IPRPD
International Journal of Business & Management Studies
ISSN 2694-1430 (Print), 2694-1449 (Online)
Volume 07; Issue no 07: July, 2026
DOI: 10.56734/ijbms.v7n7a2

FINANCING SMES (SMALL AND MEDIUM-SIZED ENTERPRISES) IN SUPPLY CHAIN MANAGEMENT

Ik-Whan G. Kwon[1], Sung-Ho Kim[2]

[1]*The Center for Supply Chain Excellence, Saint Louis University, Saint Louis, MO, USA*

[2]*Department of Healthcare Management, Cheongju University, Republic of Korea*

Abstract

This paper examines the financing challenges faced by small and medium-sized enterprises (SMEs) in supply chain management and explores supply chain finance (SCF) as a strategic mechanism for improving supply chain resilience. Although SMEs play a critical role in global employment, production, and supplier networks, they experience severe credit constraints due to limited collateral, and restricted access to conventional bank financing. The paper argues that buyer-initiated SCF, particularly reverse factoring, can mitigate these constraints by allowing SME suppliers to leverage the stronger credit profile of large buyers. SCF benefits suppliers through earlier payment and lower financing costs, buyers through reduced supply disruption, and funders through lower default risk. The study emphasizes trust, collaboration, and cash-to-cash cycle improvement as essential conditions for successful SCF implementation, while also identifying knowledge, technology, and participation barriers.

Keywords

Small and Medium-sized Enterprises (SMEs), Supply Chain Finance (SCF), Reverse Factoring, Working Capital Management, Cash-to-Cash Cycle, Buyer-Supplier Relationship, Supply Chain Resilience

Introduction

Over the past decade, there has been a notable rise in the focus on supply chain finance (SCF) in both academic research and practice. The scholarly literature on SCF has experienced significant growth, reflecting the increasing interest in this field. This surge of interest in SCF can be attributed to various factors and circumstances. In the past, the emphasis of theory and practice in supply chain management was primarily centered on optimizing the physical and informational flows, with less or no attention given to the financial flow (Caniato *et al*., 2020; Wuttke *et al*., 2013). The financial crisis of 2009 created an unusual situation that posed a significant threat to organizations, particularly impacting the liquidity and financial accessibility of small and medium enterprises (SMEs). This crisis resulted in a decline in external financing options and reduced credit extension from banks and other financial institutions. As a consequence, numerous firms experienced a credit crunch and faced the risk of bankruptcy, further exacerbating the potential for global supply chain disruptions (Caniato *et al*., 2020; Lou *et al*., 2024). Such a negative impact has been more pronounced for small and medium size enterprises as their ability to borrow necessary working capital from typical financial institution was severely restricted.

Small and medium-sized enterprises (SMEs) play a significant role in and impact on our economies. SMEs constituted 99% of all businesses in the US and the EU in 2020. In addition, 90% population in business fields work for SMEs in the U.S. and accounted for 70% of global employment. Fifty percent GDP was produced by SMEs in the developed countries and 40% in the emerging economies (International federation of accountant, 2020). These achievements by SMEs are indeed impressive in spite

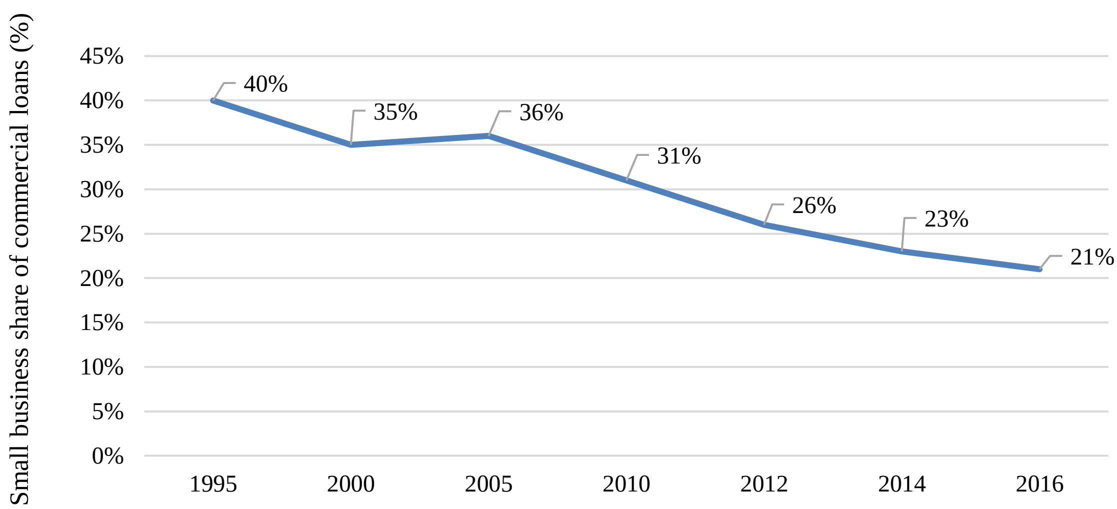
 DOI: 10.56734/ijbms.v7n7a2

of many obstacles and challenges they have been experiencing for many years. Furthermore, it is estimated that at the end of the data collection period in 2019, there would be over 322 million SMEs employing more than 705 million people around the world (The Global SME Finance Forum, 2019).

In spite of the impressive achievements, the same study complained that the SMEs face a severe financial gap of $5.7 trillion (what they need and what is available for their operations). This gap will swell to $8 trillion when informal/unregistered small enterprises (e.g., “mom and pop” stores) are included. This is the amount of financing that MSMEs worldwide need to invest, grow and create new jobs (The Global SME Finance Forum, 2019).

Notwithstanding the significant contributions by the small businesses to global economies, they often receive inadequate support from banks and other financial institutions. The following chart illustrates the small business share of loans (%) in all business loans.

Figure 1. SMEs Loan Share (%) to All Business Loans



Source: Federal Deposit Insurance Corporation, Call Reports Data

The small business loan share compared to their peer (large corporation) has steadily declined from 40% in 1996 to 21% in 2016 (Figure 1). It is especially disturbing trend considering a surge of small and medium size companies around the world during the same time period. Situation becomes even more challenging as more women are entering into business as entrepreneurs. As women are increasingly gaining business ownership, access to the capital market for women business community face additional challenges and gender-related obstacles. Globally, one in three businesses are owned by women. The International Finance Corporation (IFC) estimated that worldwide, a $300 billion gap in financing exists for women owned small businesses. The same study reports that more than 70 percent of women owned SMEs have inadequate or no access to financial services.

Situation will become even more complex and challenging if SMEs become the members of critical players in global supply chain operations. Many large buyers depend their supplies on numerous small and medium size suppliers. In some instances, Federal government mandates that certain portion of spending should be allocated to small business enterprises. For example, for larger buyers - particularly government agencies and federally funded entities - the Buy American Act**,** SBA procurement rules**,** and Uniform Guidance are the primary federal laws requiring sourcing from small and medium-sized suppliers. These laws create both set-aside requirements price preference penalties for non-compliance, and they apply to a wide range of procurement types above certain thresholds.

Financing SMEs (Small and Medium-sized Enterprises) in Supply Chain Operations

SMEs are a dominant and often indispensable part of corporate supply chains, supplying critical components, services, and providing and maintaining distribution networks. The exact share depends on the industry, but in many cases, SMEs contribute a majority of the value in certain supply chain stages (Santacreu and LaBelle, 2021). Large manufacturers making complex products often rely on hundreds of smaller suppliers to make specific parts that lead to many complete products and services.

In the past, the emphasis on supply chain management was primarily centered on optimizing the physical and information flows, with less or no attention given to the financial transactions (Caniato *et al*., 2020; Wuttke *et al*., 2013). The financial crisis that we experienced in 2009 created a unique challenge in global financial networks that posed a significant threat to organizations, especially in the area of the liquidity and financial accessibility of small and medium enterprises (SMEs). This crisis resulted in a decline in external financing options and reduced credit extension from banks and other financial institutions (Federal Deposit Insurance Corporation, 2016). As a consequence, numerous firms experienced a credit crunch and faced the risk of bankruptcy, further exacerbating the possibility for global supply chain disruptions (Caniato *et al*., 2020).

Considering their fragile financial footings, SMEs face an additional challenge in funding their operations. Such challenge is compounded in supply chain operations as their core business (mainly suppliers and distributors) involves multiple transactions across the geographical boundaries within and without national borders. Cross-border transactions create politically and culturally known and unknown risks which further compound the accessibility to funding sources especially for small and medium size enterprises. Lenders under such political and social uncertainty naturally become reluctant and/or unwilling players in lending capitals and some instances totally cutoff funding sources. SMEs need different, unconventional and new venues/sources to secure capital in supply chain management to survive in the competitive global market.

Searching for Funding Sources in Supply Chain Operations for SMEs

In supply chain operations, two areas of funding sources can be identified; internal and external funding sources. Internal financing is an ideal source of funding. However, the reality is far from this approach as the SMEs in many cases are not in a situation to finance their needs from retained earnings and/or issuing equity as they are unable to attract favorable financing terms from the equity market.

Among many options that SMEs are entertaining on financing their supply chain operations, buyer-initiative supply chain finance (SCF) became attractive alternatives practiced by many industries, small, medium and large size organizations. It is especially attractive funding source for SMEs since suppliers use their customer's (buyer's) credit score in securing necessary amount of funds. Credit scores for larger buyers are usually better than those for small and medium size companies. Buyers, on the other hand, have their own (selfish?) reasons for letting SMEs suppliers use buyer's credit score (called "reverse factoring"). Supply disruption is very costly for larger companies, and in many instances, they lost their market shares due to their inability to market their products in timely manner. Buyers often try their best to avoid any supply disruption caused by SMEs supplier's inability to secure necessary fund.

Supply chain finance (SCF) is relatively new concept to secure funding process for small and medium size suppliers. Small and medium size suppliers often find themselves of lacking credit good enough to secure supplies with reasonably affordable competitive interest rates. Commercial lending institutions often charge SMEs higher rates due to less-than-ideal credit scores. Buyers, for their own reasons (need uninterrupted flow of supplies), step in helping SMEs suppliers to secure through supply chain finance (SCF) tool.

SCF is a set of solutions that improves cash flow by allowing businesses to optimize their payment terms for their small and medium size suppliers while providing the option for their SME suppliers to get paid *early*. In short, SCF provides SMEs with funds as soon as buyers endorses invoices which facilitates favorable cash flow for SMEs. Buyers receive their supplies on time while suppliers receive payment sooner than otherwise through SCF initiatives. It is a win-win scenario for both parties.

In short, the objectives of SCF are to create working capital, improve liquidity for supply chain finance members, and boosting supply chain efficiency and profit margin for SMEs. Since SMEs in SCF depend on the buyer's credit, a successful implementation of SCF calls for verifiable relationship between suppliers and buyers. Such a relationship is based on trust between two parties (buyers and suppliers).

Trust not only minimizes unnecessary bureaucratic business process thereby reducing administrative cost, but more importantly, it lays a foundation for a long-term business relationship where unnecessary administrative costs can be reduced or some instances eliminated making supply chain operations leaner and more competitive in the market (Kwon and Kim, 2025).

Case for Trust

Theoretical argument that trust-based relationship among and between supply chain members could overcome financial challenge under stressful situation was successfully and convincingly tested during the 2008-2010 Great Recession period. A survey in Spring 2009 by the MIT Center for Supply Chain Studies revealed a strong collaboration between and among supply chain partners improved the cash-to-cash cycle (C2C) flow. For example, according to the study, 55% of companies extended payment terms with suppliers (Days Payment Outstanding, DPO), 25 percent worked together to accelerate customer payment terms (Day Sales Outstanding, DSO), and 44 percent worked on reducing supply chain-wide inventory (Days in Inventory, DIO) as part of their efforts to manage/improve working capital.

The following model reflects the process of improving cash to cash cycle. Shortening days sales outstanding (accelerating collection period, DSO), reducing systemwide inventory days (DIO) (more cash available on hand) and extending payment term (DPO) help improve cash-to-cash cycle (Sheffi, 2015).

$$C2C = DSO(-) + DIO(-) – DPO(+)$$

The above equation (reducing days sales outstanding, shortening the inventory cycle and extending days payable outstanding) explains the process of supply chain collaboration that improves the cash-to-cash cycle.

Funding SMEs via Supply Chain Financing

Unlike suppler leading financing (called “factoring”), under the SCF, supplier uses buyer’s credit score (called “reverse factoring’) which in most cases is better than supplier’s credit score. As a result, suppliers are typically able to receive supply chain finance at a lower cost than they can otherwise access.

Framework for SCF process is rather straightforward.

1. Buyer will enter into an agreement with a supply chain finance provider, or funders (usually large commercial banks such as JPMorgan Chase, Bank of America, Citigroup, etc.).
2. Buyer Invites its suppliers to join the program.
3. Once the suppliers join the program, they can request early payment thereby improving cash flow. Supplier’s cash to cash cycle becomes shorter improving their financial statements

i) Benefits for Suppliers

- Optimize working capital. By accessing to supply chain finance, suppliers are able to receive payment for their invoices earlier than they would have been otherwise. As a result, their days sales outstanding (DSO) is reduced, resulting in working capital improvements. [C2C = **DSO** + DIO – DPO]
- Access lower cost funding. The cost of funding through SCF is lower for suppliers than it is if they use other conventional sources of funding. For example, the current LIBOR rate (London Inter-Bank Offered Rate) ranges from 4.68% for 6-month rate to 4.96$ for 1-month rate)
- Suppliers will be in a position to plan their future cash flows and cash needs accurately.
- Due to tight control through technologies and regulations, supply chain risk management is visual and easy to identify sources of potential risks along the supply chain.

ii) Benefits for Buyers

- Optimize working capital. Buyers can also improve their working capital position with supply chain finance, as they now in a position to delay payments to suppliers through supply chain funders. It is also claimed that buyers are in a position to invest some of the funds in other operational areas to minimize borrowing expenses.

- Avoid supply chain disruption. By offering suppliers alternative financing through supply chain finance, buyers can reduce the likelihood of a future supply chain disruption that could affect their own operations.
- Strengthen the relationship with suppliers. A core principle for successful execution of SCF rests on a strong relationship based on mutual trust between suppliers and buyers. Risk management and corresponding preventive measure becomes part of its operational framework which in turn to minimizes unexpected supply chain disruption.

iii) Benefit for Funders

Since SCF is based on buyer's credit rating and not supplier's credit scores, overall financial risk of default is lower than other conventional lending practice. As a matter of fact, there has been no defaults in supply chain finance as of this writing.

Theoretically, the proceeding analysis appears to indicate the advantage of financing SMEs through supply chain finance (SCF). The tenant of SCF is a collaborative framework by three entities; small and medium size suppliers with weak financial footings, large established buyers with better credit score than suppliers and third entity of consortium of supply finance funders. SCF highlights that every participant in SCF process (supplier, buyer and funder) strives to assist other player through financial arrangement in such a way that each player is willing to participate in the process. Sum of benefit from each player within SCF should be greater than the sum of benefit without SCF. Such an added benefit should be even greater for SMEs as they are financially "protected" by buyers' superior credit rating.

Research appears to support the roles that SCF plays in corporate financing. Table 1. below illustrates the size of funding through SCF by various corporations, large and small and between. It ranges from 81% financing through SCF for O'Reiley Automotive Inc. to 10% for Caterpillar. It should be reminded that SCF does not only provide lower financing cost but more importantly SCF strengthens supply chain relationship between and among its players in the system. No supply chain system survives without a strong foundation among the players. SCF utilizes such principle to provide necessary funds to SMEs.

Table 1. Highest supply chain financing % of total debt in S&P 500 Companies

Companies	Percentages
O' Reiley Automotive Inc.	81
Advance Auto Parts	74
Genuine Parts Company	71
Kujering Dr. Pepper	32
Target	18
Kelloggs	15
GE	15
Whirlpool	14
General Mills	13
Mosaic	13
Kimberly Clark	12
Best Buy	12
Caterpillar	10

Source: Josephson, Adam (2023) White Paper: The State of Freight.

Challenges in Supply Chain Finance (SCF)

In spite of the opportunity of favorable funding opportunity available especially for SMEs, SCF raises several challenges in adopting and implementing this financing tools, including lack of market knowledge, communication breakdown, technology-related difficulties, and participation burdens (Marak and Pillai, 2026).

The following lists some of the challenging areas:

1. Lack of market knowledge especially by SMEs. The concept of SCF is relatively new and not well established in financial market.
2. Communication breakdown. SCF involves multilateral communications efforts between and among suppliers (and secondary suppliers), buyers and financial institutions. It is possible to encounter some communication breakdown among and between these players.
3. Technology tangles. SCF solutions rests between and exchange data with large internal information systems. They must connect with the system of third parties such as banks and other external partner.
4. Suppliers are less likely to participate in SCF program if they perceived the cost and effort of participation to be physically and financially to be burdensome.

Conclusion

In spite of significant contribution to the worldwide economy by SMEs, they have been struggling to secure necessary funds from commercial lending companies. Financial lending institutions have been reluctant to provide SMEs with necessary working capital due to high risks posed by SMEs. Inability to secure funds creates unwanted and unexpected challenges for the buyers who depend their supplies on SMEs in many areas of their operations. Supply chain finance (SCF) is a product of financial services using buyer's credit score to secure necessary funds for suppliers. SCF satisfies all parties involved in creating financial flow to meet everyone's needs; suppliers (access to lower financing rate), buyers (receive necessary supplies) and funders (generate fees using buyer's strong credit score). In short, SCF provides win-win scenario in supply chain financing especially for SMEs.

References

Caniato, F., Moretto, A., and Rice, J. (2020). A financial crisis is looming for smaller suppliers. *Harvard Business Review*, 1-4, August 6.

Federal Deposit Insurance Corporation (2016). Final Rule Adjusting Civil Money Penalties for Inflation *FDIC Board Matters.* 2016 Meetings.

International federation of accountant (2020). 2020 Financial Statements. *International Federation of Accountants (IFAC)*.

Josephson, Adam (2023). White Paper: The State of Freight. April 26.

Kwon, Ik-Whan and Kim, Sung-Ho (2025). A note on trust: An economic and social perspective. *International Journal of Business and Management Studies*. 06(6): 9-15.

Lou, Z., Xie, Q., Shen, J., and Lee, C. (2024). Does Supply Chain Finance (SCF) alleviate funding constraints of SMEs? Evidence from China. *Research in International Business and Finance,* 67(4): 102-157.

Marak, Z.R., Pillai, D. (2026). Determinants of Supply Chain Finance Adoption Among Small and Medium Enterprises in India: Mediating Role of Collaboration. *Journal of the Knowledge Economy,* 17: 193-230. Available at: https://doi.org/10.1007/s13132-025-02655-3.

Santacreu, A., LeBelle, J. (2021). Investigating the U.S. Reliance on Foreign Suppliers. *Federal Reserve Bank of St. Louis,* May 13.

Sheffi, Yossi (2015). The Power of Resilience: How the Best Companies Manage the Unexpected. *MIT Press.*

The Global SME Finance Forum (2019). The Convergence of the Real and Financial Sectors in SME Finance. *Annual Conferences*, Amsterdam of Netherlands.

Wuttke ,D., Blome, C., Foerstl, K. and Henke, M. (2013). Managing the innovation adoption of Supply Chain Finance: Empirical evidence from Six European case studies. *Journal of Business Logistics,* 34(2): 148-166

