.

In the application of a smart contract, a contract clause written in the form of a computer program will be executed automatically when the pre-determined conditions are met. Smart contracts consisting of transactions are essentially stored, replicated, and updated in a distributed blockchain. On the other hand, a contract must be concluded by a trusted third party in a centralized state, resulting in longer execution times resulting in additional cost requirements. The integration of *blockchain* technology with this smart contract will make the dream of a 'peer-to-peer market' a reality (Dai et al., 2019).

Through the mechanism brought by Smart Tawarruq, when a customer comes to an Islamic bank for Tawarruq financing, banks and customers do not have to physically come to the bank's branches to meet or carry out strict legal documentation through their representation appointment. Smart contracts can be used for real estate transactions, legal and financial contracts trading where the terms and content of the transaction are registered, then the relevant laws and procedures are applied automatically, and the results are notified to the transaction. Smart contracts will add to the confidence of *Artificial Intelligence's prospects* in the use of blockchain to initiate, execute and conclude Murabaha transactions by Islamic banks (Muneeza & Mustapha, 2019).

Theoretical Framework

According to Mohamad (2006), Al-Tawarruq is defined as a form of sale and purchase with the aim of getting cash, which involves the purchase of an item on a suspended basis and then

the item is sold in cash at a lower price than the first purchase to a third party where the party is with the original seller.

Bay Al-Tawarruq is an activity to buy commodities on a deferred payment basis and then sell them in cash to other parties other than buyers at a lower price.

Tawarruq can be classified in three forms. The first form of tawarruq occurs when an individual needs to purchase commodity cash on credit and then sell it carefully to a third party. Secondly, where an individual who needs a cash loan from a trader and trader offers to sell it a commodity on credit for the market price (cash) where the individual (mutawariq) then sells the commodity either higher or lower than the market price to get the cash at that time.

The third form of tawarruq is similar to the second except that in this case, the trader sells the commodity to mustawriq at a price higher than the market price due to the deferred payment base. It should be understandable that the first two forms mentioned above are agreed unanimously by jurists and not as bones of contention (Ahmad, et al., 2017)

However, it is the third form that gives rise to the opposite view of the jurist. There are three different opinions on bargaining from legal experts, and they classify tawarruq as permissible (halal), makruh and prohibited (illegal).

As is also known, smart contracts are essentially an application for the implementation of their own digital contracts where the terms of the contract are encoded electronically and executed only if the conditions are set and met (Bashir, 2017)

Smart contracts will add to the confidence of the prospects of *Artificial Intelligence* (artificial intelligence) in the use of blockchain to initiate, execute and conclude murabahah transactions by banks. With the contract recorded in the public ledger and given the name of the unknown party, the terms of the smart contract are always met with certainty that does not give either party the opportunity to blame the other wrong party in matters related to the failure in the omission or commission (Roslan, et al., 2020)

The laws and conditions set in accordance with Shariah can be applied in this smart contract application so that the Smart Tawarruq application can be operated. These applications and systems can be automatically programmed and set and written into manuals and guidelines published by authorities such as Bank Negara Malaysia, regulators, and all stakeholders who need to form a network of transactions on the *blockchain* system. This node will then be activated to confirm the course of the transaction and further improve the compliant blocks in this *blockchain* system (Muneeza & Mustapha, 2019)

Conceptual Framework

Compared to the existing Tawarruq application, Smart Tawarruq offers a higher level of compliance with Shariah claims and principles. For example, the issue of duplication of assets involved in the current Tawarruq structure can be eliminated under the structure of Smart tawarruq. However, it should be borne in mind that in structuring smart contracts for all Islamic financial contracts, it is important to comply with Shariah requirements and guidelines as well as domestic law and international trade law (Roslan, et al., 2020).

Figure 1 shows the comparison between the similarities and differences between the latest structure by the Tawarruq application in banks and the proposed Smart Tawarruq.

	Latest Structure	Smart Tawarruq
Verification of customer requests	Customer demand for financing through Tawarruq.	
Instant purchase	Banks buy commodities immediately from commodity brokers.	Banks buy commodities immediately from the E-commodity market.
Deferred payments	No	The bank sells commodities to customers on the basis of deferred payments (cost plus profit).
Agent vs. Platform	The client allows the bank to be an agent.	The client sells the commodity immediately to the E-commodity market.
Additional brokers	Banks as selling agents of the commodity to broker 2 directly.	No
Additional Conditions & Steps	Broker 2 pays the bank directly.	No
Payment to Customers	The bank pays to the client.	The E-commodity market pays the customers directly.
Smart Contract	The client pays to the bank installments on a regular basis.	The client pays to the bank in installments through a smart contract.

Figure 1.0 Comparison Between Latest Structure and Smart Tawarruq

Resources: (Muneeza & Mustapha, 2019)

Based on the above diagram, the advantage found in the proposed Smart Tawarruq structure is the elimination in the appointment of an intermediary or broker. Customers and banks can deal directly with suppliers through the E-commodity market. In this way, transactions can be made more securely and cost-effectively. The role of the two agencies played by the bank also has the potential to be eliminated under the proposed structure, thus making the transaction Shariah-compliant.

Conclusion

The article presents the element structure, legality and mechanism of the application of Smart Tawarruq. Smart Tawarruq can be endorsed and recommend as one of the great alternatives and products of innovation in the Islamic banking world. The researchers point the aspects of its execution, deployment, and completion between Tawarruq and Smart Contracts in making the innovation of one of the latest mechanism in the Islamic banking product as of the application of Smart Tawarruq.

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