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Financing by the Encashment of Trade Receivables through Trade Receivable Exchange in Bangladesh

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Abstract

A large amount of money in the economy remains in the form of trade receivables that are created from the business to business (B2B) transactions among the firms. There are 7.818 million firms in Bangladesh and 99% of them are in the categories of cottage, micro, small, and medium enterprises (CMSMEs). They supply the raw materials, semi-finished goods, and services on credit to the large and blue-chip corporate manufacturers. CMSMEs generally wait for a period of 30 days, 60 days, 90 days and so on for the payment. During this period, CMSMEs suffer from the lack of working capital that remains tied in trade receivables against their credit sales to the corporate buyers. The study provides a financing solution through trade receivable exchange (TRX) to release the fund into cash from the investment locked into trade receivables. The study presents the concept and modus operandi of TRX. It shows the global practice of TRX. It assesses the application of TRX in the context of Bangladesh and in doing so; it has explored market space, readiness, FinTech industry, and stakeholders related to TRX. The academic research on TRX in Bangladesh is rare that presents a research gap for the study. Here, around 51% CMSMEs close their business for the shortage of working capital. The study addresses this working capital problem through TRX that brings a novelty and significance for the research.

Keywords: B2B, Blue-chip corporate manufacturers, CMSMEs, TRX

1. Introduction

A large amount of money in the economy remains in the form of trade receivables. These trade receivables are generated from the economic activities undertaken on credit. These economic activities are executed between individual to individual; individual to organization (firm); or firm to firm. In the paper, the focus is on the economic activities between firm to firm or business to business (B2B). The size of the firms range from small level to large level. Practically, these economic activities may take place between a firm at cottage level and a firm known at national level or even at international level like a multinational company (MNC).

There are 7.818 million firms in Bangladesh economy. Grossly, over 98 percent of these firms are SMEs and their contribution to GDP is around 22%. Specifically, 6.843 million (87.52%) are cottage enterprises, 0.104 million are micro enterprises (1.33%), 0.859 million (10.99%) are small enterprises, 0.007 million (0.09%) are medium enterprises, 0.005 million (0.07%) are large enterprises (BBS, 2013). So, the firms in the categories of cottage, micro, small, and medium enterprises (CMSMEs) constitute 99% of all the firms in the country. The remaining 1% large firms are directly or indirectly dependent on CMSMEs for their supplies. In other words, the total business activities in the economy are dependent on the firms working in the state. A large portion of the business activities in the economy are carried out through few (1%) large firms owned privately and publicly and they are dependent directly or indirectly on the supplies from the small firms labeled as CMSMEs.

1.1. Problem Statement

The CMSMEs do not possess the financial statement as so happens in the case of large and blue chip firms. They do not carry the collateral to get the loan from banks or non-bank financial institutions. However, they have an equity in their capital. It is their hard earned money invested in their business. As part of their business, they supply (sell) goods or services to their customers. Some of these customers, mostly the corporate clients, do not pay instantly. They pay after a period of 15 days, 30 days, 60 days, 90 days, or the like ones. This lead time is called the *credit period*. During this period, the small suppliers' (CMSMEs') payment remains unpaid that gives the birth of the trade receivables for CMSMEs. It results into a financial problem for CMSMEs. They cannot take the shock of the waiting period for the payment. Their investment remains locked in the hands of their buyers in the form of trade receivables. They suffer from the shortfall of working capital. They cannot address the new work orders from the new buyers as well as from the existing buyers, even from the buyer(s) whose existing bill is not paid yet. They cannot pay their regular operating expenses such as wages and salaries, electricity and gas bills, office rent, rentals of long-term loan, dues of raw materials purchased, etc.

1.2. Research Objectives

1.2.1 General Objective

The broad objective of the study is to find a liquidity solution for working capital tied in trade receivables for CMSMEs through a trade receivable exchange (TRX) in Bangladesh.

1.2.2 Specific Objectives

To attain the overall objective, the study addresses the following specific objectives:

i. To find the concept of TRX.

ii. To assess the global practice of TRX.

ii. To examine the application of TRX in Bangladesh

1.3. Significance of the Study

The significance of the study is described from macro and micro perspectives:

i. Macro Perspective

Finance (or capital) is a major factor for economic growth of a country. Different kinds of firms involved in the economy run the business activities for the country. If their investment tied in receivables could be liquidated timely (just after the discharge of the work by the respective firm), the economy would get accelerated further, the productivity of the economy would increase further, the perspective plans of the government such as Vision 2031, Vision 2041, Vision 2071, Delta Plan: Vision 2100, etc. would get momentum further.

ii. Micro Perspective

The significance from micro level relates to the firms involved. It refers to CMSMEs. Almost 99% of firms in the economy are in the category of CMSMEs. They generate more than 90% of all business activities and provide two out of every three jobs in the private sector. These industrial units suffer from many folds of problem in which the most dominant one is capital shortage. According to the survey of Medium Industry Development Association (MIDAS), 51% of SMEs closed due to the lack of capital, particularly working capital, in the period of 2008 to 2012 in the developing economies (UNCTAD, 2001). In Bangladesh, 50% of CMSMEs acutely face the capital shortage for running the business (The Daily Star, 2019). This leads to finding a solution for working capital for CMSMEs.

1.4. Scope of the Study

The study focuses on providing an alternative mode of financing for meeting the working capital needs of CMSMEs. It covers working on providing the concept and modus-operandi of TRX. It looks into the global scenario of TRX. It assesses the potential or space of TRX in Bangladesh. It examines the existing related market for TRX in terms of FinTech (Financial Technology) in the country. It observes the preparedness of the country for TRX.

1.5. Conceptual Framework

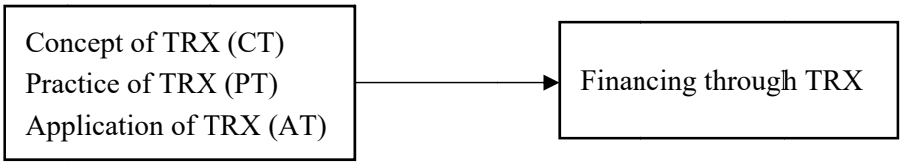

Figure 1. Research Framework
Source: The Author

Figure 1 depicts the overall framework of the study. The study is qualitative in nature. The financing through TRX is justified with the explanation of CT, PT, and AT. Firstly, the concept of TRX (CT) has been developed. Secondly, the practice of TRX (PT) in different countries has been stated. Thirdly, a thirst for TRX has been explored with the assessment of the application of TRX (AT) in the context of Bangladesh. All these lead to the adoption and/or adaptation of financing through TRX (FT) in Bangladesh.

2. Literature Review

Literature review is divided into two parts. Firstly, it provides the brief relevance of the study with the underpinning theories. Secondly, it presents the previous researches relevant to the study.

2.1 Underpinning Theories

The objective of the proposed mode of financing is to fund working capital for supplying firms. Broadly, the study falls under the area of working capital finance. The underpinning theories of the study include (i) Liquidity Preference Theory by John Maynard Keynes (1930); (ii) Pecking Order Theory by G. Donaldson, S. C. Myers, and N. S. Majluf (2015); (iii) Trade-Off Theory by Myers (1984); (iv) Black-Scholes Option Pricing Model by Fischer Black and Myron Scholes (1973), and (v) M-M Theory by Franco Modigliani and Merton H. Miller (1958).

Under liquidity preference theory, Keynes mention that people need money for three distinct motives: (i) transaction motive to meet daily needs such as buying groceries, paying rents, paying utility bills, etc.; (ii) precautionary motive to face any unforeseen costs such as car repair, buying houses, etc.; (iii) speculative motive to obtain capital gain through trading on assets (Stephenson, 1950; Jhingan, 2004). The objective of financing through TRX is to address the regular operational expenses of the enterprises. They also avail financing through TRX to purchase raw materials at the favorable prices (when the prices go down) to minimize their production costs to maximize their profit. TRX provides a venue for investors for making profit. In this way, the financing with TRX goes through the liquidity preference theory.

The pecking order theory states that managers of the firms prefer to use internal source of fund. The financing through discounting invoices with TRX is the use of internal source of fund (Bhama, Jain & Yadav, 2015).

The trade-off theory strives for an optimum level of capital structure composed of equity and debt at which the marginal benefit and cost of debt financing are equal to each other (Haddad & Lotfaliei, 2019). Under financing with TRX, the firms trade-off the benefit of discharging the work orders or paying the urgent operating business expenses or paying the regular expenses such as office rent, rental of loan, etc. with the fees and interest to be paid. In reality, the firms sometimes avail financing with TRX even with higher fees and interest than the market rate for securing long-term business gains such as retaining good customers, expanding market share, etc.

The Black-Scholes model; though it was developed to explore the underlined factors influencing the price of derivatives such as forwards, futures, options, and swaps; it has the relevance with the financing through TRX. The financial instrument in TRX is the invoice. The discounting percentages, fees, interest, etc. are influenced by factors such as the financial strength of the debtor to whom the invoice has been drawn, brand of the debtor, maturity period of the invoice, kind of goods (Note 1) or services provided, etc.

The M-M theory indicates that debt in the capital structure of a firm does not impact on its value. It states that the value of a firm depends on the capitalization of its earning power called earnings before interest and taxes (EBIT). The financing through discounting invoices do not create external debt burden for the firm. The firm uses its current assets (trade receivables) to get liquidity. The balance sheet remains the same. As a result it does not create extra risk for the firm. The opportunity of getting money quickly with TRX may enhance the earning power of and market share for the firm. It leads to increasing market value of the firm. Briefly this way, the M-M theory influences financing with TRX.

2.2 Previous Studies

The previous researches on TRX include the studies conducted on FinTech, digital finance. It touches the off-balance sheet financing mechanisms or alternative mode of financing such as factoring, supply chain financing (or reverse factoring), etc. The quantity of researches on trade receivable exchange is scarce (Vannoni, 2020; Ozili, 2018). The work of Dorfleitner et al. (2017) is probably is the *first evidence* in the area of financing through trading trade receivables. They worked on how the price of an invoice is determined in the online market where trade receivables (invoices) are traded.

There is a gap between the conventional ways of financing and the emergence of new business models as well as technologies. Business models have become complex increasingly that cannot match always the requirements of conventional financing. As a result, new modes of financing with *trade receivable exchange (TRX), FinTech, digital finance*, etc. have emerged. Ketterer (2017) states that current context of finance is moving through a transformative developments that have given the birth of this kind of financing: the financing through discounting trade receivables with the help of an exchange. It indicates that financing through trade receivable exchange has a connotation with (i) FinTech and (ii) digital finance.

FinTech is the short form of Financial Technology. It refers to the companies or representatives of companies that provide financial services with application of modern and

innovative technologies. These financial services are internet based and application oriented. FinTechs usually try to attract the customers with more user-friendly, efficient, transparent, automated products and services than the ones that are currently available (Dorfleitner et al., 2017a).

Dorfleitner et al. (2017a) has shown the divisions of FinTech industry. They have divided the FinTech industry into major four segments in accordance with the business models applied in each segments. The segments are (i) financing, (ii) asset management, (iii) payments, and (iv) other FinTechs as shown in Figure 2. This study is mostly related to the sub-segment, *credit and factoring*. This is why, a brief of credit and factoring is given here.

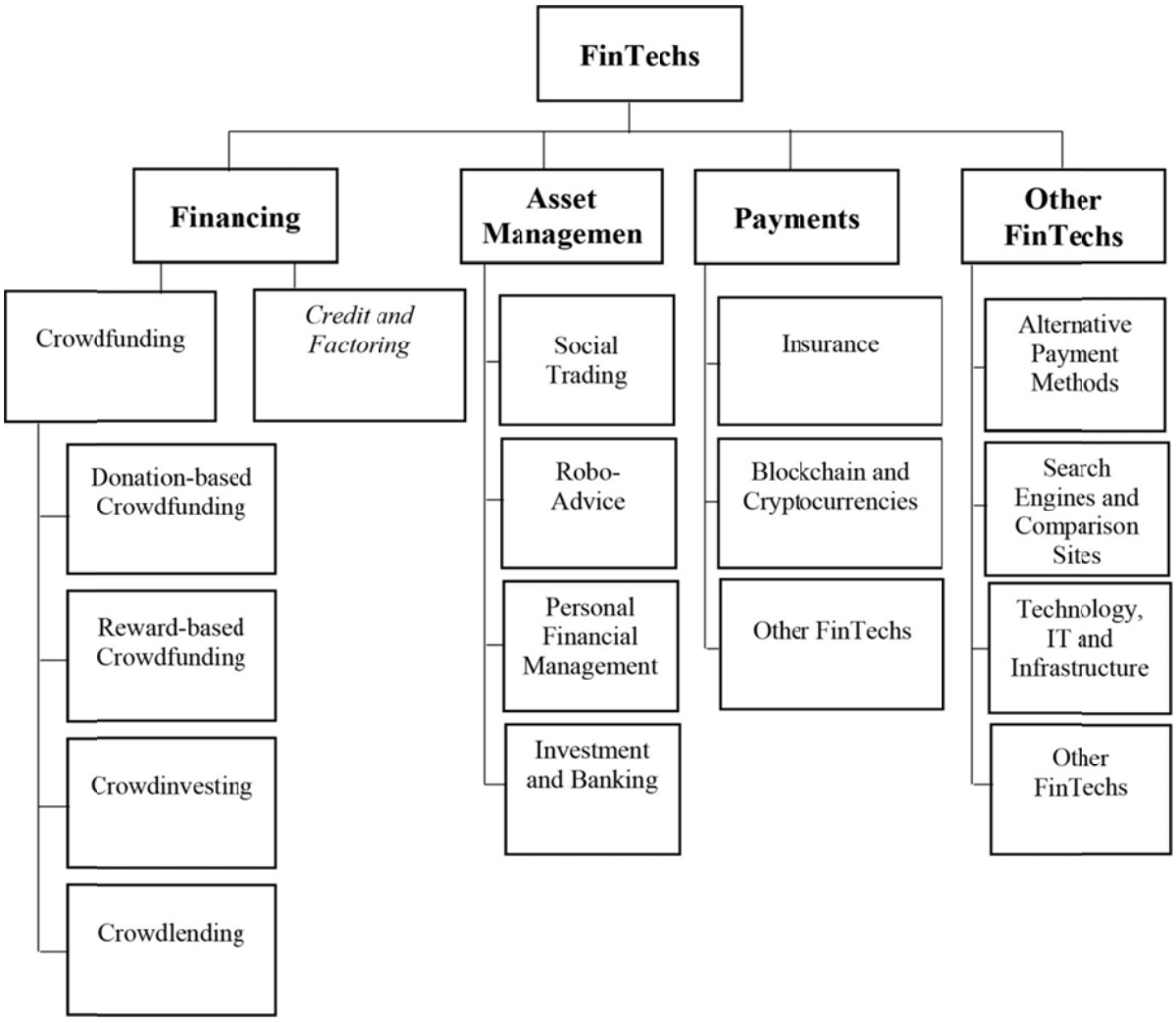

Figure 2. Segments of the FinTech Industry

Source: Dorfleitner et al., (2017a)

FinTechs in *credit and factoring* works with a single partner bank or a number of banks. In cooperation with bank(s), FinTechs provide credit facilities to the individuals and businesses without recourse (Note 2). Loans are sometimes given for a short-time period such as few days, weeks, months via mobile phone. Here, FinTechs provide innovative factoring solutions

such as selling claims online, offering factoring solutions without minimum requirements. Companies under credit and factoring automate their business processes to be cost effective, transparent, innovative, fast, and efficient in discharging their services (Dorfleitner et al., 2017a).

Digital finance represents the digitalization of the financial industry. It covers all the electronic products and services in the financial sector such as credit cards, electronic exchange systems, home banking, home trading services, automated teller machines (ATMs), etc. (Gomber, 2017; Banks, 2001). It also includes all mobile and app services. The Digital Finance Institute (2015) describes Digital Finance start-ups as "companies that are creating innovation for integrating distributed digital banking, mobile solutions and delivery platforms, micro-finance, payment solutions, peer-to-peer lending and crowd-funding". Digital Finance has widened the coverage of banking services in the less developed economies where bank infrastructure is not efficient. Payment systems such as the concept of "prepaid" and credits have been easily accessible here due to digital finance (Gomber, 2017; Rizzo, 2014).

Zhang et al. (2016) and Dorfleitner et al. (2017b) state that the practice of digital financing is immense in terms of volume and growth. The market for online based invoice trading has increased substantially in recent years. In the UK, this market has tripled between 2013 and 2015. The volume of this market was £97 million in 2013 while the same was £325 million in 2015. From the global perspective, the market is also growing increasingly.

Baeck et al. (2014), Ketterer (2017), and Dorfleitner et al. (2017b) state that innovative and technology based financing has improved the access to finance for both individuals and organizations. Academics are consistent in the opinion that this kind of alternative mode of financing has expanded the access of the firms and individuals to the finance. Both small and large firms get more access to firms. In addition to traditional factoring and other forms of financing such as bank loans and overdraft facilities, the liquidation program of invoices through trade receivable exchange (TRX) can enhance the working capital base of CMSMEs.

Gomber et al., (2017) mention that now-a-days various kinds of platforms have been formed in the area of factoring, crowdfunding, supply chain financing to offer financing services through digitized format. The underlined transaction, i.e., the disinvestment of trade receivables or trading on invoices is akin to factoring. It is an evolution of the traditional (off line) factoring and a hybrid version of factoring.

Vannoni (2020) states that trading of commercial invoices provides an opportunity to avail cash in advance, just after the delivery of goods, instead of waiting for a credit period. It also facilitates the supply chain financing (or reverse factoring) under which the large corporates take financing to pay their suppliers' bills. This is a kind of selling a loan made on the part of a buyer (debtor) created for the delivery (selling) of goods or services on credit by a supplier or producer.

Klapper (2006) and Dorfleitner et al. (2017b) state that this financing has similarity with factoring in which the invoices are assigned to a single or multiple factors (financers/investors). If at the beginning of the service (factoring service) all the invoices are

assigned to a single factor, invoices are discounted with a single factor (financer/investor). However, this fixed policy with a single factor is amendable. Sometimes, the invoices can also be discounted with multiple factors with the consent from the debtor (the concern on which the bill is drawn), and the client (the supplier or the beneficiary of finance, i.e. the factoring client). On the other hand, under financing through discounting with the help of TRX is open to many financers/investors that lead to *lowering financial cost* on the part of the beneficiary, i.e. the CMSMEs.

Tinn and Chemla (2019) and Belleflamme et al. (2013) state that financing through trade receivable exchange is akin to *crowdfuding* in which multiple investors can participate. Crowdfunding is a financing in which many contributors called backers provide financial resources to achieve a common goal: generally providing capital for a firm. So, as many investors can participate under crowdfunding; similarly many financers (investors) can participate under TRX to provide capital to a firm.

Chatnani (2018) finds that under the mechanism of discounting an invoice through trade receivable exchange, an invoice is offered openly to all kind of investors (individual or institutional) for purchasing at a discount price and the full amount (of the invoice) is received at the maturity date [the due date of payment of the invoice]. In this sense, this financing works as like as a stock exchange where a share is offered openly to the investors for bidding a price and the dividend is paid based on the face value of the share.

Ozil (2017) finds that there is a relation between financing through trade receivable exchange and promoting economic growth of the state. Arranging finance with trade receivable exchange increases the volume of financial transactions in the economy that accelerates the production of goods and services in the economy. It also addresses the issues like inclusive financing, poverty reduction, cost of finance for intermediation (on the part of both the finance providers and users), government revenue, governance of business, access to finance for poor entrepreneurs, etc.

3. Research Methodology

The meta-analysis procedure has been used in the study. The data used in the study are from secondary sources and they are both quantitative and qualitative in nature. More than 100 venues (46) have been referred), i.e., journals, websites, periodicals, books, etc. have been screened. Few of the important data sources (beyond journal papers) include World Bank; Bangladesh Bank; Bangladesh Economic Review; leading trade receivable platforms working in different countries; SME Foundation, Bangladesh; relevant websites; etc.

The existing form of TRX in different countries is mostly known as trade receivable platforms or invoice platforms or invoice trading platforms. The data from these platforms and previous research works have been used to find the concept and modus operandi of TRX as well as the global status of TRX.

On the other hand, the data from World Bank, multilateral agencies, and other Bangladesh-based contexts have been used to find the application of TRX in Bangladesh.

4. Findings and Discussion

Based on the objectives of the study, the findings are as follows:

4.1 Concept of TRX: How Does TRX Work?

TRX is deemed to bring buyers, suppliers, and financers together in one place allowing CMSMEs to post their receivables, buyers to approve invoices, and financers to bid on them. The objective of the bidding model is to enable CMSMEs to access funds at lower rates than the ones available to them conventionally. A due fraud-checking mechanism ensures that the invoices are legitimate, have been approved accordingly by the buyer and have not already been used before to obtain financing from another lender (Wass, 2019).

In a brief way, as per step by step procedure, the modus operandi of TRX is as follows (Invoice Trading Explained, 2021):

- A supplying firm applies online to become an approved member of the invoice trading exchange.
- Once approved, a client bank account is set up and the supplying firm can sell an invoice. The monetary value of the invoice may vary from a minimum amount to a maximum amount.
- The due process of the exchange verifies the invoice. Once verified, it is sold on the exchange, where multiple investors buy slices of the invoice.
- The firm (supplying firm) receives funds in its account as an advance up to a certain percentage of the invoice value (say, 90%) within 24-48 hours.
- When the end debtor (the buyer) pays its invoice into the client bank account, the exchange makes the remaining balance available to the firm, minus their fees.

A comprehensive functional definition of TRX is as follows (Reserve Bank of India, 2014):

(i) Buyer corporate sends purchase order to CMSME.

(ii) CMSME delivers the goods or services as per the requirements along with *bill* to be paid by due date.

(iii) Buyer corporate accepts the goods or services and based on instruction received from CMSME, posts the accepted *bill* on the Trade Receivables Exchange (TRX).

(iv) Receivables of CMSME from buyer corporate become available to the financiers for bidding and financiers submit their online bids to the TRX.

(v) Various bids submitted by financiers become available to the CMSME.

(vi) CMSME evaluates the options and accepts a bid. If it does not exercise its option, the auction closes at the expiry of specified period.

(vii) When CMSME accepts the bid of a financier, an online intimation is sent by the TRX to all concerned parties viz, CMSME, buyer corporate and financier about the discounting of bill through the TRX.

(viii) Payment is made by the financier to CMSME and intimation is given by financier and CMSME about the same to TRX.

(ix) On due date, buyer corporate directly pays to the financier.

Based on the practices of different invoice trading platforms in different countries, a functional definition of TRX has been provided above and a graphical presentation of the same is given in Figure 3.

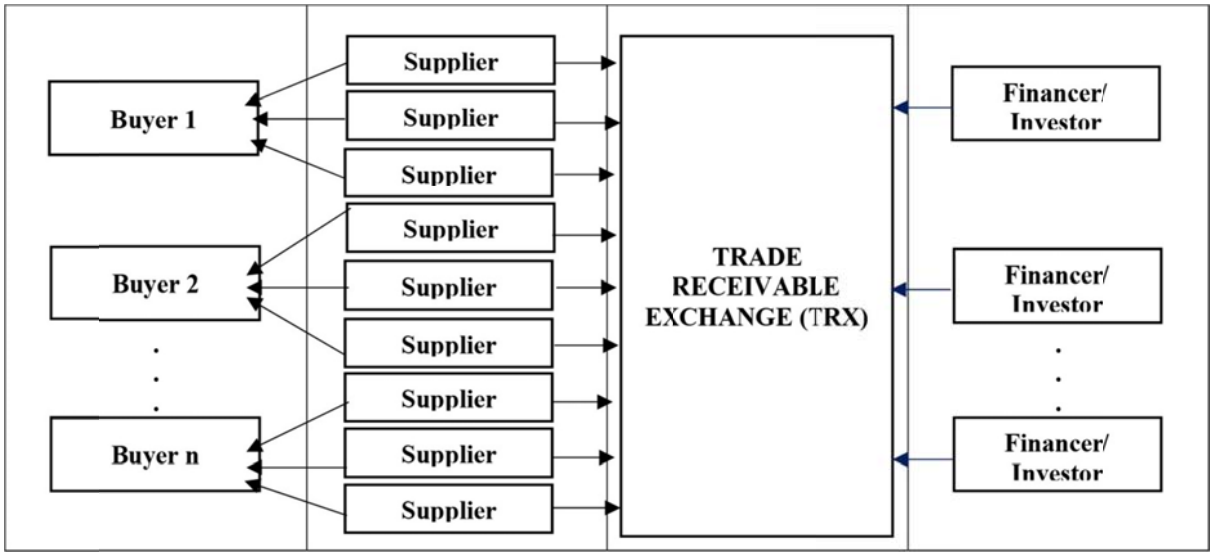

Figure 3. Modus Operandi of TRX

Source: The Author (2021) with the Aid of TReDs Platform, India (2017)

4.2 Global Practice of TRX

Many countries have adopted and/or adapted this financing modality. For instance, the neighboring country, India, has incorporated this financing in 2015. India followed the model incorporated by Mexican Development Bank – the state-owned Nacional Financiera (NAFIN) (Klapper, 2005; Klapper, 2006). There are three (03) such kind of exchanges (also known as platforms) in India. United Arab Emirates (UAE), a global trade hub, is on the way of adopting this model of financing to cater their MSMEs (Micro, Small, and Medium Enterprises) market. United Kingdom (UK), United States of America (USA) have incorporated this financing long before. A brief on the practice of this financing across the countries is given below:

USA

Back to more than a decade, the trade receivable finance market through the organized exchange started the journey. In the USA, in 2007, the Receivable Exchange (now it is *LiquidX*) was launched as an alternative to factoring, another mode of trade receivable

finance. It was based in New York. It was a subsidiary of The New Orleans Exchange, Inc. The focus of LiquidX was on small firms since the large ones (firms) have the alternative sources of finance from banks, NBFIs, and other for their supply chain (Chatnani, 2018).

In 2011, another trade receivable exchange player named *NYSE Euronext* started the business of financing invoices of supplying firms by acquiring a share in LiquidX. They used to finance the receivables of both the small suppliers and large corporate suppliers.

UK

In UK, in 2010, *Market Invoice* started business of financing through discounting trade receivables with bidding in the auction mode as like as the conventional stock exchange. By 2017, it expanded its portfolio remarkably with increasing trend as of today. Market Invoice is the world's *largest* invoice trading platform.

ii. Another trade receivable exchange giant in UK named *Platform Black* started business in 2012 to provide cash support to the small suppliers against their outstanding trade receivables.

iii. Still another British trade receivable exchange player named *Aztec Exchange* was set up by former Morgan Stanley and HSBC executives. As of 2016, they reported having 6,000 SME clients in their book or portfolio and in 2017 they secured place in the list of Forbes.

Slovenia

The first organized exchange for trading B2B receivables is *Invoice Exchange* in Slovenia. It is located in Ljubljana, the capital city of Slovenia. The idea of establishing Invoice Exchange was conceived by two entrepreneurs named Marko Rant and Tomi Šefman in 2011. After developing a pilot trading platform and testing it with prospective clients, the company attracted the attention of business angels Peter Ribarič and Janez Klobčar who in late 2014 invested 150.000 EUR of seed equity to kick-start the project. Invoice Exchange went on live in November, 2015 (Conda, 2021).

By May 2016, The Invoice Exchange had over 190 registered clients – exchange members, and reached a total of 3.25 million EUR of receivables traded on the platform (Conda, 2021).

Without UK, there are many trade receivable exchanges in different countries such as Italy, France, Spain, Sweden, etc. in Europe. Statista (2021) presents a robust growth of receivable trading market in non-UK Europe over the years 2013-2018 as shown in Table 1.

India

In India, there are three such markets or platforms namely (i) Receivables Exchange of India Ltd (RXIL), (ii) TReDS Ltd (Known as Invoicemart), and (iii) Mynd Solutions (Known as M1 Xchange).

On December 1, 2016; Reserve Bank of India, the central bank of India, authorized *Receivable Exchange of India Limited (RXIL)* as India's first receivable exchange. RXIL is

Table 1. Value of Invoice Trading in Europe (Except) UK: 2013 to 2018

In Million USD

Year	Value	Compound Growth Rate
2013	1.2	132.83%
2014	8.8	
2015	89.5	
2016	278.7	
2017	604.3	
2018	803	

Source: Statista (2021) and Author's Calculation (2021)

promoted by Small Industries Development Bank of India (SIDBI), the apex financial institution of promoting and financing MSMEs in India, and National Stock Exchange of India Limited, the premier stock exchange in India. Other joint investors behind RXIL include State Bank of India (SBI), ICICI Bank, YES Bank, SBI Capital Markets Limited, and ICIC Securities Limited (Samie, 2017).

Another trade receivable exchange of India is *Invoicemart*. It is promoted by A. TReDS Limited (a joint venture between Axis Bank and mjunction services). The license for Invoicemart was given on June 29, 2017 and it went on live on July 5, 2017 (Narayanan, 2019).

The third trade receivable exchange of India is *M1 Xchange*. It is promoted by Mynd Solutions, a global service provider in finance and accounting, human resources, information technology, and consulting. It was launched on 7th April 2017 (M1 Exchange, 2021).

The government of India has taken steps further to expedite the operation of trade receivables exchange platform. Their Ministry of Micro, Small and Medium Enterprises (MSME Ministry) vide its Notification (MSME Notification) bearing S.O. 5621(E) dated November 02, 2018 has mandated all companies (large corporates) registered under the Companies Act, 2013 with a turnover of more than Rs. 500 Crore (Rupees Five Hundred Crore) as per the last available audited financial statements and all Central Public Sector Enterprises (CPSEs) to get themselves registered on the TReDs Platform to ensure cash liquidity for MSME suppliers (Rao & Gupta, 2021; Chatnani, 2018).

In response to the above steps of Indian government, the trade receivables market in their economy registered a bullish trend as depicted in Table 2.

India has developed this market with the help of the model incorporated by Mexican Development Bank – the state-owned Nacional Financiera (NAFIN) - which operates the Cadenas Productivas (RBI, 2014).

United Arab Emirates

In United Arab Emirates (UAE), a global trade hub, Abu Dhabi's financial free zone and Abu Dhabi Commercial Bank (ADCB) are working together to launch a trade receivable exchange

Table 2. Performance of Trade Receivable Exchanges in India

In Crore INRs (Indian Rupees)

Particulars	M1Xchange			Invoicemart		
	March 31, 2018	March 31, 2019	Growth	March 31, 2018	March 31, 2019	Growth
Disbursement Amount	315	2,614	730%	415	2,712	553%
Number of Invoices (Trade Receivables) Discounted	2,532	34,044	1,245%	14,304	1,83,088	1,180%
Number of Banks/NBFIs Participated	14	24	71%	10	24	140%
Number of Corporate Buyers (Debtors)	47	200	326%	32	259	709%
Number of MSMEs Vendors (Suppliers)	201	1285	539%	310	1802	481%

Source: Narayanan (2019); Author's Calculation

Note: 1 Crore = 10 Million

market. They are replicating India's M1xchange. This market will be named as UAE Trade Receivables Exchange. The UAE government intends to do it to pave the access to finance for the MSMEs at a lower cost than the same of the sources available conventionally. They have the deliberate plan and mechanism for the fraud checking to ensure the genuineness and legitimacy of the invoices (trade receivables). They also have set procedures to protect money laundering activities, double financing of the invoices. They are working with the monetary authorities of Hong Kong and Singapore to set their trade receivable exchange (Wass, 2019).

4.3 Application of TRX in the Context of Bangladesh

Bangladesh is becoming a new model for development (Bird, 2021). The country has maintained an impressive track record on growth and development. In the past decade, the economy has grown at nearly 6% per year, and human development went hand-in-hand with economic growth. Poverty dropped by nearly a third, coupled with increased life expectancy, literacy, and per capita food intake. More than 15 million Bangladeshis have moved out of poverty since 1992 (Note 3). All these are the condition excluding the pandemic period (COVID-19).

Bangladesh is the 39th largest economy in the world. It will be the 24th largest economy by 2030 (World Economic Forum, October, 2019). It has fulfilled all three requirements (per capital income, human assets index, economic vulnerability index) and is now on track for graduation to be upper-middle income country by 2024 (World Bank, 15 October, 2019). However, due to Corona pandemic, this transition time has been extended till 2026 (Jha, 2021). In 2019, the economy registered growth at 10.41% on year over year basis having CAGR of 11.32% over last 10 years since 2010 as shown in Figure 4.

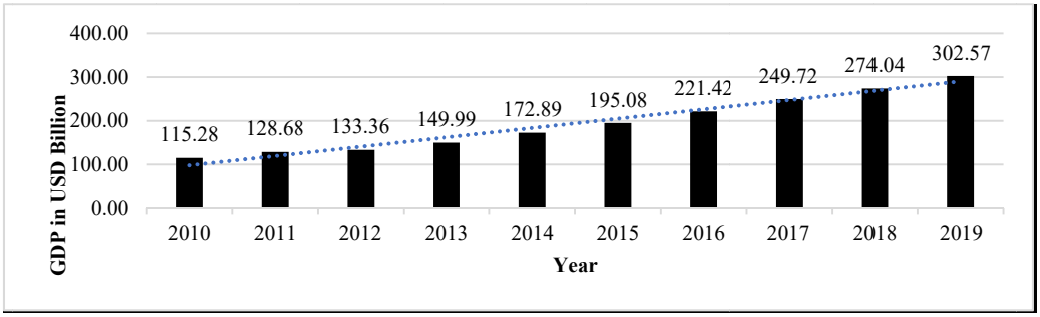

Figure 4. Bangladesh Economy

Source: Author's Calculation Using World Bank Data (2020).

Note: Data of 2020 Not Yet Published on the Same Source [Accessed 20 February 2021]. However, statista.com (2021) mentions GDP in 2020 as $338.39 billion.

To meet its target of becoming the 24th largest economy by 2030 it will require increasing GDP growth at around 9% per year based on accelerated export and remittance growth. Both public and private investment will need to increase as well. Growth will also need to be more inclusive through creation of productive employment opportunities in the domestic economy. To sustain accelerated and inclusive growth, Bangladesh will need to manage the urbanization process more effectively, as well as prepare for adaptation to climate change impacts. At the same time Bangladesh will need to maintain macroeconomic stability; strengthen revenue mobilization; tackle energy and infrastructure deficits; deepening financial-sector and external trade reforms; improving labor skills, economic governance, and urban management; and adapting to climate change. Bangladesh can become an export powerhouse, with its labor-intensive manufactured and service exports growing at double digits on a sustained basis.

The industries in Bangladesh are made up of mainly of small manufacturing companies namely cottage, micro, small, and medium enterprises that are considered as the backbone of the economy and driving force of solving the unemployment problem of the country. They generate more than 90% of all business activities and provide two out of every three jobs in the private sector. These industrial units suffer from many folds of problems in which the most dominant is capital shortage. According to the survey of Medium Industry Development Association (MIDAS), 51% of SMEs closed due to the lack of capital, particularly working capital, in the period of 2008 to 2012 in the developing economies (UNCTAD, 2001). In Bangladesh, 50% of CMSMEs acutely face the capital shortage for running the business (The Daily Star, 2019).

Under the above condition of the economy, the application of TRX may be justified under (i) prospect of TRX, (ii) readiness for TRX, (iii) existing market scenario in terms of FinTech, and (iv) identification of the stakeholders.

4.3.1 Prospect of TRX

The market of TRX depends on B2B (business to business) transactions on credit. The space of this credit transactions is depicted here with few instances: (i) government procurement, (ii)

purchase of state-owned enterprises' (SOEs), (iii) purchase of listed companies in the stock exchange(s), (iv) GDP Scenario.

i. Government Procurement

The total amount of procurement of Bangladesh government stood around $25.00 billion in 2020 (Note 4). (World Bank, 2020). Mostly, this amount of procurement was *not* made in cash. It remained in receivable (invoice) form for a time such as 30 days, 60 days, 90 days or so on. In other words, in the economy, a large amount of money remained tied in receivable form.

ii. Purchase of SOEs

Bangladesh Economic Review (2020) states that state-owned enterprises (SOEs) in different sectors (such as industry; power, gas and water; transport and communication; trade; agriculture; construction; services) conduct a significant amount of purchases every year for maintaining national productivity, value addition, employment generation and revenue income. These purchases mostly take place *on credit* that also keep a large amount of money in receivable form. Table 3 depicts a purchase record of SOEs over the years 2014 - 2015 to 2018 - 2019.

iii. Purchase of the Listed Companies

The private sector carries almost 85% of the development activities of the country. It also carries a large amount of business activities *on credit*. That is, a large amount of money remains in the form of trade receivables in the economy. The ages of these receivables vary from very short time period such as seven (07) days or 15 days to long-term period such as 30, 60, 90, 120, 180 days, and so on (Klapper, 2005). For instance, an approximate amount of total purchase in 2020 (Note 5) of top five (05) listed companies in Dhaka Stock Exchange (DSE) from the top 20 best performing companies is given in Table 4 based on the data shown in DSE website (DSE, 2021).

Table 3. Goods and Services Purchased by the Non-Financial SOEs

In Crore BDT

Fiscal Year	Amount	Compound Growth Rate
2014-15	127014.54	
2015-16	114077.15	
2016-17	126643.24	6.20%
2017-18	154985.90	
2018-19	161553.65	

Source: *Bangladesh Economic Review - 2020, Ministry of Finance*

Note: *1 Crore = 10 Million; 1USD = BDT 84.80 as on 18 February, 2021; Source: Bangladesh Bank, the Central Bank of Bangladesh*

The scenario is such that there are such 20 top performing companies and total listed companies are 598 (Note 6) (including 20 top ones). If we consider the purchase of total listed companies, the volume becomes a gigantic one that remains tied in receivable form.

The *time cost or economic value* of this colossus amount of money is a significant. The TRX can release this fund remaining in inactive form. It glimpses the space for the market of TRX.

Table 4. Total Purchase Size of Five DSE-Listed Companies

S/L No.	Name of the Company	Q1 Purchase** (In BDT Million)	Q1 Purchase (In BDT Crore)	Annual Purchase (In BDT Million)	Annual Purchase (In BDT Crore)
1	Bangladesh Export Import Company Ltd.	6,207.45	620.745	24,829.81	2482.981
2	British American Tobacco Bangladesh Company Limited	17,193.58	1719.358	68,774.34	6877.434
3	Beximco Pharmaceuticals Ltd.	6,579.63	657.963	26,318.53	2631.853
4	Robi Axiata Ltd. (Q3)*	18,370.55	1837.055	73,482.20	7348.22
5	Summit Power Ltd.	11,701.15	1170.115	46,804.60	4680.46
Total		**60,052.37**	**6,005.24**	**240,209.48**	**24,020.95**

Source: Dhaka Stock Exchange [Accessed 2 February, 2021]

* Data of Q1 were not available.

** The calculation was based on the sales turnover. There was a 5% deduction from the sales revenue to get the purchase volume.

Based on government procurement, SOEs' purchase, and listed companies' purchase; the market space for TRX is depicted in Figure 5.

iv. GDP Scenario

Beyond the transactions under government procurement, SOEs' purchase, listed companies' purchase; a large amount of B2B transactions also take place *on credit* among the firms that are not listed in the exchanges or owned by the government. The volume of such B2B activities on credit can be grasped through per day GDP activities in the economy (Note 7) as depicted in Table 5.

Table 5 shows that per day economic activities in the economy ranged from minimum BDT 27 crore (270 million) to maximum BDT 1459 crore (14590 million) over years from 2011-2012 to 2019-2020 in different sectors totaling from minimum BDT 2274 crore (22740 mllion) to maximum BDT 7417 crore (74170 million) as depicted in Figure 6. Over the same period, the average daily economic activities stood from minimum BDT 50 crore (500 million) to maximum BDT 892 crore (8920 million) as shown in Figure 7. All these make an analogy for a market of TRX.

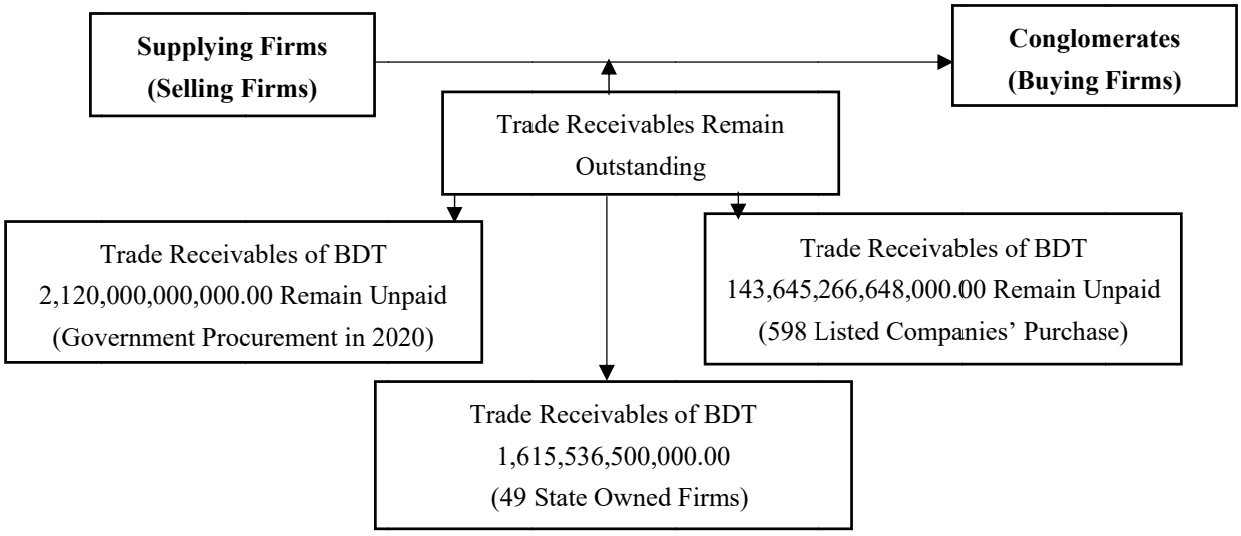

Figure 5. Scenario of Trade Receivable

Source: The Author's Calculation (2021) Using Respective Data Sources Cited.

Note: 1USD = BDT 84.80 as on 18 February, 2021; Source: Bangladesh Bank

Table 5. Daily Business Activities in the Economy

At Current Market Prices, In Crore BDT

Sector	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020*
1. Agriculture and Forestry	386	413	455	490	529	571	632	689	737
2. Fishing	88	103	118	132	147	166	186	206	229
3.Mining and Quarrying	46	54	59	66	79	95	108	122	131
4.Manufacturing	466	548	620	707	820	950	1123	1337	1459
5.Electricity, Gas and Water Supply	39	46	51	55	66	73	81	89	95
6. Construction	190	229	252	301	351	406	472	546	623
7.Wholesale and Retail Trade	382	429	479	535	595	678	777	896	1001
8.Hotel and Restaurants	27	31	36	41	47	54	61	70	79
9.Transport, Storage & Communication	313	345	373	417	470	520	568	628	691
10.Financial Intermediations	101	117	135	155	177	203	233	262	281
11.Real Estate, Renting and	191	219	253	295	344	401	462	529	590
12.Public Administration	93	105	124	141	185	218	251	275	311
13. Education	70	79	91	105	129	158	179	203	227
14.Health and Social Works	56	66	75	84	97	108	122	144	163
15.Community, Social and Personal	326	386	435	490	540	595	657	725	800

Source: Bangladesh Economic Review - 2020, Ministry of Finance

Note: (i) Calculated by dividing annual GDP by 360 days considered as financial number of days in a year. (ii) * means provisional(iii) 1 Crore = 10 Million; 1USD = BDT 84.80 as on 18 February, 2021; Source: Bangladesh Bank

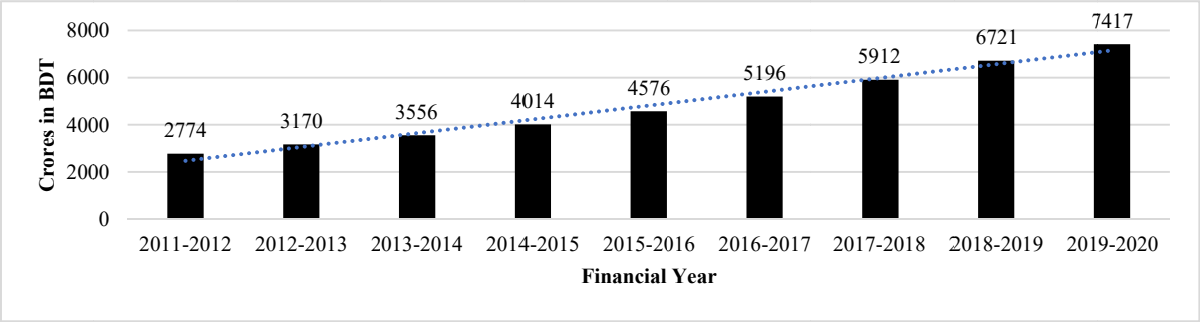

Figure 6. Total Daily Economic Activities (In Crore BDT)

Source: The Author's Calculation using Data of Bangladesh Economic Review (2020).

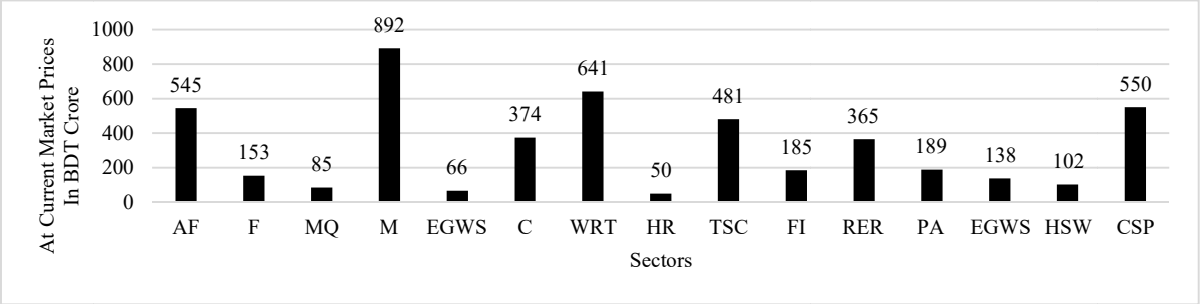

Figure 7. Average Daily Business Activities in the Economy: 2011-2012 to 2019-2020

Source: Author's Calculation (2021) Using Data from Bangladesh Economic Review - 2020, Ministry of Finance

Note: (i) AF: Agriculture and Forestry; F: Fishing; MQ: Mining and Quarrying; M: Manufacturing; EGWS: Electricity, Gas and Water Supply; C: Construction; WRT: Wholesale and Retail Trade; HR: Hotel and Restaurants, TSC: Transport, Storage & Communication; FI: Financial Intermediations; RER: Real Estate, Renting; PA: Public Administration; E: Education; HSW: Health and Social Works; CSP: Community, Social and Personal.
(ii) 1USD = BDT 84.80 as on 18 February, 2021; Source: Bangladesh Bank

4.3.2 Readiness for TRX

The readiness refers to the preparedness of the country in terms of (i) technology, and (ii) regulatory issues for TRX. The present status of technology and regulatory issues in relation to TRX is as follows:

i. Technology Based Preparedness

The function of financing through TRX is mostly dependent on technology, specially the Information and Communication Technology (ICT). So, the technology based preparedness indicates the status of ICT of the country (Note 8).

The government of the country is pro-ICT. The vision of the government is to turn the nation into "Digital Bangladesh" by 2021. A lot of projects and programs have already been implemented in this motto and many are in the process to build the nation on the *four* pillars of (i) making people skilled in ICT, (ii) ensuring connectivity for people at every corner of

the country, (iii) making public services available at the doorstep of the citizens through digitization, (iv) providing required services to the IT-industries.

For building a digitalized country to adopt and/or adapt an inclusive finance based economy, some of the mega and notable ICT projects completed by the government are as follows (Bangladesh Economic Review, 2020; ICT Division, The People's Republic of Bangladesh, 2021; UNCTAD, 2019; UK Aid, n.d.):

Bangladesh Hi-tech Park (BHP): Bangladesh Hi-tech Park Authority was created to establish hi-tech park/software technology parks, training and incubation centers at different places in the country. BHP was created to promote IT/ITES based hi-teck industry, tech based employment, building an investment-friendly economy.

Establishing Department of Information and Communication Technology (DOICT): The department of ICT was created in 2013 under ICT division to deliver e-services at the doorsteps of the citizens, promote knowledge-based economy and good governance in the country.

Controller of Certifying Authorities (CCA): The CCA was established in 2011 as an attached office of ICT division to secure e-commerce, e-transaction, and e-governance in the country.

Bangladesh Computer Council (BCC): BCC was created under the Act No IX of 1990 passed by the Parliament to promote ICT infrastructure of the country. It has completed many milestone activities to establish an ecosystem based ICT infrastructure. Some of the strategic projects completed by BCC include: Tier –III National Data Center; National Data Center (Tier-IV certified); Smart Classrooms in educational institutions; 5G-based Wi-Fi 6 network; Innovation Design Entrepreneurship Academy (iDEA); "Connected Bangladesh"; Digital Island *Maheshkhali (Note 9)*; Center for Excellence on Fourth Industry Revolution (Robotic, Block chain, Internet of Things (IoT), Big Data, Data Analytics, Machine Learning, Deep Learning, 3-D Printing, etc.); Bangladesh National Digital Architecture (BNDA); Digital Security Agency (DSA); A2i Program; etc. (Bangladesh Computer Council [BCC], 2021).

ii. Regulatory Issues Based Preparedness

The regulatory issues include related laws, acts, rules, regulations, policies, etc. The regulatory issues are divided under two heads: (1) ICT, and (2) stock exchange [since TRX seems to be akin to stock exchange] (Vannoni, 2020).

a) Laws, Acts, Rules, Policies Related to ICT: Different ICT related laws, acts, rules, and policies have been formulated in the country in different times to make the country digitized. Some of them include: Information and Communication Technology Act 2006 (with amendment in 2009 and 2013); National ICT Policy 2009, 2015 and 2018; Digital Security Agency Rules 2020; Digital Security Act 2018; One Stop Service Law 2018; Bangladesh Hi-Tech Park Authority 2010 (with amendment in 2014) Act 2014; One Stop Service Law 2018; BCC Act 1990; etc. (ICT Division, The People's Republic of Bangladesh; 2021).

b) Laws, Acts, Rules, Policies Related to Stock Exchange: There are two big stock exchanges in the country named Dhaka Stock Exchange (DSE) established in 1954 and Chittagong Stock

Exchange (CSE) established in 1995. There are many laws, acts, rules, policies in the country for functioning of these stock exchanges and their help may be taken to formulate new laws, acts, rules, and policies to establish and operate TRX. In this regard, few propositions (not limited to only these) are here (Bangladesh Securities and Exchange Commission, Ministry of Finance; 2021):

- New rules similar to existing "The Securities and Exchange Rules 1987" may be formulated for a trade receivables based secondary market, i.e. TRX. This may further facilitate the establishment of a Commodity Exchange in the country.

- Listing Regulations to be created for the supplying firms and buying firms whose receivables and payables respectively (i.e., receivables are on the part of supplying firms and the same are payables on the part of buying firms) will be traded in the exchange. In this regard, there is already a regulation named "Listing Regulations of the Dhaka Stock Exchange Ltd." "The Public Issue Rules" may also be taken into consideration in this regard.

- New regulations like "Settlement of Stock Exchange Transactions Regulations 1998" to be created for the Settlement of Trade Receivables Exchange Transactions.

- Regulations for Trade Receivables Dealer, Trade Receivables Broker, Authorized Representative to be created as made for stock market like "Securities & Exchange Commission (Stock Dealer, Stock Broker and Authorized Representative) Regulations 2000".

- The trading of trade receivables will be conducted electronically. Therefore a regulation based on Automated Trading of Trade Receivables to be created as was created for stock trading such as "Dhaka Stock Exchange Automated Trading Regulations 1999".

4.3.3 Existing Market Scenario in Terms of FinTech

TRX has an akin to FinTech (Gomber et al., 2017). In Bangladesh, the approach of innovative FinTech is dependent on mobile financial services (MFS) (Medici, 2021). Here, MFS operates under a bank-led structure under the guidance of Bangladesh Bank, the central bank of Bangladesh. Bangladesh Bank introduced MFS in 2011.

MFS refers to branchless banking or mobile banking services offered to banked and unbanked population groups at reasonable rates (Medici, 2021). Under MFS program, Bangladesh Bank allows Cash in, Cash out, Person to Person (P2P), Person to Business (P2B), Business to Person (B2P), Person to Government (P2G) and Government to Person (G2P) payment services domestically. However, local disbursement of inward foreign remittance coming through banking channel is permitted. The central bank granted 28 banks to offer MFSs (UK Aid, 2017) out of which 19 have launched their operation (Bangladesh Bank, 2021).

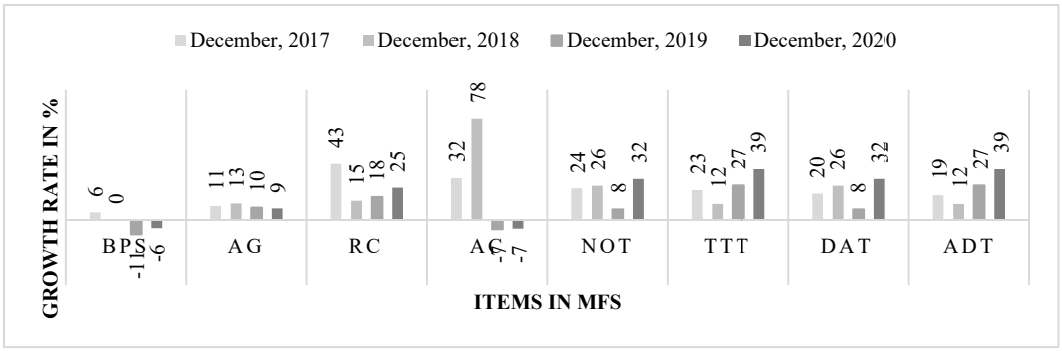

Figure 8. Growth Rate (in %) of MFS

Source: The Author's Calculation using Data of Bangladesh Bank (2021)

Note: BPS: Number of Banks Providing (MFS) Services; AG: Number of Agents; RC: Number of Registered Clients in Lac, AC: Number of Active Accounts in Lac; NOT: Number of Total Transaction; TTT: Total Transaction in BDT Crore; DAT: Number of Daily Average Transaction: ADT: Average Daily Transaction in Crore BDT.

MFS has grown significantly over the past few years (UK Aid, 2017; Medici, 2021). Within seven years, the MFS market in Bangladesh has become the largest one in the world (Bangladesh Bank, 2021). And after the outbreak of COVID-19, the country has witnessed phenomenal growth in MFS, cards, and other alternative payment methods (Rashid, 2021). Based on the data available at the respective webpage of Bangladesh Bank, the growth rate of the MFS market stands as depicted in Figure 8. As of 28 February, 2021; the market status of MFS exits as shown in Table 6.

Though the number of banks providing MFSs shows the negative growth, but the other every component has shown remarkable growth. Based on the *product category* such as cash in, cash out, merchant payment, etc. FinTech market shows growth as depicted in Table 7. The central bank shows the MFS data on *monthly* basis. As per the data available, the *latest'* (January and February, 2021) *product wise performance* is shown in Table 8. (Bangladesh Bank, 2021).

4.3.4 Identification of the Stakeholders

Stakeholders refer to any group or individual who can affect or is affected by the achievement of the objectives of an organization and their forces should be taken into consideration (Freeman, 2008). It is generally argued that better decisions are implemented with more success and less conflict when they are led by the stakeholders, i.e. by those who will be bearing the ultimate consequences of the decisions (Voinov & Bousquet, 2010).

Consulting with the related materials, the study finds a possible list of stakeholders for TRX (Mahmud, 2020; Rahman, 2019; Solaiman, 2005). Following the broad classification of stakeholders as *primary* and *secondary* suggested by Freeman (2008), the stakeholders of TRX are categorized under the headings of: (i) government, (ii) non-government, (iii) internal, (iv) external, and (v) global and/or international.

Table 6. MFS (FinTech) Position in the Market

Particulars	Amount	AAGR (2016 – 2020)
Number of Banks Currently Providing the Services	15	-3%
Number of Agents	1,054,781	11%
Number of Registered Clients in Lac	1,023.69	25%
Number of Active Accounts in Lac*	342.27	24%
Number of Total Transaction	279,663,337	23%
Total Transaction in Taka (In Crore BDT)	55,059.27	25%
Number of Daily Average Transaction	9,987,976	22%
Average Daily Transaction (In Crore BDT)	1,966.40	24%

Source: Bangladesh Bank (2021)
Note: (i) 1 Lac = 0.10 Million and 1 Crore = 10 Million]
(ii) Actual number of days in month has been used for average calculations.
(ii) *Account in which transaction made in last 3 (Three) Months.

Table 7. Product Wise Growth of MFS (2016 – 2020)

Products	Dec. 2017	Dec. 2018	Dec. 2019	Dec. 2020	AAGR
Inward Remittance	-43%	1281%	-51%	335%	380%
Cash In Transaction	20%	2%	19%	19%	15%
Cash Out Transaction	20%	12%	10%	15%	14%
P2P Transaction	31%	15%	94%	72%	53%
Salary Disbursement (B2P)	73%	51%	64%	108%	74%
Utility Bill Payment (P2B)	2%	54%	10%	167%	58%
Merchant Payment	0%	227%	41%	258%	131%
Government Payment	0%	413%	-90%	-37%	72%
Others	3%	38%	45%	106%	48%

Source: The Author's Calculation using Data of Bangladesh Bank (2021)

i. Government Stakeholders

The bodies under *government stakeholders* include Jatiya Sangsad (JS) [National Parliament], Ministry of Finance (MOF), Ministry of Commerce (MOC), Central Bank, Bangladesh Bank (BB), Bangladesh Security Exchange Commission (BSEC), Dhaka Stock Exchange (DSE), Chittagong Stock Exchange (CSE), Bangladesh Institute of Development Studies (BIDS), Investment Corporation of Bangladesh (ICB), Bangladesh Investment Development Authority (BIDA), Central Depository of Bangladesh Limited (CDBL), political party in power of the state (PPP) [(Political Government], etc.

Table 8. Latest Product Wise Performance of MFS (2016 – 2020)

In Crore BDT

Products	January, 2021	February, 2021
Inward Remittance	188.74	179.29
Cash In Transaction	17,212.22	16,042.89
Cash Out Transaction	15,807.87	15,235.33
P2P Transaction	17,459.33	16,744.55
Salary Disbursement (B2P)	2,189.63	2,190.82
Utility Bill Payment (P2B)	803.12	765.81
Merchant Payment	1,924.70	1,873.88
Government Payment	132.28	568.24
Others	1,538.82	1,458.46

Source: Bangladesh Bank (2021)

ii. Non-Government Stakeholders

The bodies under *non-government stakeholders* include political parties in opposition in the country (PPO), Transparency International Bangladesh (TIB), Center for Policy Dialogue (CPD), Policy Research Institute (PRI), Policy Exchange (PE), Business Initiative Leading Development (BUILD), foreign investors, non-resident Bangladeshi investors, and the other.

iii. Internal Stakeholders

The *internal stakeholders* include listed companies in DSE, CSE; listed companies in Registrar of Joint Stock Companies and Firms (RJSCF); large buying companies (Debtors); SME Foundation; SMEs in the country; firms involved in trading and manufacturing business; stock dealers; stock brokers; merchant bankers; Metropolitan Chamber of Commerce and Industry, Dhaka (MCCI); Dhaka Chamber of Commerce and Industry (DCCI); Federation of Bangladesh Chambers of Commerce and Industry (FBCCI); Bangladesh Association of Publicly listed Companies (BAPLC); insurance companies; Insurance Development and Regulatory Authority of Bangladesh (IDRA); Bangladesh Leasing and Finance Companies Association (BLFCA); etc.

iv. External Stakeholders

The *external stakeholders* include media (both print and digital), banks listed under Bangladesh Bank, Non-Bank Financial Institutions (NBFIs), Bangladesh Association of Banks (BAB), Credit Rating Agencies, Audit Firms, and the other.

v. Global and/or International Stakeholders

The *global and/or international stakeholders* include World Bank (WB), Asian Development Bank (ADB), International Monetary Fund (IMF), United Nations Development Program, and other.

The above stakeholders to be taken into consideration duly. They need to be mapped in terms

of their power, support, influence, interest, and attitude in relation to implement the TRX program (Chinyio & Olomolaiye, 2010). The stakeholder mapping is the process of visualizing the position of all stakeholders in terms of their influence and interest on a decision. It allows the extent of the influence and the depth of the interest of the stakeholders on the decision. It also shows how they are connected with the decision.

5. Conclusion

The study presents an alternative mode of financing by the encashment of trade receivables through trade receivable (TRX). TRX is proposed to work as like as a stock exchange wherein the supplying firms can discount their invoices for immediate cash to meet their urgent and regular business expenses. TRX is a hybrid version of factoring. Based on the practices of leading invoice trading platforms in different countries, the study has given a functional definition of TRX.

The study finds that many countries including developing and developed nations are increasingly adopting and/or adapting TRX. Bangladesh is on the way to be a developing nation: by 2024 it will be an upper-middle income country. However, due to Corona pandemic, this transition time has been extended till 2026.

The study finds Bangladesh as potential for TRX. It finds that a large volume of money remains in trade receivable form in the economy against government procurement, state owned enterprises' (SOEs') purchase, listed companies' purchase, non-listed firms' B2B transactions, etc. The study finds that every day a large volume of business activities take place in the economy. For instance, over the years from 2011-2012 to 2019-2020, average per day economic activities in the economy took place from minimum BDT 50 crore (500 million) to maximum BDT 892 crore (8920 million). A significant amount of these transactions take place on credit that justifies the adoption and/or adaptation of TRX in the country.

The study has assessed the readiness of the country to adopt and/or adapt TRX. It has assessed in terms of ICT preparation and regulatory issues. The study finds that the existing condition of ICT in the country is supportive to TRX. The regulatory issues can be addressed with the help of the existing laws, acts, rules, policies related to ICT and stock exchanges.

The study finds that a robust ready market is existing in the country in terms of FinTech (Financial Technology). In Bangladesh, the FinTech industry works in the form of mobile financial services (MFS). The MFS market is expanding increasingly in the country. For instance, the annual average growth rates of MFS were 25%, 22%, and 24% for total transaction, number of daily average transaction, and average daily transaction respectively over the period 2016 – 2020.

The study gives a tentative list of the stakeholders related to TRX that can be mapped out to formulate the strategies to manage them which may be continued as a further study on TRX.

In Bangladesh, there is no exchange like TRX. It may provide an alternative source of finance, particularly for cottage, micro, small, and medium enterprises (CMSMEs) of which

more than 51% close due to the lack of working capital (Note 10). TRX is suitable for financing working capital. In this regard, the study deserves novelty and significance.

The study carries a policy implication. The policy makers at the firms' level may find TRX as a solution for working capital. On the other hand, government may also adopt and/or adapt TRX as mode of financing for CMSMEs. For instance, in India, Government has made mandatory for the firms that have annual turnover of INRs 500 crore and above to be registered in TReDS (Trade Receivables electronic Discount System) Platforms, i.e. TRX.

The study carries some limitations. The quantity of empirical research in the field is scarce. The field deserves a study in combination of (i) ever evolving IT application, (ii) digitization of money, (iii) increasing financing opportunities on trade receivables between two extreme points: one is at the production stage of goods or services and another one is at the consumption stage of the same, etc. These dimensions may create future research opportunities on TRX.

Bangladesh is a land of 7.818 million firms of which 99% are CMSMEs that provide two out of every three jobs in the private sector. It is an economy of $338.39 billion equivalent to BDT 28,634,561,800,000.00 ($1 = 84.62). A large amount of money remains tied in trade receivable form. The release (conversion) of this money into cash may facilitate further the implementation of the perspective plans of the government such as Vision 2021, Vision 2030, Vision 2041, Vision 2071, Vision 2100: the Delta Plan.

Notes

Note 1. For instance, the invoice on perishable goods are less demanding for being discounted by the investors.

Note 2. Without recourse refers to the credit agreement in which the beneficiary (the supplier or the owner of the trade receivables) is not liable for the repayment of the loan taken by discounting the trade receivables (invoices).

Note 3. All these are the condition excluding the pandemic period (COVID-19). However, pandemic is a global issue.

Note 4. Equivalent to BDT 2,120,000,000,000.00 [1 US$ = BDT 84.80 as on 18 February, 2021; Source: Bangladesh Bank

Note 5. Though this year's purchase is affected by COVID – 19.

Note 6. As on 20 February, 2021, this list stands 599.

Note 7. Though government procurement, SOEs' purchase as well as listed companies purchase are included in the overall GDP.

Note 8. The description on the readiness of the country in terms of ICT solely deserves a big research. Here a brief notation is provided to give a sense on the depth and spread of ICT scenario in the country.

Note 9.The name of the main island of the country.

Note 10. Practically, large corporates can also avail the financing through TRX.

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