

# How to select a Supply Chain Finance solution?

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## Abstract

In the complex picture of Supply Chain Finance (SCF), there is still a need for a model supporting managerial decisions in selecting the most suitable financing solution. The objective of the presented exploratory work is to bring together the relational aspects between buyers and suppliers, and the characteristics of SCF solutions. Based on expert interviews and a focus group, the main result consists of a classification model of buyer-led SCF solutions, according to the characteristics of the relationship between a buyer and its suppliers, in terms of bargaining power and cumulative transaction value. The model thus describes the logics behind the adoption by a buyer firm of one or more SCF solutions to be implemented with different suppliers.

**Keywords:** Supply Chain Finance, Decision-Making, Bargaining Power

**Full Reference** Guida, M., Moretto, A. M., & Caniato, F. F. A. (2021). "How to select a Supply Chain Finance solution?". *Journal of Purchasing and Supply Management*, 100701, DOI: 10.1016/j.pursup.2021.100701

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## 1. Introduction

In the current industrial context, a relevant part of emerging trends addresses the financial area, triggering the innovation of the traditional banking system (Gomber et al., 2017).

In this direction, the core of innovation is the alignment of the industrial players and the financial world, and the attention of both academics and practitioners turns to new schemes of physical and financial cooperation between the members of the same supply chain (Pfohl and Gomm, 2009; Protopappa-Sieke and Seifert, 2010).

Material and information exchanges have long been analyzed, since they were considered keys to compete in extended supply chains (Lundin, 2012). Whereas, the financial flow, composed by all the money transfers involving supply chain players and financial actors, has often been neglected (Pfohl and Gomm, 2009; Wuttke et al., 2013b). The missing coordination among the traditional supply chain dimensions and the financial flow management harms both efficiency and effectiveness, leading to delayed payments, inadequate working capital levels and high dilution rates (Hoffman, 2007).

Recently, the capital scarcity and the wide spread between investment-grade and non-investment-grade rates triggered the extension of trade credit at the supply chain level. This topic, already valid since some years, boomed in the last months due to the impact of Covid-19 on short term liquidity. To mitigate or completely solve the issue of liquidity shortage, alternative forms of financing are adopted, relying on Supply Chain Finance (SCF): a set of solutions firms implement to provide additional liquidity to their suppliers, often collaborating with a financial institution (Caniato et al., 2016; Wuttke et al., 2013b).

The academic literature has not yet consolidated a univocal definition of Supply Chain Finance, remaining polarized between the *finance oriented perspective* and the *supply chain oriented perspective* (Gelsomino et al., 2016). Indeed, some articles constrain the scope of Supply Chain

Finance to short-term financing of account payables and receivables, focusing on the role of the financial institution which coincides with the solution provider (Camerinelli, 2009; More and Basu, 2013). Others extend the concept to include inventories and physical assets financing, with a collaborative approach to the whole supply chain (Hofmann, 2005; Gomm, 2010).

Among academics and practitioners, the finance oriented perspective is well consolidated (Seifert, 2010; Wuttke et al., 2013b): many academic contributions consider only one solution at a time, focusing on Reverse Factoring (i.e. a financial agreement by which a financial institution purchases account receivable from selected buyers, with a credit risk which is lower than the one of their suppliers, allowing them to access short-term credit at a lower cost).

This is consistent with what happens on the SCF market, where reverse factoring is the most common solution (as stated in the Global Business Intelligence, 2016). Some authors have started analyzing other SCF solutions, such as Dynamic Discounting (e.g. Gelsomino et al., 2019) and Inventory Finance (e.g. Yan and Sun, 2013), but most academic contributions focus on one solution at a time, which often lacks in the description of the criteria for choosing from the other alternatives.

Buyer firms usually implement only reverse factoring with their suppliers in an undifferentiated manner, however, most recent examples demonstrate that this approach is not beneficial (Gelsomino et al., 2019). Most companies continue to pursue myopic objectives, focusing only on their suboptimal supply chain issues, instead of understanding the broader picture and coordinating with their supply chain partners (Hofmann and Belin, 2011). This single solution approach appeared not efficient over the years. The automatic choice of Reverse Factoring prevents from adopting an adequate financing solution, resulting in a limited Supply Chain Finance utilization rate and, as a consequence, a reduction in the potential benefits for the extended supply chain.

The sole focus on Reverse Factoring only is also due to the lack of managerial guidance to companies, in the selection of the Supply Chain Finance solution that best suits the needs and objectives of involved parties. In literature, there are some preliminary attempts to combine different solutions simultaneously (e.g., Gelsomino et al., 2016; Bonzani et al., 2019) and some studies address the concurrent use of different solutions to finance the supply chain (Gelsomino et al., 2019) but these mainly provide an overview of the available solutions and not a real model to make a selection. In line with these gaps, the goal of this paper is to develop a model to explain the choice of SCF solutions, combining simultaneously different solutions.

A new stream of literature is mainly focused on understanding the triggers and the strategic goals of the choice. One important stream aims at combining the features of the relationships with suppliers with the choice of the best SCF solution (Steeman and de Goeij, 2014). In particular, the power perspective is one of the major issues to be evaluated in the implementation of a financing solution with the suppliers (Wuttke et al., 2013b).

Analyzing the Supply Chain Finance adoption by a buyer firm, Wuttke et al. (2013b) identified trust, power and relationship captivity as elements for the buyer firm persuasiveness towards the supplier. In dealing with financially weak suppliers, the buyer power can force their choice; while in managing the relationship with virtuous suppliers, Supply Chain Finance takes the form of a sharing of benefits. However, the existing trade-off between the implementation enforceability and the supply relationship quality requires the buyer firm to calibrate its bargaining power for an effective Supply Chain Finance implementation.

This is consistent with the traditional approaches of supply management, stating that not all buyer-supplier relationships are to be managed in the same way. Research findings indicate that successful supply chain management requires the effective and efficient management of a

portfolio of relationships (Bensaou, 1999). The need for diversification of supplier relationship management strategies triggered the design of several purchasing portfolio models, describing specific purchasing paradigms (Gelderman and van Weele, 2002). Among existing models, a seminal work is represented by Cox et al., 2001, who developed the Exchange Power Matrix, built on the concept of power balance between the parties involved in a dyadic supply relationship. According to Cox (2001), buyer-supplier relationships are settled by the dominance of one of the parties when the bargaining power is not balanced in the dyad. The power distribution among the parties involved in the solution is fundamental for the correct Supply Chain Finance implementation with the different actors in the supply base. For this reason, the Exchange Power Matrix (Cox et al., 2001) is taken as a reference model for the development of the present research. Then, the real value coming from the implementation of Supply Chain Finance is influenced by the monetary value at stake, since SCF is a set of tools to optimize the financial flows between the buyer and suppliers.

According to these insights and in line with the supply chain oriented perspective of Supply Chain Finance, the goal of the paper is formalized in the following research question:

***RQ.** What are the most suitable Supply Chain Finance solutions buyers can use to manage the relationships with suppliers, on the basis of bargaining power and cumulative transaction value?*

Since the topic is exploratory in nature, an exploratory qualitative methodology was selected. Through nine interviews with experts and a large focus group, the presented research identifies a classification model for the buyer firm to select the most appropriate solution for each type of supplier, on the basis of the relationship between the parties, in order to increase the probability of an effective implementation of Supply Chain Finance solutions. Considerations about the relational implications of Supply Chain Finance in the buyer-supplier dyad are depicted, highlighting the underlying logic that leads the buyer firm to implement a SCF solution.

The rest of the paper is organized as follow. In Section 2, literature review about Supply Chain Finance is reported. Then, in Section 3, Research goals and the Research framework are summarized. In Section 4, the Research Methodology is presented whereas Section 5 illustrates the results from the research. Section 6 presents the discussion of the results and Section 7 draws the main conclusions of the paper.

## **2. Literature Review**

### *Supply Chain Finance: definition and solutions*

Despite the early dissemination inertia of Supply Chain Finance, it is gaining magnitude in the academic world, as latest publications demonstrate (Bals, 2019; Caniato et al., 2019; Gelsomino et al., 2019; Moretto et al., 2019).

Although the Supply Chain Finance popularity is growing, the scientific community has not yet converged towards a shared definition: many of the definitions formulated come from practitioners, without a sound ground in supply chain management and corporate finance disciplines, which are at the foundation of SCF.

The literature contains debates on the focus and definition of SCF itself over the past few years. According to Gelsomino et al. (2016), two major perspectives arise in formal definition of

Supply Chain Finance: the supply chain oriented perspective and the finance oriented perspective (summarized in Table 1).

	SCF definition oriented to the supply chain perspective	SCF definition oriented to the finance perspective	Scope of SCF definition
Hofmann, 2005	x		multiple solutions
Camerinelli 2009		x	multiple solutions
Pfohl and Gomm, 2009	x		multiple solutions
Gomm, 2010	x		multiple solutions
Seifert, 2010		x	multiple solutions
Chen and Hu, 2011		x (buyer-driven)	only Reverse Factoring
Lamoureux and Evans, 2011		x	multiple solutions
Grosse-Ruyken et al, 2011	x		multiple solutions
Wuttke et al., 2013a	x		multiple solutions
Wuttke et al., 2013b		x (buyer-driven)	only Reverse Factoring
More and Basu, 2013		x	multiple solutions
Gelsomino et al., 2016	x		multiple solutions
Caniato et al., 2016	x		multiple solutions
Bals, 2019	x		multiple solutions

Table 1 - Perspectives on the definition of Supply Chain Finance

Looking at the supply chain perspective, SCF is conceived as a way for optimizing working capital also including inventories, with a focus on the collaboration among the actors involved along the supply chain (Gelsomino et al., 2019).

On the other hand, through the lens of the finance perspective, some articles suggest that Supply Chain Finance can be considered as a set of short-term solutions focused on accounts payable and receivable (Camerinelli, 2009; Hartmann-Wendels and Stöter, 2012): the key point is the management of the working capital, to cope with the variable financial need in running the normal operations. Embracing the buyer-driven perspective within the finance oriented one, Wuttke et al. (2013b) further limit the scope of Supply Chain Finance to Reverse Factoring. Although most Supply Chain Finance definitions include a broad spectrum of solutions, many papers focus on one solution at a time, many of which focus on Reverse Factoring (e.g. Hoffman, 2009).

A broader definition of SCF has been adopted in the present research, wherein SCF is considered as a set of solutions aimed at working capital optimization from a supply chain (SC) wide perspective (Gelsomino et al., 2016), as it allows to align financial flows with product and information flows along the SC, improving cash flow management for all the companies involved (Wuttke et al., 2013). A broad set of SCF solutions from the perspective of the buyer firm is summarized in Table 2. In line with the objective of the present research, Table 2 describes only buyer-driven solutions, where the decision maker faced with the selection of an SCF solution is the buyer.

<b>Reverse Factoring</b>	Reverse Factoring can be defined as a Supply Chain Finance solution in which a large buyer facilitates early payment of its trade credit obligations to supplier. A factor purchases accounts receivables from suppliers whose buyers (generally, an informationally-transparent high-quality firm) guarantee that the payment will be met.	Klapper, 2006 Van der Vliet, Reindorp and Fransoo, 2015
<b>Confirming</b>	Confirming is a solution whereby the transferring debtor issues the Factor with an authorization for payment to its suppliers, making this player the manager of	Supply Chain Finance Observatory of Politecnico di Milano, 2020

	trade payables. This solution usually contains a binding commitment as to availability and inclusion of recourse to the seller.	Global Supply Chain Finance Forum, 2020
<b>Purchase Order Finance</b>	Purchase Order Finance is a short-term commercial finance option that provides capital to pay suppliers upfront for verified purchase orders. This financing can cover all the related working capital needs of the seller, including raw materials, wages, packing costs and other pre-shipment expenses. The buyer's bank issues its commitment to pay the once the seller ships and makes available the required documents that match the purchase order and other stipulated conditions. Purchase Order Finance is intended here as a pre-shipment financing solution.	UN/CEFACT, 2020 De Boer et al., 2015
<b>Credit Card</b>	A virtual Credit Card (also known as a B2B or purchasing card) is an SCF solution that entails the use of a "virtual" credit card to streamline payments between buyer and supplier. The solution can be implemented by the supplier (supplier-centric paradigm), to streamline its cash flows related to its customer base, in a solution that is quite similar to factoring; the Credit Card solution can also be implemented by the buyer (buyer-centric paradigm), to steady its supply base, implementing a solution that is conceptually similar to reverse factoring. The latter paradigm is the most common and it is the reference for the presented study.	Bonzani et al., 2018
<b>Dynamic Discounting</b>	Dynamic settlement of invoices where for every day of advanced payment with respect to a pre-defined baseline, the supplier grants to the buyer a discount on the invoice nominal value.	Gelsomino et al., 2016
<b>Inventory Finance</b>	Lender (usually a bank) loans money to a firm with the maximum amount of the loan linked to the firm's assets in the form of cash, inventory, and accounts receivable. The third-party provider (often of logistic services) plays a key role, buying the goods from the manufacturer and temporarily retains legal ownership before selling them to the manufacturers' customers after a certain time (Chen and Cai, 2011; Hofmann, 2009).	Buzacott and Zhang, 2004 Hofmann, 2009 Chen and Cai, 2011

*Table 2: Supply Chain Finance solutions*

Several academic contributions have been presented studying the adoption process through case studies, investigating internal variables and contingencies for the effective implementation of Supply Chain Finance (Wuttke et al., 2013a; More and Basu, 2013). However, most of the authors only describe the adoption of Reverse Factoring (Liebl et al., 2016; Wuttke et al. 2013a). Although this perspective takes into consideration the most common one, it neglects the whole set of Supply Chain Finance solutions currently offered on the market.

Analyzing the adoption process and the selection of addressed suppliers in a generic Supply Chain Finance solution, several authors highlight the main triggers of the choice.

Wuttke et al. (2016) analyze the actual introduction of Supply Chain Finance solutions in order to investigate the main drivers in the adoption process. They use a diffusion model to combine the influencing dimensions, such as the timing of the choice, the role of the buyer convincing the suppliers, and the main characteristics of the focal company, in term of credit rating, procurement volumes and payment terms.

There have been some attempt to go beyond Reverse Factoring. Steeman (2014) focused specifically on the strategic objectives behind a Supply Chain Finance solution, such as effectiveness and efficiency, supply chain resilience, support to partners' growth, and suppliers' loyalty, linking the financial dimension directly to supply chain management. Considering the effective adoption of Supply Chain Finance as the dependent variable, Caniato et al. (2016) investigate the objectives of the focal firm in initiating a supplier financing solution, trying to extend the scope of the research to other solutions than just Reverse Factoring. As a transversal dimension to the precise objectives, the research identifies four moderating variables in the decision-making process: the level of trade process digitalization, the bargaining power between the involved parties, the financial attractiveness towards the service provider and the relevance of collaboration in the solution implementation. Coherent with this approach, other contributions address the characteristics of buyer-supplier relationship, in terms of mutual trust, resources and information sharing, strategic interdependence, since they have an overriding influence on the financial collaboration (de Boer et al., 2015).

Although some variables are presented, a guidance to the adoption of Supply Chain Finance solutions should encompass a deep understanding of the supply chain structure, in terms of bargaining power of the parties, strategic relevance of the relationships and complexity of the external environment (Wuttke et al., 2013b). Moreover, as pointed out in the literature review by Gelsomino et al. (2016), the managerial perspective about the initiation of a Supply Chain Finance solution is still neglected in literature, as a practical tool supporting the managers' decision-making process is missing.

In this direction, a literature stream identifies the paramount link between the effective implementation of Supply Chain Finance solutions and the selection of the suppliers to be involved requires an investigation of the supplier relationship management discipline and the purchasing models. In particular, a quantitative study demonstrates a correlation between the use of supplier segmentation tools and the implementation of Supply Chain Finance solutions (Steeman and de Goeij, 2014). Beyond the identification of a positive correlation between the generic use of purchasing portfolio models and the implementation of Supply Chain Finance solutions, this research points out recurring patterns within the quadrants of the Kraljic matrix (1983) about the choice of the solution to be selected. In particular, their model suggests the use of equity, long-term loans, contractual risk sharing and advance payments with high risk impact suppliers. Solutions they consider as operational, such as Dynamic Discounting and Reverse Factoring, are proposed across all the quadrants in the Kraljic matrix (Steeman and de Goeij, 2014). In line with this study, the research presented in this paper aims to increase the granularity of the results. More precisely, Steeman and de Goeij (2014) divide the solutions into two clusters. The strategic cluster includes loans and Inventory Finance, the operational ones pertains Reverse Factoring and Dynamic Discounting. The research presented in this paper expands the range of solutions considered and associate them to four different segments of suppliers.

### **3. Research objective and research framework**

#### *Research question*

From the literature review, addressing the conjunction between the effective Supply Chain Finance implementation and the appropriate supplier relationship management, one major gap arises. Although some academic contributions shed light on the Supply Chain Finance adoption process (Wuttke et al., 2013a) and the integration of financial objectives with supplier relationship management (Steeman and de Goeij, 2014), a model guiding the buyer firm in initiating a Supply Chain Finance solution based on the supplier relationship is still missing. To fill this major gap, the objective of the research is the identification of the most suitable SCF solutions a buyer firm can adopt in managing the relationships with suppliers, on the basis of bargaining power and cumulative transaction value. Indeed, the buyer firm is intended as the initiator of the Supply Chain Finance solution. Furthermore, the buyer's SCF initiative takes on specific connotations when faced with different supply relationships, so that the underlying logic behind the implementation of a Supply Chain Finance solution changes according to the type of suppliers addressed.

The identification of the most suitable SCF solutions for a large buyer, is based on the relationship it has with the suppliers involved. In general terms, each supplier is unique, and a consolidated long-term relationship is not possible and beneficial with all of them. A diversified approach based on the relationship between the buyer and the supplier is required; this

applies not only for the operational collaboration between the parties, but also to the financial support provided through an SCF solution.

Considering existing literature, the relational aspects that exist between buyer and supplier can direct the choice towards particular Supply Chain Finance solutions. For this reason, the authors follow the line of reasoning that the bargaining power distribution plays a paramount role in the choice of the buyer firm (Wuttke et al., 2013b) and take the Exchange Power Matrix (Cox et al., 2001) as a reference model. So, in this research the bargaining power corresponds to “the dependence of one party compared to the dependence of the other party”, as described by Bacharach and Lawler (1981, p. 65) and elaborated by Cox et al. (2000). Therefore, mutual dependence and bargaining power are closely related concepts since the buyer’s power relative to the supplier is the result of the dependence of the latter on the former. In addition, recognizing the monetary nature of Supply Chain Finance as a tool for optimizing financial flows in the buyer-supplier dyad, the authors enhance the value the Exchange Power Matrix by integrating an economic dimension related to cumulative transaction value between the parties involved. In this research, the cumulative transaction value corresponds to the monetary value of the transactions between the buyer and the supplier, i.e. the buyer’s purchase volume towards the supplier. The fact that it quantifies as high value or low value is related to the total spending value of the buyer. On the basis of this, the research question was formulated:

***RQ.** What are the most suitable Supply Chain Finance solutions buyers can use to manage the relationships with suppliers, on the basis of bargaining power and cumulative transaction value?*

#### *Research framework*

To answer the research question, a research framework was formulated based on previous academic knowledge, combining the discipline of supplier relationship management and the contributions of different SCF solutions and their implementation in buyer–supplier dyads. Consistent with the research question, two main variables are taken into consideration: the SCF solutions and the relationships with suppliers.

For the former, Supply Chain Finance literature was used as reference framework, and the main solutions proposed in literature and consistent with the viewpoint used in the paper (i.e., the buyer’s perspective) were taken into consideration. Solutions considered as part of the analysis are the ones listed in Table 2. For the latter, consistently with the Exchange Power Matrix (Cox et al., 2001), this model describes two fundamental dimensions, the bargaining power and the cumulative transaction value.

The *bargaining power* between buyer and supplier is intended in terms of captivity, strategic importance, market complexity, which are paramount elements to be assessed before the implementation of Supply Chain Finance (Wuttke et al.; 2013b). Powers and Reagan (2007) describe power as the advantage of one player over the other and the extent to which one party can force the other to take actions. This is very similar to how Bensaou (1999) describes as bargaining power. This variable is a critical element for the selection of a specific Supply Chain Finance solution, as it defines the main objectives of the buyer firm in managing the relationship with its suppliers (Wuttke et al., 2013b; Steeman and de Goeij, 2014). A deep understanding of the power balance between the parties allows to leverage the Supply Chain Finance solution to effectively manage the whole relationship with the supplier, not only from a financial point of view, but also in dealing with relational and commercial issues.

The *cumulative transaction value* between the parties, in terms of the economic value of the annual transactions between the supplier and the buyer, provides a dimension to the relevance of each supplier in the buyer firm annual spending. From the supplier side, this variable brings information about its need to streamline its cash management; from the buyer side, it sizes the economic importance of the supplier for the buyer, so its willingness to support the suppliers implementing a Supply Chain Finance solution (Wuttke et al., 2013b). In particular, the measure of the cumulative transaction value allows to better describe the situations in which the power between buyer and supplier is balanced. In the case where the power is balanced, but the mutual importance of the relationship is low because of low cumulative transaction value, the relationship is defined as independence. In case the bargaining power is balanced, but the relationship is relevant for both parties due to high volumes, the relationship is interdependence.

On the basis of the extent of the reciprocal power and the cumulative transaction value, four types of relationships can be identified, which are consistent with the model suggested by Cox (2001). These quadrants (see Table 3) were considered in the analysis to classify SCF solutions.

Quadrant	Description
<i>Buyer dominance</i>	<ul style="list-style-type: none"> <li>- the buyer has greater control over the supply relationship and can leverage on the suppliers from an operational and financial point of view</li> <li>- the buyer exploits the power to get performance benefits, in terms of quality and cost improvements</li> </ul>
<i>Supplier dominance</i>	<ul style="list-style-type: none"> <li>- the supplier has enough levers to be able to close the market to competitors and exercise a certain power towards the buyer</li> <li>- the buyer firm is often locked in the relationship with the supplier, that can leverage its position to gain advantages from the supply relationship and gain above-normal returns</li> <li>- the buyer needs to try to implement contingency planning for dealing with unexpected bad situations (Gelderman et al., 2005)</li> </ul>
<i>Independence</i>	<ul style="list-style-type: none"> <li>- there is a low mutual dependence: neither the buyer nor the supplier has significant power to take advantage from the relationship</li> <li>- these suppliers provide commoditized and standardized products and the main objective of purchasing department is to minimize costs (Cox, 2001), and to make the relationship management less demanding</li> </ul>
<i>Interdependence</i>	<ul style="list-style-type: none"> <li>- Strong relational importance and a high reciprocal dependence</li> <li>- the relationship between the parties is collaborative, as both buyer and supplier possess important recourses that force them to work closely together (Cox, 2001)</li> <li>- the two players are partners in an ongoing and long-term relationship. The intention to strengthen the relationship is based on the value that both parties perceive from collaboration.</li> </ul>

Table 3: The four quadrants to describe bargaining power and cumulative transaction value (adapted by Cox et al., 2001)

The objective of the research is to combine the relational characteristics with the characteristics of the proposed SCF solutions, designing a two-dimensional matrix that considers bargaining power with cumulative transaction value. Matching these dimensions with SCF solutions can describe the solutions to be implemented with different suppliers from the buyer’s firm point of view. The plain matrix used in the analysis is depicted in Fig. 1.



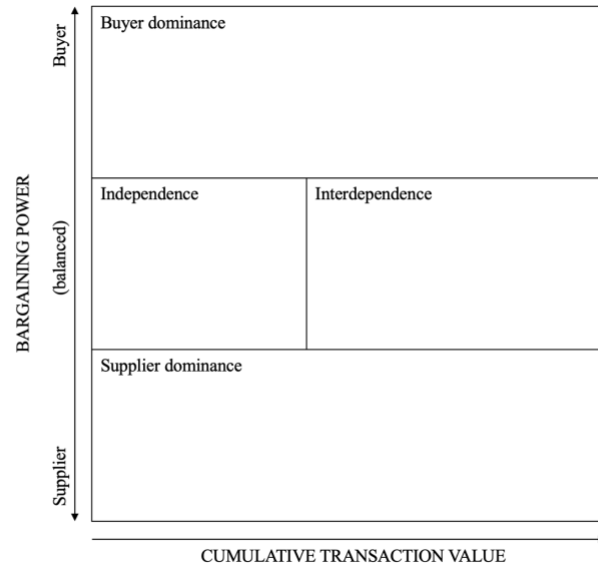


Figure 1: Matrix of bargaining power and cumulative transaction value

## 4. Research methodology

### *Research process*

The research is exploratory in nature and uses a theory elaboration approach (Fisher and Aguinis, 2017), as we used existing notions and conceptual models (Exchange Power Matrix and SCF solutions) as a starting point to generate new theoretical insights.

Indeed, the main inputs of this paper are existing models already adopted in the supplier relationship management literature (e.g., Cox et al., 2001) and in Supply Chain Finance literature (e.g., Gelsomino et al., 2016), which oriented our data analysis. In the elaboration of the research, we relied on these concepts to design the framework (Figure 1) and to collect and organize data.

Finally, as output of the research, we refined the existing theoretical models, identifying a new area of implementation of the Exchange Power Matrix, to be used as reference model also in the Supply Chain Finance domain, as summarized in the revised framework (Figure 4).

An exploratory study was considered appropriate to understand how company decisions are made (Baxter and Jack, 2008), which is consistent with our research question. In line with the reflections of Dumay (2009), the research is introduced as a “middle-range approach,” meaning that it assumes a middle position with regard to the dimensions of theory, methodology, and change. Indeed, the frameworks already adopted in literature were used as broad “skeletal” theory models (theory dimension). The methodology adopted is qualitative and based on actual situations (methodology dimension), and the researchers were able to partially diverge from previous studies while maintaining the same perspective (change dimension).

Due to the exploratory nature of the study, we decided to combine two complementary research methods, namely expert interviews and focus group. The approach followed in the research process was incremental, moving from the development stage to the consolidation stage (see Figure 2).

The first phase of the research process (*development stage*) refers to the interviews with experts. Following an inductive approach and starting from the insights gathered in the literature review, the goal of the development stage was to collect and rationalize the contributions of single individual experts, to illustrate their point of view about our research question. In this phase, the experts were interviewed singularly to collect their thoughts and using their point of view about the phenomenon and not specifically linked to the context of their companies. This was fundamental to stabilize the “skeletal” theory models (Dumay, 2009) developed by the authors from the academic literature and to collect any valuable consideration about the correct development of the final research framework.

The second phase of the research process (i.e., the consolidation stage) refers to the focus group. The choice of this methodology was based on the nature of the research: an exploratory topic might benefit from the discussion of experts to compare different viewpoints and identify relevant issues by the creation of both consensus and dissensus. For this reason, the results of expert interviews were enhanced with a focus group with over 65 experts involved. The focus group was held in a multi-year research project, conducted by the Supply Chain Finance Observatory of Politecnico di Milano<sup>1</sup>, involving both SCF providers and users, i.e. companies using SCF solutions, thus constituting a community of experts. Following an incremental approach, the aim of the second phase was to enrich the results obtained from the initial expert interviews with further insights raised during a structured discussion. The combination of

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<sup>1</sup> <https://www.osservatori.net/en/research/active-observatories/supply-chain-finance>

expert interviews and focus group allows us to arrive to the definition of the new research model (reported in Figure 4).

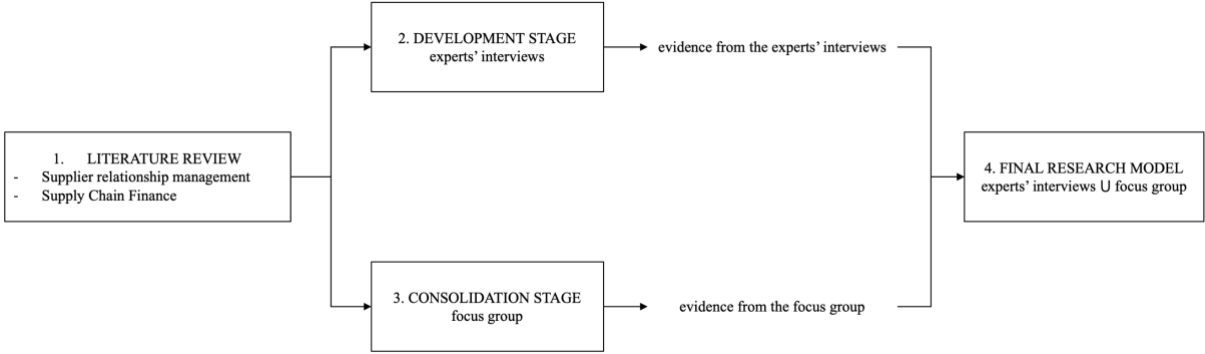


Figure 2 - Research process

Through the research process, the initial blank matrix was populated with SCF solutions. Then, each quadrant of the matrix was analyzed to infer the main intent of the buyer firm in adopting SCF. Finally, as the output of the research, we refined the existing theoretical models, identifying a new area of implementation of the Exchange Power Matrix to be used as a reference model in the SCF domain as well, as summarized in the revised model (Figure 4).

*Expert interviews*

As explained before, in the development stage empirical data were collected through interviews with topic experts, involved in the adoption of different Supply Chain Finance solutions. According to the indications of Eisenhardt (1989). 9 experts were involved the first development stage in multiple interviews, since each respondent provided his/her contribution in several interviews (from 2 to 5 interviews) over time, in order to constantly and longitudinally monitor the phenomenon investigated, i.e. the choice of SCF solutions by the buyer firm. It is considered a good number of respondents to pursue the comparability of the results together with an in-depth analysis of the contributions. Furthermore, respondents were selected to be representative of the problem under investigation. Indeed, to be eligible to be included in the sample, the respondents were required to have a specific expertise in the Supply Chain Finance area, so to have a clear job title linked to Supply Chain Finance and an experience of several years in the field.

In addition, they were selected in order to constitute a heterogeneous panel to challenge the research model from different points of view (finance vs supply chain background). This enables a higher generalizability of the results and balances the possible biases of the individual contributions. The list of involved experts is provided below:

	<b>Current role of the Expert</b>	<b>Industry</b>	<b>Main contribution to the research</b>
<b>Expert A</b>	Head of Credit Management	Information technology	Information Technology perspective
<b>Expert B</b>	Corporate Purchasing Manager FP Global Processes and Operations Responsible WE Head RPO cluster Italy San Marino Greece and Cyprus	Fast-moving consumer goods	Corporate perspective
<b>Expert C</b>	Head of Credit Access and Corporate Finance	Industrial association	Institutional perspective
<b>Expert D</b>	Head of Technical Committees and International Affairs	Trade association	Institutional perspective
<b>Expert E</b>	Academic Director	Academic research	Academic perspective
<b>Expert F</b>	Head of Procurement and Logistics	Electronics	Corporate perspective

<b>Expert G</b>	Head of Purchasing	Mechanical engineering	Corporate perspective
<b>Expert H</b>	Corporate Treasurer and Finance Director	Mass distribution	Corporate perspective
<b>Expert I</b>	Head of Corporate Division	Financial services	Financial perspective

*Table 4 - Interviewed experts*

Each expert was interviewed asking to take the buyer firm viewpoint and so try to understand how the buyer firm should take the presented variables into consideration. Furthermore, for the SCF solutions commented during the interview, the researcher asked for concrete examples from the experience of the expert, to grasp valuable insights from the field.

To assess the different variables of the research model during the interviews, the authors decide to run a semi-structured interviews. The flexibility of this methodology is better suited to the exploratory nature of the work (Qu and Dumay, 2011), the interview track being constituted by a series of general topics that help direct the conversation (the interview track is reported in Table 5).

<b>Question</b>	<b>Variable</b>
1. We are considering a set of Supply Chain Finance solutions, composed by Reverse factoring, Confirming, Purchase Order Finance, Inventory Finance, Dynamic Discounting, and Credit Card. In your opinion, how should the selection process be structured? What variable are relevant for the solution's selection?	/
2. The variables identified from the preliminary review of academic and practitioner-based literature are the bargaining power and the cumulative transaction value. Do you think they are relevant? How do you rank the according to their importance?	bargaining power, cumulative transaction value
3. In the case of an interdependence relationship between the buyer and the supplier, which solutions are suitable from a buyer perspective?	bargaining power, cumulative transaction value
4. In the case of an independence relationship between the buyer and the supplier, which solutions are suitable from a buyer perspective?	bargaining power, cumulative transaction value
5. In the case of a buyer dominance relationship between the buyer and the supplier, which solutions are suitable from a buyer perspective?	bargaining power, cumulative transaction value
6. In the case of a supplier dominance relationship between the buyer and the supplier, which solutions are suitable from a buyer perspective?	bargaining power, cumulative transaction value

*Table 5: Interview protocol*

The interview was conducted in two stages: a broader one and a more specific one. First of all, the semi-structured protocol was followed to be sure to complete all of the steps; the protocol was used in a flexible way, following the description of the experts in the order of questions and in how these were formulated. For those interviews already done, an additional check with the expert was obtained.

Then, the results of the interviews were formalized using the framework depicted in Figure 1 and shown to the expert for further validation.

In order to provide a robust analysis, the interviews were recorded, transcribed and analyzed. At least two researchers were involved in each interview, to take notes and ask questions. Once recorded, the interviews were transcribed and analyzed singularly: each interview was sent back to the expert, to have an additional check that the perception was rightly addressed. In case some information were missing or not properly addressed during the first interview, clarifications were asked by e-mail or by call. As it happens in exploratory research, the interview protocol was revised after the first three interviews, to better adapt to the context of analysis.

After the validation of the transcript, the results were traced in a structured database, and a within- and cross-interviews analysis was performed. The data processing phase went on through the coding of interviews, to point out the evidence in each expert contribution and to link the results from different interviews. The coding phase followed the structure of the research framework. In particular, data from each interview were first analyzed as stand-alone entities, in which the coding activity followed the interview flow. Then, each interview was analyzed focusing on the specific Supply Chain Finance solutions and the related respondent experience in the choice and implementation of them. Results from coding were compared through a cross-analysis in which the interviews' outcome were compared, with a two steps approach: first order table are summarized in Annex A; second order table is reported in Table 8. The result was the testing of the preliminary model, built on the main insights from the literature, in order to enhance its validity through the empirical evidence from the experience of topic experts.

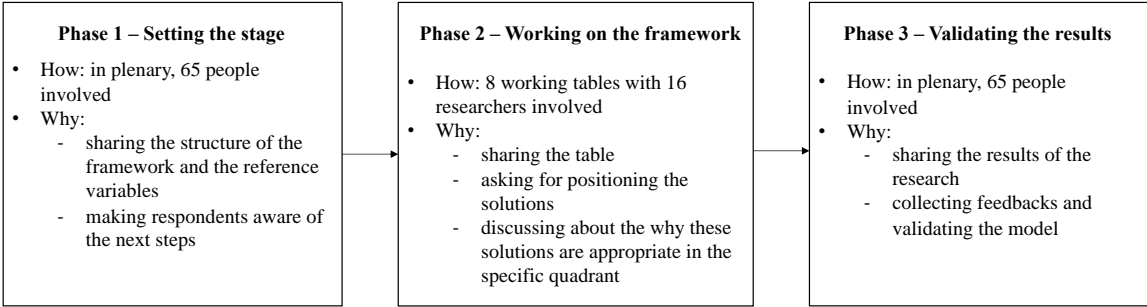
*Focus groups*

The results obtained with the expert interviews were challenged through the focus group methodology. The focus group is an informal discussion among selected individuals about specific topics (Becket al.; 1986). We selected this methodology because, as previous research highlights, it is able to provide in-depth information through interactive discussion (Pettit et al., 2010; Goldman, 1962) and to investigate complex topics (Pettit et al., 2010). The goal was to gather a broad base of information on such a complex issue (Pettit et al., 2013; Morgan, 1996). This method was also already used in the past in similar studies in the Supply Chain Finance domain (e.g., Moretto et al, 2019).

Consistent with that purpose, the goals of the focus group were multiple. First of all, we wanted to increase the validity of the final research model, confirming the applicability and the representativeness through a larger sample of analysis, to partially overcome limitation of single interviews with experts. Secondly, we wanted to investigated not just the perception of the single person, but taking advantage by the discussion among different experts, summarizing consensus and dissensus.

For these reasons, the purposive sampling strategy was pursued in the design of the sample involved in the focus group. In line with the definition by Schreier (2018), the purposive sample in this research contains selected instances that are information rich about SCF and have a distinct view to answering the research question. Indeed, all the experts in the sample have an active role in the adoption of SCF solutions, being agents from banks, finetechs, information and technology providers, and from buyer firms that have adopted and are adopting SCF solutions in their supplier relationship management. Particular attention was paid to selecting agents experienced in the adoption of solutions other than reverse factoring, in order to cover the full spectrum of buyer-driven solutions through the experience of the respondents.

The focus groups were carried out in three steps, as depicted in Figure 3.



Phase 1 was performed in plenary, to illustrate the model to participants, thereby clarifying the terminology used and the goal of the analysis. Specifically, a researcher played the role of discussion moderator, presenting the preliminary research model to the group and introducing the bargaining power and cumulative transaction value variables. In sharing the structure of the research model, also the feedback from the audience has been collected, especially on the two variables at the base of the research model (i.e. bargaining power and cumulative transaction value).

Phase 2 was performed by grouping together a large number of managers and experts involved in the selection, adoption and use phases of a Supply Chain Finance solution. In particular, the activities were carried out in parallel on 8 working tables, batching 8 respondents each. Consistently with the criteria used for expert interviews, different roles in the company and complementary skills were involved, including roles in procurement, finance and treasury. Each group wanted to have a maximum of 8 people, to assure a fruitful and rich discussion; each group was moderated by two researchers of the team properly trained: one with the goal to guide the discussion, another one with the goal to take notes during the discussion. Discussion was not recorded to avoid any bias in the discussion.

In each working table, the group had to assess the role of the variables in the selection of the most appropriate SCF solution. The moderator was responsible for stimulating an open discussion among the respondents so they could define how to locate different SCF solutions within the empty scheme of the model. The objective was to define how bargaining power and cumulative transaction value trigger the buyer to choose a specific SCF solution. Participants were asked to position stickers corresponding to the various SCF solutions in the quadrants of the model and to explain their choice.

After a match between the variables proposed in the model and the solutions of SCF were identified, attention was focused on the single quadrants at the intersection of bargaining power and cumulative transaction value. This second step aimed to identify the reasons why the buyer decides to implement an SCF solution with a group of suppliers, in order to frame the relational context between the buyer and the supplier and to highlight the strategic objectives of SCF and the expected benefits for the buyer.

In this phase, the conversation was unstructured and open among respondents, so that there was room for contamination between the different skills to bring out as many aspects as possible regarding the adoption of SCF. After the run of the eight working tables, there was a back-office activity in which the researchers combined the results achieved in the tables with the preliminary evidence gathered through the expert interviews. Three researchers were involved in this phase in a recursive way: notes from the focus groups were combined with the insights of the previous phase to arrive at a shared vision. In case of a lack of agreement in the positioning of the solutions in the matrix, the discussion would remain open until common agreement was found.

When a new and shared vision of the model was developed, it was presented to the Phase 3 focus group. In Phase 3 in plenary, the results of the analysis were presented to the same group of 65 people to gather their insights, ensure that their perceptions were correctly represented, and verify that the model was an appropriate representation of reality. The feedback collected in this phase was incorporated into the model and reported in the final version. A cross-analysis of the insights collected during the focus group is summarized in Annex B.

## **5. The intersection of supplier relationship management and Supply Chain Finance**

This section describes the results of the research.

First, the model structure is described, highlighting the role of the research variables (i.e. bargaining power and cumulative transaction value) and their relationship in selecting SCF solutions. Subsequently, the analysis deepens the details within each quadrant in the research model, to highlight the drivers underlying the adoption of Supply Chain Finance, with particular attention to the relational dynamics. In this way, it is possible to answer to the Research Question through the final model, that is described in Figure 4.

*The role of bargaining power and cumulative transaction value in selecting SCF solutions*

To answer the Research Question, we first used empirical data to match the SCF solutions with the identified variables (bargaining power and cumulative transaction value), in order to identify the most suitable solutions in the different supply relationships. With this objective, the pre- liminary model was tuned through the contributions from the expert interviews and through the final insights from the focus group. Specifically, the importance of bargaining power, which is the central driver in the choice of the solution to be implemented, was largely confirmed in the first phase of interviews and then also by the respondents in the focus group. Table 6 shows some significant quotations about bargaining power from the interviews and the focus group.

<b>Expert C</b>	“Assuming the perspective of the focal company, it obviously aims at prioritize interdependence relationships through the proper financial solution [...], that is cheaper and easier to use, because the buyer pursues the intention to build a strong relationship with these suppliers. If you consider the replaceable suppliers, or those I do not consider useful to support, the selected solutions are different”
<b>Expert D</b>	“It is definitely relevant. It is significant for the selection of the suppliers to be onboarded, but also for the selection of the solution to be implemented”
<b>Expert E</b>	“As a starting point for the selection of the solution, I would consider its position in the purchasing portfolio. Analyzing the mutual dependence provides important insights”
<b>Expert F</b>	“This classification about the bargaining power of the parties involved is definitely significant. I would suggest to combine it with an economic dimension of the relationship, so to add an important piece of information”
<b>Expert G</b>	“Surely, this matrix enables a broad classification telling which solution should be implement in a specific relationship. Then, these elements should be updated, as the relationship evolve over time”
<b>Expert H</b>	“Certainly, there are some solutions suitable to a certain type of supplier. [...] There are so many variables to be considered, and the mutual dependence in the relationship is clearly a fundamental element, when a company has to set up a tool for optimizing its working capital”
<b>Expert I</b>	“The situation of a low bargaining power supplier is different from the relationship with raw material suppliers or strategic suppliers, with a high bargaining power because of the relationship continuity. So, the type of the supply relationship affects the choice of the solution in the hand of the buyer firm”
<b>Focus group (Phase 1)</b>	“Bargaining power is definitely a driver behind the adoption of Supply Chain Finance, because the decision whether or not to adopt Supply Chain Finance and, if so, the choice of which solution to offer the supplier, strongly depends on the distribution of bargaining power” “Obviously, the operability of Supply Chain Finance solutions depends on whether the firms involved are equal or not, instead of one of the parties has higher bargaining power”

*Table 6: Quotations: the relevance of bargaining power*

The individual interviews and the informants in the focus group also confirmed the relevant role of the cumulative transaction value in selecting the Supply Chain Finance solution to be implemented. Experts describe bargaining power as closely linked to the cumulative transaction value: these dimensions have to be jointly assessed. But, according to them, the bargaining power alone might be not sufficient, as the driver often supporting the solution selection is the underlying economic convenience, resulting from the total value of the transactions financed. When a supply relationship involves high transaction volumes, and especially when the frequency of exchanges increases, the cost associated with single transactions decreases. It is due to the fact that the transaction management process is more structured and achieves a certain efficiency more easily, managing a high value of purchased volume. This also applies to the configuration of a SCF solution, as revolving and more structured solutions are assumed to be more effective in continuous supply relationships. In contrast, less structured SCF solutions can support spot supply relationships where the cumulative transaction volume is low.

Table 7 reports some quotations regarding transaction volume from the interviews and the focus group.

<b>Expert F</b>	“The volume exchanged between companies should be considered in the suppliers’ classification, because it strongly affects the choice. There is an overlap between bargaining power and economic dependence and these factors should be combined, so as to include this element in the supplier classification. Practically, even if the supplier is strategic, the significant element is the volume traded and its percentage impact on the company balance sheet, both in absolute and relative terms. At least one of the axes of the matrix should include this dimension. The applicability of these solutions is linked to economic return and financial impact. They are implemented only if they bring a convenience, also because they require to change the flows, leading to a cost”
<b>Expert G</b>	“The most structured solutions are useful for supplies that have a significant strategic importance. In fact, interest rates are low and the economic convenience for the factor is not significant. Therefore, if a supplier is important because of its turnover, with stable relationships, the buyer tends to set up a factoring solution, and the supplier is interested in that. A-class suppliers are benefiting from Factoring; Class B and class C do not, unless the supplier is economically important for the factor because it discounts the invoices of other buyers on the same platform. This also applies to the supplier: if the amount is low, factoring is more expensive than other financing”
<b>Expert H</b>	“Working capital management changes between small and large suppliers. Small players have a low credit rating and for them debt is a cost: in this case the attention to working capital is linked to their business sustainability on the market. Instead, international groups have policies to respect, and the focus on WC derives from central decisions. The company size and the economic volumes exchange within the relationship should be considered”
<b>Focus group (Phase 1)</b>	“When choosing a Supply Chain Finance solution, the main driver of the choice is the size of transaction value, which often disregard the size of the supplier in a general sense, intended as the overall volume of the supplier’s business” “Transaction value is obviously relevant to the end result that the buyer wants to achieve and expects to achieve, as well as to the appeal Supply Chain Finance solutions have to the supplier when the buyer offers them”

*Table 7: Quotations: the importance of cumulative transaction value*

As stated by Expert E, and supported by the respondents in the focus group, analyzing the mutual dependence between buyer and supplier is fundamental. Looking at bargaining power as the main driver in the choice of the solution to be implemented involves updating the decision over time considering the evolution of the relationship with the supplier, as mentioned by experts A and G.

The comment of Expert F reported in Table 7 confirms the importance of cumulative transaction value to better understand the relationship between the buyer and the supplier and choose the most suitable solution accordingly. In light of these contributions, the authors validate the structure of the preliminary model proposed. The horizontal dimension corresponds to the cumulative transaction value between the parties, while the vertical axis addresses the bargaining power dimension, where the power can be either in the hands of the buyer firm or the supplier or balanced between the two parties.



*SCF solutions to use according to different levels of bargaining power and cumulative transaction value.*

The expert interviews and the focus group (as summarized in Annex A and B) were also used to match the Supply Chain Finance solutions and the type of relationship with the supplier, which is described in terms of bargaining power and cumulative transaction value. The answer to the Research Question is then described in Figure 4.

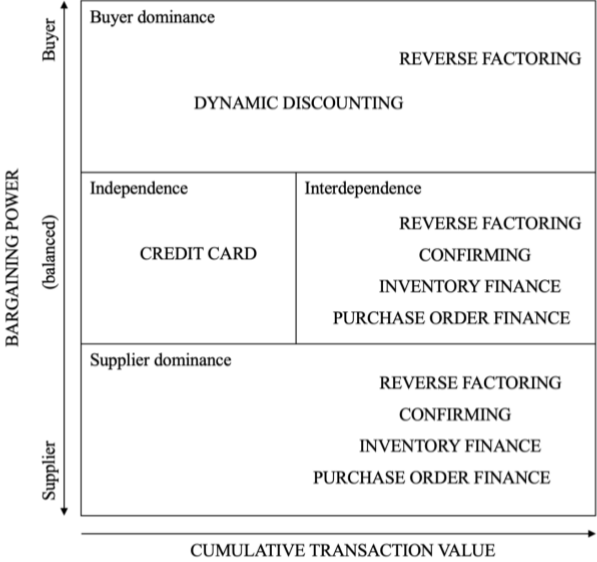


Figure 4: The SCF solutions to use on the basis of cumulative transaction value and bargaining power

In the Buyer Dominance quadrant, bargaining power becomes a lever for the buyer in the choice of SCF solution to be implemented. According to the data collected in the research, dynamic discounting is used as a commercial leverage by the buyer to obtain discounts or other commercial advantages, especially when the buyer has a high bargaining power but the cumulative transaction value is low, which implies that the buyer is oriented to pursue the maximum benefits through the relationship. Reverse factoring is proposed as viable in case there is not only high bargaining power but also high cumulative transaction value since it is a customized and easily manageable solution. It is adopted when the volume exchanged is worth an investment in a reverse factoring solution and, at the same time, where the undifferentiated suppliers’ onboarding is possible, providing financial support to several suppliers.

In the Interdependence quadrant, the bargaining power is balanced between the buyer and the supplier, and the parties are involved in high cumulative value transactions, collaborating within the partnership. Here, more structured SCF solutions are pursuable as both parties are committed to the relationship. For this reason, reverse factoring, confirming, inventory finance, and purchase order finance are the most appropriate solutions to support the relationship with strategic suppliers over time.

Reverse factoring and confirming were often considered very similar to the interviewees and informants from the focus group. Both are structured and revolving in nature and are mainly adopted when the management of account payables and receivables is the variable that needs to be optimized. In reverse factoring, the buyer stipulates with a financial institution an agreement for the credit assignment. Under pre-agreed conditions, the suppliers sell their approved invoices to the financial institution, receiving early payment, benefitting from the

buyer's high credit rating. The buyer will pay according to the contractual terms, which may also be extended.

In a confirming solution, there is no assignment of credit, as in the case of reverse factoring, but the buyer issues the financial institution with an irrevocable mandate to pay its suppliers. The financial institution replaces the buyer in the management of the debt. The suppliers involved by the buyer at the time of the agreement are, therefore, notified that the payments of the invoices issued by them towards the buyer will be settled by the financial institution at a certain date, benefiting from the opportunity to anticipate these receivables by means of a simplified onboarding procedure. The buyer gains the administrative relief represented by the management of payments. In synthesis, confirming is simpler than reverse factoring, which involves legal, bureaucratic, and operational complications. In reverse factoring, each activity has to be carried out through a credit assignment, while in confirming solution, the procedure is streamlined by the mandate for collection. So, among the two, reverse factoring is preferred when the buyer wants to offer suppliers a systematic early payment by the financial institution and confirming when this is not necessary.

The other solutions adopted in this quadrant, inventory finance and purchase order finance, according to the opinions of both the experts and the participants of the focus group, are strongly influenced by the industrial context of reference. Indeed, to implement inventory finance, the presence of the physical stock of goods is necessary, so it is mainly used when there is a high level of stock in the supply chain with a clear need to transform it into cash. A stable and strong relationship between buyer and suppliers provides the right condition, increasing the likelihood that the inventory will be sold and thus reducing the financial risk.

Similarly, purchase order finance is a viable solution only if the appropriate conditions are met. It is usually adopted in long-term project settings, when suppliers need cash to buy materials and start producing long before they deliver their products and issue invoices. So, buyers offer non-cancellable orders and guarantees to the financial institution, which in turn provides the required cash in advance. This solution is adopted when there is mutual interdependence between the parties.

In case the cumulative transaction value is still high but the bargaining power is unbalanced toward the supplier, i.e., in the Supplier Dominance quadrant, the suggested solutions are the same as in an interdependent relationship. In this case, it is mainly the supplier guiding the choice and pushing the buyer in offering what they believe is more valuable for them. On the other hand, according to both expert interviews and the focus group, it is not possible to use SCF solutions in case the bargaining power is supplier oriented, but the cumulative transaction value is low. The analysis was conducted from the point of view of the buyer, so the buyer would not accept to propose or suggest some SCF solutions, which are oriented to satisfy the request of the suppliers, if the value does not justify the choice. For that reason, the matrix is empty when the cumulative transaction value is low.

With common suppliers, in the Independence quadrant, differently from expectations, there is a possibility of exploiting SCF solutions too. According to the results of the empirical analysis, the most advantageous solution is a flexible one: the credit card. Due to its flexibility, it can be used on demand only when the supplier needs instant liquidity and, above all, without burdening the buyer's payment processes and, thereby, supporting less important suppliers without effort. The buyer, in fact, suggests this solution to the suppliers, but with minimum effort on its side.

## 6. Discussion

The position of SCF solutions in the matrix is the result of the triangulation of data collected from the interviews and the focus group. Next, considerations about the strategy underlying SCF adoption with different types of suppliers were made both in a broad sense and more specifically through targeted questions during discussions with topic experts. The overall result of the research is described below, showing for each quadrant of the matrix the possible solutions to be implemented and the strategy of SCF adoption in managing the relationship with suppliers.

### *Buyer dominance quadrant*

When the buyer is dominant, the relationship is likely to be managed by the buyer firm in its own interests. Its main goal is to guarantee supply continuity and, at the same time, keep costs down. For this reason, partnership relationships are often set up with the intention of the buyer to leverage its higher bargaining power. In managing the transactions with these suppliers, processes are designed to be effective, allowing the buyer to gain the most from the relationship. When the buyer is dominant in the relationship, reverse factoring and dynamic discounting can be implemented, calibrating the choice between the two solutions according to the cumulative transaction value.

Based on the experience of the respondents, if the buyer implements a structured and customized solution with an SCF platform provider or with its own bank, even common suppliers can be managed through reverse factoring. Indeed, the high cumulative value of the transactions makes the reverse factoring solution convenient also in case of non-critical suppliers. In a buyer-dominant relationship, reverse factoring bears an important negotiation lever. Quoting Expert F, “Beyond the financial support provided to the supplier in need, reverse factoring should be used as a bargaining feature in the initial negotiation and then adapted to the evolution of the relationship”. In this way, the buyer is able to gain benefit from the supplier’s financial need. For this reason, benefiting from a structured solution and allowing the simplified supplier on-boarding on reverse factoring, this solution can be a strong advantage for the buyer firm: its Days Payable Outstanding (DPO) increase, and suppliers are financially supported without additional efforts from the buyer side.

Dynamic discounting is also matched by respondents with this quadrant. Dynamic discounting is never offered to stronger suppliers; it is certainly suitable for a fragmented supply base and for suppliers with low bargaining power. At the time of the interview, Expert H was managing a Dynamic discounting program and he stated “Thanks to its flexibility, dynamic discounting, it is well suited in the case of not too high transaction values. It can be implemented as a bargaining lever with weak suppliers, if needed”. It was also confirmed by all the groups in the focus group. In a buyer-dominant relationship, the supplier leaves more space for commercial negotiation to obtain instant liquidity: suppliers are satisfied to have a cash or early payment, and the buyer uses its excess cash to make savings, as explained by a purchasing director in the focus group. Precisely for this reason, cash-rich buyers can combine their SCF strategy with the supplier relationship management choices.

Therefore, in a buyer-dominant relationship, the main objective of the buyer in implementing an SCF solution is to leverage the supply relationship to gain an advantage. This was described by Expert H, “With a large and highly important supplier, the buyer has to select solutions where the benefit is shared; but when the buyer has decision-making power in the relationship, it tries to implement solutions that mainly benefit its firm”. It was also confirmed by one of the contributors from the focus group, “This is the easiest application quadrant of SCF because the buyer keeps the relationship under control. In this context, it is obvious that the buyer will provide its suppliers with the solutions that allow making the most of the relationship, in terms

of continuity and stability and, above all, in economic terms. According to my experience, SCF becomes a tool integrated with others to leverage suppliers”.

This reasoning, and the subsequent ones conducted in this section, can be expressed through propositions. They summarize the main evidence obtained from interviews and focus groups and represent opportunities for future studies to validate the results of this paper with a theory-testing purpose and appropriate methods.

For the Buyer Dominance quadrant, the following propositions were developed:

***Proposition 1.*** *In a Buyer Dominance situation, the buyer exploits SCF to leverage the supply relationship, either through reverse factoring or dynamic discounting.*

***Proposition 1.1.*** *In a Buyer Dominance situation, in case of a high cumulative value of transaction, the buyer exploits reverse factoring to leverage the relationship, through a DPO increase, while increasing the stability of the supply base, by means of a solution enabling the simplified supplier onboarding. .*

***Proposition 1.2.*** *In a Buyer Dominance situation, in case of a low cumulative value of transaction, the buyer exploits dynamic discounting to leverage its power in the relationship, obtaining a commercial discount, while offering suppliers the possibility to obtain early payments.*

#### *Independence quadrant*

Extensive effort, time, and commitment are required to develop and maintain long-term relationships; so, the management needs to be selective when deciding which suppliers should be involved in a partnership. If the relationship between the buyer and the supplier is characterized by a mutual dependence, both parties have an interest in developing a partnership, since the alignment of the strategic objectives along the supply chain benefits both parties.

The intention and need to achieve strategic relationship management push the buyer toward the implementation of structured SCF solutions. For this reason, when the buyer and the supplier are bound by a strong relationship due to shared objectives and important reciprocal investments, the viable SCF solutions are reverse factoring, confirming, inventory finance, and purchase order finance.

Through reverse factoring, suppliers have access to ongoing credit support thanks to a revolving solution, often based on a digital architecture that aligns the information systems of the parties involved. In this way, the relationship with strategic suppliers is enforced thanks to the additional information enabled by the implementation of reverse factoring. The financial support provided by this solution is steady over time: the buyer has an interest in continuously supporting only the most relevant suppliers according to a supply chain collaboration perspective (Expert B, Expert C, Expert E). In fact, in the experience of involved respondents, implementing this solution leads to costs and efforts by companies; for this reason, it has been put in place only with important suppliers.

Confirming solution allows the buyer firm to strengthen its relationship with suppliers as the funding solution is similar to reverse factoring with an additional degree of flexibility since the supplier has the option to choose whether to anticipate the cash flow. Moreover, according to Expert H (directly involved as a financial institution member in the provision of confirming), “The costs of confirming are totally borne by the debtor, that is the buyer”.

Inventory finance is one of the most complex SCF solutions as it may involve additional actors beside buyer, supplier and bank, such as logistic service providers. The buyer accepts the complexity of the solution only if an important supplier needs support in managing the burden of a huge inventory volume (for instance, in case the supplier must pay his own suppliers before he can sell the inventory to the customers). From the knowledge of Expert E, this is commonly

used as a revolving solution over a period of time, with the aim of pushing operational efficiency in the long run.

Purchase order finance is a useful tool in sustaining strategic partners in need of cash support. If adopted as a revolving solution, the aim of purchase order finance is to offer strategic suppliers an ongoing support, pursuing shared improvement and close collaboration objectives. In case the supplier does not need ongoing support from the buyer, purchase order finance is still a viable alternative, adopted as a spot solution promoted by the buyer firm to deal with an unexpected supplier liquidity shortage, with the explicit aim of supporting a fundamental supply chain partner. However, the industrial context strongly determines the applicability of this solution: “Purchase order finance is implemented in the manufacturing industry, where there is the need to finance the order instead of the invoice. In the service industry, there is not such a long lead time between the order and the invoice” (Expert E).

In these cases, the buyer has the intention to strengthen the relationship: this decision is based on the value that both parties perceive from the relationship.

Linking these reasonings to empirical evidence, Expert E explained, “The bigger the supplier is, the more strategic it is for the buyer core business, the more solutions have to be chosen with the aim of fairly sharing the benefits with the supplier, aiming at a long-lasting relationship.” The concept of benefit sharing in the relationship also emerged from the focus group: “In some cases, with very important suppliers and established relationships, SCF goes beyond financing: it contributes to the creation of a solid relationship with a very close business partner.” The results of these analyses are summarized in Proposition 4:

***Proposition 2:*** *In an Interdependence situation, the main aim of SCF is the support of stable relationships or partnerships through reverse factoring, confirming, inventory finance, or purchase order finance.*

***Proposition 2.1:*** *In an Interdependence situation, the buyer relies on reverse factoring to support the relationship, providing the supplier financial support when the main issue pertains to account payables and receivables and when stability is necessary.*

***Proposition 2.2:*** *In an Interdependence situation, the buyer relies on confirming to support the relationship, when the main issue pertains to account payables and receivables, the buyer is willing to cover the costs and when flexibility is necessary.*

***Proposition 2.3:*** *In an Interdependence situation, the buyer relies on inventory finance to support the relationship when the supply chain has a high level of stock to finance, mitigating the risk of disruption for a strategic supplier.*

***Proposition 2.4:*** *In an Interdependence situation, the buyer relies on purchase order finance when the supply chain has a long lead time, especially in the case of sudden spikes in activities, mitigating the risk of disruption for a strategic supplier.*

#### *Supplier dominance quadrant*

In this situation, the bargaining power is held by the suppliers, who can leverage their position to gain advantages from the relationship with the buyer. The main objectives for the buyer in managing these relationships are flexibility and continuity over time. This kind of “lock-in relationship” prevents the buyer firm from changing suppliers. This is why the purchasing and financing strategy is primarily focused on the assurance of supply, if necessary, even at additional cost. The managerial approach in adopting an SCF solution within these relationships is to lower the supply risk as much as possible, especially when dominant suppliers are involved in high value transactions.

In managing the financing support to dominant suppliers, the identified solutions are reverse factoring, confirming, purchase order finance, and inventory finance. When a supplier who

holds strong negotiating leverage needs liquidity, the support has to be substantial, and the solutions have to be structured. The buyer firm does not have bargaining space: according to the respondents, providing a revolving solution such as reverse factoring could be helpful to mitigate the supplier negotiation strength. Moreover, the credit support provided by the buyer through this solution ensures supply continuity. At the same time, Expert E stated that “The information alignment between the parties involved fosters the buyer visibility on the upstream processes, potentially mitigating the upstream disruption risk”.

Confirming can benefit the buyer in improving negotiation power toward suppliers and enforcing the relationship with them. According to the experience of Expert I, directly involved in the implementation of confirming as a bank representative, “When dealing with dominant suppliers, the main advantage of confirming is that all the costs are borne by the buyer. So, the buyer implements this solution only with highly strategic or critical suppliers when they have to comply with the conditions of the supplier or must somehow satisfy the supplier to prevent any disruption in the relationship without charging any cost to the supplier”.

When the involved supplier is in need of liquidity due to the heavy burden of inventory on the working capital management, inventory finance provides quick access to funding that streamlines its cash flows. As recorded both in the interviews (Expert A, Expert B, Expert C, Expert E, Expert G) and in the focus group, this solution improves the buyer–supplier relationship: the supplier is supported through the financing of the inventory, and the buyer benefits from higher supply stability. However, a distinction is required, in line with the suggestion of Expert C: “Inventory finance is tied to a high level of marketability and a low level of customization of the goods in the stock financed”.

The other alternative to cope with this kind of relationship is to support the supplier in implementing a purchase order finance solution. In their experience, many of the respondents supported their suppliers through a purchase order finance solution because of an innovative project or an extraordinary order requiring significant resources (Expert A, Expert B and Expert G from the corporate perspective and Expert C and Expert D as institutional players). Due to the bottleneck nature of these items, the buyer firm can occasionally help the supplier by implementing a purchase order finance solution, aiming to ensure a seamless flow of the supply. Then, supporting a dominant supplier in the implementation of a solution that improves its working capital management could be a negotiating lever for the buyer. Furthermore, ensuring the supplier cash availability mitigates the discontinuity risk for the business of the buyer firm promoting the solution.

At the same time, the buyer does not have an incentive to propose SCF solutions to dominant suppliers with a low cumulative transaction value: the costs connected to the implementation of the solution and the onboarding overcomes the achievable benefit and so there is not any interest towards this approach. At the same time, this approach is not worthwhile for the supplier as well, as the potential achievable benefit would be very limited.

Therefore, in the case of dominant suppliers, the relational objective behind SCF is to mitigate the supply risk. Quoting the interview with Expert C, “Structured SCF solutions are implemented with dominant suppliers with the aim to engage them in a stable relationship, trying to leverage SCF as a disincentive to leave the relationship.” The contributions from the focus group also confirmed the SCF risk management objective with these suppliers, “With critical suppliers, who put the buyer internal activities at risk, the main objective is the certainty and stability of supply.”

According to these insights, Proposition 2 was formulated:

***Proposition 3.*** *In a Supplier Dominance situation where the cumulative transaction value is high, the buyer relies on SCF as a risk mitigation tool, implementing reverse factoring, confirming, inventory finance, or purchase order finance.*

**Proposition 3.1.** *In a Supplier Dominance situation, the buyer relies on reverse factoring as a risk mitigation tool, providing the supplier financial support when the main issue pertains to account payables and receivables.*

**Proposition 3.2.** *In a Supplier Dominance situation, the buyer relies on confirming, when the strategic relevance of the supplier is high and the main issue pertains to account payables and receivables as it supports suppliers at no cost for them.*

**Proposition 3.3.** *In a Supplier Dominance situation, the buyer relies on inventory finance when the supply chain has a high level of stock to finance, mitigating the risk of supply disruption.*

**Proposition 3.4.** *In a Supplier Dominance situation, the buyer relies on purchase order finance when the supply chain has a long lead time, especially in case of sudden spikes in activities, mitigating the risk of supply disruption.*

#### *Interdependence quadrant*

Within independent relationships, suppliers typically provide commoditized and standardized products, and the main objective of the purchasing department is to minimize costs. When the supply risk is low, a competitive approach is pursued to reduce the costs. For this reason, multiple sourcing and spot transactions are preferred to stable relationships. Strategies for this kind of suppliers include efficient processing, systems contracting, standardization, and consolidation. From the point of view of financial support as well, the main objective of the buyer firm is to achieve the highest process efficiency possible so that the support provided to the supplier does not become a burden for the buyer.

When the mutual dependency between the buyer and the supplier is low, flexible SCF solutions such as credit card can be set up. Credit card is, by its nature, a flexible and operational tool: one of the most significant intangible benefits of this solution is its flexibility and the fact that it can be easily implemented even in the case of low cumulative value transactions. It can be customized, and it allows the buyer and the supplier to reach an optimal agreement without too much negotiation effort in the adoption phase. According to the experts interviewed (Expert B, Expert C, Expert E, Expert G, Expert H) and the respondents in the focus group, the credit card is a powerful solution for dealing with small suppliers: it is fast, and suppliers benefit from instant payments without burdening the buyer too much in terms of transaction management.

A few insights were collected in the focus group in this regard. A respondent from the bank sector stated in the focus group: “In an independent relationship, the selection of a specific solution is linked to the economic return. They are implemented only if they bring convenience to the buyer, also because they may require system alignment, leading to a cost. If benefits exceed cost, SCF is extended to these suppliers”. Expert F highlighted the concept of efficiency in managing the transactions and financial support within the relationship with common suppliers. Other contributions from the focus group supported this concept: “Implementing SCF with less relevant suppliers has the main aim of speeding up the processes, reduce costs and effort in the relationship management.” According to these insights, Proposition 3 was formulated:

**Proposition 4.** *In an Independence situation, the main aim of SCF is to foster efficiency in the management of the supply relationship and the buyer exploits the credit card to foster efficiency in relationship management, and it is used as a fast solution to cope with a sudden liquidity need of a supplier.*

## 7. Conclusions

### *Summary of the paper*

Most SCF literature is mainly focused on a single solution, very often Reverse Factoring only, although the main SCF definitions include multiple solutions. This single-solution approach is reducing the benefit of adoption of SCF for companies and is mainly due to the lack of knowledge and decision support tools for companies to compare different solutions.

Due to this gap, this paper aims at identifying the SCF goals and solutions to be adopted with the different types of suppliers, using typical approaches of portfolio management. In particular, bargaining power and cumulative transaction value were considered as variables.

The paper is exploratory in nature: after building a preliminary model based on the literature, the contributions of interviews with 9 topic experts and the results from a large focus group are allowed to answer the Research Question. The experts provided important contributions on the implementation of the proposed solutions on the basis of their current and past experience. The focus group enabled a fine-tuning of the model structure, the positioning of the solutions on the model, and the precise insights within specific quadrants, through a larger sample of analysis.

Through this empirical evidence, the paper identifies SCF solutions to adopt in cases of buyer dominance, supplier dominance, independence or interdependence; for each solution, the main variables guiding the choice from a buyer's point of view are identified. Results of the paper are synthesized in a series of propositions, that have the twofold goal to summarize the main evidence of the empirical analyses and to provide opportunities for future theory-testing research in this domain.

### *Theoretical implications*

Results of the paper contribute to both SCF and supply management literature.

The presented research aims at thoroughly defining the role of the buyer-supplier relationship, looking at the generic adoption of SCF by the buyer firm, figuring out a match between the specificities of the relationship with the involved suppliers and the solutions to be implemented. The elements to be assessed are the balance of bargaining power and the cumulative transaction value between the buyer and the supplier. The main contribution to the academic literature is the link between the relational characteristics of the actors in the same supply chain and the SCF solutions. The model presented addresses a key issue: a framework to support managerial decisions has to be based on an accurate study of the characteristics of the involved players and on a deep understanding of the features of SCF solutions (Wuttke et al., 2013b; Gelsomino et al., 2016). This result contributes to SCF literature, considering multiple solutions simultaneously and relying on buyer-supplier relationships to discriminate in the use of these solutions with different suppliers, suggesting a combined adoption to match the different needs of each supply relationship and the different features of the SCF solutions. This approach allows to go beyond the "one size fits all" logic, developing a more advanced use of SCF solutions.

The importance of these relational dimensions for the effectiveness of SCF adoption is consistent with existing academic literature. Looking at SCF literature, this paper reinforces insights of Wuttke et al. (2013b), who described variables related to the buyer relationship with its suppliers, such as captivity, strategic importance, and complexity of the market, and addressed their impact on the effective application of an SCF solution. This paper tries to expand the point of view of power, operationalizing this variable and presenting the two perspectives to take into consideration: bargaining power and cumulative transaction value.

This analysis is also aligned with the literature pertaining to purchasing portfolio management. In this way, the proposed model provides a prominent contribution at the interface between the purchasing and supply and the financial research fields and, hence, to the knowledge about SCF.



The division into quadrants, frequent in the academic literature related to purchasing portfolio models (Krailjc, 1983; Cox at al., 2001; Bensaou, 1999), allows for the identification of different relational patterns between the buyer and the supplier. This is a further contribution to literature in the purchasing and supply management domain, illustrating a new area for the implementation of seminal works and showing how SCF represents an additional strategic tool for the management of suppliers nowadays. The four quadrants allow the identification of two important elements: the strategic motivation pushing firms in using SCF and the SCF solutions to adopt. This result contributes to the existing literature in several directions. First of all, most of the literature, being focused on just SCF, takes for granted that these solutions could be applied in case of a strategic relationship between the buyer and the supplier (Hofmann, 2005). This paper suggests that the solutions might actually be adopted in case of different relationships with suppliers. Second, this paper contributes to the literature on SCF by combining different kinds of solutions simultaneously, understanding how the relationship with suppliers might guide the choice of the specific solution.

This is the cornerstone of the final model, that identifies four clusters of SCF solutions on the basis of their suitability for the supply relationship, addressing the objectives and rationale underlying the implementation of these financing solutions. Indeed, specific solutions were repeated in more than one quadrant, but they have different features according to the underlying strategic objective of the buyer firm: the purpose behind the solution selected changes in different matrix areas, highlighting the complexity at the intersection of the supplier relationship management field and the SCF domain. In the same way, the model allows also to understand when SCF is not appropriate, at least from the buyers' perspective.

Finally, results of the paper are summarized in a series of research propositions, which offer opportunities for future theory-testing research in this domain.

### *Managerial implications*

The results of the paper are also relevant from a managerial point of view. As stated in the introduction, the use of a single solution proposed to all the suppliers was reported to be suboptimal in real applications. The use of reverse factoring for all the suppliers is due to a low availability of managerial knowledge and models supporting and guiding the choice of combining and blending different solutions. Until recently, SCF solutions were offered to a limited number of suppliers, usually the larger ones, with rigid conditions. In addition, SCF entails a much broader set of solutions: reverse factoring, confirming, dynamic discounting, inventory finance, purchase order finance, and credit card.

There is, therefore, a need and possibility to extend the use of SCF solutions, both in breadth and depth, to provide more effective support to a larger number of suppliers, and higher value to buyers. This is even more urgent and fundamental today to cope with the unprecedented challenges posed by the Coronavirus disruption.

This paper contributes to this goal, highlighting two important variables that could guide the buyer's choice: the strategic result managers want to achieve in managing the relationship with suppliers and the kind of relationship they establish with suppliers. The paramount role of the relational issues related to the power balance has been solidly confirmed during the empirical analysis so that a practical value is also attributed to this dimension. On the other hand, the practical contribution of experts sheds light on the impact of cumulative transaction value in the adoption of SCF and the selection of the specific solution, as it is influenced by the economic entity at stake to the point of deeply influencing the choice of the solution to implement. This paper provides managers with a reliable tool to make an appropriate selection of the solution to adopt. Including qualitative and descriptive variables in the model related to the relationships between the parties and pursued objectives enables a practical description of the elements

evaluated by the decision-maker. In fact, the power balance, economic dependence in terms of cumulative transaction value, and all the relational strategies pursued by the buyer firm during the evaluation of SCF solutions have a solid foundation in theoretical knowledge, but they are also paramount elements in the everyday choices of companies, as the empirical analysis confirmed. The choice to take from the buyer perspective is functional to the model practicality: it is considered the initiator of the choice, in line with the real implementation cases analyzed, and evaluates a sequence of elements relevant for the effective choice, taking on a central role within the supply chain.

The importance of this approach is especially relevant in the current situation for companies. On the one hand, most international platform providers are offering technological tools to combine different solutions and offer insights to match the supplier and the solution. Our model might support buyers in making decisions in a structured and managerial way, not simply subject to the suggestion of the platform. On the other hand, SCF solutions today might play a fundamental role in supporting supply chains in the emergency situation caused by Covid-19. Reverse factoring has been extensively used in 2020, but also other solutions such as inventory finance or purchase order finance have been used to face the consequences of the pandemic. Finally, the results of the paper are summarized in a series of propositions, which are the summary of the main evidence from the experts and the focus group and could support managers in making their own decisions.

#### *Limitations and further developments*

The presented work bears some limitations. Upcoming research by practitioners and academics can recognize in this article a starting point for the development of complementary and additional studies so that the limits and gaps still present in the proposed model can be mitigated or completely solved.

First, all the involved specialists came from Italy. In many cases, they were part of large international groups, so they were aware of the dynamics external to the national context and about the problems arising from working capital management, which often suffers from the central policies established by the parent company and cascaded onto the subsidiaries. However, with regard to specific issues, experts still have a perspective that is limited to the Italian industrial context, limiting the scope of the analyses and the results derived from them. Future research should consider a larger and more heterogeneous sample of respondents to better illustrate the international implications and perspective of the analysis.

Second, the paper has the goal to investigate the topic from the buyers' perspective, not considering the suppliers' ones. If the buyer is proposing SCF solutions, the supplier may feel forced to accept, even if they could not be efficient or effective for them. Further research might expand current results, introducing other points of view in terms of actors of the SCF ecosystem (e.g., suppliers).

Third, in each quadrant, several solutions are proposed, and the differences among solutions are considered by just looking at the elements of working capital management the buyer wants to optimize. Additional research could try to delve deeper into this point to understand whether there are additional variables to consider in discriminating among solutions in the same area.

Finally, due to the predominantly exploratory nature of this paper, the research is just qualitative, presenting some propositions that have not been extensively validated yet. Future studies may test the model through large-scale empirical methods such as surveys, to provide general results.

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## Annex A

	<b>Buyer dominance</b>	<b>Independence</b>	<b>Interdependence</b>	<b>Supplier dominance</b>
<b>Expert A</b>	When it is implemented as a one-off solution, Dynamic Discounting is suggested if the buyer is dominant in the relationship. In case the buyer has structured a customized solution on a platform or with its bank, using a neutral structure, even common suppliers can be managed through Reverse Factoring.	In Independence relationships, structured solutions such as Reverse Factoring are not suitable; more flexible solutions are recommended. Invoice Trading is eligible. However, if the buyer has structured a custom solution on a platform or with your bank, using a neutral structure, even common suppliers can be on-boarded. The only caution is in calibrating the type of relationship and the type of discount, in order to make the management of common suppliers as efficient as possible through Reverse Factoring.	Reverse Factoring is considered the most suitable solution, to ensure a certain degree of continuity in the relationship. Confirming is convenient as well, if the buyer wants to issue the factor the authorization for payment to the suppliers, still pursuing the aim of relationship stability. Invoice Trading is not recommended, because it undermines the relationship with the supplier.	Inventory Finance and Purchase Order Finance can be used, but only if they are applicable in the reference industrial context.
<b>Expert B</b>	Reverse Factoring and Confirming are approved in managing a dependent supplier involved in an ongoing relationship with the supplier.	Invoice Trading is not considered a valid solution in independence relationships since the suppliers emulate it independently through the invoice discount required directly to the bank. Credit Card is useful for small suppliers, in a Independence relationship: it is fast and suppliers benefit from instant payment, without burdening the buyer too much in terms of transaction management.	Reverse Factoring and Confirming are approved in case of an interdependence relationship, when the buyer expects an ongoing relationship with the supplier.	Critical suppliers should be included in fixed financing programmes, such as Reverse Factoring, Confirming, Inventory Finance and Purchase Order Finance. These solutions ensure the availability of critical supplies to the buyer, for instance when a back-up supplier is missing.
<b>Expert C</b>	The most suitable solution is Dynamic Discounting.	Credit Card is suggested for common suppliers, to be used as flexible solution, just in case of need.	Structured and revolving solutions are suggested: Reverse Factoring, Confirming, Inventory Finance and Purchase Order Finance. The buyer always wants to support the most important suppliers through structured and advantageous solutions in order to strengthen their relationship as much as possible.	Structured and revolving solutions are suggested: Reverse Factoring, Confirming, Inventory Finance and Purchase Order Finance.
<b>Expert D</b>	Reverse Factoring is highly suggested, also because it can be a commercial leverage.	Reverse Factoring, Confirming, Inventory Finance and Purchase Order Finance are not recommended in this case, they are only implemented with relevant suppliers. Invoice Trading is the only suitable solution, to finance a common supplier with no effort.	Reverse Factoring and Confirming are surely the most proper solutions. Depending on the industry specificities, also Inventory Finance and Purchase Order Finance are eligible.	Reverse Factoring and Confirming are solutions absolutely used for critical suppliers. Purchase Order Finance is suggested as well.
<b>Expert E</b>	Dynamic Discounting is recommended as the most suitable solution, as at the moment this solution is always implemented to bring a significant benefit to the buyer.	Confirming is never provided to a common supplier in an independence relationship. In this case, Invoice Trading and Credit Card are the only possible solutions, as on-demand solutions.	Reverse Factoring, Confirming, Inventory Finance and Purchase Order Finance are offered only in the case of highly strategic suppliers involved in a strong interdependence relationship.	The eligible solutions are Reverse Factoring, Confirming and Inventory Finance, implemented with the aim of ensuring reliable and continuous supplies to avoid disruptions.

<b>Expert F</b>	<p>Reverse Factoring is implemented with strategic or very important suppliers, it only works in interdependence relationships or when the buyer is dominant with the supplier. Confirming is considered very similar to Reverse Factoring, and is applied in the same use cases.</p> <p>Dynamic Discounting can be implemented when the buyer is dominant an the transaction value is high, so that the financing solution can bring real commercial benefits, leveraging the relationship to achieve a large discount.</p>	<p>Invoice Trading is suggested with very small and struggling suppliers, which can be managed on an invoice trading platform without harming the relationship, but rather allowing the buyer to get around some issues in the management of suppliers for which it has no interest.</p>	<p>Reverse Factoring is implemented with strategic or very important suppliers, it only works in interdependence relationships or when the buyer is dominant with the supplier. Confirming is considered very similar to Reverse Factoring and is applied in the same use cases.</p>	<p>With a solid and independent supplier, which has a strong know-how, Reverse Factoring is a valid solution, even if it will not be of great interest to the supplier itself.</p>
<b>Expert G</b>	<p>Considering the extensive implementation of Reverse Factoring, if the relationship is based on the buyer dominance, the suppliers are definitely involved in the solution. Dynamic Discounting is certainly useful with suppliers that depend on the buyer, leveraging the relationships from which it can gain the most from a commercial point of view.</p>	<p>Credit Card is a useful solution, very similar in practice to Reverse Factoring. In Independence relationships between buyer and supplier, this can be a good solution, but the buyer needs to be careful of the cost. If Credit Card brokerage is not convenient to handle non-important suppliers, this solution is not applicable.</p>	<p>Reverse Factoring and Confirming are considered very similar solutions and used to manage and support established relationships over time.</p>	<p>Reverse Factoring and Confirming are solutions to be offered to dominant suppliers. Inventory Finance and Purchase Order Finance are suitable solutions, but they are specific to certain reference industries.</p>
<b>Expert H</b>	<p>Dynamic Discounting is certainly always in favor of a fragmented supply base and of suppliers with a lower bargaining power. This solution is suitable because suppliers of that standing are satisfied to have a cash or advance payment, and the buyer uses its current excess cash to be able to make a saving in supply.</p>	<p>In Independence relationships, the most flexible solutions could be implemented, such as Invoice Trading. Credit Cards are solutions that can work well with very fractioned small to medium suppliers, which are not relevant for the buyer; Credit Card can hardly work with large suppliers or for large amounts.</p>	<p>Reverse Factoring with advance payment, in fact, is a solution that does not impact as a cost on the supplier. A strategic supplier, which probably does not need to finance the payment deferment, can be supported by Reverse Factoring where the commission and deferment are paid by the buyer with the sole purpose of strengthening the relationship between the parties. Confirming is implemented with suppliers with high bargaining power, such as raw material suppliers, that appreciate the fact that they have a financial partner that guarantees payment on a certain date or even cash.</p>	<p>With a high bargaining power supplier, if the buyer has to pay after 30 days but paying after 30 days leads to financial problems, the only possible solution is to make a deal with a factor, or to implement Confirming to balance the treasury situation. The advantage of Confirming in these cases is that all costs are borne by the debtor, so the buyer implements this solution only with highly strategic or critical suppliers, when the buyer has to comply with the conditions of the supplier or must somehow satisfy the supplier to prevent any disruption in the relationship, without charging any cost to the supplier.</p>

Table A: Results from the experts' interviews

## Annex B

	<b>Buyer dominance</b>	<b>Independence</b>	<b>Interdependence</b>	<b>Supplier dominance</b>
<b>Group #1</b>	REVERSE FACTORING (high cumulative transaction value; high buyer bargaining power) DYNAMIC DISCOUNTING (medium cumulative transaction value; high buyer bargaining power)	CREDIT CARD (low cumulative transaction value; balanced bargaining power)	INVENTORY FINANCE (high cumulative transaction value; balanced bargaining power)	REVERSE FACTORING (high cumulative transaction value; high supplier bargaining power) COFIRMING (high cumulative transaction value; high supplier bargaining power) CREDIT CARD (low cumulative transaction value; high supplier bargaining power)
<b>Group #2</b>	REVERSE FACTORING (high cumulative transaction value; high buyer bargaining power) DYNAMIC DISCOUNTING (medium-high cumulative transaction value; high buyer bargaining power)	CREDIT CARD (low cumulative transaction value; balanced bargaining power)	INVENTORY FINANCE (high cumulative transaction value; balanced bargaining power) REVERSE FACTORING (high cumulative transaction value; balanced bargaining power) CONFIRMING (high cumulative transaction value; balanced bargaining power) PURCHASE ORDER FINANCE (high cumulative transaction value; balanced bargaining power)	PURCHASE ORDER FINANCE (high cumulative transaction value; high supplier bargaining power) CREDIT CARD (low cumulative transaction value; high supplier bargaining power)
<b>Group #3</b>	REVERSE FACTORING (high cumulative transaction value; high buyer bargaining power) CONFIRMING (high cumulative transaction value; high buyer bargaining power) PURCHASE ORDER FINANCE (high cumulative transaction value; high buyer bargaining power) INVENTORY FINANCE (high cumulative transaction value; high buyer bargaining power) CREDIT CARD (medium cumulative transaction value; high buyer bargaining power) DYNAMIC DISCOUNTING (low cumulative transaction value; high buyer bargaining power)	CREDIT CARD (low cumulative transaction value; balanced bargaining power)	CONFIRMING (high cumulative transaction value; balanced bargaining power) INVENTORY FINANCE (high cumulative transaction value; balanced bargaining power) REVERSE FACTORING (medium cumulative transaction value; balanced bargaining power)	CONFIRMING (high cumulative transaction value; high supplier bargaining power) DYNAMIC DISCOUNTING (high cumulative transaction value; high supplier bargaining power) REVERSE FACTORING (medium cumulative transaction value; high supplier bargaining power)
<b>Group #4</b>	REVERSE FACTORING (high cumulative transaction value; high buyer bargaining power) DYNAMIC DISCOUNTING (low cumulative transaction value; high buyer bargaining power)	CREDIT CARD (low cumulative transaction value; balanced bargaining power)	REVERSE FACTORING (high cumulative transaction value; balanced bargaining power) CONFIRMING (high cumulative transaction value; balanced bargaining power)	PURCHASE ORDER FINANCE (high cumulative transaction value; high supplier bargaining power) INVENTORY FINANCE (high cumulative transaction value; high supplier bargaining power)
<b>Group #5</b>	REVERSE FACTORING (high cumulative transaction value; high buyer bargaining power) DYNAMIC DISCOUNTING (high cumulative transaction value; high buyer bargaining power)	CREDIT CARD (low cumulative transaction value; balanced bargaining power)	PURCHASE ORDER FINANCE (high cumulative transaction value; balanced bargaining power) INVENTORY FINANCE (high cumulative transaction value; balanced bargaining power)	INVENTORY FINANCE (high cumulative transaction value; high supplier bargaining power) DYNAMIC DISCOUNTING (high cumulative transaction value; high supplier bargaining power)

<b>Group #6</b>	<p>REVERSE FACTORING (high cumulative transaction value; high buyer bargaining power)</p> <p>CREDIT CARD (medium cumulative transaction value; high buyer bargaining power)</p> <p>DYNAMIC DISCOUNTING (low cumulative transaction value; high buyer bargaining power)</p>	<p>CREDIT CARD (low cumulative transaction value; balanced bargaining power)</p>	<p>CONFIRMING (high cumulative transaction value; balanced bargaining power)</p> <p>DYNAMIC DISCOUNTING (high cumulative transaction value; balanced bargaining power)</p> <p>CREDIT CARD (high cumulative transaction value; balanced bargaining power)</p> <p>INVENTORY FINANCE (medium cumulative transaction value; balanced bargaining power)</p>	<p>REVERSE FACTORING (high cumulative transaction value; high supplier bargaining power)</p> <p>PURCHASE ORDER FINANCE (high cumulative transaction value; high supplier bargaining power)</p> <p>INVENTORY FINANCE (high cumulative transaction value; high supplier bargaining power)</p> <p>CONFIRMING (medium cumulative transaction value; high supplier bargaining power)</p>
<b>Group #7</b>	<p>REVERSE FACTORING (high cumulative transaction value; high buyer bargaining power)</p> <p>CONFIRMING (high cumulative transaction value; high buyer bargaining power)</p> <p>DYNAMIC DISCOUNTING (medium cumulative transaction value; high buyer bargaining power)</p>	<p>CREDIT CARD (low cumulative transaction value; balanced bargaining power)</p>	<p>CREDIT CARD (medium cumulative transaction value; balanced bargaining power)</p> <p>INVENTORY FINANCE (medium cumulative transaction value; balanced bargaining power)</p>	<p>REVERSE FACTORING (high cumulative transaction value; high supplier bargaining power)</p> <p>PURCHASE ORDER FINANCE (high cumulative transaction value; high supplier bargaining power)</p> <p>CONFIRMING (high cumulative transaction value; high supplier bargaining power)</p>
<b>Group #8</b>	<p>REVERSE FACTORING (high cumulative transaction value; high buyer bargaining power)</p> <p>DYNAMIC DISCOUNTING (medium cumulative transaction value; high buyer bargaining power)</p>	<p>CREDIT CARD (low cumulative transaction value; balanced bargaining power)</p> <p>DYNAMIC DISCOUNTING (low cumulative transaction value; balanced bargaining power)</p>	<p>DYNAMIC DISCOUNTING (medium cumulative transaction value; balanced bargaining power)</p>	<p>REVERSE FACTORING (high cumulative transaction value; high supplier bargaining power)</p> <p>PURCHASE ORDER FINANCE (high cumulative transaction value; high supplier bargaining power)</p> <p>CONFIRMING (high cumulative transaction value; high supplier bargaining power)</p>

Table B: Results from the focus group