Supply Chain Finance: an alternative to traditional banking credit

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Resumo: Este artigo tem como objetivo discutir a importância da ferramenta financeira conhecida como Financiamento da Cadeia de Suprimentos, ou Financiamento de Fornecedores, para o mundo dos negócios. A ferramenta consiste na intermediação de um agente financeiro em uma transação comercial entre um comprador e um fornecedor. O artigo também analisa a relevância da implementação do Supply Chain Finance em países como o Brasil e como ele pode fornecer soluções para o mundo dos negócios, tornando-o mais acessível a pequenos fornecedores. Para atingir esse propósito, o artigo é estruturado em uma introdução contextual, uma explicação da ferramenta e dos conceitos, análise de perspectivas e uma conclusão.
Palavras Chave: negócios, capital de giro, taxas de juros.

Abstract: This article aims to discuss the importance of the financial tool known as Supply Chain Finance, or Supplier Finance, to the business world. The tool consists in the intermediation of a financial agent in a business transaction between a buyer and a supplier. The article will also analyze the relevance of implementing Supply Chain Finance in countries such as Brazil and how it can provide solutions to the business world, making it more accessible to small suppliers. To accomplish this purpose, the article is structured with an introduction providing context, an explanation of the tool and concepts, analysis of multiple perspectives, and a conclusion.
Keywords: business, working capital, interest rates.

1. Introduction

1.1 Objectives

This article aims to clarify what Supply Chain Finance (SCF) is and analyze its application feasibility in development countries such as Brazil.

SCF is a toolset that helps business transactions between suppliers and buyers by the intermediation of a third party, a financial agent. If used with responsibility, SCF has the potential to make financial resources more accessible to businesses, especially in countries which lack diversified sources for corporate funding and then may better explore the tool's benefits. To meet these objectives, the paper presents an extensive research to capture the essence of Supply Chain Finance, including interviews carried out to exemplify, in depth, the perspective of suppliers and buyers involved in the transactions.

1.2 **Context**

If you are to ask for a money loan from a bank in Brazil, you might not like what they have to offer. Traditionally, the interest rates that financial institutions

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provide are not cheap. For example, according to the website Trading Economics, in December of 2022, the Brazilian interbank rate (CDI) reached 13.75% a year - one of the most expensive rates in the world, occupying the 21st position among 147 countries. Moreover, when considering the actual interest rate, which accounts for the inflation subtracted from the nominal interest rate, Brazil exhibits the highest rate globally. To compare with other countries in the same year, the lowest interbank rate (nominal interest rate) was Japan's (-0.1%). Regarding the two wealthiest economies in the world, those indexes were 4.25% in the U.S.A. and 3.65% in China. (Trading Economics, 2022; appendix A).

As the interbank rate runs at high levels in Brazil, bank rates for personal or business loans become prohibitive. Although the high interbank rate may be purposeful to reduce inflation, some variables regarding inflation must be taken into account, such as the type of inflation, the optimum value of the interbank rate to control it, and the actual interest rate. Currently in Brazil, the high interbank rate does not seem to be the single solution for controlling inflation. Thus, maintaining this value seems to negatively impact businesses' outcomes rather than decreasing inflation. More recent data from the National Association of Finance, Administration, and Accounting Executives (Anefac) indicate that the average interest rate for individuals reached 121.72% per year, in September 2022, while for legal entities, the rate reached 60.47%.

From a small company perspective, a high interbank rate can be a huge problem to keep business running. Small companies tend to ask for a monetary loan, so they can deliver their products or services and bear the production costs. As a result, high interest rates will encumber their business. Within this context, a search for alternatives to traditional credit offered by large financial institutions is crucial. A solution that has been gaining ground in the last decade in the financial market is Supply Chain Finance (SCF). It is an alternative financing system which includes, for instance, innovative tools for invoice factoring, involving large purchasing companies and their supply chain, with the engagement of financial institutions. Supply Chain Finance has allowed considerably lower interest rates to small suppliers, because it is not a direct loan to the supplying company, but a financing chain for the trade of accounts receivables/ payables in a deal between suppliers and buyers . As a consequence, in the case of a prepaid accounts receivable transaction, the interest rate will be applied considering the buyer's credit risk rather than the supplier's, as the former becomes the creditor of the transaction. It is possible to find multinationals in the Brazilian market that managed to reduce the rates charged to their suppliers to 1.2% per month in 2022, much lower than the 4.02% per month average applied by banks (Anefac), after the spread (the difference between lending and funding rate) is added to the basic rate.

Transactions involving receivables move considerable amounts of money around the world. "According to *Global Business Intelligence*, there was approximately US$8 trillion in globally outstanding credit sales receivables in 2014. This value is generated when a supplier sells a product but does not receive payment until a few days or sometimes months later. The supplier, in this case, is offering what mirrors a loan to the buyer, also called a trade credit. McKinsey & Company (a management consulting company) estimated, in 2015, that, from US$8 trillion, US$2 trillion have low credit risk and a good possibility of being financed, but only a fraction of that US$2 trillion (something close to 10% or US$ 200 billion) would be financed with Supply Chain Finance." - (Alexandre Cracovsky, 2022). In Brazil, R$175 billion (approximately US$32 billion; July 2022) in discounts were made on trade receivables in June 2022 alone, which indicates that there is great potential for expansion of Supply Chain Finance in the country (Alexandre Cracovsky, 2022).

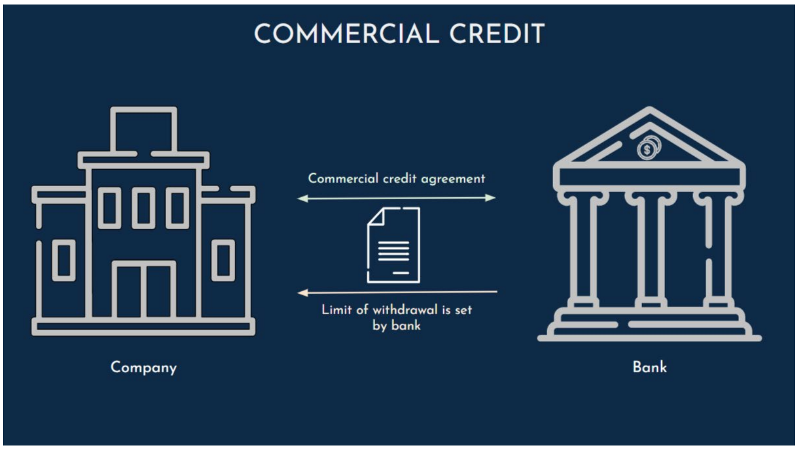
2. Theoretical Basis

2.1 Working Capital

Working capital is the money available that is applied to short-term obligations, representing the operating liquidity. Working capital is generally used when there is a gap between delivering the product/service and receiving the payment from customers. Therefore, the money is typically addressed to pay employees, to cover general expenses, or to fund obligations with suppliers and/or the government. Working capital also enables organizations to exploit supplier discounts by purchasing in large quantities and helps mitigate the seasonal gaps in cash flow. In summary, working capital affects many aspects of a company's business, being fundamental for the health of the organization.

2.2 Bank Credit

Bank Credit is the money offered by a financial agent to a client, who commits to returning by means of a debt liability. The total amount to be paid is the money offered, plus interest, as agreed in the contract. This characterizes the commercial credit agreement. After the contract is arranged, the bank sets the terms of withdrawal, and the transaction is completed.

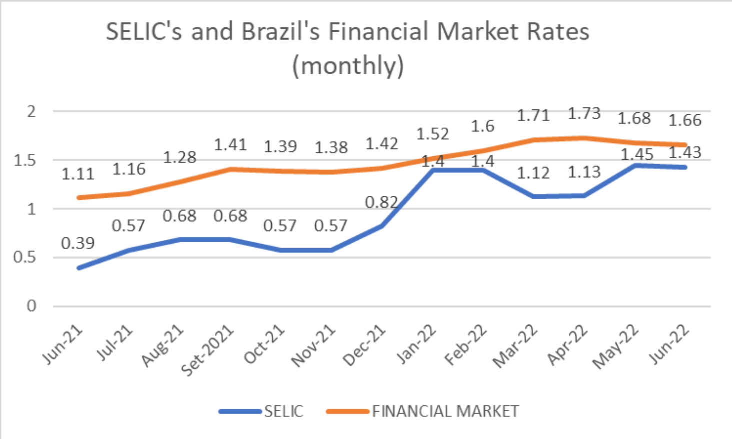


(Image 1)

The rate charged by banks fluctuates according to the country and its political-economic moment. Countries that are seen as safe places to invest, with solid and sustainable economic politics and stable political systems, tend to have lower rates in the world market. The greater the political and economic uncertainties of a country, the higher the interest rates implemented by the local banks.

2.3 Selic's and Financial Market's rates

The Selic rate is Brazil's basic interest rate. The Selic rate influences interest rates from across the country, impacting multiple economic sectors. It is the rate used to calculate the interest rates that Brazilian Treasury bonds yield. Thus, if the Selic rate varies, other indexes can vary. As a result, it is the reference that banks build upon to establish their rates and spreads. As it is seen in the graphic below, the Selic rate shall not surpass the financial market rates, because in case it does, the financial market agents will not make profit.



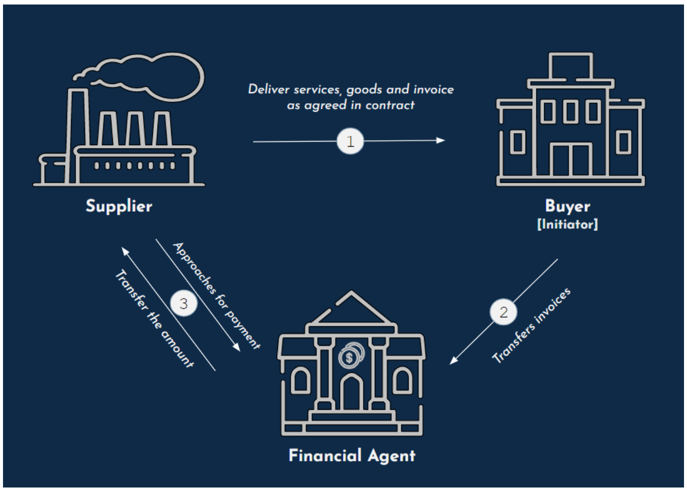
(Image 1)

Therefore, banks will add the spread upon the Selic rate, which is already high. This means that asking for a money loan from a bank can lead to the insolvency of small businesses.

3. Supply Chain Finance

Supply Chain Finance, also known as Supplier Financing, is a set of processes that are related to financing and business strands. It allows businesses to lengthen their payment terms to their suppliers while providing the option to pay them earlier. The initial business begins with a supplier and a buyer, but then a financing partner comes in to make the transactions more beneficial for the players, often offering lower interest rates than the market.

Introducing a third-party financer can lower the costs and improve the efficiency of the parties involved, helping the cash flow of both the buyer and the supplier. The solution, through credit rating from the buyer, aims to optimize the cash cycle, resulting in liquidity for the parties involved, and mitigating the adverse effects of longer payments.



(Image 3)

Why is that important, though? The problem relies on the contrast between big buyers and small suppliers, and the need for working capital for both. Generally, after delivering a product or service, big buyers pay the supplier after a certain timeframe which the small supplier cannot afford to wait because it does not have enough working capital. With a financial agent intermediating the business, it can directly pay the supplier faster, charging an interest rate. Then the buyer pays the financial agent, in the agreed period, instead of the supplier directly, anticipating the payment for the supplier. For the buyer, the solution presents a form of cash release and financial health, as they maintain their standard payment term for invoices.

Let's create a simple and hypothetical scenario to understand the transaction. Say the supplier has delivered a service for US$1,000.00. The buyer will pay for that service within 90 days, but the supplier cannot wait that period. That is when the financial agent comes in, offering a monthly interest rate of 1%. Since the payment period will last 90 days, the total interest rate will be, approximately, 3.03% in total (1.01^3). This means that the buyer will continue to pay US$1,000.00, however, the money will go directly to the financing partner, in 90 days, but before that, almost immediately after the parties have reached an agreement, the financial agent will pay US$969.70 to the supplier, keeping those US$30.30 to reimburse of the cost of capital.

Particularly in Brazil, this method of factoring receivables is essential and should be better explored. Brazil is one of the countries with the highest cost of capital, currently at 13.75% a year (Trading Economics, 2022). In simple terms, this means that financial institutions offer extremely high interest rates on money loans. The perspective of economical inflation combined with political-economical volatility, increases the cost of capital, as these conditions engender a lot of risks to financial organizations.

Usually, small suppliers do not have enough working capital to close a deal, so they ask for money loans. The bank will offer, though, a high interest rate because it sees the small supplier as having a high risk of default. Additionally, specifically in Brazil, the base interest rate, the Selic rate, is already expensive. With Supply Chain Finance, the bank's risk is transferred to the buyer, since the bank will not receive the money from the supplier anymore, but from a company with a higher credit rating. As a result, the bank will charge a smaller interest rate, as it has mitigated the risk of the return payment. "Smaller companies tend to pay very high rates, which increase their finance costs, while companies with higher credit ratings benefit from low interest rates provided by banks" (Alexandre Cracovsky, 2022), therefore, making this 'transfer of risk' essential to lower the interest rate.

4. Corteva's Supplier Financing

Corteva Agriscience is a multinational company in agricultural technology dedicated to the production of seeds, crop protection products, and digital agriculture. The company can provide the buyer's point of view of the Supply Chain Finance.

Corteva, in Brazil, applied standard payment terms. However, the global standard payment terms were difficult to be accepted by suppliers that demanded "faster payments and more competitive rates", says Robert Suquet (Logistics Procurement Director at Corteva). The program had a partnership with Major Global Financing Institutions, but the tool workflow offered was not meeting the supplier's needs. Suppliers were promised to be paid in shorter lead times, which was hard to meet, and buyers stopped offering the program until they could adjust the Supply Chain Finance to an optimal solution. The traditional flow is done in five steps. Step 1 of the program consisted of the supplier's registration and onboarding in the process. Step 2 was the supplier's submission of its invoice to Corteva. For Step 3, Corteva would submit the invoice to the financial institution tool. In Step 4, the financial institution would pay the supplier, in 7 days on average, and in the fifth and final step, the buyer would pay the financial institution, exiting the payment terms. The challenges were in steps one and three. In the first step, the problem was that the suppliers were taking almost a month to be onboard in the process. In the third step, the buyer took too long to submit the supplier's invoice on the financial institution's platform.

Bruno Damasceno, Corteva's treasurer of Latin America, states that Supply Chain Finance is a process that is commonly a program that big companies recommend to their suppliers to raise cash. However, to solve the suppliers' demands - those Robert commented - and find a substitution for the Traditional Financial Institutions' workflow process, the Procurement and Treasury functions started to look for solutions in the market. Finally, the digital platform of Idtrust offered the best solution for Corteva's Supplier Financing Program. Firstly, instead of having one financial agent, Corteva and Idtrust offered the supplier's invoice to some financing partners, which will compete for financing the invoice and, therefore, will bid the lowest interest rate possible. This gives more transparency and fair fees to suppliers. Secondly, the platform offered a quicker and easier onboarding process.

Although those changes improved Corteva's businesses, they proved to be insufficient to attend to all of Corteva's challenges with Supplier Financing. The company still needed to shorten the time it took to complete all the postings to book the transaction. To address this, Bruno and his team developed a solution, granting them the IBEF 2022 Innovation Award. The solution was to make the supplier's invoice available to the financial agents before the accounting, but only just after Corteva had accepted the product or service. Parallelly, the accounting would be done. Therefore, the whole process is automated and would attend to the supplier's demands and solve Corteva's issues with its Supplier Financing.

This method Corteva developed will revolutionize the Supply Chain Finance process, likely transfer to other companies and benefit many more buyers, suppliers, and financial agents all over the world.

5. *Grupo Toniato*: The Supplier's Point of View

Grupo Toniato (GT) Logistics Solutions is one of Corteva's main suppliers. The organization mainly operates in the logistics, transportation, engineering, and technology areas.

From their point of view, Supply Chain Finance is an operation that allows GT Logistics Solutions to have more working capital. Since the process offers lower interest rates, it helps them to reduce their costs, prepaying their receivables.

GT Logistics Solution mainly operates in a seasonal market, which means that there are periods of time when they do a lot of deals, while in others, the business is scarce. In those times with fewer deals, Supply Chain Finance offers an excellent opportunity to better manage cash flow. However, as the CEO of the company André Façanha reports, the process of Supply Chain Finance must be carefully thought through because factoring invoices is also taking future money (i.e., the income that would not come anymore in the established period that has been prepaid). The greatest benefit of the process for the supplier is to be paid earlier. On the other hand, the money would be paid in a certain amount of time, so the income is just being advanced. Furthermore, the transaction involves a financial agent that will charge some interest rate resulting in less profit for the supplier. GT Logistics Solutions could think through Supply Chain Finance because they had enough working capital to do it, but as Façanha says, the smaller the supplier, the better to use the process of Supply Chain Finance.

The Supply Chain Finance solution came to be particularly important when well-managed, mainly on how the organization operated financially to deal with a preexisting condition of cash shortage. Those situations occurred mostly when there was a mismatch in the deadlines of their receivables. For example, when a client had to pay within 30 days, the other in 50 days and the last in 90 days. Another critical financial situation happened when unexpected events occurred and had to be dealt right on time. In those situations, the organization had to ask for a money loan, reaching a financial institution, which would offer high interest rates. Therefore, Supply Chain Finance came as an important process to advance their receivables and deal with emergencies.

6. Conclusion

As a process of factoring receivables, Supply Chain Finance is an important solution, guaranteeing a win-win-win situation for all the parties involved. Mostly, Supply Chain Finance guarantees working capital and cash flow to the buyer and supplier, allowing them to do better business. The financial institution also can benefit from the transaction because of the interest rate they would charge to the prepayment.

The process is still able to be perfectioned, as some innovations are trying to be incorporated into Supply Chain Finance (e.g., Corteva). Also, specifically in Brazil, the solution has room to grow and be an important part of business strategies.

However, SCF must be thought about carefully, especially from the supplier's point of view. Since the money is advanced, the future income from the business will not exist, guaranteeing immediate money at the expense of the later income. Besides, the supplier will have less profit, because the financial agent will charge some interest rate to make the transaction possible.

Supply Chain Finance is a complex process that requires careful thought to be applied. It appears, though, as a great alternative to traditional bank credit, since it helps small suppliers to have more accessible interest rates from financial institutions, as the risk of payment is mitigated by the buyer. Direct contact between financial institutions and suppliers results in high interest rates because it is attached to the credit risk at which the bank assesses the supplier capacity of paying the debt. With SCF the business becomes less prohibitive and can leverage all kinds of economic activities and firms because of its versatility and benefits, stimulating deals and financial turnover.

7. Appendix

7.1 A

G20 (Trading Economics, 2022)

Country	Last*	Previous**	Reference	Unit
Japan	-0.1	-0.1	Dec/22	%
Switzerland	1	0.5	Dec/22	%
Singapore	1.65	1.65	Dec/22	%

Euro Area	2.5	2	Dec/22	%
Australia	3.1	2.85	Dec/22	%
South Korea	3.25	3	Nov/22	%
United Kingdom	3.5	3	Dec/22	%
China	3.65	3.65	Dec/22	%
Canada	4.25	3.75	Dec/22	%
United States	4.5	4	Dec/22	%
Saudi Arabia	5	4.5	Dec/22	%
Indonesia	5.5	5.25	Dec/22	%
India	6.25	5.9	Dec/22	%
South Africa	7	6.25	Nov/22	%
Russia	7.5	7.5	Dec/22	%
Turkey	9	9	Dec/22	%
Mexico	10.5	10	Dec/22	%
Brazil	13.75	13.75	Dec/22	%
Argentina	75	75	Dec/22	%

*Last: the current interest rate of the countries, as determined by the most recent review by the central bank of each respective country, regarding the table's time frame.

**Previous: the interest rate established by the central bank of each respective country, as determined by the review conducted prior to the most recent review, regarding the table's time frame.

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