Cost of Invoices Discounting in Tamil Nadu Trade Receivables Discounting System (TN TReDS) and Its Components, Nature and Structure

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***Abstract*—The Micro, Small and Medium Enterprises Development (MSMED) Act, 2006 provisions in force stipulates payment to Micro, Small and Medium Enterprises (MSMEs) within 15 to 45 days of receipt of goods or service. Tamil Nadu Trade Receivable Discounting System (TN TReDS) is an invoice discounting mechanism established by the State Government of Tamil Nadu to facilitate timely payment for supplies made by the MSMEs, however, the facility comes with a cost. This study aims to explore the component, nature, structure and cost of the invoices / receivables discounting for supply chain finance at TN TReDS portal for the participants. Undertesting the components, nature, structure and effective discounting cost will help in cost management and formulation of suitable pricing strategies for MSME suppliers in a competitive environment, particularly it will help to win bids in government and government entities in tender process.**

***Index Terms*—TReDS, TN TReDS, Trade Receivables Discounting System, Tamil Nadu Trade Receivables Discounting System, Receivables Management, Invoice Discounting, e-Discounting, Micro, Small and Medium Enterprises, MSME, Factoring, Reverse Factoring**

I. INTRODUCTION

India have surpassed Japan to fourth position in terms of GDP with $4.19 trillion. [1] Micro, Small & Medium Enterprises (MSMEs) were, often called as key driving force to India's economic growth and significantly contributed to the Gross Domestic Product (GDP) of the country and its share of export of specified products were ranging from 40 to 50 percent in 2020-21 to 2022-23.[2]

Despite various government initiatives in favour of MSMEs, the changes in environmental condition, like Covid-19, severely affects MSMEs. Often, they face liquidity issues, inadequate finance, high-cost working capitals, etc. Sometime funds get locked in receivables due to the credit policy. Trade Receivables Discounting System (TReDS) is a FinTech solution, backed with an electronic platform, for invoice discounting in factoring business.

II. REVIEW OF LITERATURE

H K Pradhan & Pankaj K Agarwal in their article MSME Financing in India: Key to the 5 trillion Economy observed that "The MSME lending space has witnessed extensive innovations globally with lending products designed by unbundling several forms of risks and cash flow characteristics. Broadly termed as structured finance, these innovations have taken the form of securitization, leasing and factoring, value chain financing, etc. which are found to have a greater scope on the supply side than the traditional credit models. These structured lending products have the potential to scale-up access to finance by linking repayments to business cashflows. These innovative products which have been found extensive applications in corporate lending are now being tried out in the MSME sector." [3]

Chandan Maheshkar and Neha Soni in their study, The Problems Faced by Indian Micro, Small and Medium

Enterprises (MSMEs), through factor analysis found that 87.6% of MSMEs were faced finance related problems. Further, both internal and external financial issues were, also, found at very high level in MSMEs. Managing finance, inadequate working capital, inability to recover the amount from debtors and lengthy procedure in many official dealings have been identified as major internal financial problems and non-availability of finance, limited access to Government Schemes and financial aids, the burden of collateral security, and non-cooperation of banks and other financial institutions are external finance-related issues faced by MSMEs in the study. They, also, reported that a significant portion of MSMEs were depended on high-cost alternative sources of finance which led to poor profitability. [4]

Yaobin Wu and et al in their study "Collect payment early, late, or through a third party's reverse factoring in a supply chain" examined and compared early payment, delayed payment, and reverse factoring for supplier and retailer. They found that when suppliers possess a financing advantage, delayed payment proves more beneficial, whereas early payment and reverse factoring yield superior results when retailers hold the advantage. Reverse factoring, facilitated by a bank's intermediation, can further amplify profits beyond those achieved through early payment. The effectiveness of these financial schemes is magnified by greater disparities in capital costs between supply chain partners, higher production costs, and increased demand volatility, underscoring the importance of tailored financial strategies in environments with stochastic customer demand (i.e., unpredictable fluctuations in consumer purchasing behaviours that impact inventory, production, and cash flow. [5]

III. OBJECTIVES AND SCOPE OF THE STUDY

Government procurement follows tender process which is requiring bidding for least price. Therefore, cost plays crucial role in winning government contract and making profit.

This study examines various components, the structure, nature and the cost of invoices discounting for the participants at Tamil Nadu Trade Receivables Discounting System (TN TReDS), the settlement mechanism arranged to provide financial and technological (FinTech) solution to MSMEs by the Government of Tamil Nadu, in India.

IV. METHODOLOGY

This research was qualitative and analytical in nature. Both published and unpublished secondary data were used in this study. Government Orders (GOs), training materials, etc., were consulted for the purpose of the study and observation of live online transaction was made on the electronic portal. Primary data were collected by the authors from the source through discussions. The sources were the officials and persons who were involved in the implementation of the discounting system both from the line department and TReDS platform in charge officials. The assumptions made were stated in the place where they appear. Confirmation from MSME suppliers as to the cost incurred were made with the help of the officials implementing the TN TReDS.

V. RESULTS AND DISCUSSION

As per the Annual Survey of Industries (ASI) for 2023-24, Tamil Nadu ranks first in terms of number of factories and work force employed in factories in India. Tamil Nadu, also, occupies third in terms of Fixed Capital used and Gross Value Added (GVA) by factories. [6] Tamil Nadu, also, ranked second in terms of total number of persons employed in registered MSME units [2].

Section 2(b) and Section 15 of the Micro, Small and Medium Enterprises Development (MSMED) Act, 2006 stipulates that MSME's dues have to be paid 15 to 45 days, depend upon the agreement as to credit, on receipt of goods or service.

The State Government of Tamil Nadu provides support to MSMEs through various policy initiatives. One of the recent initiatives was TN TReDS which is providing FinTech solution to cash flow issues that affects the liquidity positions of the MSMEs; however, this facility comes with a cost. There are three types of cost incurred in TN TReDS portal in receivables / invoices discounting. They are: on boarding or registration cost, annual fee or renewal cost and transaction cost.

1) On boarding or registration cost

Receivables Exchange of India Limited (RXIL), a Joint Venture between Small Industries Development Bank of India (SIDBI) and National Stock Exchange (NSE), provides electronic platform for TN TReDS to conduct online auctioning of invoices.

The process of getting on board in to the electronic portal involves registration of the participants. It is a one-time cost incurred for registration in the electronic platform of RXIL.[7] Dependent upon the nature of organisation it may vary from Rs.3,000 to Rs.6,000. It is fixed in nature and finds no relevance in decision making, unless it is onetime purposes, and hence it is sunk cost in nature.

2) Annual fee or renewal cost

The annual fee is collected in subsequent years for renewal of registration by RXIL. MSME suppliers confirmed that they are encouraged to register in the electronic portal without registration charges. However, they have to pay renewal cost in following years. This cost is fixed in nature collected with Goods and Services Tax (GST). It was said that at present Rs.25,000 with GST Rs. 4,500 is collected for renewal. Thus, the annual fixed cost is around Rs.30,000 (round off to thousand) incurred in TN TReDS portal.

3) Transaction Cost

The transaction cost is incurred for every invoice discounted. The significant cost in TN TReDS is transaction cost.

Discounting Cost for Participants

There are three participants in TN TReDS who are financiers, buyer and seller.[8]

(A) Financier's Cost of Discounting

All dues payable by the buyer entities are settled by Tamilnadu Industrial Cooperative Bank Ltd., (TAICO Bank) to the respective parties through RXIL.

Financiers incur no cost unless there is default in payment by the buyer. However, in TN TReDS all the payments are guaranteed by the government for payment through TAICO Bank.

Therefore, unlike other TReDS there is no chances for bad debts in TN TReDS, and hence, there is no risk associated with discounting for financiers. In short TN TReDS provide new risk-free investment avenue to the financiers.

(B) Buyer's Cost of Discounting

There is no discounting cost to the buyers at TN TReDS. In fact, they are the beneficiaries in TN TReDS with 180 days credit facilities. Further, the buyer entities' interest is, also, protected by prompt payment to MSME suppliers as per MSMED Act. At present, the buyer enjoying 180 days of credit without any interest cost. If the buyer fails to clear the due on or before 180 days in such case TAICO bank will allow RXIL to auto debit 90% of the invoice from its designated bank account and clear the invoice from the RXIL platform on the 180th day. TAICO bank will move 100% of the invoice amount into its bill discounting loan portfolio and interest has to be paid by the buyer from 181 day to the date of payment to TAICO Bank. Therefore, the interest cost is depending upon the value of invoice accepted for discounting and hence variable in nature.

(C) Supplier's Cost of Discounting

Supplier is 'the cost bearer' in TReDS. Supplier is subject to all cost. TN TReDS follows 'without recourse' principle, therefore, there is no default cost to the suppliers.

At present 90% of the value of supply made by MSME is brought for auction and the remaining 10% will be refunded at the end of the credit period.

Transaction Cost of suppliers

This is the cost incurred every time invoices discounted, and hence, recurring in nature. The supplier's transaction cost at TN TReDS portal is consisting of financing cost and portal charges as given in the equation (1).

$$= \text{Financing cost} + \text{Portal Charges} \quad \ldots (1)$$

a) Financing Cost:

Financing cost is nothing but the rate offered by the financier for discounting of the invoice and accepted by the MSME seller (i.e.) it is the interest charged by the financer for the credit period. This cost is depending upon the value of the invoice accepted for discounting, and hence, variable in nature.

b) Portal Charges:

This is the amount charged by the electronic platform provider for the services provided on ad valorem basis (i.e.) as a percentage on the value of receivable discounted. As per the nodal department's source documents, at present, 0.35% on the value of receivable discounted is collected as portal charges. As the portal charges directly related to the value of invoice discounted it is variable in nature.

c) Interest on Buyer's Deposit or Advance Payment:

This is not a cost but an item of income to the supplier which is reducing the discounting cost. If the buyer pays the amount due before due date in such a case the

interest accrued there on is passed on to the suppliers, who is the cost bearer, at the end of the credit period. The interest on advance payment depends on the value and early payment period. Higher value for longer period will yield greater return and lesser value for lesser period will yield smaller return.

The supplier's effective discounting cost structure for transaction at TN TReDS is given in the equation (2).

= Financing Cost + Portal Charges – Interest on Advance Payment, if any. … (2)

Alternatively,

= Transaction Cost – Interest on Advance Payment, if any. … (2)

Thus, the effective cost is increased by ffinancing cost and portal charges and reduced by the interest accrued on the advance payment, if any.

The supplier's effective discounted cost depends on the above cost, time and buyer's ability repay amount due before the due date. The interest cost, also, largely depends on the credit rating of the buyer entity.

For example, if the approved invoice value is Rs.111.11 then the value which participates on TReDS bidding is Rs.100/- i.e., 90% of the approved value (approved by the buyer). This is the discounted value of invoice for factoring.

Lowest interest rate quoted by financiers on TN TReDS was 8.5% and the maximum credit tenure allowed on TN TReDS is 180 days. Thus, the MSME will receive discounted amount, assuming the lowest discount rate, within 48 hours as stated below:

i) Financing cost for 180 days

$$= \text{Discounted Value X } \frac{\text{Discounted Rate}}{\text{365 Days}} \text{ X 180 Days}$$

$$= 100 \text{ X } \frac{8.5\%}{365} \text{ X } 180$$

= Rs.4.19/-

ii) Portal Charges (0.35%)

$$= \text{Discounted Value X } \frac{\text{Portal charge rate}}{\text{365 Days}} \text{ X 180 Days}$$

$$= 100 \text{ X } \frac{0.35\%}{365} \text{ X } 180$$

= Rs.0.173/-

Total deductions made from the discounted value is Rs.4.191 + Rs.0.173 = Rs.4.364 and the net amount credited to MSMEs bank account is Rs.100 – Rs.4.364 = Rs.95.636/-

iii) Interest accrued on advance payment.

Assume that if the buyer entity makes payment for invoice value within 15 days in such a case accrued interest will, also, be paid to the suppliers by the TAICO Bank. This rate is similar to the savings bank account interest rate. Assuming an interest rate of 3.5%, the interest accrued on the advance payment for 165 days will be as follows:

$$= \text{Invoice Value X } \frac{\text{Interest rate}}{\text{365 Days}} \text{ X Remaining Period}$$

$$= 111.11 \text{ X } \frac{3.5\%}{365} \text{ X } 165$$

= Rs.1.758/-

The MSME receives discounted amount initially and refund of retention value of 10% + interest accrued on advance payment made by the buyer at the end of credit period which is = 95.636 + 11.11 + 1.758 or Rs.108.504.

Thus, for a value of invoice Rs.111.11, the MSME incurs cost of Rs.2.606 (Rs.111.11 - Rs.108.504) only. Alternatively, the effective cost of discounting is 2.345% (Rs.2.606 / Rs.111.11*100) on the invoice value.

Annual Discounted Cost

The annual discounted cost is the sum of transaction cost and annual renewal cost. This is given in the equation (3)

= Total Transaction cost + Annual renewal cost …(3)

Break-Even Point

The value of sale where there is neither profit nor loss occurs is the breakeven point. This is the minimum contribution required to cover the TN TReDS fixed cost (i.e.) annual renewal fee.

VI. FINDINGS AND RECOMMENDATION

CMA.Nilay A.Savla in his article, "TReDS – A Solution to MSMEs Liquidity Issues?" concluded that TReDS platform helped MSMEs to deal with their working capital issues and, also, observed the unwillingness of buyer categories to either register or transact at TReDS when compared to the number of actual MSMEs operating in the country. He suggested

to bush the platform among the MSMEs and various categories of buyers in terms of registrations as well as transactions through stringent regulations that mandate registration and full participation on the TReDS. [9] Unlike other TReDSs, there is no option to buyer entity for registration in the portal. Thus, all State Public Sector Undertakings, local body corporations, statutory boards land major Apex Co-operatives like Aavin and Co-optex must on board in TN TReDS and it ensures 100% buyer registration.[10]

TN TReDS provide solution to MSME's receivables within 48 hours to convert them in to cash. The liability on the part of supplier is without recourse which means once discounted the supplier is relieved of his liability and he is not liable for default, if any, made by the buyer. In other portals insurer is allowed by RBI to hedge this risk.[11]

The study reveals that TN TReDS provides a collateral-free supply chain finance to MSMEs. The discount rate is determined through competitive bidding process to ensure least cost finance to MSMEs.

Even though the discount rate is decided on the basis of competition it is at the liberty of the MSME either to accept or reject the offer made by the financier, thus auctioning is not mandatory.

The study shows that TN TReDS encourages early payment by the buyer entity which earns interest as such there is a possibility that the effective cost of discounting is less than the discounted rate.

Unlike receivables management neither administration cost nor bad debt is incurred in TN TReDS discounting.

It was observed that only two buyers, a local body and a board, defaulted in clearing dues on or before 180th day. Thus, there is very high rate of prompt payment witnessed under TN TReDS payment method.

Unless otherwise sold for a lesser value, 100% cost of goods sold will be recovered in TN TReDS which will help to increase the MSMEs' turnover.

It was, also, found that financiers following buyer's credit rating to determine the interest rate like other TReDS portals which is not justifiable because the repayment is fully secured and guaranteed for financiers in TN TReDS portal through TAICO Bank. Since there is no associated risk for financiers, they should reduce the interest rate.

Only 90 per cent value of receivable is brought to discount in TN TReDS which is not in consonance with MSMED Act provisions to say that payment is made within the time limit prescribed for as a portion of payment falls beyond due date. Therefore, in order to fully comply with MSMED Act provisions, discounting 100% of value invoice has to be allowed in TN TReDS.

Even though the buyers are beneficiaries in TN TReDS and there is a provision for early payment to supplier, the buyer do not have any advantages to encourage this practice. There is a gap between effective discounting rate and actual financial rate at which invoices are discounted. By transferring the difference to buyers, it will encourage them to avail early payment benefit.

VII. CONCLUSION

TN TReDS helps the buyer entity to avoid interest cost under MSMED Act by early payment to MSME suppliers. The supplier's variable discounting cost for the transaction consists of two components i) financing cost on discounted value and ii) portal charges, however, the annual discounted cost includes fixed annual fee charged by the portal. TN TReDS is encouraging early payment by buyer entity and the benefit accrued there on, also, passed to the supplier so that the effective discounting cost will be minimal, therefore, it is distinct from other TReDS. The recommendations made not only will help the development the TN TReDS but also will improve the performance of the participants.

Government and government entities are following tender system for procurement of goods and services. Bidder who quotes least cost, among the participants, alone have the choices of winning under this method. Understanding effective cost of discounting will help in cost management and managerial decision-making like pricing. The outcome of the study is expected to add value to existing body of knowledge on receivables management and factoring business.

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