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Supply Chain Finance in India: current status and potentialities

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1. ABSTRACT

Supply chain management (SCM) practices have become more and more relevant in the past decades since the companies have recognized the benefits of the collaborative relationships within and beyond their own organizations. The financial crisis of 2008-2009, has brought the need to assess the financial needs especially working capital requirements of the players in the Supply chain and their consequent effects on the business performance. This led to the origination of Supply chain finance (SCF) which takes into consideration various aspects of working capital requirements and choose a solution which is optimal for players involved in the process.

India has a GDP of $2.94 trillion and the value of supply chain finance penetration is less than 1% of the GDP whereas western countries and advanced countries like Italy, Spain, and the UK have SCF around 10% of their GDP. Further, Supply chain finance has been attracting the interest of the enterprises which traditionally had difficulties in sourcing the finance for their enterprises. The most predominant sector which has difficulties in sourcing is Micro, Small, and Medium Enterprises (MSME) in India.

This thesis is focused on the importance and difficulties faced by the MSME sector in obtaining the working capital from a cultural point of view, existing opportunities, and financial institutions offering the working capital solutions.

Research begins with understanding the nomenclature and concepts of Supply chain finance, Indian GDP, the influence of Micro, small, and medium scale industries (MSME) on Indian GDP. The next step of research is focused on financial enterprises available to solve the working capital problems of MSME, Supply chain finance in India, and various financial enterprises present and solutions offered by them, Financial ecosystem and Fintech.

The second part of the research focused on the analysis of 4000 Indian companies and their payment terms. Enterprises were classified into large, medium, small, and micro enterprises based on the classification of Indian enterprises, and payment terms trend was established. Further, enterprises were also divided based on sectors like automotive, construction, etc to have a better understanding of payment trends sector-wise.

Supply chain finance is well below its potential to serve in the Indian market, it can be attributed to lack of information about MSME companies, low penetration of banks in some parts of the country, management preference for informal sources of loan, lack of knowledge about SCF solutions, MSME reluctance in investing in the technology and employees to upgrade and stay above the competition. From the financial institution's point of view, lack of collaterals, highly competitive nature of the MSME segment, lack of strong management, and business plan adds to the risk of default.

Even though, several aspects are impacting the growth of SCF in India, increase in the high number of fintech start-ups in the lending market and growth of fintech as a whole, innovative approaches to assess the credibility of the companies using data analytics and artificial intelligence, government policies and infrastructure changes like priority lending for MSME sector, mandatory registration for trade receivables discount system are some of the aspects that would boost the Supply chain Finance (SCF) penetration in India.

2. LITERATURE REVIEW

2.1 Supply Chain Management

A network of activities that produce raw materials, transform them into intermediaries and then final products and deliver goods to the customer through a distribution network is known as a supply chain.

Supply chain involves a series of steps to get a product or service to the customer, it includes different functions like product development, marketing, operations, distribution, finance and various entities like producers, vendors, warehouses, transportation companies are involved along with information flowing among them and human resources to support the smooth flow of the process.

Reference: (SupplyChain, n.d.)

Some other definitions of the supply chain:

"A set of firms that pass materials forward, raw materials and component manufacturers, product assemblers, wholesalers, retailers' merchants and transportation companies are all members of supply chain." - La Londe and masters 1994

"The network of organizations that are involved, through upstream and downstream linkages, in the different processes and activities that produce value in the form of products and services delivered to the ultimate customer." - Christopher, 1992

What is supply chain management?

Many different definitions of Supply Chain Management have been provided:

"Integration of activities taking place among a network of facilities that produce raw materials, transform them into intermediate goods and then final products to customers through a distribution system" - Lee and Billington

"The design and management of seamless, value-added processes across organizational boundaries to meet the real needs of the end customer" – Institute for Supply Chain Management

"Managing supply and demand, sourcing raw materials and parts, manufacturing and assembly, warehousing and inventory tracking, order entry and order management, distribution across all channels and delivery to the customer" – The Supply Chain Council

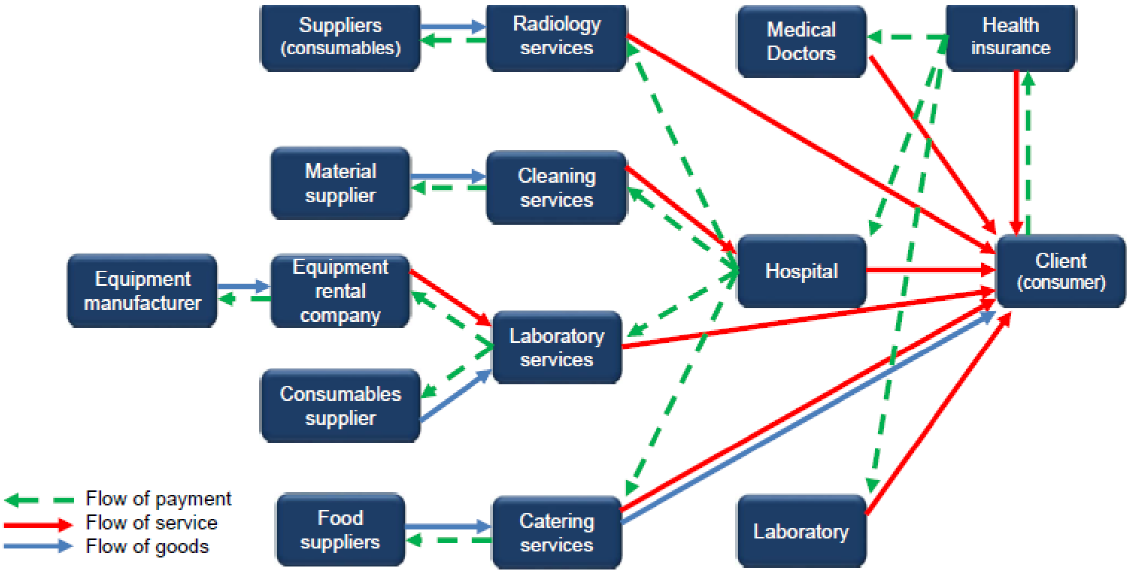


Figure 1: Flow of goods, services and payments in Supply Chain

2.2 Working Capital Management

Working capital also known as net working capital is the difference between the current assets which generally include trade receivables, available cash, and inventories against current liabilities which includes trade payables. It is a measure of a company's liquidity which in turn describes the company's financial health and attracts the investors.

In a layman language, working capital means the amount of cash available to carry out day to day operational activities in an organization.

There are 3 types of net working capital:

1. Positive working capital
2. Negative working capital
3. Zero working capital

- Positive working capital: When there is, excess current assets over current liabilities, its positive working capital.
- Negative working capital: When current liabilities exceeds current assets it's known as negative working capital
- Zero working capital: when current liabilities and current assets are equal.

Net operating working capital= trade receivables + inventories - trade payables

Trade receivables: Trade receivables is the amount which the company has billed to its customers for providing a service or a product and is yet receive the amount from the customer. Trade receivables are important for a company to have sufficient liquidity and carry out day to day operations.

Trade Payables: Trade payables is the amount which the company has to pay to its vendors or suppliers for the goods or services received that have not been paid yet. An increase in Trade payables signifies the company is taking the goods on credit rather than paying in cash.

Inventories: Inventories are an important element of working capital. Inventory is the goods available for sale and raw materials available to produce the goods. There are mainly three types of inventories, raw materials, work in progress, and finished goods. Inventory management covers a large amount of problem including fixing minimum and maximum levels, determining the size of the inventory to be carried, and keeping a check over obsolescence. Inventories are important to meet the sudden demand fluctuations and delays in the production line.

The Prominence of working capital:

Smooth flow of production, having positive working capital will allow the organization to buy the raw materials, hire labor, and pay the suppliers on time without incurring delays or stoppage in the production process.

Reputation and goodwill of the firm increase because of the timely payments and delivery of the products. Possibility of having a bigger discount by paying the supplier upfront. It would be easier for the organization to obtain a business loan if it shows the required cash flow. It is possible to negate unseen disruptions or financial crisis.

Also, intangible benefits like the morale of the employees increase because of timely payment and bonuses, further timely payment of dividends will make shareholders happy, and the possibility of investments from external sources increases.

Approaches to Working Capital investment:

Based on organizational policy and risk-return trade-off, there can be three types of approaches to working capital investments like aggressive, moderate, and conservative approach.

Aggressive approach: In this approach, the working capital is kept at minimum investment in current assets which implies the entity holds fewer amounts of inventory, follows a strict credit policy, and keeps less cash. The main advantage is the low amount of funds is tied in working capital thus results in having in less financial costs, on the other hand, it may lead to lower utilization of the fixed assets. In long run, the firm may lack behind its competitors.

Conservative approach: In this approach, the organization invests high capital in current assets. Organizations keep high inventory levels, have liberal cash credit policies, and cash balance high to meet current liabilities. The advantages of this approach are high sales volume, increased demand due to liberal credit policy, and good relationships with the suppliers. But the main disadvantages associated with it are increase in cost of capital and risk of bad debts.

Moderate approach: This approach balance between risk and return is maintained to gain more by effectively using the funds. It is in between aggressive and conservative approach.

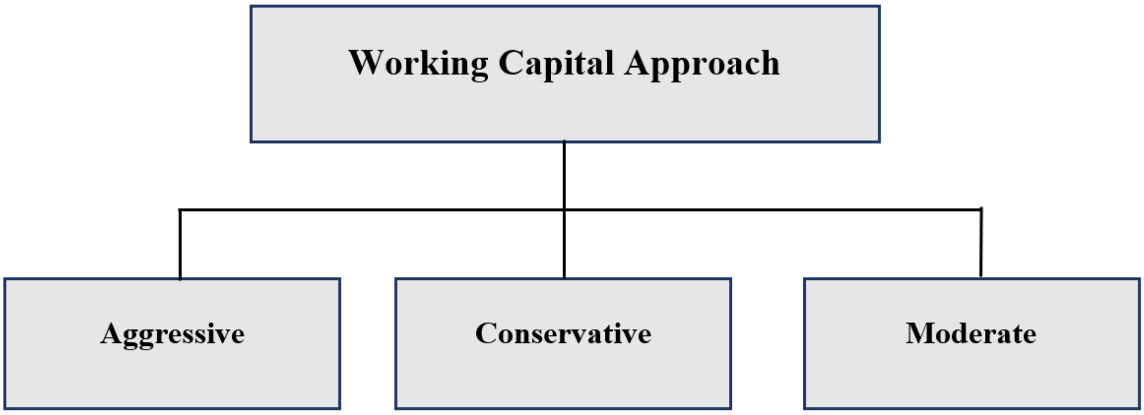


Figure 2: Types of working capital approach

Reference: (ICAI)

Cash-to-Cash Cycle (C2C):

Cash to cash is a financial indicator that donates the time taken for the investments in production and other resources to convert into cash from the sales.

$$CCC = DIO + DSO - DPO$$

The average value for the C2C cycle varies from industry to industry. DIO and DSO are related to cash inflows and DPO is related to the cash outflows.

Days sales outstanding (DSO):

DSO is the average number of days a company takes to collect the payment once the sale is made. If the DSO value is high there is a high possibility that the company will have cash flow problems. The problems might be extended to operational activities, investments needed for the expansion of the projects or company.

$$DSO = \frac{Account\ receivable * Number\ of\ Days}{Total\ sales}$$

Reference: (DSO, n.d.)

Days Payables Outstanding (DPO):

DPO is a financial indicator that indicates the average time taken by the company to pay its bills to the suppliers, vendors, or other companies. The ratio is generally calculated in days.

A company with higher DPO generally has more time to pay the bills because of the contractual clauses or with high bargaining power it can make its suppliers accept the terms which are more favorable to the company than for the supplier. It may allow the company to allow the extra cash it has with it.

$$DPO = \frac{Accounts\ payable * Number\ of\ days}{cost\ of\ goods\ sold}$$

Even though high DPO represents high cash availability with the company, it may not be the ideal option when you consider the whole supply chain. A high DPO at one company might be driving another company into the cash crunch situation which is not ideal for an effective and sustainable supply chain. Reference: (DPO, n.d.)

Days Inventory Outstanding (DIO):

DIO is the average number of days a company takes to convert the inventory and work in progress into sales.

$$DIO = \frac{Average\ inventory * number\ of\ days}{cost\ of\ goods\ sold}$$

Reference: (DSO, n.d.) (DSO, n.d.)

The lower the value of DIO the better it is for the cash cycle.

2.3 Supply Chain Finance (SCF):

The financial flows between the suppliers and buyers are as important as goods flow between the supplier and buyer. This leads to the growth of the discipline of Supply Chain Finance.

The financial crisis of 2008 left the companies with a lack of capital not just with them, all along the supply chain. This led to obtaining cash in various ways rather than just traditional banks.

Even though there has been an increase in awareness of the SCF solutions, predominantly the traditional SCF solutions like factoring are the ones that are predominantly implemented. The main contributing factor to it is the financial institute and its relationship with the customer and the benefits it obtains from following traditional processes. Supply chain finance means increasing the efficiency and effectiveness of inter-company financial flows by implementing innovative solutions that exploit the knowledge of dynamics and relationships in the supply chain, adopting a broader perspective.

SCF works by optimizing the flows and reducing the C2C cycle of the companies involved helping all the actors involved in the process achieve the optimal C2C cycle beneficial for them by reducing the time taken to process the payments and exchanging the information among the financial institutions and players.

Innovative solutions are enabled by advanced information technologies (SAP, third party credit rating services) that connect companies and reduce the cost of managing the flows. By sharing the knowledge in the supply chain, it is possible to better assess the risk at a lower cost.

Why do we need SCF?

One of the most difficult activities for an organization is finding a reliable supplier who produces and delivers the goods at the best quality and right price. Losing one such supplier becomes a potential source of risk for not only for the organization but for the actors in the supply chain. Even more, if the supplier base for the product is low or if the product being supplied is of strategic importance.

Supply Chain Finance Definitions:

In the literature, many authors have assessed the topic of Supply Chain Finance:

Hofmann (2005) *"*SCF *is an approach for two or more organizations in a supply chain, including external service providers, to jointly create value through means of planning, steering and controlling the flow of financial resources on an inter-organizational level."*

Camerinelli (2009) *"SCF is the set of products and services that a financial institution offers to facilitate the management of the physical and information flows of a supply chain"*

Pfohl and Gomm (2009) *"SCF is the inter-company optimization of financing as well as the integration of financing processes with customers, suppliers and service providers in order to increase the value of all participating companies."*

Gomm (2010) *"SCF is the process of optimizing the financial structure and the cash-flow within the supply chain."*

Chen and Hu (2011) *"SCF, as an innovative financial solution, bridges the bank and capital-constrained firms in the supply chain, reduces the mismatch risk of supply and demand in the financial flow and creates value for supply chain with capital constraints.*"

Lamoureux and Evans (2011) *"SCF solutions represent a combination of technology solutions and financial services that intricately connect global value chain anchors, suppliers, financial institutions and, frequently, technology service providers. They are designed to improve the effectiveness of financial supply chains by preventing detrimental cost-shifting and by improving the visibility, availability, delivery, and cost of cash for all global value chain participants."*

Grosse-Ruyken et al. (2011) *"SCF is an integrated approach that provides visibility and control over all cash-related processes within a supply chain."*

Wuttke et al. (2013a) "*We define Financial SCM (FSCM) as optimized planning, managing and controlling of supply chain cash flows to facilitate efficient supply chain material flows."*

Wuttke et al. (2013b) "*SCF is an automated solution that enables buying firms to use Reverse Factoring with their entire supplier base, often providing flexibility and transparency of the payment process."*

More and Basu (2013) *"SCF can be defined as managing, planning and controlling all the transaction activities and processes related to the flow of cash among supply chain stakeholders in order to improve their working capital."*

2.4 Supply Chain Finance Solutions:

Invoice discounting:

Invoice discounting is a financial process, wherein you can leverage your invoice to get an advance payment from the lender (a portion of the total invoice amount)

It differs from factoring, the customer doesn't know the invoice has been used to raise working capital, in this way you can have control over your service level, maintain your style of communication and send reminder emails to the customer regarding the payment.

About 80-90% of the total value of the invoice can be translated into cash.

Advantages:
Invoice discounting is comparatively a quick method to procure cash and convert the trade receivables into cash.
It can be used to release cash from the invoices which have been due for a long period of time.
No asset is required as collateral.
Business relations are not affected because the buyer doesn't know its invoice has been used to get cash from the bank or financial service provider. The buyer is still liable to pay the amount to the supplier. It always improves the relationship in a way, because the supplier can sell more to the buyer on a credit basis.

Disadvantages:
There is a decrease in profit margins because the complete amount is not paid for the invoices raised.
The majority of the financial institutions provide this service only for commercial invoices so the companies dealing with the public may not be able to opt for this service.
It is not suitable for the new business, as they may not be able to bear the interest rates and maintenance fees associated with invoice discounting as their profits are already low.
Compliance which changes according to the financial institutions and volatility of the amount which can be received as a loan are the other two factors that affect the decision-making process of the supplier. Reference: (Invoice-Discounting, n.d.)Factoring

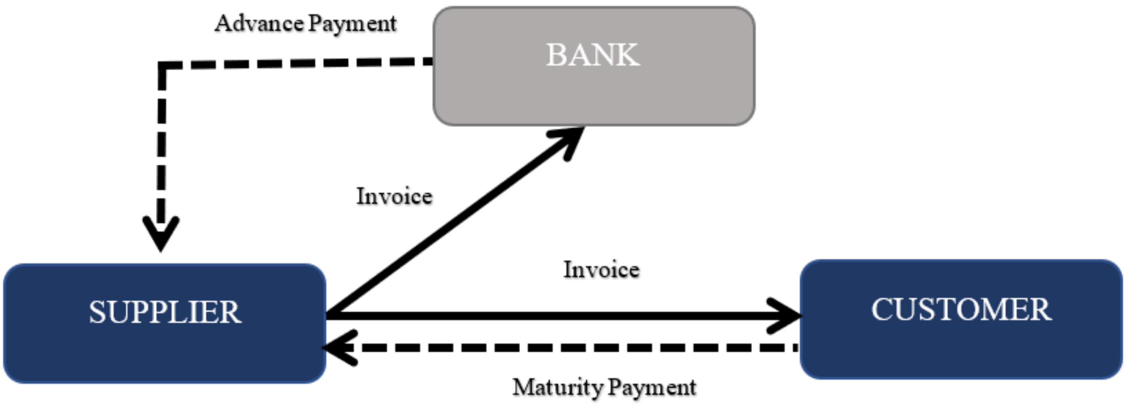


Figure 3: Invoice discounting

Factoring:

Factoring is a process, wherein a business sells its invoices to a third party and receives a payment for the invoice early. The risk of getting the payment back will rests on the financial service or bank buying the invoices. Generally, 80-90% of the invoice amount is paid, but it varies depending on the risk involved.

Advantages:
Immediate cash inflow by reducing the cash flow cycle, by selling the invoices to the financial service provider.
Managers can think about business operations and growth without stressing the fact of collecting the receivables.
It can be a good way to evade the bad debts which are induced by non-payment of the invoices.
No collateral is required to carry out the factoring process. Further, it is a transaction of sale but a loan.
Financial institutions can help us with the credit rating of the partners we are involved with and help us negotiate better terms in the future.
Disadvantages:
Reduction in profit because the complete amount will not be paid for the invoice raised.
Reliability on customer/buyer credit, the deduction percentage from the invoice raised depends on the credit rating of the buyer, it is also possible that the financial institutions may not be able to process the invoice used by the supplier.
Effect on the relationship between supplier and buyer, since the financial institutions will be sending reminders about the debt which has to be paid to the financial institute thus effecting the relationship. Reference: (Factoring, n.d.)

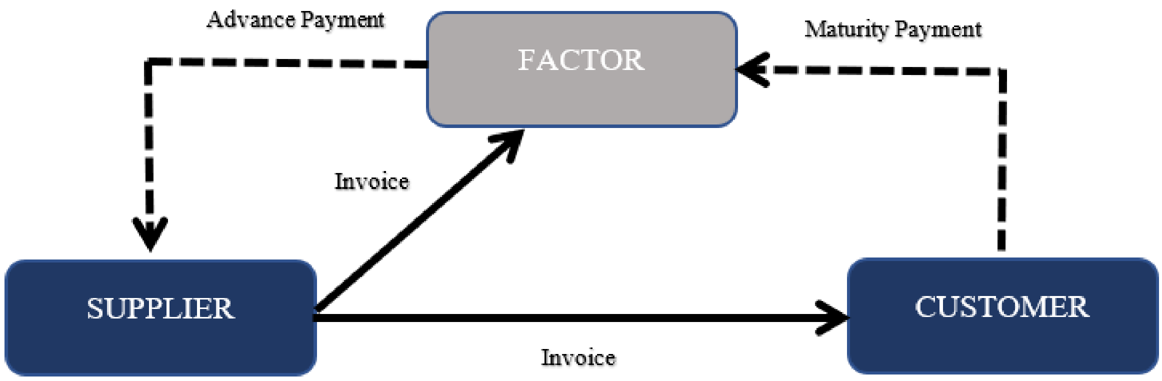


Figure 4: Process of Factoring

Reverse Factoring:

Reverse factoring is an arrangement through which a general buyer with the help of his financer (generally a bank) offers a credit to its supplier against the credit rating of the buyer. Information is shared in real-time through the electronic platforms generally hosted by financial service provider/bank. Creating a potential win-win situation for all the actors involved. The greater the difference between the buyer and supplier in terms of credit rating, the more it is beneficial to the supplier. It is a highly collaborative process, which develops strong relationships between all the players involved. The potential difference is the suppliers generally receive 100% value of the invoice compared to 80-90% in the traditional factoring method.

To evaluate the cost associated with the process, the Total Cost of Ownership (TCO) is an effective way of analyzing. The main costs associated are 1. Planning costs 2. Implementation costs 3. Use costs.

Advantages:
To the Buyer:
The buyer can have longer payment terms with the suppliers without affecting the cost of the goods. Thus, improving his C2C cycle without effecting the supplier financials.
The buyer can take benefits of cash discount while paying at the invoice maturity date.
To the supplier: Faster payments, better C2C cycle from delivery to cash. Unlike factoring, in reverse factoring, the collaboration and relationship between the buyer and the supplier improve.
Disadvantages:
Reduction in profit margins, high cost for collaboration, and IT infrastructure. Reference: (ReverseFactoring, n.d.)

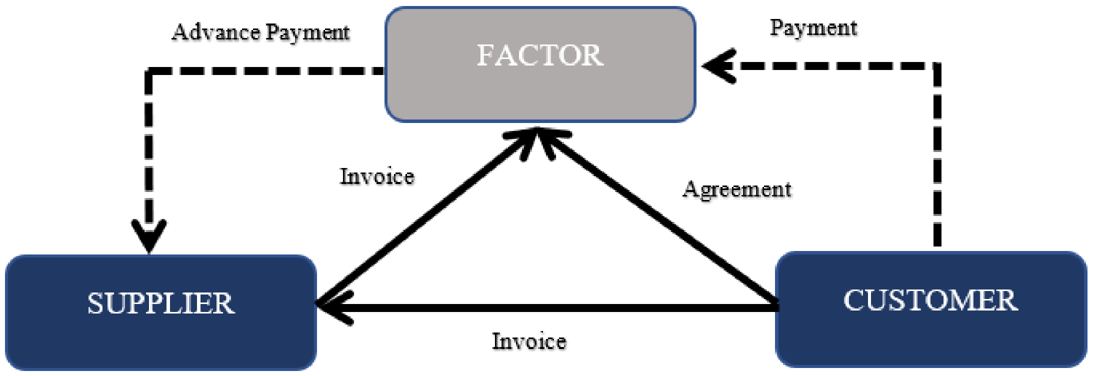


Figure 5: Process Of Reverse Factoring

Purchase Order Finance:

Purchase order finance is one of the most fascinating innovative pre-shipment financing solutions which can help the organization cope up with the financial constraints.

Short-term loans are given on purchase order so that you don’t deplete your cash flows.

It is quite possible that a supplier might receive an order but doesn’t have enough cash to get the operational activities done. In this case, it is possible to get a loan from a financial institute up to 50% of the order value.

Digitalization plays an important role in mitigating the risk involved in the financial service provider by sharing the information about the sales forecast and payment terms agreed with the buyer. The costs associated with purchase order finance are generally legal and compliance costs, digitalization costs.

It can be implemented effectively by the organizations which are more agile and digitally advanced. Traditional SCF providers might have a problem in implementing this kind of solution. Further, the cost of implementing purchase order finance is high because of the factoring post-shipment process.

Advantages of POF:
It is possible to get Purchase order financing even without having a top credit rating, so it is beneficial for start-ups.
Depending on the financial institutions, POF also involves collecting the receivables.
Helps you take on big jobs with just Purchase orders from the buyer.
Disadvantages of POF:
If inflation persists borrowers are benefitted over the lenders.
It mainly helps the companies which resell finished goods and don't require assembly, installation, and customization.
It is generally advantageous only if the gross margin is more than 25%.

Reference: (POF, n.d.)

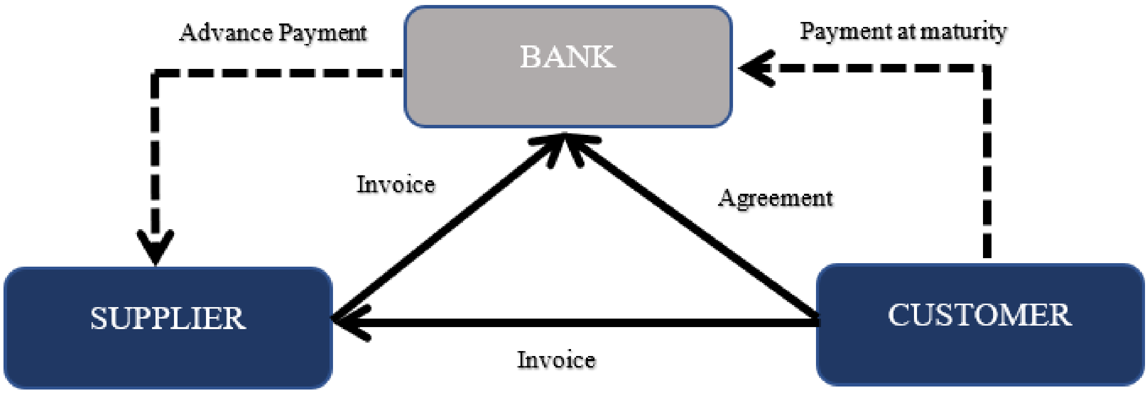


Figure 6: Purchase Order Financing

Inventory finance:

It is a short-term loan made to a company by a financial institution, For these products, an inventory serves as the collateral for the bank/financial service provider. This is especially useful when you must pay your suppliers early and it takes a lot of time to sell the product.

Actors on the downstream of the supply chain such as Logistics service providers can act as financial service providers because they have much more information on the availability of stocks, sales forecasts and inventory levels.

Invoice auction:

A traditional invoice discount can be upgraded to invoice auction. Invoice is uploaded to a third-party platform wherein various actors like banks, individuals with high net capital looking for short term gains, corporates investors & asset managers can buy the invoice for a certain price and receive the amount later.

Up to 90% of the invoice value can be obtained. Technologically innovative companies and start-ups which do not have a stable income revenue prefer this kind of solution.

Dynamic discounting:

It is technology-enabled solutions for companies to capture and automate discounts all through the supply chain. Dynamic discounting allows the buyers to decide how and when to pay the suppliers to have a better price or better cash flow. Generally, the earlier the payment the more the discount.

Dynamic discounting is implemented through a web-based platform on an invoice to invoice basis. The main advantage of Dynamic discounting is the buyer can use his excess cash for early payment and obtain a higher value for his goods and increase profitability. While the seller can improve his cash flow cycle and use it for growth options.

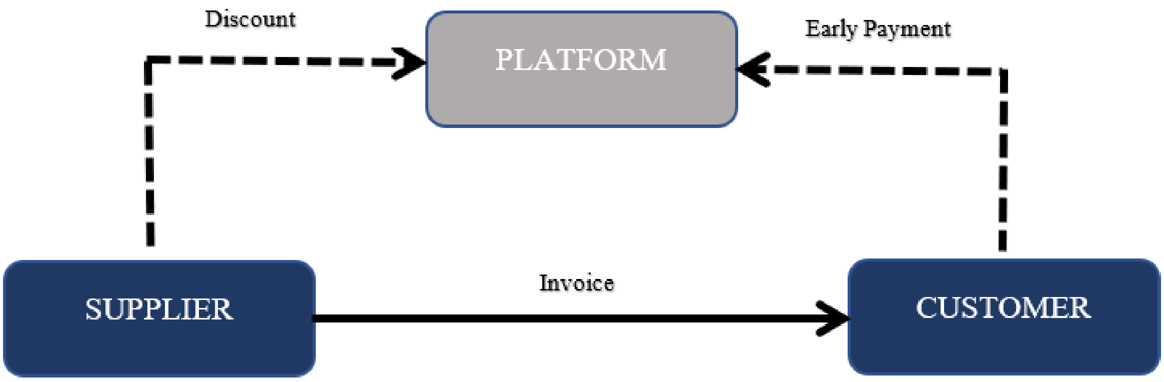


Figure 7: Dynamic Discounting

3. OVERVIEW OF INDIAN ECONOMY

India with a population of 1.27 billion people is the second-most populous country in the world and is expected to surpass China in terms of population by 2025. It is the seventh-largest country in the world with 3.288 million square kilometers along with 22 major languages and 415 dialects.

COMPOSITION OF INDIAN GDP:

India is the fastest-growing trillion-dollar economy in the world and fifth-largest economy in the world with $2.94 trillion, overtaking the United Kingdom and France in 2019. The introduction of Goods and Services Tax (GST) tax reform and “Make in India” also known as industrial revolution 4.0 in other parts of the world is further expected to further boost the

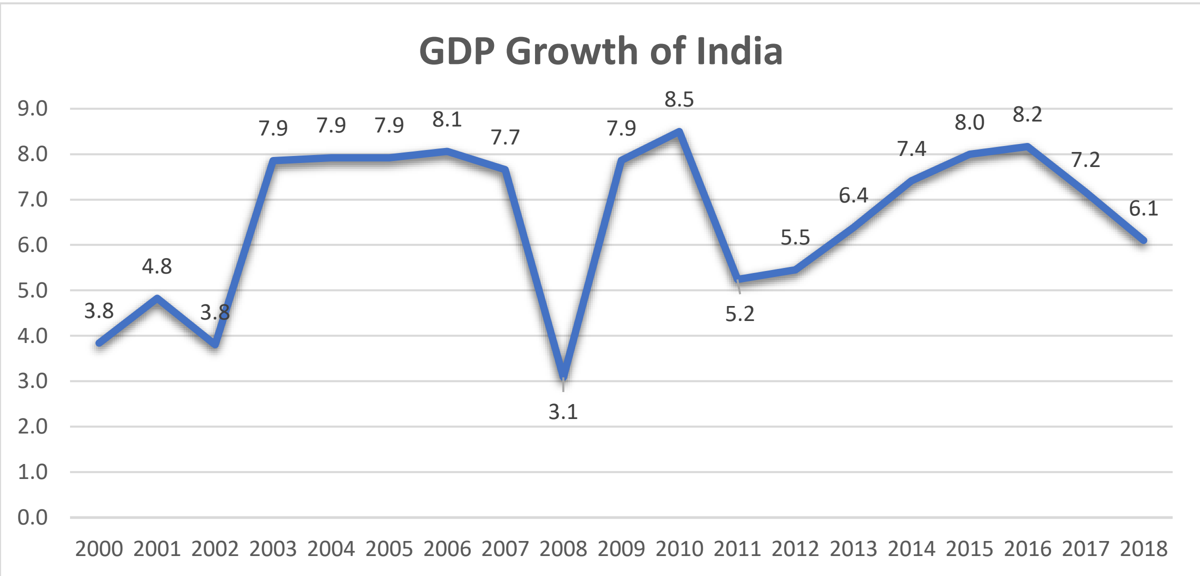
Indian economy and manufacturing sector, which has been predominantly lagging and hindering the nation's progress to become a developed nation.

Indian GDP is predominantly composed of three sectors agricultural, industrial, and Services. Agriculture includes agriculture and allied industries. The industrial sector mainly includes mining, manufacturing, construction, electricity, gas, and other related activities. The services sector consists of public administration, tourism, logistics, trade, Financial and professional services.

Indian economy which was predominantly dependant on agriculture during its time of independence in the late 1950s has reformed itself to a service-oriented economy like the developed nations. Now the main contributor to the GDP is the service sector followed by the manufacturing and agriculture sectors. The strength of the Indian economy lies in the rising middle class, less dependency on exports, and favorable demographics of having a very large educated youth population entering the working class.

Indian GDP has been increasing steadily from the year 2000 with an average growth of 6.5 in the past 18 years. Even during the financial crisis of 2008 when all the countries across the globe reported a negative GDP growth, India had a positive GDP growth rate of 3.1%. In recent years, the GDP has peaked at a growth rate of about 8% and 8.2% in the years 2015 and 2016. With the negative effect of COVID-19 on various economies, India is still expected to have positive GDP growth of 1.9% for the year 2020 according to IMF estimates.

The contributing factor to the growth of the Indian economy has been the change of regulation in Foreign Direct Investment (FDI) which allowed foreign companies to directly invest in India and own the shares of the company, mostly after the year 1994. Having an educated population that was proficient in speaking English further boosted the foreign investments from the west. This led to the growth of the service industry in India.



GRAPH 1: GDP TREND OF INDIA FROM 2000-2019

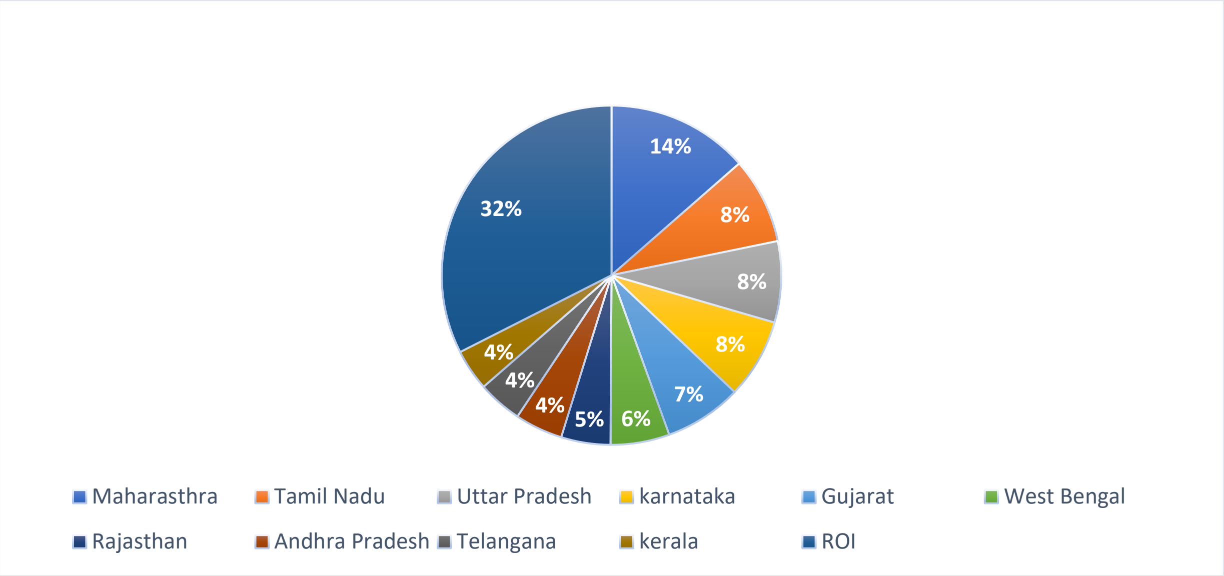
Reference: (IMF, n.d.)

The Relevance of the Different Sectors:

Analyzing various sectors and which are the main contributing factors to be the growth of the Indian economy, it has been analyzed that services account for 61.5% of the GDP followed by the manufacturing industry at 23% then followed by agriculture at 15.4%. Indian economy is a service-driven economy. The Indian economy has changed from an agricultural driven economy (52% of GDP in 1950) to a service-driven economy (61.5% of GDP in 2017). The constant change of regulations to ease the doing of business, attracting foreign investments, the rise of educated people, the development of Information technology (IT) infrastructure, and investments in start-ups have been significant factors in the growth of Indian GDP. Further, most of the fortune 500 companies have their research and development centers in India, showing trust in the skill and knowledge of the Indian workforce.

Indian GDP is a complex thing to be analyzed region by region. Unlike any other country, official language and regulations change from region to region. Looking at region wise contribution for the GDP, Maharashtra State with its capital Mumbai, which is also known as the financial capital of India where most of the Indian imports and exports happen, contributes 14.11% to the total Indian GDP. Followed by Tamil Nadu state which has IT, textile, and Automobile sector as its contributing factor, and Uttar Pradesh state with a contribution of 8.55% and 8.05% respectively. The southern part of India contributes about 45% to the GDP and the rest is contributed by northern, eastern parts of India.

Most of the service-based Information Technology based companies and Multinational companies with activities are based in the south of India, predominantly in the metropolitan cities like Bangalore and Hyderabad followed by Chennai. While the manufacturing sector is majorly contributed by Maharashtra and Gujarat in the west of India, with an added benefit of having seaports further allowing exports and imports for the state and country. While the north of India has a strong automobile and tourism industry.



Graph 2: GDP contribution of various Indian states

Reference: (GDP/State, n.d.)

3.1 Service

The service industry is the main contributor to the GDP going deeper into the analysis, Service industry which include trade, logistics, tourism, real estate, banking, and financial sector among many others, the growth rate has been very impressive from 29.63% in 1951 to 61.5% in 2017. The service sector employs 28% of the total workforce, further it is driven by digital efforts of the government and highly skilled and low-cost manpower. The financial sector contributes about 21.67% of the total GDP in India.

The government's latest initiatives like Smart Cities, Digital India, Skill India, and start-up India are helping create an environment that will enhance the growth of the service-oriented companies.

The service sector in India consists of 13 sub-divisions 1. Trade 2. Tourism 3. Shipping 4. Port services 5. Storage services 6. Telecom and related services 7. Real estate services 8. IT services 9. Accounting and auditing services 10. Research and Development services 11. Legal services 12. Consultancy 13. Construction

Reliance Industries, HDFC Bank, ICICI Bank, Tata consultancy services, Larsen & Toubro, State Bank of India are top industries in the service industry. HDFC, ICICI, AXIS bank are top private sector banks operating in India. Whereas Reliance Industries is a true conglomerate having business in Telecommunications, Insurance, Clothing, Internet service provider, and many more. Larsen & Toubro mainly deals with construction and IT services. Tata consultancy services (TCS) are the biggest IT service provider in India, it is a subsidy of the TATA group.

Reference: (service-sector-types, n.d.) (Deloitte-service-report, n.d.)

3.2 Manufacturing

The manufacturing industry has gone through various phases of development in India, for only foundation, license, and permit based in 1950 to 1980, to more liberalization in the years after 1980 and now in the phase of globalization. India is implementing strategies (Make in India, Smart cities) to make a contribution of 25% towards GDP by the manufacturing sector.

The manufacturing sector can be divided into 1. Automobile and related industry 2. Capital goods 3. Cement and ceramics 4. Chemicals 5. Electronics & Electricals 6. Food products 7. Leather and footwear 8. Machine Tools 9. Metals 10. Paper 11. Textiles

Small scale industries contribute 40% of the gross industrial value. They contribute to about 45-50% of the total export value out of which 35% is contributed directly by the industry and 15% indirectly. MSME contributes to about 6.11% of the manufacturing GDP, 24.63% of the GDP in the service sector, and 33.4% of manufacturing output.

The main industries in the Indian economy are the textile industry which contributes about 2% of the GDP of India and 15% of the total exports. The food processing industry is the 6th biggest industry worldwide, contributes 15% of the manufacturing GDP. The main players include Pepsico, Glaxo-SmithKline (GSK), Mapro Foods, Dabur, Nestle, Haldiram, and Frito-lay.

They employ about 120 million people in India, second highest after the agriculture sector. The government aims to develop an ambitious amount of 2 trillion dollars from MSME by 2025 towards its goal of achieving a 5 trillion-dollar economy in India.

3.3 Agriculture

The agriculture sector and its allied industries are the largest sources of livelihood for the Indian people. 70% of the rural population still depend on agriculture as the primary source of income and about 82% of the farmers being small or marginal implying small-scale agriculture.

Agriculture contributes 18% to the Indian GDP and it is a sector which has a decreasing trend towards contribution in GDP mainly because of growth in other sectors. Further, the rise in urbanization leads to a decrease in arable land in India and decreasing agricultural prices with most of them below minimum support prices. India is the largest producer with 25% of the global production and the largest consumer with 27% of the world consumption. Highest importer of pulses in the world with 14%.

Reference: (FAO-agriculture-India, n.d.) (Statista-Indianagriculture, n.d.)

3.4 Classification of Industries in India:

Classification of industries has changed from an investment-based approach to a turnover based approach in 2018 by amending the previously existing law.

Microenterprise: Microenterprise is defined as an organization whose turnover doesn't exceed 5 crore Indian rupees or 50 million Indian rupees

Small enterprise: Small enterprise is defined as an organization whose annual turnover lies in between 5 crore Indian rupees and 75 crores or between 50 million and 750 million.

Medium enterprise: Medium enterprise is defined as an organization whose annual turnover lies between 75 crores and 250 crores or between 750 million or 2500 million rupees.

Large enterprise: Large enterprise is defined as when the annual turnover exceeds 250 crores or 2500 million rupees.

INDUSTRY	VALUE
Microenterprise	Less Than 5 crores or 50 million rupees
Small enterprise	Between 50 million and 750 million rupees
Medium enterprise	Between 750 million and 2500 million rupees
Large enterprise	Exceeding 2500 million rupees

Table 1: Classification of Industries in India

Reference: (MSME-Classification)

Small scale industries contribute 40% of the gross industrial value. They contribute to about 45-50% of the total export value out of which 35% is contributed directly by the industry and 15% indirectly. MSME contributes to about 6.11% of the manufacturing GDP, 24.63% of the GDP in the service sector, and 33.4% of manufacturing output. MSME employs 120 million people and contributes around 45% of the total exports. About 20% of MSME are present in Rural areas are employing predominantly rural public.

Reference: (CII-sectors, n.d.)

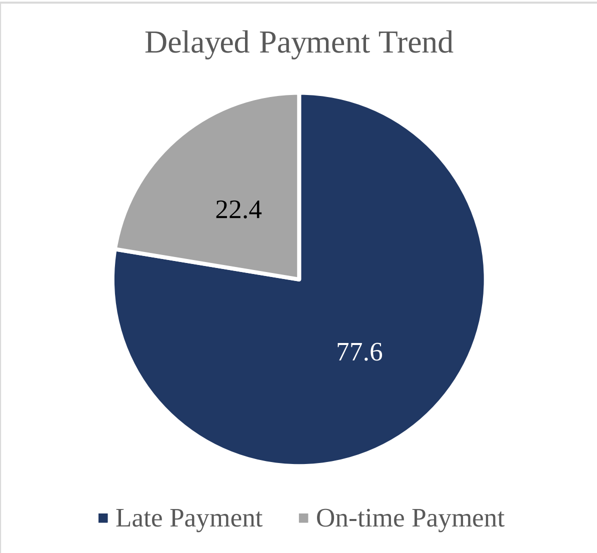
4. OVERVIEW OF THE MARKET POTENTIAL

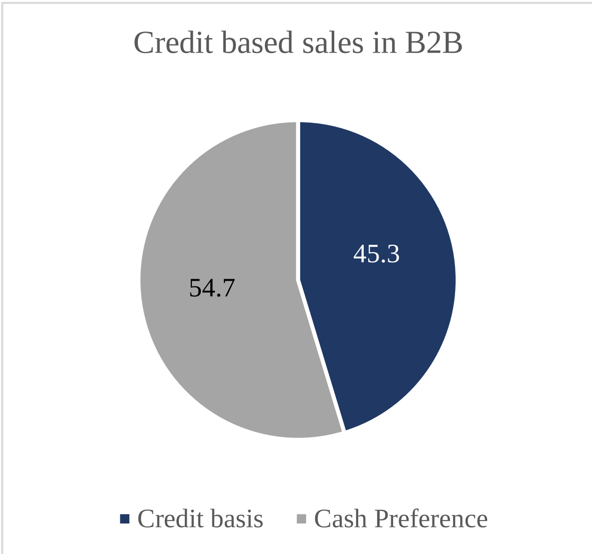
4.1 Payment trends in India

There is generally a tendency of delayed payments in the Indian market. As of 2016, according to the Atradius report, overall, 78% of the companies delayed their payment. While the percentage of delay in large corporations and MSME being the same.

When the sector-wise analysis is considered, Agriculture has been a top-performing sector with only a 52% delay in the payments whereas finance, insurance, and real estate are the worst performers with 84% delayed payments.

The percentage of on-time payments (by the due date) in the Indian companies was around 22.4%. percentage of companies with series delays in the payments (more than 120 days after due date) where around 24.6%.





GRAPH 3: PAYMENT TRENDS IN INDIA

Coming to financial parameters like DSO, DPO & DIO, and the Cultural aspect of the transaction, the first and foremost thing to understand, Indian suppliers prefer to have the transaction in cash to cash in B2B scenarios. Indian suppliers don’t prefer trade credit. Even though their averages of cash transaction 45.3% are in line with the Asian averages of 46%.

Trade credit favourability decreases further if it’s foreign trade. The main reason being the lack of knowledge of the payment system and culture of the trade partner country. Further, 2.7% of the total receivables are written off as uncollectable. Another interesting aspect being 2 in 5 suppliers, write off some number of collectibles because the transaction being too old or the cost of collection of debt is too high.

Reference: (Payment-Practices-India, 2016) (D&B-Report, 2019)

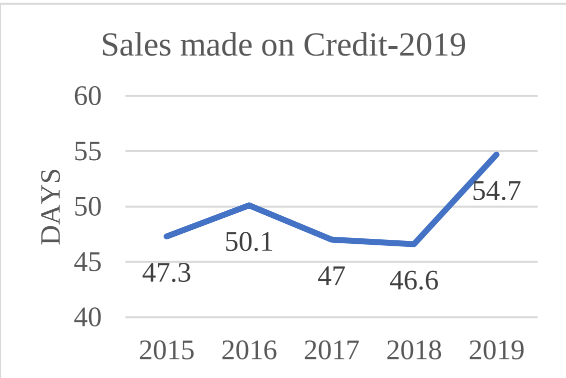
According to Atradius 2018 report, India one of the worst countries to be affected by late payments with which effected the cash flow, payments to their suppliers, and loss of business opportunities. Sales on credit have decreased slightly from an average of 44.4% in 2017 to 42.5% in 2018. B2B on credit scale for domestic customers is 49% whereas for B2B customers aboard is 36% which shows a lack of trust in the foreign partners. About 94.7% of the correspondents reported frequent late payments from their customers. The overdue b2B invoices were about 56.7% compared to 53.4% in 2017.

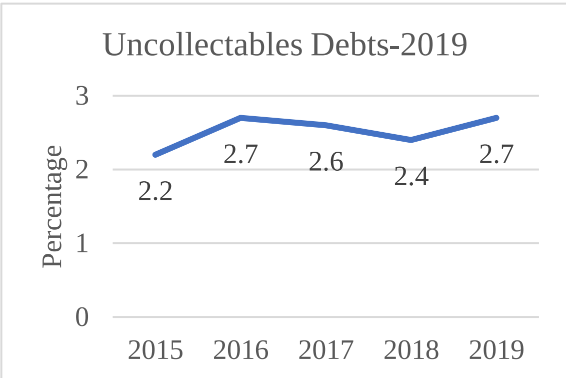
India has a DSO value of 52 days, which has been increasing from the past 3 years, and the highest in the Asia Pacific region which has an average value of 40 days.

India has a delay of payments from agreed contract terms by at least 42 days in 2018. DPO is high mainly because of lack of funds (57.3%) and goods delivered, and services provided where not are in line with the terms agreed during the contract. Paperless invoicing is become a norm for 80% of the correspondents using e-invoicing. The majority of the correspondent said the payments were received faster when the invoice was sent electronically.
Reference: (Payment-parameters-india, 2018)

According to Atradius 2019 report, credit sale was rising which can be attributed to a rise in internal demand and export growth. The knockout effect is stronger in India than any other south Asian country. There has been a 20% increase in invoices on time for Small and medium enterprises. Micro had to wait the longest of 59 days from the date of invoice to convert it into cash whereas it was 57 days for small and medium enterprises and 47 days for large enterprises. (Payment-barometers-astradius, 2019)

For the year 2020, like many other economies, the Indian supply chain has also been drastically affected by the pandemic. The majority of businesses expect significant deterioration in B2B payment behavior. There has been a decrease in B2B credit sales reflecting the credit risk environment. Significantly longer payment terms need for short-term trade finance. Due to poor expected payment behavior dependence on bank finance is expected to increase.
(Payment-barometers, 2020)





GRAPH 4: GRAPHS SHOWING CREDIT SALES AND UNCOLLECTED DEBTS

4.2 C2C Cycle of Indian companies: classification by size

With the data of approximately 4000 companies to be analyzed, they have been segmented to the micro, small. Medium and large enterprise based on the latest Indian government classification of industries. In analyzing the data, it was found in the existing dataset, there is no micro-enterprise. Further analysis was performed to obtain 1099 large enterprises, 1358 medium enterprises, and 1533 small enterprises from the dataset. To find the trend of the payment system and understand the financial performance of companies in India, financial information from the dataset has been divided into 2017 and 2018 year.

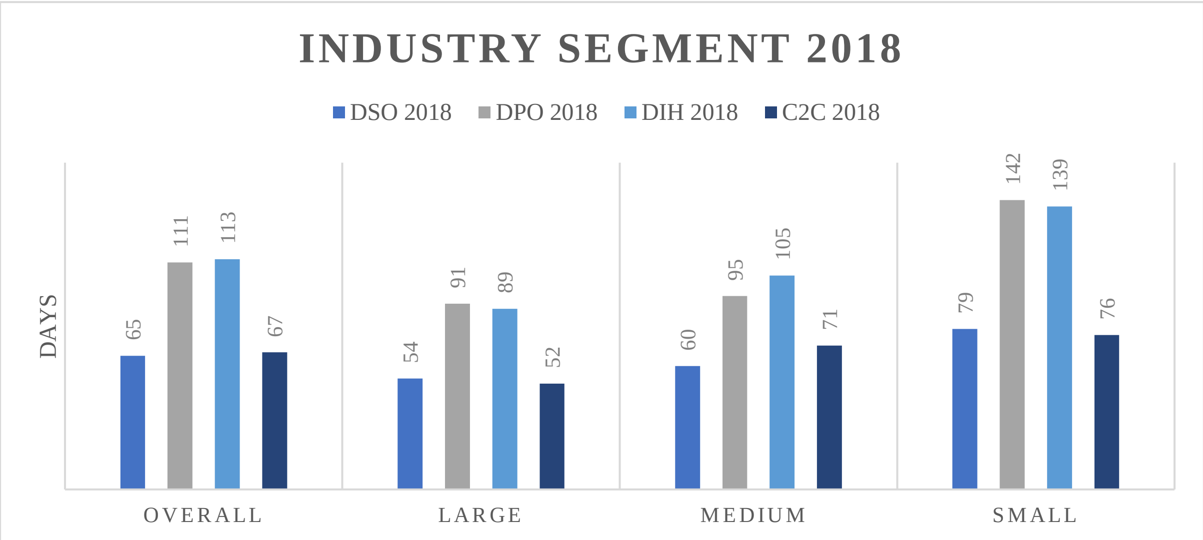
Analyzing the dataset, few companies with high C2C cycle, DPO, DSO, DIH values were found to be influencing the overall values thus deviating us from the actual results. So the companies with values of DPO, DSO, DIH, or C2C cycle more than 1000 days were removed from the analysis to give us a more accurate value of how the payment system is in India. Further, the companies with the Cost of goods sold (COGS) equal to zero have been removed from the analysis. Companies with questionable COGS or financial have been verified against the companies working in a similar sector or by understanding the financial statements in case of a public company.

4.2.1 Analysing C2C cycle for 2018:

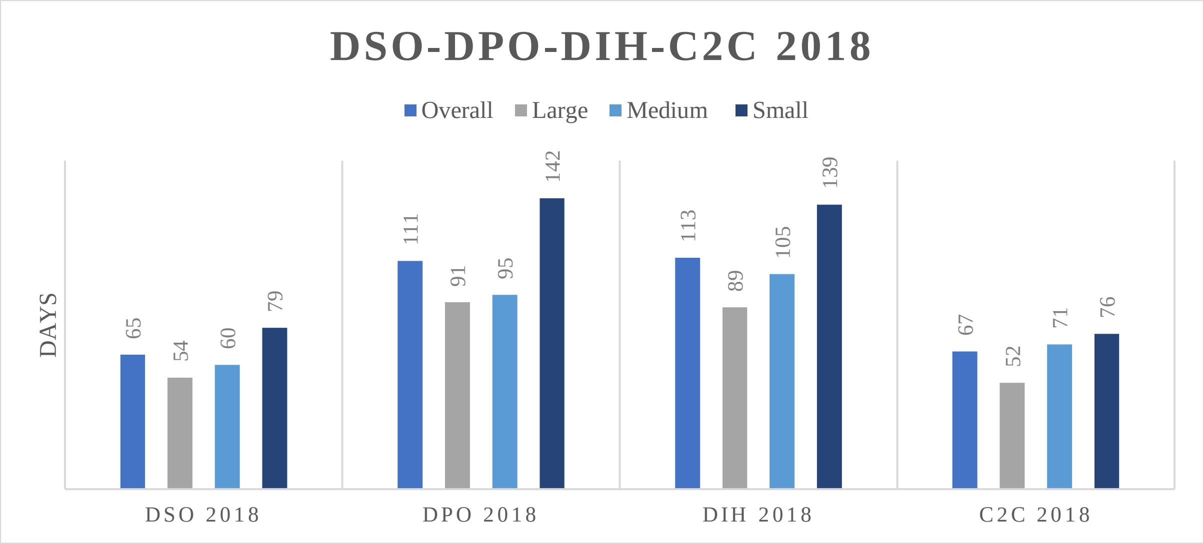
After cleaning the data, following the same procedure mentioned above analysis by dividing the industries into large, medium, small, and micro-enterprises. There has a very slight improvement in the payment parameters for the year 2018.

C2C cycle for the companies analyzed in 2018 after removing the companies with Cost of Goods Sold (COGS) equal to zero and C2C above 1000 days. The average was 67 days a very slight improvement of one day compared to 2017. Large enterprises C2C cycle to 52 when compared to 50 in the previous year. C2C cycle of small-scale enterprises increased to 76 when compared to 82 for the year 2017. There is a slight improvement in DSO, DPO, DIH values.

DSO decreased by 6.7% compared to 2017, DPO, DIH decreased by 4% and 0.8% respectively, and an overall improvement of 1.4% in the C2C cycle.



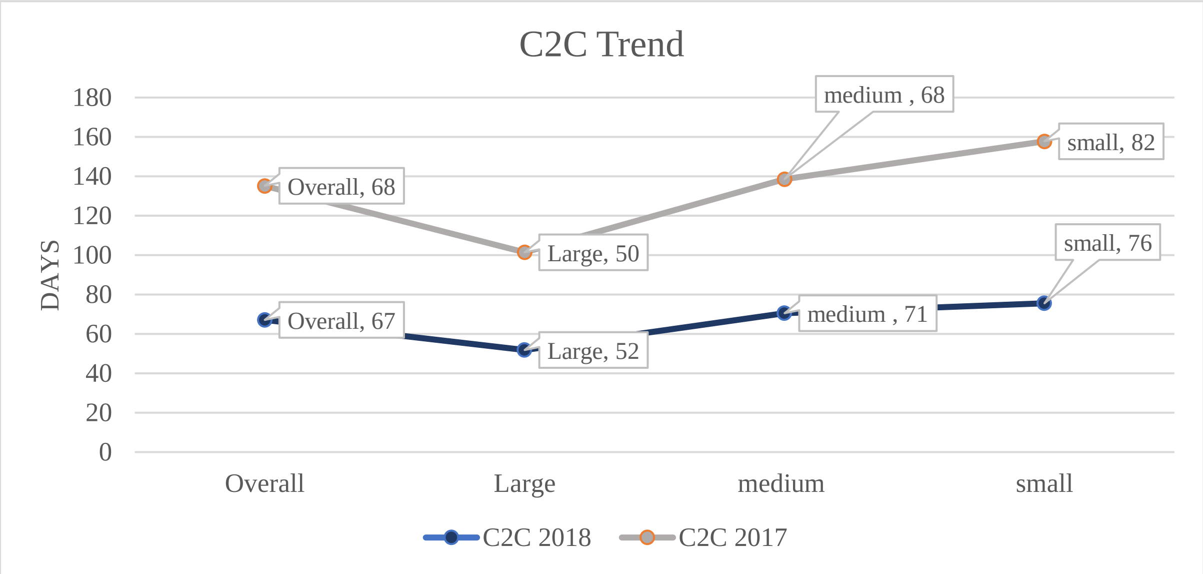
GRAPH 5: TREND OF PAYMENT INDICATORS IN 2018



GRAPH 6:TREND OF PAYMENT INDICATORS SECTOR WISE IN 2018

C2C trend:

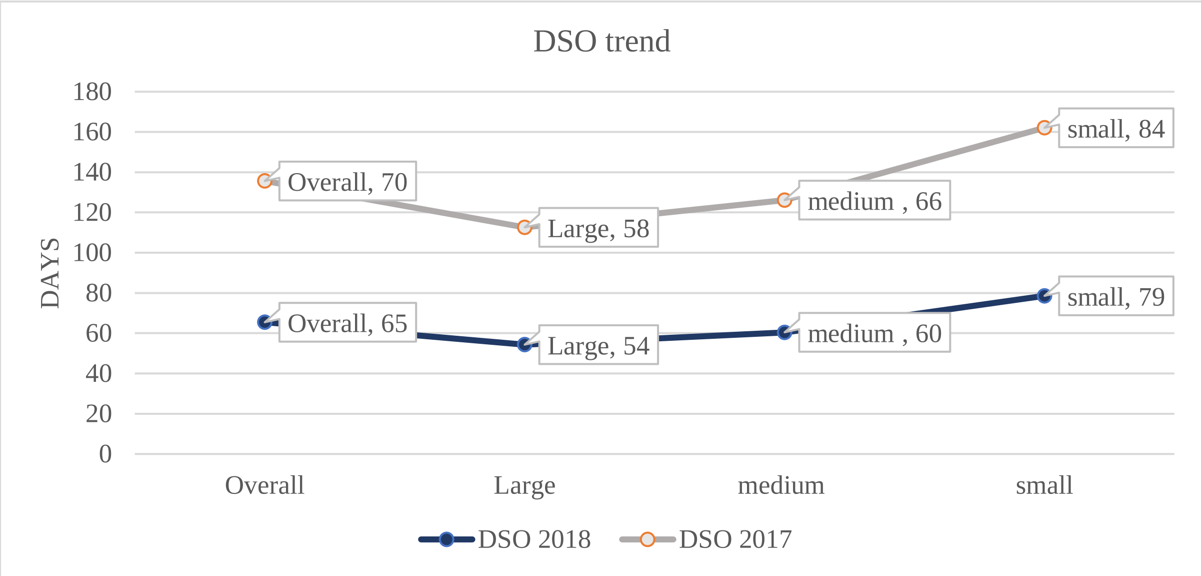
Analyzing the trend of the C2C cycle in 2017 and 2018, the overall performance has been pretty much the same with average values of 68 days and 67 days respectively. While small scale industries have seen a major improvement of the C2C cycle by reduction of payment days from 82.3 days in 2017 to 76 days in 2018. C2C cycle of large and medium scale industries have increased slightly by approximately 2 days in both cases.



GRAPH 7: C2C TREND 2017-18

DSO trend:

DSO trend has decreased from 2017 to 2018, implying the company can receive payments for the goods sold faster than in 2017. All the sectors of the large, medium, and small-scale industries had a similar reduction in DSO values of approximately 5 days, leading to an average reduction in DSO value of 4.5 days from 2017 to 2018.

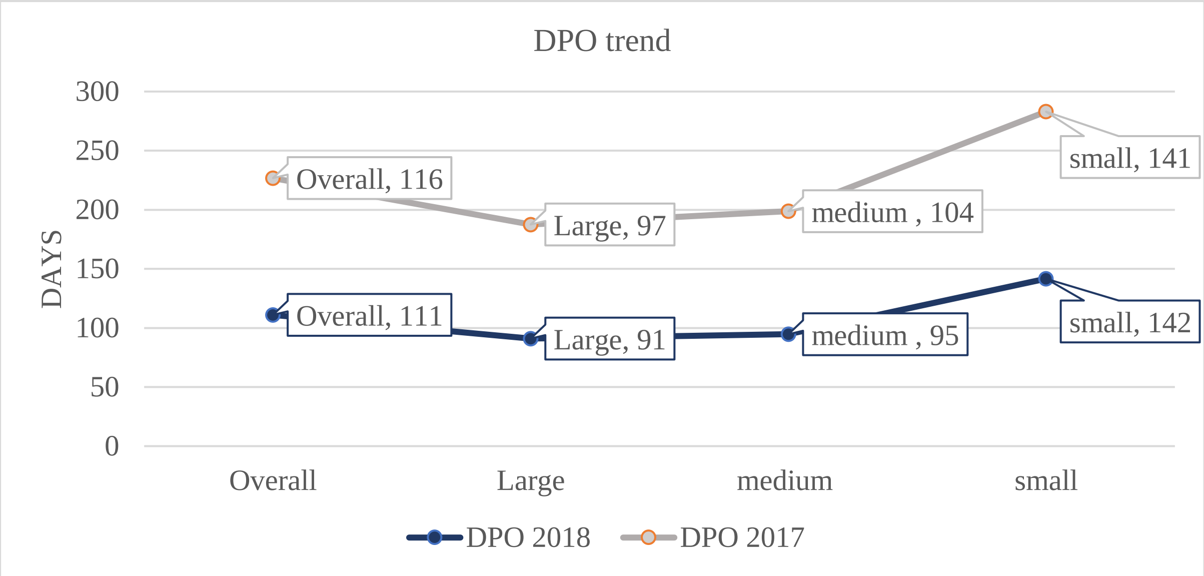


GRAPH 8:DSO TREND IN 2017-18

DPO trend:

The overall DPO values have improved in 2018 compared to 2017. Medium-scale enterprises have decreased the DPO from 104.8 days to 94.7 meaning they are paying their suppliers earlier than they did in 2017. Large enterprises also had a similar trend by decreasing the DPO by 5.5 days, whereas the small-scale industries had the same DPO for 2017 and 2018.

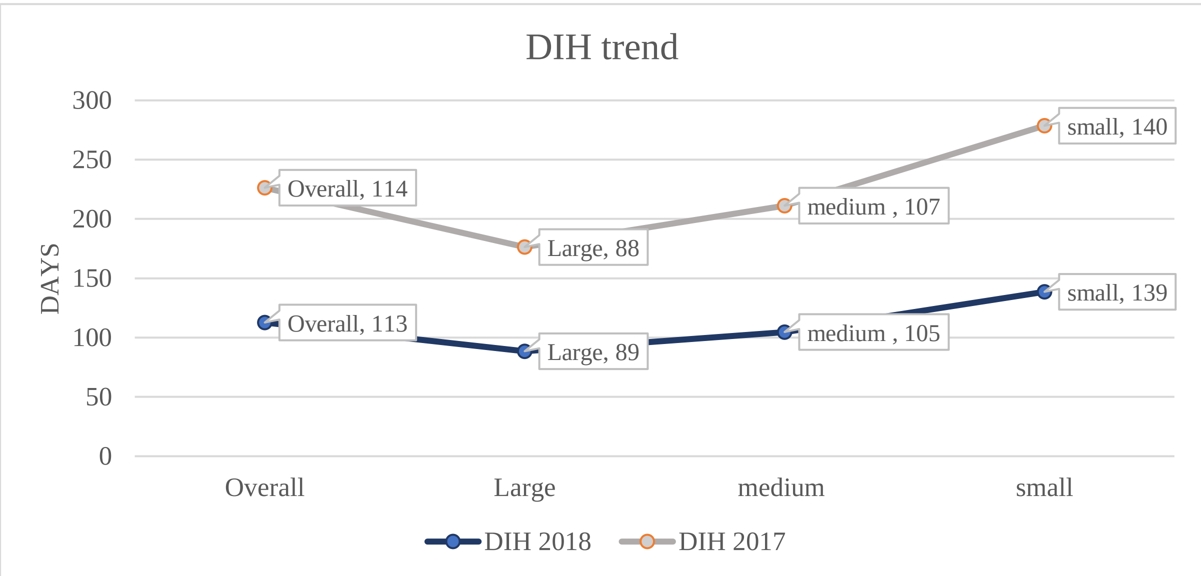
High DPO values can be associated with a lack of funds to pay the suppliers, breaches in agreed contract terms especially the quality of the products.



GRAPH 9:DPO TREND IN 2017-18

DIH trend:

DIH trend from 2017 and 2018 has been constant across the various segments of enterprises. The overall value very slightly decreased from 114 days in 2017 to 113 days in 2018. High DIH value implies a lack of knowledge on proper inventory planning techniques, a lack of proper management skills to estimate the demand, and market the product to potential customers. Some of the industries have high DIH value because they serve seasonal demand products but do not necessarily mean they are performing badly in terms of working capital.



GRAPH 10: DIH TREND IN 2017-18

4.3 C2C cycle of Indian companies: classification by sector

After the division of enterprises into large, medium, small, and micro-enterprises, analysis moved into the division of enterprises into sectors and sub-sectors. Enterprises have been divided into sectors and sub-sectors based on the Bloomberg website further, the companies whose data was not available on Bloomberg, the sectors and subsectors were found by analyzing the company profile on their website or other financial information sources. The analysis was then compared with the average values of Indian companies and with the United States of America(US) S&P top 1500 companies based on the J.P. Morgan report.

Automotive industry:

Automotive sectors contribute about 7.1% to the Indian GDP and 22% of the manufacturing sector. Indian sector which has all the automobile companies manufacturing in India to serve its Indian market and export predominantly two-wheelers to the other countries. It contributes 4.3% of Indian exports. Automotive sectors have also seen a foreign direct investment of about $22.4 billion from April 2000- June 2019. Indian government plans to increase the GDP contribution of the automobile to 12% by 2025 through make in India and easing Foreign Direct Investment.

The financial performance of the automotive sector has been much better when compared to the overall performance of enterprises in India.

For the year 2017, the C2C cycle of the automotive industry has been 27 days much less than the average value of 68 days. The value of DSO is 53 days whereas the DIH value is 74 days. DPO which is a lot higher than DSO and DIH is about 104 days which implies there is a delay in the payment process towards the suppliers.

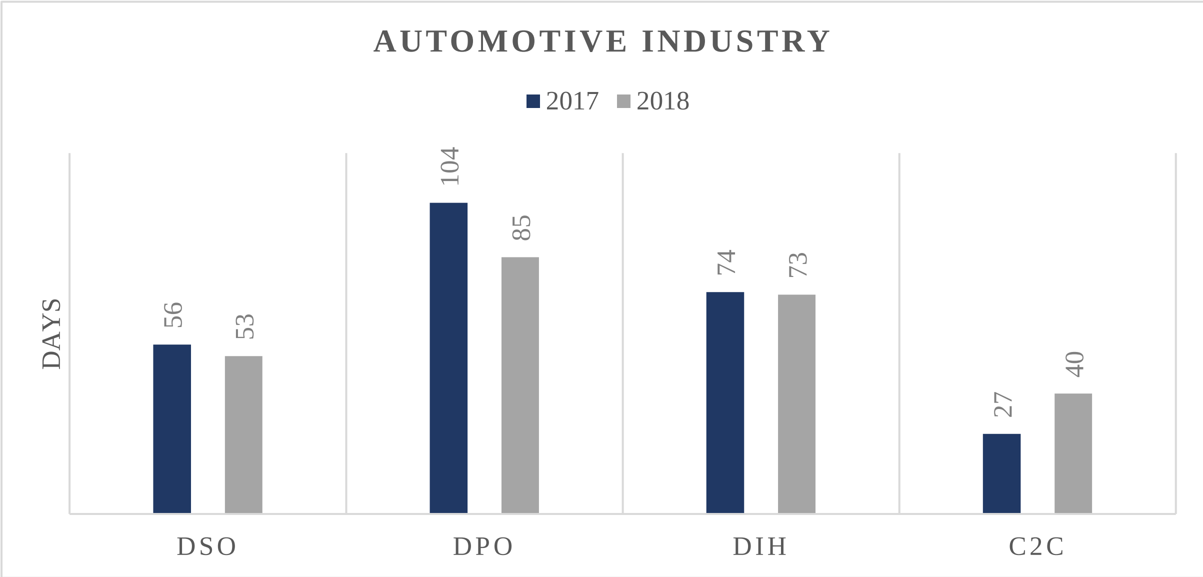
Analyzing the year 2018, contrary to the trend of a stable C2C cycle, the automotive sector has an increase in the C2C cycle. DSO and DIH are very much the same for both the years. Change in the C2C cycle has been caused by a decrease in DPO value.

Reference: (II-Automotive, 2020)

AUTOMOTIVE	**DSO**	**DPO**	**DIH**	**C2C**
2017	56	104	74	27
2018	53	85	73	40

Table 2: Automotive Analysis for 2017-18

Comparing the analysis carried for the Indian automotive sector with American top S&P 1500 companies and specifically the automotive industry based on J.P.Morgan study for the year 2018, Indian automotive companies are better performing with average C2C of 40 days when compared with the average value of C2C of 56 days with that of American automobile companies. Diving further deep into the analysis, DIH which corresponds to the time taken to sell the inventory has been the same for both Indian and American companies with an average value of 73 days, whereas American automobile companies were getting paid DPO of 50 days) quicker than compared to Indian counterparts, where automotive companies (signified by DSO value of 33 days) and paying the suppliers (which can be analyzed by were paid in 53 days (DSO), and suppliers were getting paid in 85 days (DPO).



GRAPH 11: C2C TREND OF AUTOMOTIVE INDUSTRY

DPO value in the automotive industry is high, which implies suppliers are paid late and DSO is the high company that takes time to receive money for the product sold from the customers. DSO value can be improved by faster delivery of the vehicle by properly optimizing the manufacturing process and improving forecasting accuracy and delivering the vehicle to customers can improve DSO value.

DPO can be improved by either paying the suppliers in advance or by implementing innovative SCF solutions so that suppliers can be paid early through banks and automotive industries can play them later.

Construction Sector:

The construction industry including infrastructure and real estate accounts for 9% of the Indian GDP accounting for about 51 million people employed.

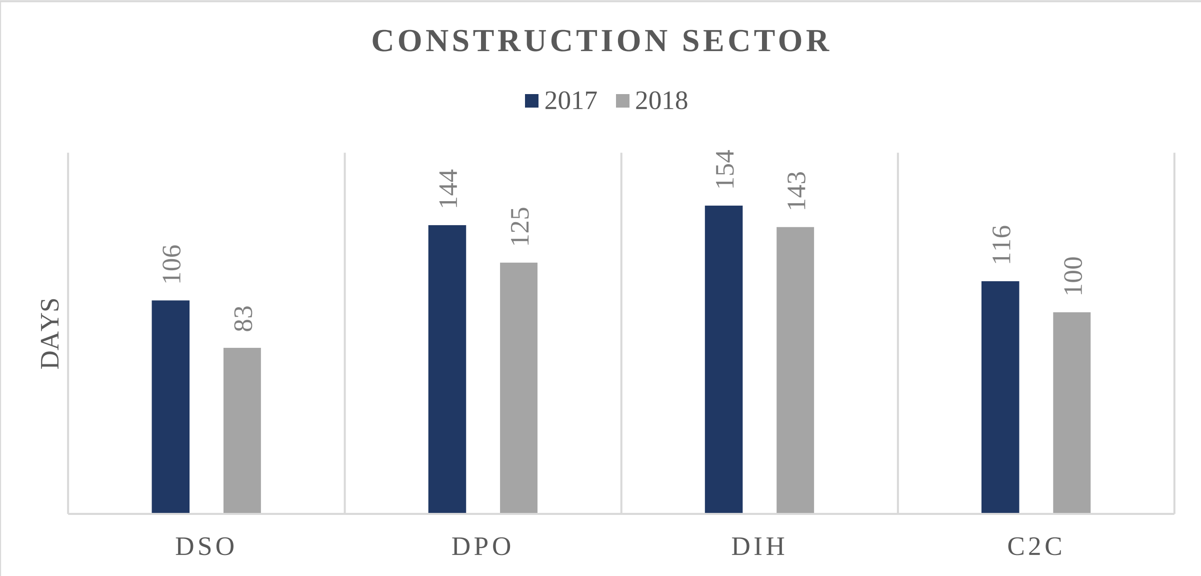
C2C cycle for the construction industry with a value of 116 days in 2017 and 100 days in 2018 is much higher than the average value of C2C for the Indian market which stood at 68 days in 2017 and 67 days in 2018. The construction sector, which is a capital incentive, the time taken to complete a project is long and the payment from the customers only happens after the completion of the project.

CONSTRUCTION	**DSO**	**DPO**	**DIH**	**C2C**
2017	106	144	154	116
2018	83	125	143	100

Table 3:Analysis of Construction Sector 2017-18

For the year 2017, the average value of C2C is 116 days higher than the average value of 68 days. The value of DSO for the construction sector is 106 whereas the average value of DSO is around 70 days. Similarly, the values of DPO and DIH at 144 days and 154 days are much higher than the average value of 116 days and 114 days respectively.

For the year 2018, contrary to the trend of constant C2C cycle. There has been an improvement in the C2C cycle for the construction sector. It has improved from 116 days in 2017 to 100 days in 2018. The main contributing factor has been an improvement in DSO from 106 days to 83 days, i.e company was able to collect the receivables. A decrease in DPO value was balanced by improvement in DSO and DIH values, thus improving the overall C2C cycle.



GRAPH 12:C2C TREND OF THE CONSTRUCTION SECTOR

Infrastructure is a capital-intensive sector; it has long Work in Progress (WIP) which in turn increases the value of DIH. Raw materials must be brought early and throughout the progress of the project, which can be seen in high DPO values.

Technology:

Technology includes hardware, software, and IT services in our analysis. Most of the companies are B2B and very few B2C enterprises. This sector employees 6.24 million people as of 2017, it is expected to employ 8.94 million people by 2022. It is a sector that is seeing rapid growth in consumer electronics with extremely limited domestic production and heavily dependent on the imports.

On analyzing the C2C data obtained through the analysis, Even though the C2C cycle of the technology sector with 30 days is much better than the overall average C2C cycle of 67 days, the value of DSO, DPO, and DIH of 81 days, 139 days and 88 days respectively are not very impressive especially the DPO value 38 days more than the average value of DPO which is around 111 days.

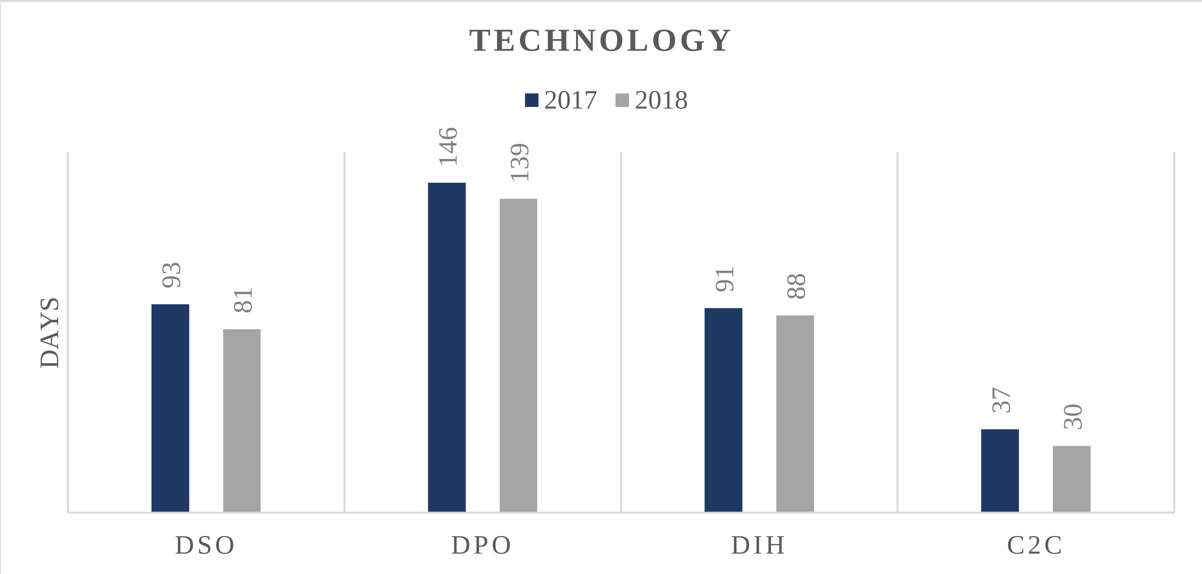
DSO and DPO value of 93 and 146 days in 2017 could be a cause of concern. Just like the automotive and construction sector, the technology sector also had an improvement in the C2C cycle, DSO, DIH has improved in 2018. DPO has decreased from 146 to 139.

Reference: (MEITY)

Comparing with US hardware technology companies, according to JP Morgan report, the overall C2C value of US-based companies is 94 days in 2018 where has for Indian companies it is 30 days in C2C, which might give an impression that Indian companies are performing better, in reality, the value of DSO, DPO, DIH are much higher of Indian companies compared to those in the US.

TECHNOLOGY	**DSO**	**DPO**	**DIH**	**C2C**
2017	93	146	91	37
2018	81	139	88	30

Table 4: Analysis of the Technology Sector



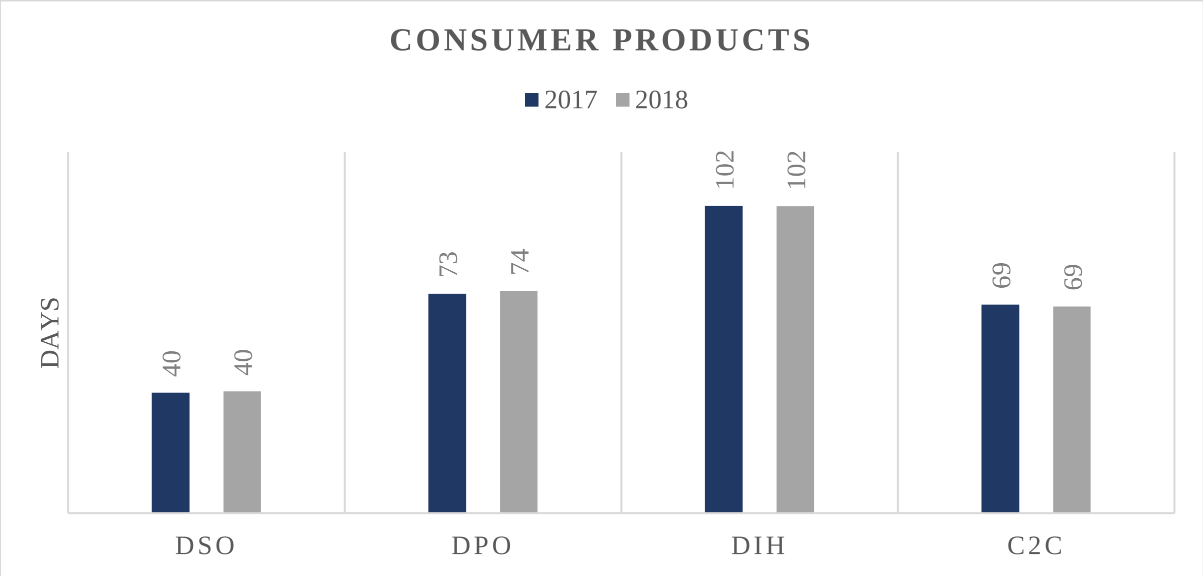
GRAPH 13 C2C TREND OF TECHNOLOGY SECTOR

Consumer Products:

The consumer products industry C2C cycle is consistent with the overall trend of the C2C cycle in India. C2C values have been 69 days for both the years, without any change in DSO, DPO, DIH values for the years 2017 and 2018. On comparing it with the average values of the Indian market, we can see an improvement in all the DSO, DPO, DIH values. DPO which generally has been on the higher side for most of the industries in India is relatively low of the consumer goods with a value of 74 days.

CONSUMER GOODS	**DSO**	**DPO**	**DIH**	**C2C**
2017	40	73	102	69
2018	40	74	102	69

Table 5: Analysis of Consumer Products



GRAPH 14: C2C TREND OF CONSUMER PRODUCTS SECTOR

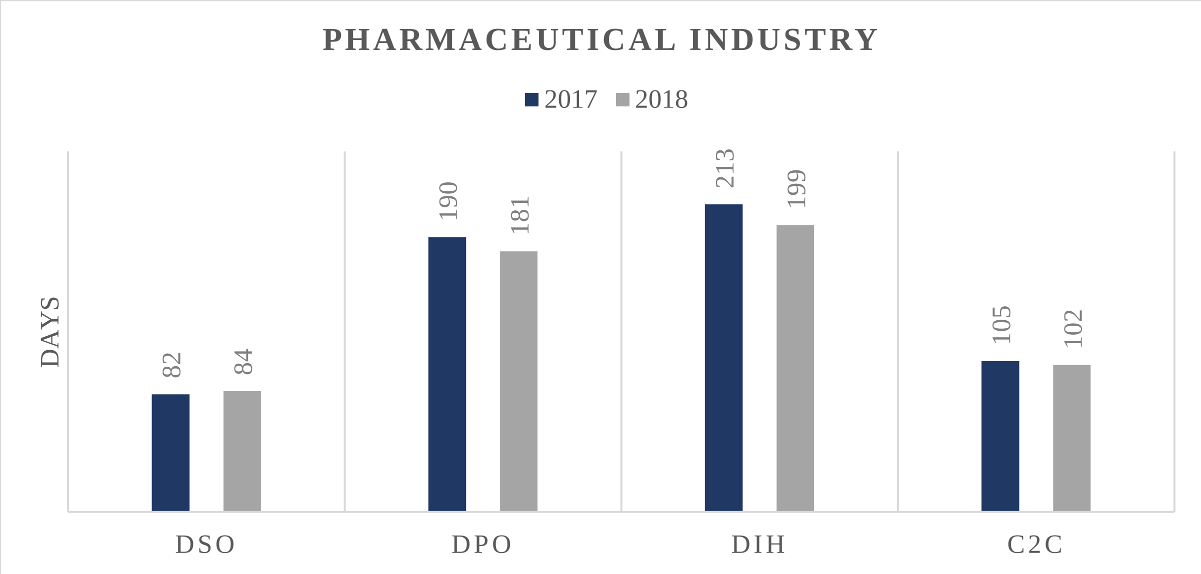
Pharmaceutical Industry:

Indian pharmaceutical industry is not only important for Indian healthcare but global healthcare. It ranks third for production by volume and tenth by value. Indian pharmaceutical industry contributes to 20% of the global supply by volume. It has more than 3000 pharma companies with a strong network of 10,500 manufacturing facilities which include US-FDA, WHO-GMP and European directorate of quality medicines (EDQM) approved manufacturing plants. Domestic pharmaceuticals market turnover was about $20.03 billion in 2019 up by 9.3% from 2018. Indian pharmaceutical exports were worth $19.3 billion with a growth rate of 10.72%. Reference: (II-pharmacy)

Analyzing the C2C cycle of the pharmaceutical industry in India, the average C2C of 105 days is much higher than the average C2C value of the Indian market which is 68 days. Even though DSO values of the pharmaceutical industry are close to the average values of the Indian market, DPO and DIH value which are around 181 and 199 days respectively are much bigger than the average values of 111 days and 113 days, respectively.

Pharmaceutical	**DSO**	**DPO**	**DIH**	**C2C**
2017	82	190	213	105
2018	84	181	199	102

Table 6: Analysis of Pharmaceutical Sector 2017-18



GRAPH 15: C2C TREND OF PHARMACEUTICAL INDUSTRY

On further, comparing it with the top pharmaceutical companies in S&P of the United States of America, it can be observed that the Indian pharmaceutical companies are better performing than the American companies. The average C2C value of American companies is around 143 days whereas Indian pharmaceutical companies have a C2C value of 102 days for the year 2018. Like, in the case of automotive the better performing C2C can be attributed to Indian companies having higher DPO value. American companies have a DPO value of 65 days whereas the Indian pharma companies have a value of 181 days. Whereas the American pharma companies having a bigger C2C cycle can be attributed to high DIH value.

5 THE EXISTING FINANCIAL ECOSYSTEM

India's diverse and comprehensive financial service industry is growing rapidly, owing to demand drivers like high disposable incomes, customized financial solutions, and supply drivers like new service providers, new financial services, and products. There are several sub-segments in the financial service industry which include insurance companies, mutual funds, pension funds, insurance companies, wealth managers, financial advisory companies, and commercial banks ranging from small domestic players to big multi-national banks.

Banking: The banking sector is the backbone of the Indian financial service industry. It has several public sector banks (27 as of 2017), private sector (21), foreign (49), regional rural (56), and urban/rural cooperative banks (95,000+) banks. They offer financial services like individual banking, business banking, and loans. It is regulated by the Reserve Bank of India (RBI) which monitors and maintains the segment's liquidity, capitalization, and financial health.

Professional Advisory: India has a strong presence of professional financial advisory service providers, which individuals and businesses a wide of services like merger and acquisition advisory, valuation, real-estate consulting, risk management consulting, investment due diligence, and taxation consulting.

Wealth Management: wealth management includes managing and investing customers wealth based on financial goals, risk, and time frame across various financial instruments like equity, debt, real estate, mutual funds, insurance products, and commodities

Mutual Funds: Mutual fund service providers offer professional investment services across funds that are composed of different asset classes primarily debt and equity-linked assets. These products are preferred by Indian citizens because of lower risks, tax benefits, stable returns, and properties of diversification. The growth has double-digit in past five years.

Insurance: Insurance solutions enable individuals and organizations to safeguard against unforeseen circumstances. There are generally two types of categories one general insurance like automotive, home, medical, and travel, and another type of insurance is life insurance like pension plans, money-back, and others. The payout for these products varies across the nature of the product, time horizons, customer risk assessment, and other key qualitative and quantitative aspects. The insurance market is regulated by the Insurance Regulatory and development authority of India (IRDAI).

Tax/Audit consulting: Tax consulting includes a large portfolio of financial services within the tax and auditing domain. It is divided into two segments like Individual tax consulting which includes determining tax liability, filing tax returns, and tax-saving advisory, whereas business tax consulting involves determining tax liability. GST registrations, tax compliance advisory, transfer price analysis, and structuring.

Capital Restructuring: These are generally offered to organizations and involve the restructuring of capital structure (debt and equity) to bolster profitability, volatile markets, liquidity crunch, bankruptcy, and hostile takeovers.

Portfolio management: It includes a highly specialized and customized range of solutions that enables clients to reach their financial goals through portfolio managers who analyze and optimize investments for clients across a wide range of assets. Reference: (services)

Emphasizing on Micro, Small and Medium-size enterprises also known as MSME contributes 29% of the Indian GDP and 49% of the Indian exports. MSME constantly struggles to acquire loans, develop the infrastructure, and many other factors which will be discussed in the following stages.

According to Creditwatch, an AI-based fintech startup in India, India has more than 50 million SME’s which face the problem of liquidity crunch. Of them only 15% of the industries can get the credit informal credit, the rest of them struggle to get the loan because of lack of trust due to data irregularities and lack of collateral. Banks view giving a loan to SME’s as a risky investment. Further, according to Creditwatch, the formal credit takes up to 4 to 6 weeks to get the loan processed with a high-interest rate of 16 to 24%. The company estimates a debt financing gap of 1 trillion dollars in Small and medium scale industry in India leading to SME’s being under-served and underbanked.

The Indian government aims to have a 5 trillion economy by 2025, it aims to achieve this mainly by developing the MSME, with an aim of 2 trillion dollars contribution by MSME industries. Further Indian government plans to ease the restrictions present in SME industries, to boost the local economy and reduce the dependency on imports.

5.1 Overview of The Banking Sector:

The banking industry in India has been historically one of the most stable systems, despite global upheavals. Indian banking system consists of 18 public sector banks, 22 private sector banks, 46 foreign banks, 53 rural banks, and 1542 urban cooperative banks, and 94,384 rural cooperation banks.
Public sector bank accounts for 61.21% of the total banking assets in FY19. Total banking assets were $1422.97 billion and $741.79 billion for Public and Private banks respectively.
The banking sector especially the payments segment has been rapidly growing and technologically advancing in recent years in India. Mobile banking in India is expected to grow by more than double to $135.2 billion by 2023. The adaption of banktech, blockchain, and cloud banking has been rapid in banking sector. Banking has been the formal source of securing capital in India.

Reference: (II-Banking)

Business loans serve as the backbone for enterprise to continue their business activities and for expansion of the business activities. It is particularly true for micro, small and medium enterprises that face the difficulty of getting a loan through formal sources.

Types of loan available in India for MSME:

Government: Government has various special schemes to boost the capacity of small businesses across the country.
Micro Loans: The maximum repayment term is six years. Microloans are offered provided there are a robust business plan and profitable venture.
Business Organization: Large business conglomerates can offer financial assistance to small businesses, provided they show growth potential and have the turnover to repay the loan amount. Franchise loan and export financing can be a prime example of this type of loan. Financial status report, credit rating, solid business plan, and cash flow projections are a few of the documents required to secure the loan.
Personal loans: Banks offer unsecured loans from 10 to 25 lakhs at a high-interest rate of 16% -24% which need to be repaid through installments.
Professional Loans: these are loans provided to professionals like Chartered accountants, company secretary, doctors, and other people. It does not include manufacturing and processing units, the loan amount varies from 25,000 rupees to 25 lakh rupees, depending on the financial status of the applicant.
Project Finance: It is a loan provided for new longterm infrastructure or industrial projects with flexible payment terms depending on the project assessment report.
Equipment finance: Loans are given against the equipment for the functioning of the business organization.
Working capital Loans: Loans provided for the daily functioning of the business activities.
Lease Rental loans: Loan given out against the lease contract.
Trade loans: Loans provided to enterprises to expand the current business unit or start a new enterprise. Financial institutions may ask collaterals like land or share, and bonds are also taken into consideration.

Securing the loan for the business for an appropriate source to help build your business is a vital decision that has to be taken, especially with high amounts of interest rates. Analyzing interest rates of various banks in India, serving in both the public sector, private sector, NBFC, and Fintech companies, the interest rate for the business loan is on the high side of 15%.

The lending capability of the loans differs from bank to bank. With State bank of India, a public bank run by the government of India has a capacity to give out the loan as much as 1 billion rupees at an interest rate of 11.20-16.30% depending on the project and risk involved, with a processing fee of 2-3% of the total loan amount approved. While the leader in private sector banking, HDFC bank has a lending capacity of 5 million rupees with an interest in between 15.50-18.30% which varies depending on the risk and credit score of the business organization.
The average interest rate for a loan from top lending companies which includes a list of start-ups, government banks, and private is 17.99%.

BANK/FINANCIAL SERVICE PROVIDER	**INTEREST RATE** %
SBI bank	11.2-16.3
HDFC bank	11.9-21.35
ICICI bank	12.9-16.65
AXIS bank	15.5-24
RBL bank	20 & above
Kotak	16.00-19.99
Capital float	18 & above
Lending kart	18 & above
Bajaj finance	18 & above
Standard chartered bank	13.5-20
Deutsche Bank	24
Edelweiss	18.25 & above
Fullerton India	16 & above
Tata Capital	18 & above

Table 7: Interest Rates for business loan in India

Reference: (Interest-rates, n.d.) and respective website of the banks.

Further, the top 4 decisive factors that determine the Business loan bank interest rates in India are:

Credit History and Record: To get a loan sanctioned a person’s credit score is important. If you are not a loan defaulter, you can get loans from any bank along with a reasonable rate in India. All banks public or private review the credit score of the applicant before giving credit with the lowest interest rate for a business loan

Tenure of the company: The business organization should be for more than 3 years in operation irrespective of the kind of business. The older the business house, the greater the chance of a credit facility.

Turnover of the Business: If the company has a decent monthly turnover, then the lender will assume that there will be no default in the borrower‘s repayment. So, it’s inevitable that a creditor reviews the financial credibility of the borrower before deciding on the loan amount.

Collateral: Sometimes the borrower must pledge something as security to the bank or NBFC, against a loan sanction. The bank can take a financial risk against security and offer a bigger amount of loans. The borrowers can offer their home equity, real estate, equipment, personal house, or other financial policies as collateral.

Even though there are many different types of loans available in India from a large number of banks. The percentage of formal loans taken through financial institutions (only 4% in the MSME sector according to D&B survey) is very less compared to informal loans. Formal loans are the loans that are obtained through financial institutions like banks, NBFC, and other registered fintech solutions. Informal loans are the loans obtained through family, friends, and business connections along with some recognized actors like Chit fund. Chit fund is remarkably similar to the saving account of a business with the possibility of taking the full amount whenever required and paying back the debt with a low-interest rate.

Another important thing to consider is 85% of the MSME enterprises are not registered according to the world bank report, which makes the enterprises ineligible for applying the formal loans and initiatives taken by the government for the benefit of MSME enterprises. Quick access to the informal loans along with minimum documentation to get the loan make it a preferred choice for most of the MSME enterprises.

The reasons why MSME enterprises are not able to access a formal loan can be classified into 3 types 1. Information asymmetry 2. Inadequate collateral 3. Limited equity base

Information Asymmetry: most of the micro-enterprises and some of the small-scale enterprises are run by a single proprietor, whose knowledge about the lending market is extremely limited. Thus, there is a huge gap between the available lending processes and enterprises being aware of those solutions. Many times, they do not even qualify for a formal loan because they do not have the required documents. Further, MSME often has discrepancies in the data reported in the financial statement, these inconsistently mainly occur due to predominant cash transactions which are not reported thus volume and profitability are affected. This results in enterprises being eligible for lesser loan amounts. Clearly, MSME management isn’t aware of the negative consequences of not maintaining accurate and proper financial documentation.

Inadequate collateral: Micro and small enterprises typically do not have adequate immovable assets that meet the criteria of financial institutions. This increases the credit risk perception of MSME enterprises. MSME’s generally prefer to take a loan from lending sources which do not ask for collateral.

Limited equity base: MSME’s often take a loan from multiple lenders and overextending themselves financially and making them vulnerable to defaulting. Additionally, they take loans from informal sources that are not reported to the credit bureau. These factors work against the MSME to acquire a loan from formal financial institutions.

Some of the challenges faced by financial institutions that limit their ability to provide formal lending to the MSME can be classified into high transaction costs, lack of product innovation, the outdated underwriting process, and low-risk appetite.

High transaction cost: For financial institutions like banks and NBFC's financing MSME is both an expensive and high-risk proposition. The constantly engaging and high cost of due diligence coupled with a low average size of loans from micro and small enterprises decreases the profit from MSME loans.

Lack of Product Innovation: Because of traditional lenders' lack of understanding of the MSME sector, there is often a misalignment with the needs and capabilities of MSME. Their products requiring a specific type of immovable collaterals and inflexible in their tenure and payment structure often force MSME to find alternate sources of loan. Because of a lack of product innovation, often the government schemes to boost the MSME sector fall short of reaching the expectations.

Outdated Underwriting Process: Too much emphasis on collateral, lack of financial institution's interest to work on the ground level with MSME in understanding their business models, and monitoring their business. Financial institutions are unable to create an underwriting system that is more relevant to the MSME sector.

Low-risk Appetite: Financial institutions see micro and small enterprises as high-risk propositions given their irregularities in financial documents along with a lack of collateral. Medium-scale enterprises generally tend to have more formalized operational activities, collaterals, and more stable cash flows which allows financial enterprises in reducing the risk and due diligence. Risk aversion is the topmost priority for public banks which tends to have a higher capacity to give out the loans. Investigations from the government agencies when the debt turns into bad debt is also one of the reasons.

Summing up, the problems affecting the MSMEs in India are:

Lack of credit from banks*:* The process of providing a loan to MSME companies is very long and formal in other terms very rule-abiding and the Cost of capital is also very high.

Competition from multinational companies*:* MSME is facing a lot of competition from multinational companies that have access to high capital. They also tend to provide high-quality goods at a lower price because of economies of scale with the other players. China with its manufacturing capabilities and economies of learning whilst having a negligible difference in labor costs is proving to be a tough competitor.

Poor infrastructure*:* The infrastructure of the MSME companies is extremely poor which in turn decreases the production quantity and increases the cost of production.

Lack of advanced technology*:* due to lack of investment/capital, MSME follows a more traditional process of manufacturing and employing more labour to carry out the physical activities which can be automated using an advanced machine. Further, management is unaware of the advanced technology in their field.

Lack of distribution of marketing *channels:* lack of innovativeness in sales and marketing is leading to an underperforming sale of the products affecting the growth and expansion of the company.

Lack of training and skill development: MSME is not investing in developing the skills of the labours to increase their productivity and maximize profits.

Reference: (MSME-problems)

5.2 Glance of Fintech Ecosystem:

FinTech has been a growing industry in India attracting a lot of investments from both the domestic market as well as foreign investment companies. Fintech industry had about $272 million funding in the year 2016 for Indian alone, while the overall funding was about $17 Billion.

Most of the fintech companies in India are complementing the existing financial service providers rather than completely disintermediating them. Even though Indian banks have been investing in technology most of the process is labor and document-intensive to make the process easier, it has not been enough to satisfy the customer needs. Further, Fintech companies, focus on a predominantly urban population. Leaving a potential for growth in tier 2, tier 3 cities along with rural parts of India.

Indian fintech companies can be divided into twenty segments and which can be divided into six service areas broadly. Mainly 1. Credit-based fintech services include peer to peer lending, crowdfunding, marketplace for loans, online lending- by NBFC and credit scoring platforms.

2. Payment services include m-wallet, merchant payments. International remittance and cryptocurrencies. 3. Fintech in investment management 4. Personal finance management 5. Bank tech and 6. Insurtech.

Fintech scenario and growth

The steady economic growth of the Indian economy and fintech did not yet penetrate tier 2, tier 3 cities and rural areas give a great opportunity to grow. Lack of growth in public banks and insurance aggregators and rise in the growth of the private sector will further boost the growth of fintech companies.

Favourable regulations from the regulatory authorities like the Reserve bank of India (RBI), Securities and exchange board of India (SEBI) are helping in developing an ecosystem without over-regulation of the fintech companies. Indian millennial population of about 440 million is the biggest asset and main contributing for funding of the start-ups, people prefer the bills to be paid online, post a query on online rather than traditional and time-consuming process.

How does Fintech work in India?

Application Programming Interfaces popularly known as API’s allow the Indian government and fintech companies to develop a paper-less, presence less and cashless financial service delivery. Aadhaar card which serves as a unique identification card, same Aadhaar is used as a unique identification to be carried out in the transaction. Generally, applying the scenario to the payment process in an m-wallet it is possible to see that, after Aadhaar identification, transaction approaches to the next step where it is performed through e-KYC of the customer. After the customer identification, the transaction is carried out using different platforms like IMPS, AEPS, APBS, and UPI.

The main companies in the Indian FinTech field include PAYTM, PhonePe, Amazon pay, Ola pay, lending kart, capital float, creable among many others.

Effect of demonetisation on Fintech:

Unlike any other country, Demonetisation of the Indian currency in November 2016 led to the short term growth of the payments system in India. Lack of cash and invalidation of existing currency notes made people use innovative mobile payments, internet banking. Further, Small scale businesses which were hesitant in dealing with the latest technology and predominantly preferred cash transaction had to change their strategy and adapt to use more advanced Fintech processes.

LENDING:

Popularly known as alternate lending includes P2P lenders (peer to peer), marketplace platforms, digital lending platforms that are targeting credit needs for a highly underserved market of retail consumers, micro and small enterprises.

The customer segment of alternate lending includes the segment that value speed and convenience enough to pay a premium for it, predominantly SME's working in a high-risk environment.

P2P lending (Peer to Peer):

Lenders are generally individuals with high net worth, households with surplus funds, and saving seeking a better return on their money. P2P is also an innovative way of transferring the risk from banks and financial institutions to individuals. In India, traditionally P2P lending as been through friends, family, and unorganized financial lenders which have a primary source of capital for micro and small enterprises. Online P2P can institutionalize the old pre-existing platform and scale up the process, make it convenient for both the lender and the borrower.

Business models in P2P:

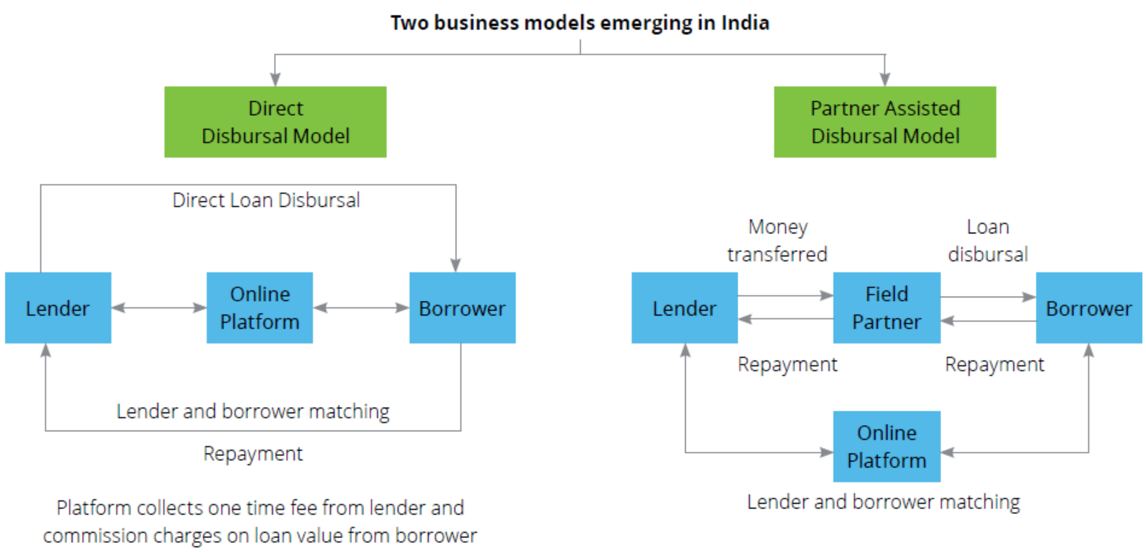


Figure 8: Fintech Business models in India

Market place Lending (MPL):

Market place lending is an extension of P2P lending for both business and individual loans. They tend to act like intermediaries connecting borrowers and financial institutions like NBFC and banks. The responsibility of collecting the loan and service related to it falls on the banks or NBFC providing the loan. In India, MPL generally offers origination of the loans and credit assessment of both parties involved, with actual undertaking being done by bank or NBFC.

There are 3 types of MPL in the Indian market, 1) MPL platform as originator – acts as an aggregation and origination platform to route to partner banks and NBFC. Low capital intensity and no liability in case of default.

2) MPL platform route to NBFC - acts as an origination platform between borrowers and in - house NBFC.

Also plays the role of the originator for other banks, in case of different loan and borrower profile does not much with the NBFC.

3) MPL platform as a matchmaker connects borrowers and lenders on a common platform and doesn't have or very limited role in loan disbursements and repayments.

Reliance on multiple data sources for analyzing the borrower rather than the traditional credit scoring system, MPL is reducing the information asymmetry and reducing the risk involved for the lenders.

Further, from a customer point of view, the main reasons for opting for a marketplace lender is the Easy/Quick application process, Fast decision-making process, Convenience of using an online platform, competitive rates, and repayment flexibility among others.

Reference: (Deloitte-Fintech, n.d.)

6. SUPPLY CHAIN FINANCE IN INDIA:

Supply chain finance is a highly underserved market in India. Indian SCF penetration right now is less than 1% of its GDP, while European countries like Italy, Germany, Spain have the penetration value around 10%. In other terms, for every 100 dollars of GDP, 10 dollars is addressed by Supply chain finance, in India that value is much less than one dollar. Even in absolute terms, Indian SCF market is very less, around 5-7 billion dollars. Working capital needs for Indian enterprises are more than 1 trillion USD according to the world bank and Dun & Bradstreet.

Indian suppliers generally prefer to give a discount for the advanced payment (Invoice Discounting) rather than going for fintech/bank for a supply chain finance process. Lack of trust between two partners in the supply chain is the main factor that is hindering the growth of Supply chain finance in India.

The cost of financing for a medium to large enterprise is around 8% whereas for a small enterprise the formal financial loan costs about 15% interest which is difficult to obtain loans because of the strict scrutiny of the accounts. Whereas the informal source of loans costs small enterprises 25% of interest which when things go wrong make them bankrupt and out of business. The working capital needs are expected to be around 1 trillion dollars according to some publications.

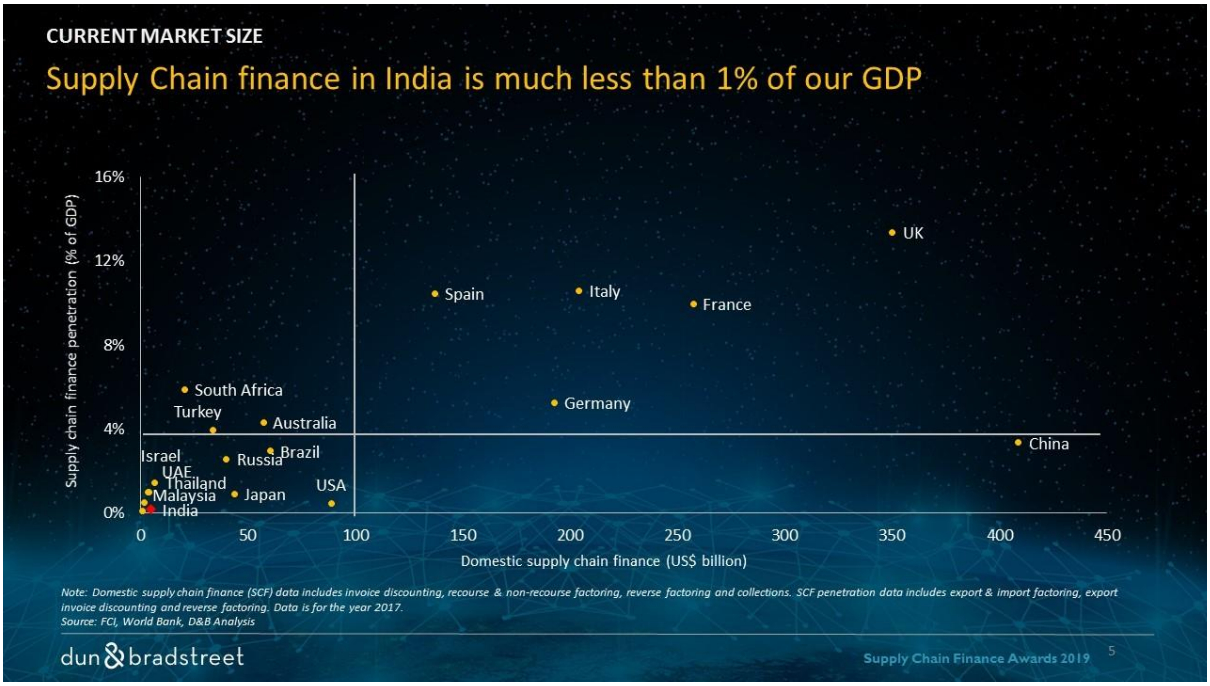


FIGURE 9: SCF PENETRATION IN INDIA

The main players in SCF solutions can be classified into

1. *Public Banks:*
   Banks are owned by the government and run by the government. At present, there are 12 public banks out of which 10 are public sector banks taking the tally down from 27 banks in 2017.
   State bank of India (SBI), State bank of Baroda, Indian overseas bank are some of the public banks operating in the field of SCF and giving out business loans to carry out public projects, private projects. (Bank-mergers, 2020)

2. *Private Banks:*
   Banks that are held by private entities are known as private banks. There are 21 private banks in India. ICICI and HDFC banks are largest private sector banks in India.
   Axis Bank, HDFC, ICICI, YES Bank are prominent private sector banks providing SCF solutions in India.

3. *NBFC (Non – Banking financial corporations):*
   There are more than 11000 NBFC in India, and 250 main players. But it is possible to bring them down to 10 prominent banks.
   Hero FinCorp, Mahindra Finance, Aditya Birla Group, L&T finance, Bajaj finance, TATA capital are the main players in the NBFC sector of India. It is quite interesting to see these companies are conglomerates working in the Indian market who are venturing into the finance sector through NBFC regulations.

4. *Start-ups:*
   There has been exponential growth in the payments segment especially with the introduction of FinTech.
   Lendingkart, capital float, Credable, LivFin, TReDS (m1xchange.com), Ezetap, Moneytap are some of the many start-up dealing with working capital management in India.

5. *MNC banks:*
   Multinational national banks like StanC, HSBC operating worldwide offering SCF solutions in India are very limited.

PUBLIC BANKS	PRIVATE BANKS	NBFC	FINTECH	MNC BANKS
• SBI • IOB	• HDFC • ICICI • YES Bank	• Hero Fincorp • Aditya Birla Finance • TATA capital	• Lending kart • Capital float • TReDS	• StanC • HSBC

TABLE 8: MAIN SCF PLAYERS IN INDIA

According to the Indian economy and market survey, Purchase order financing, advance payment discount, and dynamic discounting were found to be the top three Supply chain finance solutions implemented by Indian companies. Reference: (Indianeconomy-market, 2019)

The Supply chain finance solutions offered by the financial institutions vary from one another. A list of solutions offered by various financial institutions has been listed below.

Company	Invoice Discounting	Purchase Order Financing	Other Working Capital Loans	Inventory Finance	Rent Receivables
SBI	✓	✓			
HDFC			✓		✓
ICICI		✓	✓		
AXIS	✓	✓			✓
Lending cart		✓	✓		
Capital Float			✓	✓	
Credable	✓	✓	✓		
Hero Fincorp	✓		✓		
Bajaj Finance			✓		
Tata Capital	✓	✓	✓		✓

TABLE 9: VARIOUS SCF SOLUTIONS OFFERED IN INDIA

(*Rent receivables correspond to loan given based on rental agreements of the enterprise, which are rented out to other enterprises for commercial purposes)

6.1 SCF Players in India:

Public Banks:

STATE BANK OF INDIA:

The largest public sector bank in India and with a connection of about 9000 physical branches all across India, SBI has an ideal network to implement the Supply chain finance program. Leveraging the already existing huge client list and completely online process.

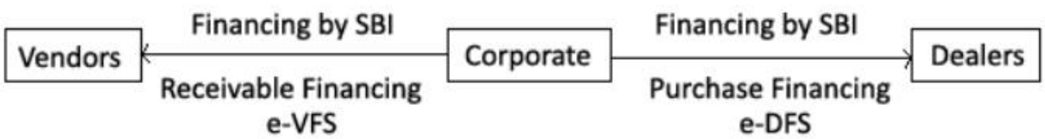


FIGURE 10: SCF PROCESS IN STATE BANK OF INDIA

There are two types of Supply chain finance solutions offered by SBI:

1. *Electronic vendor Financing scheme(e-VFS):*
   Vendors or suppliers who need to receive the money from the buyers specifically Corporate buyers who are industry majors. Corporate buyers can upload the details of the invoice raised by the suppliers on the bank's online platform, Vendor/suppliers bank is immediately credited with the amount.
2. *Electronic Dealer Financing Scheme (e-DFS):*
   Financing dealers for their purchase from the corporate sellers. Corporate sellers make an online request to the bank platform asking for the debit of money from the buyer/dealer towards the goods purchased by providing the invoice details which results in immediate payment towards corporate sellers.

Features of SBI online platform:

1. Provides convenient paperless banking.
2. Ensures real-time transfer of funds and MIS
3. Customizable according to the business requirement.
4. Ability to be integrated with the existing ERP and SAP.

BENEFITS ACROSS THE SUPPLY CHAIN:

Buyer	Seller	Bank
Reduce the cost of goods purchased	Reduce the cost of capital through improved Days Sales Outstanding (DSO) and lower finance costs.	Build stronger, collaborative relationships with customers.
Reduce working capital requirements through improved Days Payable Outstanding (DPO)	Generate flexible, predictable cash flow	Enhance customer retention
Enjoy a more stable supply base	Gain access to low-cost finance rates.	Increase bottom line by supporting customers' entire supply chain from end to end.

Table 10: State bank of India SCF Benefits

Reference: (SBI-SCF, n.d.)

Indian Overseas Bank (IOB):

IOB is a major public bank with more than 3400 branches in India. It implements all the government-related schemes for the development of the MSME sector. Being a public sector bank, it has strict scrutiny of enterprise and personal information provided.

MSME loans up to one million rupees don't require collateral and have a fixed processing fee of five thousand rupees.

Eligibility criteria:

1. Income tax returns of the previous 3 years
2. The business should be at least 5 years old with the proof of continuity
3. Preferably customers of IOB and business transactions occurring through the same account.
4. Documentations related to business and all the stakeholders present.
5. Credit history, profitability, financial ratios must meet industry standards.

The interest rate for a business loan is upwards of 12.90% and with a processing fee up to 3% of the sanctioned amount.

Private Banks:

HDFC bank:

HDFC is a leading private bank in India, catering mostly to employees of large corporations who look for better service in banking. HDFC offers a collateral-free business growth loan of about 40 lakhs and 50 lakhs in some areas of the country. It focuses on giving loans to MSME companies.

Eligibility criteria:
1. Business with is at least 3 years old and individuals must have more than 5 years of total business experience
2. Business should in profits for the past 2 years.
3. Turnover should be at least 40 lakhs or 4 million rupees
4. Bank statement of the previous 6 months and Income tax returns by a certified auditor from the past two years.

The interest rate for the loans ranges from a minimum of 11.90% to 21.35% with a loan processing fee of 2.5%.
Reference: (HDFC-Bank, n.d.)

ICICI bank:

ICICI bank is a private bank operating in the Indian market, it is one of the four biggest private banks in India. It focuses on giving loans to MSME and start-ups alike.

Eligibility criteria:
1. Last 3 years financial statements
2. Bank statement of last 6 months
3. Business for more than 3 years.

The interest rate for the business loan ranges from 12.9-16.6% depending on the loan and eligibility criteria with a further processing fee of 1-2%.

YES BANK:
YES bank is the fourth largest private bank in India. It is one for the very few banks who developed sector-based loan processing in agriculture and food business, healthcare, and printing equipment loans and offer less stringent collaterals, turnover and bank transactions-based loans.

Eligibility criteria:
1. Last 12 months bank statements in case of YES bank customer, last 24months bank statements case of another bank.
2. Proof of business establishment like certification of registration.
3. Income Tax Returns of the last three years
4. Repayment history of previous loans and existing loans.

Non-Financial Banking Corporations

CREDABLE:

Credable provides liquidity programs for enterprise supply chains, leveraging its trade finance expertise, partnerships with capital providers, and its technology platform.

Various solutions offered by Credable are Early payments program for suppliers, distributor funding program, just-in-time financing program, cashable, and purchase order financing.

Figure 11: Early Payment Program Flow Chart

Enterprise clients:
1. Supplier confidence, strong trade relationships with suppliers.
2. Flexibility to maintain or extend days payable while suppliers are paid early.
3. Driven by Credable best rate algorithm.
4. Documentation, record keeping and reconciliation with ERP's is digital.

For suppliers:
1. Debt-free working capital can be borrowed by all the suppliers.
2. Ease of registration and complete transparency.

Distributor funding program:
The distributor funding program is a built to suit solution for enterprise and offers a scalable, efficient and flexible model to monetize distributor receivables, while distributors might opt for an extended credit periods. Below is the flow chart of how the process takes place:

Figure 12: Distributor Funding Program Flowchart

Benefits of the distributor funding program:

Benefits for enterprise clients:
1. Better cash flow because of the alignment of the receivables cycle with payable timeframes.
2. Credit enhancement options available for the distribution network indirectly helps in sales boost.
3. Improved distributor relationships.

Benefits for Distributors:
1. Distributors have the flexibility to customize and choose credit periods as per their working capital requirements.
2. The availability of cash leads to an increase in purchasing power and boosts sales.

Just-In-Time finance program:

In this financial solution, suppliers receive funding in real-time, even prior to invoicing, on basis of agreed delivery milestones. A flowchart of the process can be seen in the figure.

Benefits of Just-In-Time program:
1. Financial risks can be assessed through Credable proprietary algorithms.
2. Collateral free financing
3. Automated tracking and customizable platform.

Credable is driven by its own patented scalable technology.

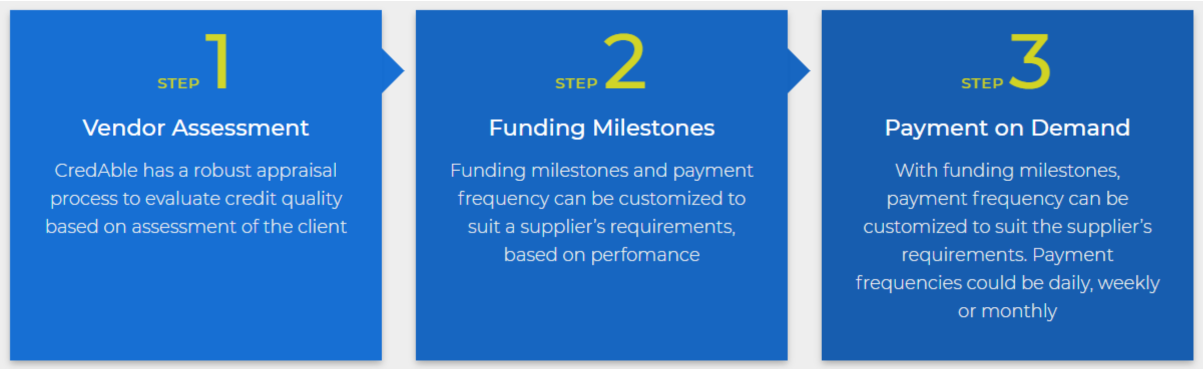


Figure 13: Just In Time Funding Flow Chart

Reference: (Creable, 2020)

LIVFIN:

LivFin provides working capital finance solutions mainly by offering invoice finance solutions for SME business through a very short-term business loan for a period of 30-180 days.

Working capital solutions, invoice finance, vendor finance, Purchase invoice finance are some of the solutions offered by LivFin.

Eligibility Criteria:
1. Registered Business entity
2. Invoice tenures of 30 to 180 days
3. Business vintage of 2 years or more

Reference: (Livfin, n.d.)

TATA CAPITAL:

Tata Capital provides a loan amount ranging from 5 lakhs to 75 lakhs with a tenure period of 12-36 months with a starting interest rate of 19%. Tata capital mainly provides three types of loans, working capital loans, machinery loans, and MSME & SME loans.

Eligibility criteria:
1. A person must be 25-65 years of age.
2. Profitable Business for three consecutive financial years.
3. Turnover showing an upward trend.
4. Audited by a registered chartered accountant.
5. Income tax returns
6. Bank statements from the past 6 months.
7. P&L from the past two years.

Reference: (Tatacapital, n.d.)

Fintech:

CAPITAL FLOAT:

Capital float is a company established in 2013 is a leading fintech company in India. Capital float provides loans using intelligent technology, a short application process, and the ability to apply for loans from anywhere, anytime. The capital float has a presence in 314 cities in India. While 4,70,313 have been served till now and loans amounting to 8,177 crores or $ 1 billion have been disbursed.

Considering the business finance business unit of the capital float, it provides short term business loans to Small and medium enterprises (SME). Capital float helps you acquire the working capital required in the form of unsecured business loans at a competitive price.

How does it work?

SME has to apply the online on the web portal of the capital float, Scan the required documents for the loan, the loan is disbursed within 3-4 working days. It is re-payed through installments.

Eligibility Criteria:

1. The company must have a business history of 3 years
2. Business turnover should exceed 1 crore Indian rupees or 10 million rupees.
3. GST (goods and service tax) returns of the past 6 months
4. Bank statements of the last 6 months.
5. Income tax returns of the past 2 years
6. KYC (know your documents) of the business entity and the business owners.

Businesses Type eligible for unsecured loans are Manufacturers, B2B and B2C services, and distributors. The interest rate for the loan ranges from 16-24% with a tenure of 1-3 years.

Reference: (Capital float, 2020)

LENDING KART:

Lending kart is a fintech company in working capital space. The company has developed technology tools based on big data analysis which facilitates lenders to evaluate borrowers credit worthiness and other related activities. Lending kart is currently present in metropolitan cities like Ahmedabad, Mumbai, and Bangalore but serves throughout India.

Lending kart provides 4 types of loans, business loans, working capital loans, MSME loans and business loans for women. The eligibility criteria for the above-mentioned loans are very similar. The loan amount varies from 50,000 Indian rupees to 2 crore/20 million rupees.

How does it work?

Loan is applied through the online platform, upload all the required documents, and wait for the loan to be sanctioned.

Eligibility criteria:

1. Business which is in operation for more than 6 months.
2. Turnover of more than 90,000 or more in the previous 3 months.

3. Business shall not fall under the blacklisted/excluded list of SBA(Small Business Administration) finance.
4. The physical location of the enterprise should not be in a negative location.

The interest rate for the business loan ranges from 15-27% depending on the loan and eligibility criteria with a further processing fee of 1-2%.
Reference: (Lending-kart, n.d.)

TReDS:

It is a trade receivables exchange platform approved by the Reserve bank of India. Digitally transformed the process of gaining working capital loans through invoice discounting from multiple financiers.

The buyer and seller upload the invoices on the web portal of TReDS and the receiver is paid the due amount. Both the partners must be registered on the portal.

Reference: (TReDS, n.d.)

HERO FINCORP:

Hero Fincorp is the financial arm of the automotive giant Hero motorcycles. Hero Fincorp aims to achieve a hassle-free and minimal paperwork disbursing loans to the corporate and SME's through its innovative approach.
Hero Fincorp offers various financial solutions like invoice discounting, working capital loans, projects, and acquisition finance to name a few.

Invoice discounting from hero Fincorp has a loan tenure up to 4 months and 80% of the invoice amount can be availed by the business of all sizes with an interest rate of 11% to 14%. Collateral is not required for invoices from highly rated entities.
Reference: (Hero-ID, n.d.)

Coming to the working capital loans, a business can avail loan amount up to 5 crores or 50 million rupees for a period of 3 years with an interest rate of 11% to 14%.

Eligibility criteria:
1. Minimum of 3 years in the business
2. Business profitability as per the industry standards
3. Satisfactory credit score
4. Last 3 years audited financial statements and projections
5. Profiles and personal documents of the directors and partners.
6. Projections for the next 1 year.

Reference: (Hero-SME, n.d.)

Multinational Banks

STANDARD CHARTERED:
Standard Chartered is one of the oldest multinational banks operating in India. It offers mainly two types of business installment loans and guaranteed installment loans.

Eligibility criteria:
1. Bank statements of the last 6 months.
2. Last two years financial statements along with income tax returns.
3. Profitability must be according to industry standards.
4. Registration of the documents.

Interest rates start from 13.25% and 17.25% depending on the type of loan. Processing fee of 1-2% of the loan amount.

HSBC Bank:
HSBC is a multinational bank operating in the Indian market. Most of the solutions offered by HSBC provides innovative solutions like forfaiting, global payables, global receivables, credit lending.

Eligibility criteria:
1. Audited financial statements of last 3 years.
2. Assessment of various business parameters and checking eligibility.
3. Company registration certifications.
4. Business partners credit rating and business plan.

Interest rate is an additional 5.1% on the repo rate. Repo rate is the interest at which the Reserve bank of India (RBI) give the loans to other commercial banks. Processing fee of 1% is levied.

Above listed are some of the financial enterprises which include public banks, private banks, NBFC, fintech companies working in the lending market, and implementing innovative supply chain finance solutions. Private banks, NBFC, and fintech companies focus solely on the MSME enterprises.
All the financial institutions face some quite common challenges in effectively implementing the supply chain finance solutions which will be discussed in the next part.

6.2 The Limits of SCF in India

Many factors affect the implementation of the SCF tools, ranging from company culture to lack of knowledge about SCF solutions.

The main factors for the Indian companies are listed below:

1. Lack of human resource:
Lack of knowledge among the Supply Chain managers about various Supply chain finance techniques and advantages of implementing appropriate SCF solutions for their business. Optimizing the financial flows and improving the working capital is essential to develop the

best SCF practices and set an industrial benchmark. Lack of skilled personnel and training on SCF tools and techniques also adds to the challenges of SCF implementation.

2. *IT and Infrastructure challenge:*

Inefficiencies present in the internal and external processing of financial transactions all along with the SC, especially many transactions still happen in an out-dated paper-based way. This manual processing adds to the delay of the receipt of payment further adding increasing DSO value.

Lack of investments in ERP systems or financial software causes the lack of visibility among the managers internally and for the supply chain, visibility of the goods flow is essential in the implementation of the strategies for the SCF.

3. Inter and Intra-company coordination and communication:

To have good coordination it is important to share the information among various departments present inside the enterprise and also share information with suppliers and buyers to have a better understanding of the demand and optimise the buying decisions thus having better buying decisions. One such common occurrence which can be seen in most of the organizations is the operating manager ordering the materials in bulk quantity to get a better price whereas the financial manager would require it to be in small quantities because of the cash flow problem.

4. *Organization policies, strategies, and practices:*

Organization policies also hinder the growth of SCF solutions. Because of the highly competitive nature of the market, there is always pressure to reduce the cost of the final product. Thus, a supplier is mostly chosen based on the price criteria. Further, there is a constant pressure on from the stakeholders to improve the financial metrics. The pressure drives the organization to look at its own financial position without looking at the bigger picture of how their organization policies will affect the SC.

Therefore, it is important to analyse the operational and financial capabilities of the supplier, potential default by any of the suppliers may have a huge impact on the working of the company. Potential defaulting and replacing costs of the supplier must be evaluated. This requires a collaborative and coordinated approach.

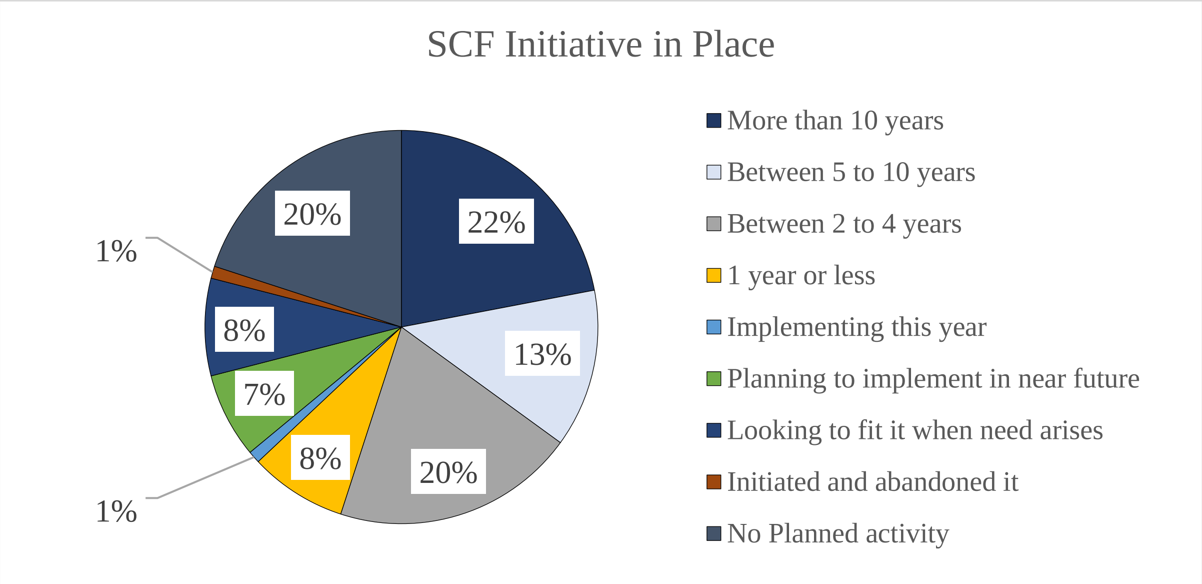
Inventory management practices also impact the wellbeing of the firm. Inventory is one of the main assets for the business and represents an investment until it is sold. Non-effective inventory management techniques pose challenges for the company as it costs money to store, track, and insure inventory, further it also has an impact on overall SC.

5. *Macro institutional challenges*

Cultural differences, divergences in law impose challenges for both government and financial institutions. This particularly applies to cross-border transactions which have to take into account the currency volatility, different languages, and laws of the country.

Global SC's today need to deal with different countries with different political systems and different cultures. Rules and regulations are often filled with bulky documentation that is needed for the shipments to move across the borders. Not only increasing the cost but also increase the time taken to deliver the goods thus having a high chance of delay in delivery resulting in customer dissatisfaction and loss of business.

Research done by Indian Institute of Management, Calcutta with a sample size of 120 companies and about 90% of them being large enterprises on the number of companies actively implementing the SCF solution in their enterprises in collaboration with suppliers, it was found that only 63% of the companies where implementing SCF solutions and 20% of the companies didn't consider SCF solutions.



GRAPH 16: SCF INITIATIVE IN INDIAN ENTERPRISES

Reference: (SCF-problems-india)

7. CONCLUSIONS

In a country like India which is an emerging economy, with average GDP growth of 6.5% in the previous 19 years, strong information technology skills at affordable cost and a huge requirement for working capital would be an ideal place to implement innovative SCF solutions and for the companies to expand their business and for clients to improve their cash flow management.

Unfortunately, it has not been the case in India with only 1% penetration of SCF solutions in Indian GDP according to the D&B report. Lack of advancements in the lending market especially SCF can be attributed to government policies, lack of knowledge about advanced lending techniques among MSME companies, and outdated evaluations by the financial institutions while lending the money to industries.

Indian lending market is a complex thing to interpret, lack of information about the number of companies actually operating in the MSME sector, according to world bank only 15% of the companies are registered with the Indian government and operate as an enterprise. Even though the government has made changes for easy registration of an enterprise and making it a single-window policy there has not been any significant improvement. Lack of registration makes it difficult to estimate the working capital required by the enterprises further it also makes enterprises ineligible for the schemes and benefits provided by the Indian government.

Taking the perspective of MSME enterprises, they prefer an informal source of loans like friends, family, and unauthorized loan lenders which give them immediate access to capital required and with very minimum documentation and fewer legal problems. Even though in the case of unauthorized loan lenders the interest rate is much higher than the financial institutions, enterprises tend to prefer it because of quick access to the loans. Further, micro and small enterprises are the vast majority that opt for an informal source of loans, whereas medium scale enterprises tend to have financial institutions as the main source of lending and occasionally source the loan from informal sources. Another important aspect to consider is the lack of penetration of banks in low-income states and Northeastern region of India, which makes it difficult for the companies to approach the banks and leaves them with no option but opt for an informal source of loan even though the interest rate is high. (world-bank)

From the financial institution perspective, lack of technological advancements by the enterprises, the highly competitive nature of the MSME sector, lack of collateral, lack of strong management, and business plan adds to the risk of default. Further unregistered enterprises, enterprises not following quality standards for the product in the sector and irregular auditing procedures make it difficult for the financial institutions to give loans based on the inventory available.

Growth of fintech along with legal and regulatory framework changes like priority sector lending in which financial institutions are obliged to give loans to MSME companies, infrastructure support like credit information companies, and trade receivables discounting system (TReDS) and government support is helping the lending market grow. Thus, developing many SCF fintech start-up have emerged in the past ten years.

With only 15% of the enterprises having relatively easy access to the formal loans because of their strong financials and long term relationship with the bank, along with high-interest rates to access the formal loan and strict regulations by the bank, will allow fintech, NBFC companies to attract the small and medium scale industries with innovative SCF solutions tailored with industry-specific solutions. The low penetration rate of banks in low-income states and Northeastern states, along with the online presence of fintech and NBFC's would allow the companies to address the potential market which has been overlooked for a long time.

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