CONCEPT AND TECHNIQUES OF SUPPLY CHAIN FINANCE

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***Abstract**: The paper addresses the relatively new concept of supply chain finance (SCF) and techniques of SCF. The flow of financial resources in supply chains is increasingly becoming the focus of attention. As a consequence, new tasks at the intersection of finance and logistics/supply chain management open new business areas for banks as well as financial and logistics service providers. Supply Chain Finance is defined as the use of financing and risk mitigation practices and techniques for optimizing the management of working capital and liquidity invested in supply chain processes. The concept of SCF covers a wide range of products, programs and solutions in the financing of commerce, including international trade, and has been used to refer to a single product, or a comprehensive range of products and programs of solutions aimed at addressing the needs of buyers and sellers.*

***Keywords**: supply-chain finance, SCF techniques, finance, logistics.*

1. INTRODUCTION

Modern business conditions constantly impose change and adoption of innovations in the business orientation of all market actors. This induces the upgrading of existing business models and creates new business approaches as a way to meet the challenges and various impediments that come with a turbulent environment. Supply chain finance (SCF) is one innovation. Supply chain finance encompasses the use of financial instruments, business experience, best practice and modern technological solutions in order to achieve quick and efficient conversion of working assets in various cycles (procurement, production, sales) to cash. The result should be an accelerated operating cash flow that leads to higher enterprise liquidity.

The world economic crisis of 2008 has led to the creation of new financial instruments especially for small and medium sized enterprises. The cause of this was the inability of firms to obtain funds through traditional loaning practices. Small and medium enterprises make the vast majority of the total number of enterprises both in developed and less developed economies. The functioning of an enterprise depends on its cash flow which if inadequate can lead to illiquidity or become a constraint on enterprise growth. High

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interest rates and insufficient credit potential have led enterprises to search for new financial instruments. Supply chain finance offers such financial instruments.

The aim of this paper is to emphasize the importance of internal and external financial challenges and provide logisticians and supply chain managers with further insight for assessing the economic output of supply chain activities. The financial and operating activities of an organization are closely connected and interdependent.

2. HOW PHYSICAL AND FINANCIAL SUPPLY CHAINS ARE CONNECTED

To understand the need for and the opportunities open for SCF options it is important to understand supply chains, their management and the typical challenges faced by businesses operating within these chains. The flow of financial resources is increasingly gaining importance within supply chain (SC) analysis. New inter-functional and inter-organizational tasks between finance and logistics provide for new supply chain cost cutting opportunities.

Supply chain management has grown in importance for modern business operations. Lambert and Cooper (2000) noted that one of the most significant paradigms shifts of modern business management is that individual businesses no longer compete as solely autonomous entities, but rather as supply chains. In this emerging competitive environment, the ultimate success of the single business will depend on management's ability to integrate the company's intricate network of business relationships.

The financial and operating activities of an organization are closely connected and interdependent. Collaborating on the financial side or on the operating side, therefore brings a suboptimal result, potentially forgoing benefits that can be reaped from an approach of intertwined collaboration. Consequently, we should keep in mind that even though collaboration focuses on financial functions, institutions, and instruments of supply chains, it should not be understood as an isolated concept but rather as an aspect of a more complex system. To simplify this system, a company will choose to integrate and manage different supply chain links for different business processes. It will collaborate totally with some supply chain actors, while only collaborating financially, operatively, or not at all with others (Timme and Williams-Timme, 2000).

Financial performance of a company is dependent on its cash management and profitability. Cash management is critical for a company's survival. There are times when a company is performing well in terms of sales and services but fails to generate cash effectively. Obviously, there is a positive relationship between logistics performance and financial outcomes. Supply chain management (SCM) should always attach importance to cash flows as these bear on the financial side of business activities.

The physical supply chain (PSC) is defined as the series of business processes by which goods and services are purchased, transformed, and delivered, whereas the financial supply chain covers the series of financial processes that support the physical supply chain such as credit assessment and control, deployment of financing and risk mitigation instruments, supply chain automation processes including purchase orders, e-invoicing and payments (Bryant and Camerinelli, 2013).
In other words, the physical supply chain is a system of organizations, people, activities, information, and resources involved in moving a product or service from a seller to a

buyer, either domestically or across borders. These activities require and must be supported by financial supply chain activities.
The Financial Supply Chain (FSC) is the chain of financial processes, events and activities that provide financial support to PSC participants. Financial Supply Chain Management refers to the range of corporate management practices and transactions that facilitate the purchase of, sale and payment for goods and services. Supply chain finance is one service cluster supporting the FSC.

Effective management of the supply chain can significantly influence the level of working capital of firms. According to Porter, the two generic competitive strategies are cost advantage and differentiation (Porter, 1985). Cost advantage is achieved through reducing costs, and differentiation increases profitability by providing increased levels of customization and service. Increased levels of service can be provided through efficient order capture, product availability, on-time delivery, information transparency, and improved responsiveness.

Financial factors have a strong impact on the configuration of SC. Integration of financial aspects in the SCM allows for the systematic assessment of the impact of production decisions in the financial operation and further selects their ideal combination thus providing a competitive advantage in the company.

For chief executive officers (CEOs) focused on profitable growth, working capital control has become a key metric. Working capital represents the amount of day-by-day operating liquidity available to a business. Working capital (WC) is calculated as (EBA, 2014, 21):

$$WC = (AR) + (Inv) - (AP) + (Cash) \quad (1)$$

(AR) stands for Accounts Receivable, the amount that customers owe a business.

(Inv) is the Inventory value calculated as the total amount of inventory held by the business in raw materials, work in progress, and finished goods.

(AP) is Accounts Payable, payments due to suppliers for goods and services purchased.

(Cash) is self-explanatory.

Significant value can be derived from the optimal use of management processes in the supply chain with banks possibly supporting working capital management and the improvement of their clients' cash utilization.

Therefore, the new assignments at the intersection of finance and logistics SCM open new business areas for banks as well as financial and logistics service providers. The challenges arising with these developments bring along a new understanding and role of the supply chain actors and their relationships. New inter-functional and inter-organizational tasks at the intersection of finance and logistics open new supply chain opportunities.

3. THE BENEFITS FROM SUPPLY CHAIN FINANCE

The task of SCF is to lower capital cost by means of enhanced mutual adjustment or completely new financing concepts within the supply chain. Supply Chain Finance is an approach that focuses upon the financial problem in SC from a collaborative viewpoint.

Supply chain finance 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. While preserving their legal and economic independence, the collaboration partners are committed to share the relational resources, capabilities, information, and risk on a medium to long-term contractual basis (Hofmann, 2005).

The instrumental contribution of SCF is based on three constitutive elements: (1) Institutional actors; (2) SCM characteristics; (3) Financial functions. The task of SCF is to reduce capital cost by means of better mutual adjustment or completely new financing concepts within the supply chain. These elements, which can be understood as a framework of SCF, are taken into account, while making value chain decisions from a financial perspective (Timme and Williams-Timme, 2000).

3.1. The benefits of SCF for small and medium enterprises

The recent global credit crisis has prompted trade finance to look for alternatives as businesses have seen their supply chains endangered by lack of liquidity. In addition, pressure from the globalization of supply chains has increased competition and businesses are looking to SCF as one of the options for maintaining their competitive edge. Finally, as more businesses and institutions engage in various forms of SCF with deliverable benefits, this has encouraged others to participate and has further developed the market for SCF services.

Figure 1. shows the main groups of financial products which use SMEs (Van Swinderen and Mungai, 2015, 9).

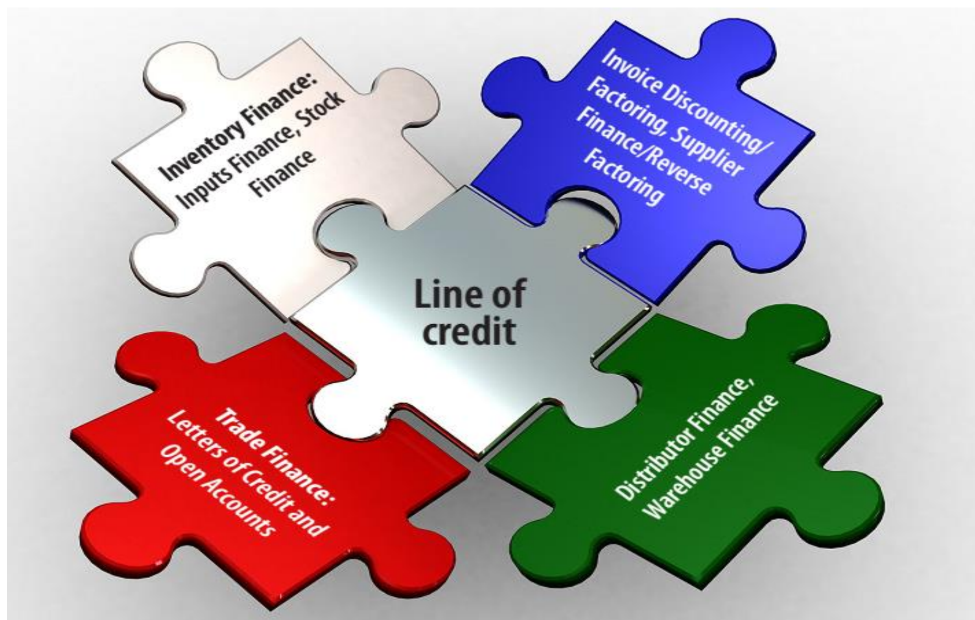

Figure 1. Key characteristics of the main product groups

Small and medium enterprises (SMEs) credit risk is typically more challenging to assess than that of larger businesses. Many have struggled to gain access to traditional forms of finance. Practical SCF approaches create an opportunity to significantly improve access to finance or reduce the need for external financing by unlocking potential liquidity from within supply chains. There are both quantitative benefits as well as qualitative benefits from SCF solutions.

The main benefit of supply chain finance is that the buyer does not pay any fee to extend its payment terms and the supplier only pays a small discount if he wants to get paid early. Supplier finance works for companies in a variety of sectors, including automotive, electronics, manufacturing, retail, and many others. It works for companies on both sides of the supply chain. Buying organizations can extend their payment terms, and suppliers can get paid earlier. Supply chain finance is a true positive sum game solution for both trading partners.

Though supply chain finance and logistics, it is possible to achieve a win-win situation between core enterprises and their SMEs partners. SCF enables banks to support SMEs at a level that is more in line with their trading activity. By contrast, traditional forms of bank finance are primarily dependent on the SME's balance sheet strength, security values and the value of supporting guarantees. Finance availability is constrained by factors that are unconnected with an SME's trading activity.

4. TOWARDS STANDARD MARKET DEFINITIONS FOR SCF AND SCF TECHNIQUES

The market for SCF is still evolving and the next levels of definition for SCF structures and components are not well established. Banking associations and other organizations have already started to acquire knowledge to support their membership and associates in adopting common definitions and terms.

There is a need for much greater clarity of definitions, conceptual language and commonly used terms. This is illustrated by the definition of Supply Chain Finance itself, which sometimes is an umbrella term for a whole range of financial instruments and sometimes denotes a specific technique or component of the SCF portfolio. SCF is most commonly described as a portfolio or series of financial practices and technologies that support the trade flows and financial processes of end to end business supply chains. This is a holistic definition including a broad range of traditional and evolving financial techniques. Supply Chain Finance is defined as the use of financial instruments, practices and technologies to optimize the management of working capital and liquidity tied up in supply chain processes for collaborating business partners (EBA, 2014).

The Global Supply Chain Finance Forum was established in January 2014, as an initiative of a number of sponsoring industry associations facilitated by the International Chamber of Commerce Banking Commission, to address what has been recognized as a need to develop, publish and propose a set of commonly agreed standard market definitions for SCF and for SCF-related techniques. Through this document the sponsoring associations of the Forum have confirmed their support for these standard market definitions which are now recommended to the wider stakeholder community for adoption (BAFT et al. 2016).

The purpose of this initiative is to help create a consistent and common understanding about Supply Chain Finance starting from the definition of terminology, to be followed by

advocacy in support of the global adoption of the standard definitions. It is recognized that SCF propositions have evolved at different ways and in varying directions by region and at the level of individual providers. However, the view is that there is agreement on the clear benefits to the financial industry, regulatory authorities, clients and other stakeholders, from the development and dissemination of standard definitions and terminology.

SCF products and services cover all risk mitigating and liquidity products a corporate client requires to optimize working capital along the entire value chain. It comprises both traditional and other products and services such as Open Account techniques generally designated as SCF.

The value of a standard global terminology around SCF extends beyond pure financial transaction side rations, to the areas of automation, dematerialization and technology. Supply chain automation based on dematerialization, from e-procurement, to e-invoices and to e-logistics, coupled with data-driven decision-making, enhances efficiency and creates efficient financing instruments which can be provided across international and domestic supply chains.

It has been decided to create a Global SCF Forum to develop a set of standard market definitions for the range of SCF instruments offered by the market. It is expected that all stakeholders, e.g. customers, banks and nonbank finance providers, regulators and investors will benefit from the clarity that these definitions will deliver.

Figure 2 presents that SCF techniques (Bryant and Camerinelli, 2013, 29).

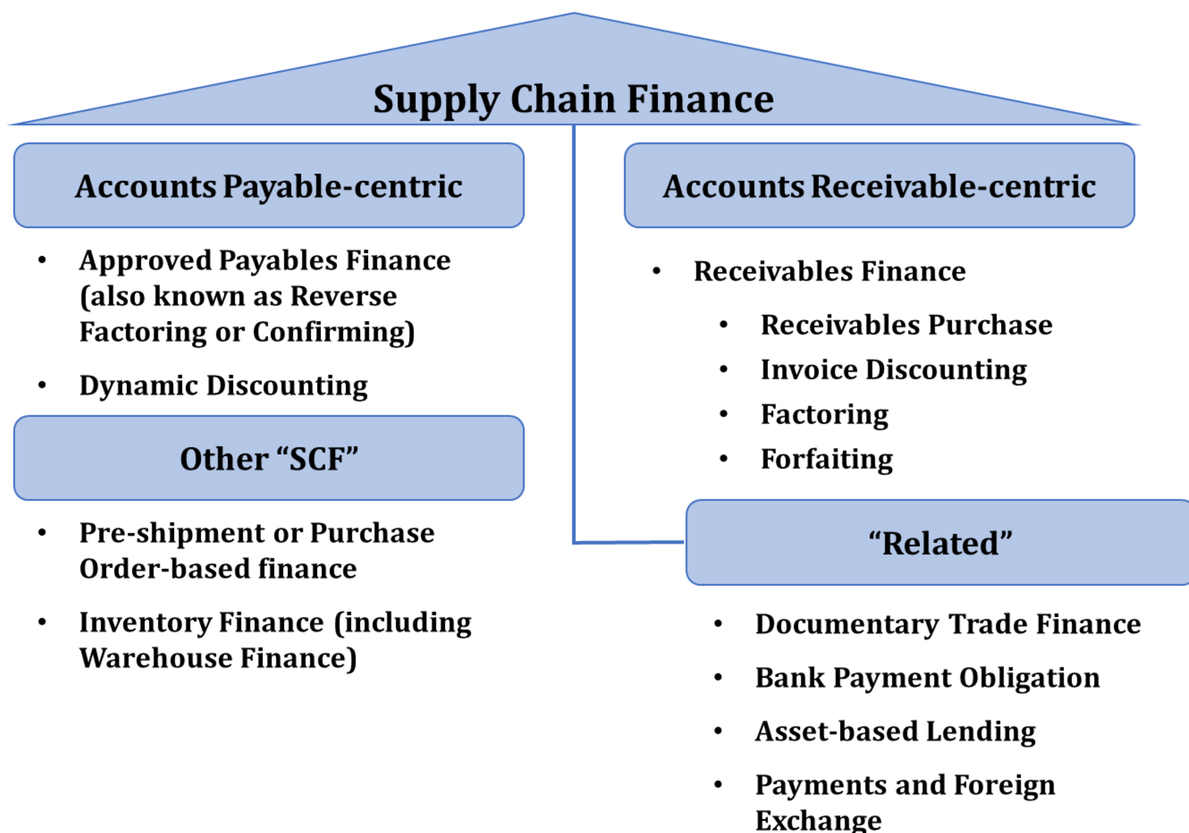

Figure 2. Supply Chain Finance Portfolio

Distribution of SCF instruments is given in Figure 3 (EBA, 2014, 29). The receivables financing segment including factoring, invoice discounting and receivables finance in all its forms remains the largest segment with an estimated 60-70% market share. Buyer-centric SCF techniques, such as Reverse Factoring or Approved Payables Finance, represent less than 15-20% of the market but have strong growth potential. Global banks are today mainly concentrated on the large buyer side of the trade equation. This is the heritage of the cleverly structured solutions engineered and provided by banks for large international trading companies. In particular the value of this SCF technique in stabilizing the SC, directing liquidity to where it is needed, and creating a win-win situation for buyers and their suppliers is increasingly recognized.

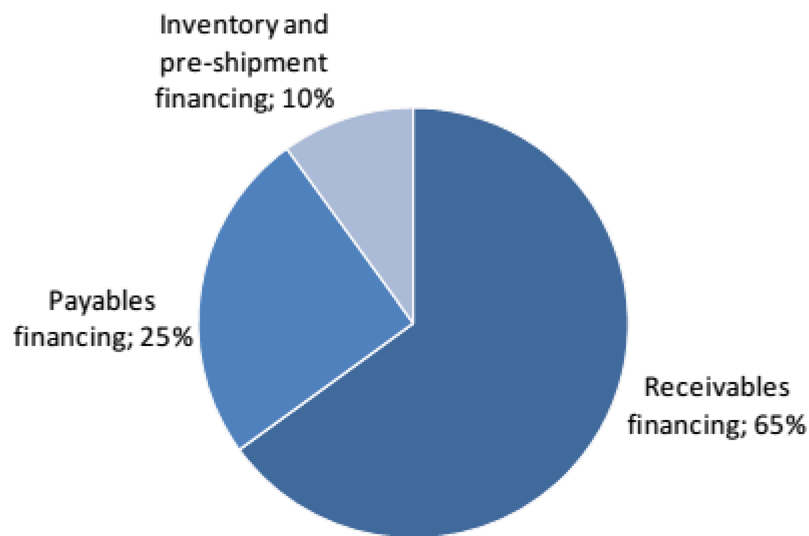

Figure 3. Distribution of SCF Instruments

A large number of drivers are encouraging the growth of SCF. Let us mention a few.

1. As credit spreads have widened there is more scope to develop new approaches to pricing these alternative structures. On both the supplier and buyer side, the availability of working capital throughout the supply chain is a key issue.
2. Buyer-centric SCF supports the objective of de-risking the supply chain and relieves suppliers. Many of them are SMEs. Leveraging the credit strength of highly rated buyers seems a sensible and an unused opportunity.
3. Many of the institutional ingredients are in place. These are well-connected supply chains, financial institutions and other essentials such as B2B automation platforms and networks. The latter can enable the evolution to a widespread SME support based on automation, especially e-invoicing.

5. CONCLUSION

Many executives are beginning to understand the intrinsic connection between competency in physical supply chain management and corporate performance measured in financial terms. For that reason, supply chain professionals must be ready to deliver

value through their own local initiatives in order to support their companies' strategic visions and overall performance.

Further work is needed to harmonize SCF existing market terminology to make it operational and usable in daily practice by banks and non-banks when processing, financing and risk mitigating trade transactions.

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