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Viability of Trade Credit as an Underlying Asset in a *Shari'ah* Compliant Alternative Credit System

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Abstract

Trade credit is a form of short term financing that is commonly utilised by firms, especially small and medium enterprises (SMEs) for working capital management purposes. As trade credit is unstructured and is variable and dependent upon each transaction, it makes it a highly illiquid asset/liability. This paper adopts a review of literature in order to identify if trade credit can be monetised and used as a medium of exchange. The advantages that such a system can bring are is manifold, mainly through providing an alternate source of liquidity for cash-strapped firms, boosting employment of resources, and a multiplier effect in terms of income and production. Upon initial analysis into the nature of trade credit, its modus operandi and the *Shari'ah* principles of bay *al-Dayn*, this conceptual paper posits that monetization of trade credits into an alternative currency, in accordance to the terms of the trade credit, is indeed possible and viable.

Keywords: Trade credit, medium of exchange, *bay al-Dayn*

1. Introduction

Working capital management is an integral part of ensuring the survival of SMEs. Access to financing, especially for short term financing, is limited for SMEs due to their size, lack of collateral, lack of standardized financial statements that can be used to evaluate performance, and the perceived risk of their nature of business. This raises the cost of financing, and makes it expensive for SMEs to obtain financing, consequently to maintain liquidity to sustain daily operations and any shocks that may occur. (Bandara & Rathnasiri, 2016)

As such, an alternative credit system that can be used amongst SMEs to settle payment against each other is mooted. When trying to design an end-to-end *Shari'ah* compatible solution, one of the issues that crops up is the nature of the credit as money, and its permissibility and compatibility with Islamic Finance. This relates to the nature of the credits in itself, and if it should be viewed as money or quasi-money, and its corresponding rulings on how to handle it. There have been numerous studies pertaining to the usage of money and the nature of *riba*, but not so much on the nature of money in itself. The nature of money has evolved over time from shells and salt, to gold and silver, to paper money to electronic currency. In this paper, we shall try to look into some previous studies that examine the nature of money, the concept of alternative currencies and identify the constraints, if any, to the viability of money backed by trade credit in this research.

2. Working Capital Management and Trade Credit

2.1 Working Capital Management

The main objectives of working capital management are to ensure both liquidity and profitability towards the sustainability of the firm. The financial manager must ensure that enough liquidity is maintained for the firm to fulfil all its current financial obligations and daily operations, and at the same time ensure that available resources, namely cash and other investable current assets, are efficiently allocated to provide the best return

for the owners (Brigham et al, 2016).

Richards and Laughlin (1980) advanced the cash conversion cycle as a measure of efficiency of working capital management. The cash conversion cycle measures the length of time between when initial cash outlay to suppliers for raw materials and inputs, and the cash inflow from payments from customers of the finished goods or service. In other words, it is a measure of how long cash is tied up to the production and sale process in a company's operation, before it is recovered through payments from customers. Therefore, it is preferable to for a business to have a minimal cash conversion cycle.

2.2 Definition of Trade Credit

Ingves (1984) defines trade credit as "a loan agreement between non-financial firms or between non-financial firms and house-holds". He further emphasises that "the financial agreement must be intimately connected with the sale or purchase of goods and services. The credit must originate from debt from one of the traders, and at the time of repayment the debt must be settled directly between the traders." Dietrich (1993) describes trade credit as a form of unsecured financing, whereby the buyer's ability to pay is based on their credit history and financial position, without other forms of collateral. According to Huyghebaert (2006), trade credit arises when a firm purchases goods and services for which payment is deferred to a later date, which is usually for a period of thirty to sixty days after the purchase.

2.3 Cost of Trade Credit

However, the cost of trade credit will be higher as it includes the financing cost and a risk premium that may vary across companies and industries. Though a cash discount is usually offered for early payment, non-utilisation of it will be counted as an extra cost, as many SMEs are not able to pay their suppliers on time due to outstanding receivables from their customers (Balling et al., 2009).

Summers & Nicholas (2002) further elaborate that trade credit is considered to be an expensive financing source only if payments are not made within the stipulated credit window. The credit term most frequently adopted by suppliers is ''2/10 net 30''. This term represents a 2 percent discount for payment within the 10-day discount period; the net period ends on day 30 and translates into an equivalent annual interest rate of 40 percent.

2.4 Why They Use Trade Credit Despite High Costs

Despite the high implied cost of trade credit, there are several factors that may lead to its employment among businesses. Bonte & Nielen (2010) infers that demand for trade credit is related to product innovation, as innovative SMEs are more likely to be credit-constrained, and that suppliers are willing to oblige due to the growth potential of these firms. Demirguc-Kunt and Maksimovic (2002) also observed that firms operating in countries with more developed banking systems grant more trade credit to their customers and receive more finance from their own suppliers. Bonte and Nielen (2010) reaffirmed the same behaviour and practice for SMEs that were innovative.

Petersen & Rajan (1997) discussed that suppliers may offer trade credit to the most price elastic segment of the market, SMEs in this context, as they may have long-term interest in the survival of the business partner. Wilner (2000) identified that new SMEs may prefer trade credit financing during the early years when the risk of default is high, especially when formal collateral does not usually guarantee trade credit.

3. Medium of Exchange

3.1 Islamic Money

In the research by Kameel & Larbani (2009), the study highlights certain other characteristics that would define the effective function of good money. Firstly, money should be in a standardized and divisible form, so that its value can be determined and accommodate a wider price range. In order for good money to be widely accepted, it should have intrinsic value, which can help ensure public trust and faith. For the sake of

convenience, money should be durable, mobile and transferable. The characteristics described in this study mostly focuses on the practical applicability of money within the economy.

There does not seem to be a consensus on the Islamic nature of money across time, as the form of money has undergone several evolutionary phases and will continue to do so in an ever-developing world. However, there are several characteristics that have remained constant through time, and it is within this framework that the Islamic rulings and *Shari'ah* apply.

When discussing the properties of money in an Islamic environment, Iraj (2011) posits that money should have several key characteristics. He proposes that money should be produced and managed by a central authority, with a velocity of circulation that is greater than one. The paper further propagates that money should be indivisible and that there should be an externality of money becoming "actual capital" within the economy. These are some of the characteristics that money should possess, regardless of the form it comes in.

Iraj (2011) further defines that a healthy economy is one in "which any demand for greater output can easily be transformed into an increase in the supply of money without any market intervention." Therefore, this means that the money supply is determined by the demand of goods and service, and supply will flow to areas where money is needed. In this scenario, as long as there is untapped production capacity, which brings together idle factors of production, there will be no limit to the money supply.

3.2 *Shari'ah* Views on Paper money

When studying money within the framework within Islamic legal thought, Siegfried (2001) found that there are five approaches to view paper money. Firstly, paper money can be regarded as a "bond on the deposit of gold and silver". In this view, there can be no exchange of money for money due to possibility of *riba*. The second view is that paper money is viewed as a replacement for silver and gold, and thus gains characteristics that are inherent within those precious metals. In this case, the paper currency is interchangeable with gold and silver, and exchange can only take place like for like and in equal amounts, as per the hadith. Any exchange in unequal amounts is only possible if the currencies are backed with different metals. The third view is that paper money can be regarded as *fulus*, which is functionally a locally restricted currency for small transactions that does not transcend a certain amount or geography. The fourth view regards paper money as a simple good, whose value is based on market forces, such as demand and supply. The fifth approach is to regard paper money as one type of currency among many, like gold and silver with their own values and counter values. This would imply that paper money cannot be exchanged for paper money in unequal measure in the same currency, and that exchange with other currencies is only allowed if it is done on spot.

Yaacob (2014), in a study on the evolution of currency development, mentions that the modern Islamic scholars permit the usage of paper currency, and any type of currency for that matter, and that all Islamic legal conditions and prohibitions pertaining to gold and silver would apply onto paper money too. It is then derived that these conditions will also apply to money of any other kind, be it paper or digital currency.

3.3 The Emergence of Alternative Currencies

Alternative currencies, or complementary currencies are created to respond to a certain social need and help provide purchasing power towards production and productive employment of resources. According to Boonstra et al (2013), complementary currencies may take the following forms: currencies with social objectives, currencies with economic objectives and digital money systems. In order to understand the purpose and essence of complementary currencies, we shall look at the case of WIR bank in Switzerland.

Following the economic crisis in the 1930s in Switzerland, a credit-based exchange system was designed and implemented within a network of small and medium sized businesses, which can boost liquidity to help enhance productivity. The Swiss Wirtschaftsring, more commonly known as WIR bank, is one of the largest existing complementary credit system with over 77,000 members in 2003. The system is exchange-based, with WIR credit used as a pricing system for goods and services that any household or firm are willing to offer and trade. The WIR credits are equivalent to the Swiss franc in denomination and units, but are not redeemable for the national currency, thus encouraging the perpetuation of its circulation. (Studer, 1998; Stodder, 2009).

As the WIR bank operates as a multilateral credit clearing system, its sustainability is dependent on the

acceptance of WIR credits as payment by its participants. The WIR-Bank thus operates as a clearinghouse, managing the positive balances and negative balances of all of its participants, and this allows it to have systematised records of the "credit conditions in its own currency" than any other financial institution. (Stodder, 2009).

There are two methods in which members of the WIR bank can create a positive credit balance. The first method is by exchanging a product or service for WIR credits, and the second method is by purchasing WIR credits using the national currency (Studer, 1998).

Studer (1998) highlights several main advantages of the WIR-Bank concept. Firstly, the centralization of the credit clearing office allows for control and monitoring of the amount of WIR credit in circulation, with the implementation of overdraft limits and the retraction of credits from circulation when they are repaid with national currency. Secondly, the WIR credits provides an alternative means of payment, that has a significant impact on the liquidity of a business that can be translated into increased turnover and economic activity. Thirdly, the inherent characteristics of the WIR system make it sustainable, where "one franc of WIR credit can lead to at least two francs of WIR turnover". This enables perpetuation of trade of goods and services for WIR credits until at least the expiration of the loan term and the repayment of their individual credit balances.

Kennedy et al (2012) too highlighted several advantages of complementary currencies, giving due elaboration on its role in decreasing inflation, increasing economic stability, and creating avenues for full employment of idle resources towards better goods and services. Another advantage of complementary currencies is that it cannot be speculated upon for profits or arbitrage, and that its creation and retraction process is transparent, thus augmenting its social objective of promoting regional economic development.

Kennedy et al (2012) describes three main elements that should be inherent in a regional currency system to work legally and viably. The first element is the replacement of cash with alternative currency that is backed by national currency, goods, services or even time that can be quantifiable and acceptable by the participating network. The second element is to allow an accounting system that enables trade using such currency, which would also encompass extending credit lines to participants. Such a clearing system will enhance trade within the network and boost liquidity among the stakeholders. The third element, which can be implemented after the first two are established, is to set up a central "Member Bank" that can extend interest free loans based on interest-free savings, with the aim of fulfilling large-scale credit needs of its members, both small and large.

According to Boyle (2014), in contrary to normal economic exchanges, an exchange system with a social factor can entail that credits be disbursed and written off when they are spent, thus discarding the need for a final balance. He further describes "reciprocal exchange systems" to function in parallel with national currency with the aim of stimulating efficacy of the local economy, providing the needed bridge between people, businesses and resources within the economy.

In order for such a system to work, Boyle (2011) advocates that the credits should be backed by an asset of real value, thus providing credibility and guarantee. The fact that barter has been in existence in many types and forms till date, highlights the acceptance of such practice without regard to the existence of money. Examples of such endeavours in history include exchange currencies designed for small enterprises, business barter exchanges, collaborative consumption schemes and innovative ideas of money back by energy or commodities.

One such endeavour is the creation of the Complementary factoring commercial credit circuits (C3) by Social Trade Organization (STRO) based in Holland with the support of the European Commission and the World Bank. The C3 provides "low-cost factoring services" for firms that are registered within its circuits, with the intention to boost liquidity for credit constrained SMEs (Boyle, 2011).

Factoring is an alternative form of trade financing whereby the seller's accounts receivable is purchased by the factoring company for the value of the invoice less interest and service fees. The factor would usually advance a certain percentage of the invoiced amount to the seller and the remaining balance is paid off when the receivables are paid to the factor (Klapper, 2005).

The C3 transforms trade debts into C3 credits, which can be used as a medium of payment among the members of the credit circuit. This allows for conversion of a receivable, with the added security of insurance, into credits that can be used to make payments, thus increasing circulation and boosting liquidity (Boyle, 2011).

On the concept of clearing, Lucarelli and Gobbi (2016) propose the concept of clearing to be an alternative to liquidity, and mechanisms can be designed to ensure that money is spent and that debts are paid,

as clearing can help establish a measure for *"the exchanges and for the payment of debts which is not in its turn an object of exchange, and with the restoration of a balanced relationship between debtor and creditor"*. Therefore, it is imperative to determine a measure against which clearing can occur.

4. *Bay al-Dayn*

4.1 Juristic Views on *Bay al-Dayn*

In this section, we explore several juristic views on the issue of *bay al-Dayn,* and the permissibility of trading or securitizing account receivables for liquidity purposes. Firstly, *dayn* is referred loosely as debt, but in this context, a payment obligation that arises from a transaction whereby "one of the counter-values is deferred". In the context of this research, this will refer to the payment receivable that arises due to trade credit offered by the seller. Therefore, *bay al-Dayn*, which translates of "trading of debt", refers to the sale of this receivable.

However, *bay al-Dayn* can be further categorized into two types: *bay al-Dayn al-Naqd* and *bay al-Dayn Nasi'ah*. The former refers to a sale of debt for cash on a spot basis, whereas the latter refers to a sale of debt on a deferred payment basis, which is prohibited by most scholars (Najeeb, 2014; Al Dharir, 1995).

For this paper, the researcher will look into the first type of debt, which is *bay al-Dayn al-Naqd*, as the debt is transferred for credits that will have purchasing power within a specialized network, thus acting as money. However, this type of debt can further be divided into two types: *Bay al-Dayn li al-Madin*, where the debt is sold back to the debtor itself, and *bay al-Dayn li ghayr al-Madin*, where the debt is sold to a third party (Zuhayli and Eissa, 2007).

In the case where the debt is sold back to the debtor itself, there is not much dispute amongst the scholars on its permissibility. One main reason for this is that there is no ambiguity ("*gharar*") on the subject matter, as the debtor is obtaining his own original debt, and the risk of non-delivery is irrelevant. Such a sale would mimic an offsetting or credit clearing transaction between debtor and creditor (Zuhayli and Eissa, 2007). Amin (2007) also posits that majority of the Islamic scholars deem it to be allowed and permissible, as the creditor has the full right to sell it back to the debtor at any price, as long as it is based on a *Shari'ah* compliant transaction and basis. There is a minor difference in opinion amongst some Hanbali scholars, whereby the debt is only allowed to be sold if the debt is confirmed and due, and that undue debt is not allowed to be traded at all. Some Zahiri scholars have also opined that debts, regardless due or undue, are not allowed to be traded altogether, and that they can only be waived (Moustapha, 2001).

For the second type, *bay al-Dayn li Ghayr al-Madin*, whereby the debt is sold to a third party, there are juristic differences of opinion. The main reason that *Hanafis, Hanbalis, Zahiris* and some *Shafi'i* scholars do not permit this trade is due to the high levels of uncertainty (*gharar*) that surrounds it, as the buyer would not have much control in the repayment of debt by the debtor. However, the *Malikis*, and several *Shafi'i* scholars have allowed such a sale to the third party, simply because there are no explicit texts that prohibit it. As the ownership of these debts belong to the creditor, it would be within his rights to sell it, be it to the debtor, or to the third party. (Moustapha, 2001).

It is also understood that the position of *Shafi'i* school of thought is predominantly followed in Malaysia. According to the Malaysian *Shari'ah* Advisory Council, which endorsed the use of *bay al-Dayn* for capital market instruments in the year 1996, the *Shafi'i* school opined that the selling of a debt to a third party is permissible as long as the debt is guaranteed and exchanged on the spot for goods. Ultimately, when the debt is sold, it should be paid for in cash or tangible assets as per agreement. (SAC, 2002).

4.2 Implementation of Bay al-Dayn in Complementary Currency

Taking into account the nature of *bay al-Dayn*, and the various interpretations and conditions that may be inherent, it is proposed that the credits are issued against the receivables amount at par, and not be based on interest rates and time to maturity. The credits can only be exchanged at par and will be realised at maturity when the debt is paid off in its full amount. This will encourage circulation, and less conversion of credits into cash before it is due. This will also be conducive in our concept as we are proposing trade credit as the underlying, which usually has very short maturities.

The issue of convertibility of debt into cash, was also explained by Mufti Taqi Usmani (2002) as follows, *"In fact, the prohibition of bay al-Dayn is a logical consequence of the prohibition of 'riba' or interest. A*

'debt' receivable in monetary terms corresponds to money, and every transaction where money is exchanged for the same denomination of money. The price must be at par value. Any increase or decrease from one side is tantamount to 'riba' and can never be allowed in Shari'ah."

As explained previously, there can be a fee that will be associated with conversion and redemption of credits prior to maturity. This will help add credibility to the *Shari'ah* compliance of the system, and minimise any issues that may be related to *bay al-Dayn*. The main objective of the system is to inject alternate liquidity into participating firms to fulfil their current obligations, and not to arbitrage or profiteer from it. In compliance with *Shari'ah*, there should be no element of interest and time value attached to the credits issued. As trade credit terms are usually short term in nature, it is expected that the maximum term of a credit issued be up to 60 days.

With the participation of banks and other financial institutions, arrangements can be made for early redemption of credits, with a certain administrative cost attached. Banks and other financial institutions may accept payment from firms in terms of credits, or provide redemption services for a fee, similar to that of the clearing-house. Thus, firms may have avenues of early redemption of credits into national currency, but not at the expense of the withdrawal of credits in the system until maturity. The banks and other financial institutions can earn additional revenue from providing these services and can help increase customer participation with their respective branches. Taking Obaidullah (2005) posit into account, the administrative fee should not be linked to the amount of debt traded, or in our case, the amount of trade credit that is to be converted.

5. Conclusion

This paper attempts to determine if it is viable to monetize trade credit into a complementary currency that can be then used to circulate within a credit circuit. The advantages that such a system can bring about is manifold, mainly through providing an alternate source of liquidity for cash-strapped firms, boosting employment of resources, and a multiplier effect in income and production. Upon initial analysis and review of literature into the natures of trade credit, their modus operandi and the *Shari'ah* principles of *bay al-Dayn*, it is then posited that monetization of trade credits into an alternative currency which has a lifetime limited by the terms of the trade credit, is indeed possible and viable.

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