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Financial Empowerment of Micro, Small, and Medium Enterprises through Trade Receivables Discounting System: A Conceptual Analysis

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Abstract:

A vibrant Micro, Small, and Medium Enterprises (MSME) sector is fundamental for ongoing development in both advanced and emerging economies. MSMEs are significant employment providers, particularly in OECD countries, employing around two-thirds of the formal workforce. In India, MSMEs play an important role in the economy by fostering entrepreneurial culture, innovation, and job creation. They are well-distributed across various economic sectors, catering to domestic and international markets. As of November 2021, India had approximately 63.38 million MSMEs, with significant portions in manufacturing and trading, contributing about 29% to India's GDP. Despite their economic importance, MSMEs face significant challenges in securing financing, particularly working capital. Compared to larger businesses, MSMEs have higher capital intensity per unit of revenue due to limited internal cash reserves, making timely access to affordable finance essential. Liquidity issues, primarily due to delayed payments from corporate buyers, exacerbate these challenges. The Reserve Bank of India introduced the Trade Receivables Discounting System (TReDS) in 2014 to address these issues by facilitating the financing of MSME trade receivables from corporate buyers through multiple financiers.

This study examines the condition of MSMEs in India, their economic significance, and their financing challenges, with a particular focus on the TReDS e-discounting platform. The study updates the literature by detailing the TReDS process, presenting recent data on its growth, and identifying current challenges.

Keywords: Trade Receivables Discounting System (TReDS), Micro, Small and Medium Enterprises (MSMEs), trade receivables, India.

JEL Classification: A19, E50, E58, O17.

Introduction

A vibrant Micro, Small and Medium Enterprises (MSME) sector is very important for continuous development both in advanced and emerging countries. MSME are the biggest providers of employment in OECD countries, employing around two-thirds of the formal workforce (Dietrich, 2012). The MSMEs in India have been playing a big role in the economy by virtue of their contribution to the entrepreneurial culture through innovations and generating the employment opportunities (Virk & Negi, 2019). They are spreading significantly across different sectors of the economy; generating a number of products and services to cater to the needs of domestic and global markets.

As of November 2021, India reported approximately 63.38 million MSMEs out of which around 19.67 million belong to manufacturing sector and around 23.04 million belong to the Trading sector. Table 1 shows the activity wise distribution of MSMEs in India. 51.25% of the total MSMEs come from the rural areas while the remaining come from the urban areas. These MSMEs contribute around 29% towards Indian GDP through its national and international trade¹.

¹ https://www.ibef.org

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Given the potential contribution of MSMEs to the Indian economy, they have been facing huge challenges in meeting their financing requirements, in particular their working capital financing. Within a specific industry, in comparison to scaled-up businesses, MSMEs tend to have higher capital intensity per unit of revenue, possibly because they lack substantial internal funds. Thus, it is crucial for MSMEs to have timely access to financing options that are reasonably priced in order to promote and sustain their operations (Buteau, 2021; Marak et al., 2020). It becomes all the way more essential for MSMEs to convert trade receivables, which is a major part of their current assets, into cash as the lack of liquidity impacts their businesses adversely (Kumar et al., 2021; Ghosh, 2015; Vaidya 2011). Various surveys by government and multilateral agencies have pointed out a significant gap in the availability of capital within the MSMEs.

Despite putting efforts on several dimensions, coupled with enabling many legal and regulatory provisions, the MSMEs still dwell on the trouble of delayed payments. The primary reason for this issue is their dependence on corporate buyers and their inability to resolve delayed payments through effective institutional and regulatory measures. To address this nationwide problem, the Reserve Bank of India released a concept paper on MSME Factoring Trade Receivables Exchange in March, 2014. The proposed institutional mechanism for financing MSME trade receivables from corporate buyers through various financiers is called the Trade Receivables Discounting System (TReDS). In this study, we discuss the condition of MSMEs in India, their importance in Indian economy and the challenges facing them with respect to the financing choices. Our focus is the e-discounting platform of TReDS which over the years has successfully led to the growth of trade finance infrastructure, attracting participants across the country. Our study is similar to Chatnani (2018) who also present a conceptual study of TReDS; however, this work contributes to existing literature by explaining the process of TReDS, providing updated facts and figures of the growth of TReDS, and challenges facing the system. The rest of the paper is structured as follows: Next section presents the details about MSMEs. Section 2 presents the TReDS in more detail. Section 3 outlines the challenges facing TReDS while last Section concludes the paper.

1. Micro, Small and Medium Enterprises (MSMEs) in India

The MSME Development (MSMED) Act, 2006 defines MSMEs as "a micro enterprise, where the investment in plant and machinery or equipment does not exceed 10 million rupees and turnover does not exceed 50 million rupees; or "a small enterprise, where the investment in plant and machinery or equipment does not exceed 100 million rupees and turnover does not exceed 500 million rupees;" and "a medium enterprise, where the investment in plant and machinery or equipment does not exceed 500 million rupees."

The earlier classification criteria were based upon the investment in plant and machinery or equipment which was different for the manufacturing and the service sector. As a part of the Atma Nirbhar Bharat Scheme, the revised criteria for MSME classification were announced in May, 2020 according to which there is no difference in the manufacturing and service sector MSMEs in terms of their investments.

	E	Ohere(0/)				
Activity	Rura	al	Urban	Total	Share (%)	
Panel A					-	
Manufacturing	11.4	14	8.250	19.665	31.027	
Electricity	0.00	3	0.001	0.004	0.000	
Trade	10.87	71	12.164	23.035	36.345	
Other services	10.20	00	10.485	20.685	32.637	
Total	32.48	33	30.900	63.379	100	
Panel B						
Sector	Category-wis	e MSMEs Distribu	ion (in millions)		$O_{harro}(0/)$	
	Micro	Small	Medium	Total	Share (%)	
Rural	32.409	0.078	0.001	32.488	51	
Urban	30.643	0.253	0.004	30.900	49	
Total	63.052	0.331	0.005	63.388	100	

Table 1. MSME in India

Source: MSME Annual Report, 2021-22

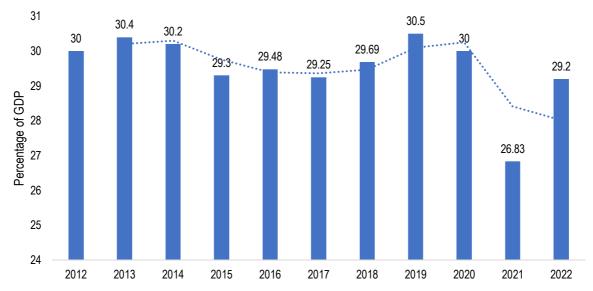


Table 2. Percent share of MSME in GDP, %

Source: Compiled by authors²

The importance of MSMEs in India can be estimated from its contribution to the country's economy (Sahoo & Swain, 2020). The share of MSME Gross Value Added in India's Gross Domestic Product (GDP) was 30.5%, 27.2% and 29.2% for the years, 2020, 2021 and 2022 respectively³, see Table 2. Given the share of manufacturing enterprises in the total MSMEs is highest (as evident from Table 1), the share of MSME manufacturing output in country's manufacturing output was 36.6%, 36.9% and 36.2% or the years, 2020, 2021 and 2022 respectively. Further, these enterprises make up 90 per cent of businesses in India, while employing more than 120 million people, as on 2023⁴. Since the importance of exports cannot be negated for any country (Rajput et al., 2015), in terms of contribution towards exports, MSME sector's share in the country's merchandise exports stood at around 48 per cent in 2019, 49.77 in 2020, 49.35 in 2021, 45.03 in 2022, 45.59% in 2023, and 45.56% in 2024 (till September). This suggest that Indian MSMEs are globally competitive and their products/services are in huge demand in the overseas market.

Despite the important role played by the MSMEs in the Indian economy, this sector has been facing constraints in obtaining adequate finance. One particular poorly managed area is their inability to convert their trade receivables into liquid funds (Kashyap & Lunagariya, 2023). It is observed that these MSMEs still struggles to convert their trade receivables into cash before maturity, except for the option of bills finance facility offered by banks. Bill discounting and factoring are major instruments employed in trade finance; however, only 10% of the Indian receivable market has access to formal bill discounting mechanism, suggesting a big void to be filled. Major reasons for the limited accessibility to factoring in India, as per the Factoring Regulation Act, 2011, are the inadequate legal framework, high stamp duty on assignments, and lack of clarity on the roles and responsibilities of parties involved, etc. As per Shaktikanta Das, Governor, RBI, it is observed many MSMEs mainly operate in the informal space, and have small-scale operations; therefore, most of them are not able to raise risk capital, and also unable to take advantage of most of the Government schemes since these schemes are mostly based on digital infrastructure⁵.

Thus, to address these issues, RBI has published a concept paper titled "Micro, Small & Medium Enterprises (MSME) Factoring-Trade Receivables Exchange" in March 2014. Figure 1 shows the proposed process for Ediscounting platform as mentioned in the concept paper. The objective was to receive as much as possible public comments and based on which subsequent draft guidelines can be issued for setting up a trade receivable system in India. with the underlying comments from public and interactions with relevant stakeholders, RBI issued guidelines for setting up and operating the trade receivables system in the country.

² www.statista.com

³ Role of MSME Sector in the Country. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1946375, August 07, 2023.

⁴ Credit access for MSMEs depends on digitisation, integration of services. https://www.business-standard.com/markets/ news/credit-access-for-msmes-will-depend-on-digitisation123082700829_1.html August 27, 2023

⁵ Micro, Small and Medium Enterprises: Challenges and Way Forward. https://www.rbi.org in, March 06, 2020

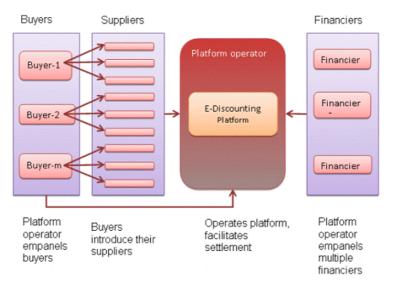


Figure 1. Proposed e-discounting platform

Source: https://rbi.org.in6

2. Trade Receivables Discounting System (TReDS): Various Dimensions

It is established that Indian trade receivables market was in dire need of a suitable institutional infrastructure to enable efficient and cost-effective factoring/reverse factoring, as well as bring sufficient liquidity for all the involved stakeholders (Aggarwal & Tyagi, 2015). Under the regulatory framework of the RBI, the Receivables Exchange of India Limited (RXIL), a joint venture of SIDBI, NSE, State Bank of India, ICICI Bank, and Yes Bank, launched India's inaugural Trade Receivables Discounting System (TReDS) platform on December 1, 2016, which became operational from 09 January 2017. TReDS is an online platform designed to assist in the financing or discounting of MSME trade receivables through a variety of financiers. These receivables can originate from corporate entities, government departments, and public sector undertakings (PSUs). The objective of TReDS is to facilitate the uploading, acceptance, discounting, trading, and settlement of MSME invoices and bills. Thus, this digital platform promoted small businesses (MSMEs) to get access to capital by auctioning their trade receivables.

Participants

Direct participants in TReDS include MSME sellers, corporate and other buyers (such as Government Departments and PSUs), and financiers (banks, NBFC Factors, and other financial institutions authorized by the Reserve Bank of India). Furthermore, sellers' and buyers' banks may also be allowed access to the system to gather information on their clients' discounted invoices or bill portfolios. Further, TReDS collaborate with certain technology providers, system integrators, and entities offering dematerialization services to deliver its services effectively.

On 24th of November, 2015, RBI granted 'in-principle' approval to three companies to set up TReDS platform. First, the Receivables Exchange of India (RXIL), jointly promoted by Small Industries Development Bank of India (SIDBI) and National Stock Exchange of India Limited (NSE), RXIL facilitates the discounting of invoices for MSMEs, providing liquidity and improved cash flow. A.TReDS is a subsidiary of Axis Bank, offering the Invoicemart platform which connects MSMEs with financiers to discount invoices, thus enhancing cash flow for small businesses. Next, the M1xchange, managed by Mynd Solutions Pvt. Ltd., which provides a digital marketplace for MSMEs to transform their trade receivables into liquid funds using an open bidding process conducted by banks and NBFCs, which ensures competitive financing rates. As on 2023, four platforms - namely, Receivables Exchange of India Limited (RXIL), M1xchange, C2FO Factoring Solutions and A.TReDS are operating the TReDS exchange⁷.

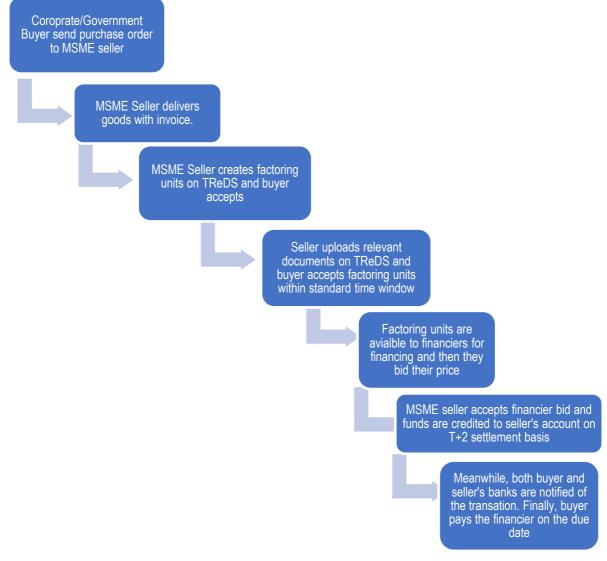
⁶ Concept Paper on Trade Receivables and Credit Exchange for Financing of MSME

⁷ Sonal Khetarpal, "How invoice discounting on TReDS crossing Rs 2 lakh cr is significant for MSMEs," https://www.india today.in/india-today-insight/story/how-invoice-discounting-on-treds-crossing-rs-2-lakh-cr-is-significant-for-msmes-2466708-2023-11-23, Nov 23, 2023.

Process and procedure

The process of the Trade Receivables Discounting System (TReDS) starts with the buyers sending purchase orders to the MSME sellers (Figure 2). These buyers can be corporations, government, or public sector undertakings. The MSME seller then delivers goods and issue an invoice. Depending on the trade practice between buyer and seller, there may or may not be an accepted bill of exchange. Next, the MSME seller creates a factoring unit (FU) on TReDS based on the invoice or bill of exchange, which the buyer then accepts on the platform. The process of creating factoring unit is initiated by the buyer in case of reverse factoring. TReDS decides the standard format of the factoring unit: could be the entire bill/invoice amount, or an amount after adjustment of tax/interest etc. as per existing market practice. Irrespective of the format, each factoring unit represents an obligation of the buyers, be it corporate, government departments, or and PSUs. These units include key information about the seller and buyer, such as the issue date, due date, tenor, remaining tenor, and a unique identification number generated by TReDS. Additionally, the factoring units provide account details of the seller (for the financier's reference when crediting funds at the time of financing) and the buyer (for debiting on the due date), as well as details about the underlying commodity or service, if applicable.





Source: Compiled by authors

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The MSME seller uploads supporting documents, evidencing the movement of goods on TReDS, and buyer accepts the factoring units within a standardized time window. These factoring units are offered for financing by any registered financiers on TReDS. Financiers may include banks, NBFC Factors, and other financial institutions authorized by the Reserve Bank of India to participate in TReDS and accept the factoring units for financing. The quote or price provided by the financier includes the all-in-cost and is accessible on TReDS, visible to the MSME seller exclusively and not to other competing financiers. The validity period of these bids is determined by the financiers. The MSME seller then accepts a bid from a financier which suits them the most and after this, bids cannot be revised by financiers. In cases where a factoring unit remains unfinanced, it is the responsibility of the buyer to pay the MSME seller outside of the TReDS. Upon acceptance of the bid, the factoring unit is tagged as financed' and funds are credited to seller's account within T+2 days of bid acceptance (T being the date of bid acceptance). After a financier accepts a bid for financing, notifications are sent to the banks of both the buyer and seller. The buyer's bank uses this information to ensure funds availability and initiate direct debit in favour of the financier on the due date. Similarly, the seller's bank uses the information to make adjustments against the working capital of the MSME seller. On the due date, the buyer pays the financier. If the buyer defaults, the banker can proceed against the buyer, and the case is reported accordingly. To avoid such defaults, these instruments may be rated by TReDS. The rating criteria include the buyer's external rating, credit history, the nature of the instrument (invoice or bill of exchange), and the buyer's history of delays or defaults in transactions on TReDS.

Auction Timings are from 9:00 AM to 9:00AM, with an auction period of 1-5 days. For settlement, leg one of the settlements from financier to pay the seller is T+2, and leg 2 settlement, from buyer to pay the financier is on the due date.

Regulatory framework

TReDS manages clearing and settlement operations within the regulatory framework set by the RBI under the Payment and Settlement Systems Act, 2007 (PSS Act).⁸ Designated as an authorized payment system under the PSS Act, TReDS and its participants adhere to the applicable legal and regulatory provisions governing various stakeholders. Accordingly, TReDS is responsible for ensuring its operations and protocols align with these regulations, which are subject to periodic issuance and amendment by the relevant authorities.

To expand the reach of TReDS in India and encourage increased participation on this platform, banks' exposure through TReDS was included in priority sector lending in 2016. In 2018, the Indian government mandated that all companies with a turnover exceeding Rs. 500 crore must register with TReDS.

Expansion and impact

As of late 2023, TReDS has discounted invoices worth an all-time high of ₹2.18 lakh crore, benefiting 65,000 MSMEs across 1,600 cities⁹. This substantial growth has been facilitated by increased participation from both corporate buyers and government organizations. On the major TReDS platforms, in FY2023, there were discounted invoices of worth Rs 76,000 crore which higher than the previous year's Rs 34,362 crore. In addition, the 2023 figures show a fourfold increase over the Rs 17,080 crore worth invoices recorded in 2021. This exponential increase in the number of the invoices processed are a result of growing number of MSMEs, leveraging the TReDS platforms, from 22000 units to 52000 in 2021 and 2023 respectively.

In Table 3, we present detailed statistics of the growth of TReDS in terms of numbers of registered buyers (corporate, government or PSUs) and sellers (MSMEs), number of financiers and wells factoring units' numbers and value, both uploaded and financed, from March 2022 to May 2024, along with the data on Factoring Units (FUs) uploaded and financed, as follows:

- MSME Sellers: The number of MSME sellers shows consistent growth. Starting from 34,595 in March 2022 and reaching 89,597 by May 2024. There is a steady increase each month, with more significant jumps in some months (e.g., March 2024 with an increase of 4,397 MSME sellers);
- Buyers (Corporates/Government Depts./PSUs): The number of buyers also shows a steady increase from 2,681 in March 2022 to 4,985 in May 2024. The number of buyers generally increases each month, with occasional larger jumps (e.g., an increase of 287 buyers from January 2024 to February 2024);

⁸ Payment and Settlement Systems Act, 2007 is a payment system as a system facilitating payment between a payer and a beneficiary, encompassing clearing, payment, settlement services, or a combination thereof, excluding stock exchanges.

⁹ Sonal Khetarpal, How invoice discounting on TReDS crossing Rs 2 lakh cr is significant for MSMEs? https://www.india today.in/india-today-insight/story/how-invoice-discounting-on-treds-crossing-rs-2-lakh-cr-is-significant-for-msmes-2466708-2023-11-23

- Financiers: Among the Banks and NBFC Factors/Other financial institutions, the number of banks involved slightly increased from 130 in March 2022 to 155 by May 2024; however, the participation of NBFC Factors and other FIs is relatively constant, with slight fluctuations but showing a gradual increase from 8 in March 2022 to 33 in May 2024;
- Factoring Units (FUs) Uploaded and Financed: There is a clear upward trend in the number of FUs uploaded each month, starting from 38,943 in March 2022 and reaching 79,253 in May 2024. The same is visible in the value of uploaded FUs also increases significantly, from Rs 62,457,612 in March 2022 to Rs 175,449,729 in May 2024. For financed FUs, the number increases from 33,680 in March 2022 to 73,205 in May 2024, whereas the value of financed FUs shows substantial growth, starting at Rs 59,456,804 in March 2022 and reaching Rs 160,625,897 in May 2024. It is worth noticing that there is a consistent increase in both the number and value of uploaded and financed FUs suggests a growing confidence and participation in the factoring market. Significant jumps in the value of FUs (e.g., March 2024) indicate higher value transactions, which could be a sign of growing trust in the system.

	Actual	Actual count of	Actual number of		Factoring Units (FUs)		Total financed factoring	
	count of	registered buyers	financiers registered		uploaded on TReDS		units (FUs) financed	
Month	registered	(government	at month-end NBFC		during the month		during the month	
and Year	MSME sellers at month- end	departments, PSUs, and corporates) at month-end	Banks	NBFC Factors and other Fls	No. of FUs (in actuals)	Value (in Rs'000)	No. of FUs (in actuals)	Value (in Rs'000)
Mar-22	34595	2681	130	8	38943	62457612	33680	59456804
Apr-22	35302	2706	132	8	30272	48361787	24049	43078733
May-22	35300	2755	133	11	32074	53910267	26981	48582994
Jun-22	37368	2812	135	12	36774	60143458	30150	55862272
Jul-22	38497	2870	137	12	38556	57766088	30237	54046910
Aug-22	39603	3006	139	12	36123	61321493	30237	54964082
Sep-22	41033	3132	140	12	41773	70892885	35142	66240111
Oct-22	42183	3203	141	12	37064	66173369	29929	58696117
Nov-22	43736	3309	142	12	39300	70751982	34155	65179783
Dec-22	45641	3402	147	14	45201	80260699	38988	74439151
Jan-23	47549	3489	149	15	47370	80213513	37107	71566360
Feb-23	49336	3559	150	15	45140	82887809	37057	75043790
Mar-23	52086	3628	151	16	55726	106868848	47136	98759130
Apr-23	53546	3640	152	16	43129	77761345	35315	68715561
May-23	55339	3738	152	17	51578	94982032	43745	87858885
Jun-23	57238	3820	153	19	52661	97877389	45429	91243929
Jul-23	59436	3938	154	20	53996	98081419	45877	89841329
Aug-23	61006	4033	155	20	55723	106607615	49392	98148313
Sep-23	64428	4151	155	20	66977	131269717	53499	115212054
Oct-23	67039	4233	155	21	70213	125436181	53621	113492121
Nov-23	69445	4302	156	22	64720	128993726	53755	119050608
Dec-23	72312	4393	156	24	72434	145132206	59726	135217750
Jan-24	75243	4489	155	26	72030	152576075	60783	138474155
Feb-24	78561	4586	156	27	73775	158332270	65604	144987733
Mar-24	82958	4755	156	28	94599	196384016	77302	180169131
Apr-24	85619	4849	156	28	90320	142470842	58714	127440839
May-24	89597	4985	155	33	79253	175449729	73205	160625897

Table 3. TReDS statistics

Source: Compiled by author¹⁰

10 https://www.rbi.org.in/Scripts/TReDSStatisticsView.aspx

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Furthermore, in one of the regulatory enhancements, in June 2023, the RBI announced several enhancements to the TReDS guidelines to further support MSMEs. These include allowing insurance for transactions to mitigate default risks, expanding the pool of financiers by permitting more entities to participate, enabling a secondary market for Factoring Units (FUs), and ensuring settlement of all FUs through the National Automated Clearing House (NACH) mechanism¹¹,

3. Challenges Ahead

Despite a well-structured framework of the TReDS in India, it faces several challenges that hinder its effective implementation and growth. Despite the potential benefits, many MSMEs and corporates remain unaware of TReDS. This lack of awareness leads to limited participation and slow adoption rates, affecting the overall volume of transactions on the platform. The regulatory framework surrounding TReDS can be complex, making it difficult for new participants to navigate. Additionally, there are operational challenges such as integrating the TReDS platform with existing systems of MSMEs and financial institutions¹². Banks and financial institutions are often wary of the credit risk associated with discounting invoices, particularly those issued by smaller, lesser-known MSMEs. This trust deficit can limit the willingness of financiers to engage actively on TReDS platforms¹³. Seamless integration with various stakeholders' systems, including MSMEs, corporates, and financial institutions, is crucial. However, technological barriers and the need for significant IT infrastructure investments can pose hurdles for widespread adoption. Fluctuating economic conditions and market volatility can impact the attractiveness of invoice discounting. For instance, during periods of economic downturn, financiers may become more risk-averse, further reducing the liquidity available on TReDS platforms.

Addressing these challenges requires coordinated efforts from the government, financial institutions, and technology providers to enhance awareness, streamline regulatory processes, build trust, and invest in robust technological solutions.

Conclusion

The MSME sector is a critical driver of economic growth and employment in both advanced and emerging economies. In India, MSMEs contribute significantly to GDP and are vital for fostering innovation and entrepreneurship. Despite their importance, MSMEs face substantial challenges, particularly in accessing timely and affordable finance, which hampers their growth and sustainability. The introduction of the TReDS by the RBI is a significant step towards addressing the liquidity issues faced by MSMEs. TReDS facilitates the financing of trade receivables, providing MSMEs with much-needed working capital. The platform has seen considerable growth and participation, reflecting its potential to bridge the financing gap in the MSME sector.

However, the system still faces several hurdles, including limited awareness and adoption, regulatory and operational challenges, credit risk concerns, technological integration issues, and the impact of economic conditions. Overcoming these challenges requires a concerted effort from all stakeholders, including the government, financial institutions, and technology providers. Enhancing awareness about TReDS, simplifying regulatory procedures, building trust among financiers, and investing in technological advancements are essential for the platform's success. With these measures, TReDS can significantly improve the financial ecosystem for MSMEs, enabling them to thrive and contribute more effectively to India's economic growth. Through this study, we highlight the importance of TReDS in India and the growth of this system through data extracted from the RBI website. The increasing number of participants at various platforms of TReDS shows increasing popularity of this system. Future scope of work can be focussed on sectorial usage of TReDS, which can provide more insights on the adoption of the TReDS in India.

Credit Authorship Contribution Statement

The initial draft of the manuscript was written by Geeta Singh, who reviewed and edited the manuscript to refine the final content. Additionally, she created the figures and tables to illustrate key points in the manuscript and supervised the entire research project, ensuring consistency and academic rigor.

¹¹ RBI Expands Trade Receivables Discounting System (TReDS) for MSMEs. https://taxguru.in/rbi/rbi-expands-tradereceivables-discounting-system-treds-msmes.html

¹² Arun Bhatnagar, "India Ahead 2024: Challenges & Opportunities". https://www.parliamentarian.in/india-ahead-2024challenges-opportunities/

¹³ Shamika Ravi, "India 2024: Policy priorities for the new government". https://www.brookings.edu/articles/india-2024-policypriorities-for-the-new-government/

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Conflict of Interest Statement

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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