



SPOTLIGHT / FEATURE

Follow the Money

Aligning financial and physical flows key to true supply chain optimization

There are three basic elements that define the core strength of every supply chain – big or small, local or global – the product or service being bought/sold; the insights from information that is generated and shared through the source-make-deliver lifecycle; and the actual monies exchanged between trading partners. While many organizations have made great strides in refining operational processes and enabling greater transparency and knowledge transfer with key trading partners, one critical facet of the buyer-supplier relationship that remains woefully under optimized is the financial supply chain, according to [Panos Kouvelis](https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=kouvelis) (https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=kouvelis), Emerson Distinguished Professor of Operations and Manufacturing Management at the Olin Business School, Washington University at St. Louis, and Director of the [Boeing Center](https://olin.wustl.edu/EN-US/Faculty-Research/research-centers/boeing-center-supply-chain-innovation/Pages/default.aspx) (https://olin.wustl.edu/EN-US/Faculty-Research/research-centers/boeing-center-supply-chain-innovation/Pages/default.aspx) for Supply Chain Innovation.

Not to be confused with supply chain for financial services organizations, the financial supply chain relates to the flow of capital exchanged between trading partners in the physical supply chain.

“You cannot think about how you are going to grow and generate value without thinking about how you are going to finance it,” said Kouvelis. “Organizations may understand this in theory, but in practice operational and financial decisions are too often made in isolation.”

As a result, there is a tremendous amount of value trapped in the supply chain today, noted Eric Riddle, president of SCF Strategies. A study released by consulting firm [The Hackett Group Inc.](http://quotes.wsj.com/HCKT) (<http://quotes.wsj.com/HCKT>), estimates that there is nearly \$1.1T tied up in inventories, payments to suppliers and payments not yet received from customers – and that’s only for the 1,000 largest public companies in the United States. Globally, the annual trade value of the top 2,000 businesses in the world is estimated to be approximately \$120T, with some \$19T in outstanding payments due at any one time, reported Matthew Stammers, vice president of marketing for working capital solutions provider Taulia at the company’s [2018 Working Capital Summit](https://www.theglobaltreasurer.com/2018/11/05/game-change-how-unlocking-working-capital-can-drive-growth/) (<https://www.theglobaltreasurer.com/2018/11/05/game-change-how-unlocking-working-capital-can-drive-growth/>).

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This trapped cash not only threatens operational efficiencies throughout the supply chain, but could have longer-term consequences to global economic growth by hindering investments in innovation. The [2018/19 PwC Working Capital Study](https://www.pwc.com/gx/en/services/advisory/deals/business-recovery-restructuring/working-capital-opportunity.html) (<https://www.pwc.com/gx/en/services/advisory/deals/business-recovery-restructuring/working-capital-opportunity.html>) revealed that although corporate revenues were up by 10 percent over the previous year, capital expenditure as a percentage of revenues has decreased dramatically during the last five years, suggesting that companies are managing cash flows by capital spending. “In the long run, this will leave companies under-invested, posing a threat to their growth,” according to the report.

Alternatively, some organizations opt to “manage” their liquidity troubles by simply pushing the burden onto suppliers by extending their days payable outstanding (DPO). This practice, however, undermines critical trading partner relationships, and is ultimately unsustainable, Kouvelis noted. “Whether it’s in the form of higher prices, quality and availability issues or the disruption caused by supplier bankruptcy, one way or another these manufacturers are going to pay.”

The Solution

To mitigate these risks, leading corporations are increasingly adopting strategic supply chain finance (SCF) programs to optimize both the availability and cost of capital and create

liquidity in the supply chain, said Aite Group Senior Analyst Enrico Camerinelli. Though SCF is most often associated with payables programs, like reverse factoring or dynamic discounting, Camerinelli noted that there is growing recognition that SCF can be leveraged to manage the full scope of working capital requirements across the source-make-deliver supply chain cycle, including receivables, inventory finance and pre-shipment or purchase order finance. “It becomes more than just a tool for financial support, but an instrument for supply chain optimization.”

Blockchain-Based SCF

Sampling of major SCF platforms, back by tech and banking heavyweights including Microsoft, Intel, SAP, MIT, Standard Chartered, HSBC and Deutsche Bank.

Still, payables tends to be the first step for many organizations. For example, Nick Chen, worldwide commercial financing manager for Lenovo explained that prior to 2015, Lenovo Group Ltd.’s supplier financing activity was limited. But, with the late-2014 completion of the Motorola mobile acquisition and subsequent repositioning the company from a PC seller to a global technology enterprise, the pressure on Lenovo’s working capital management increased exponentially. With a significant disparity between its average days payable outstanding (approx. 60 days) and that of its closest competitors (over 90 days), it was clear that Lenovo’s competitors were using their financial leverage a lot more effectively than Lenovo. At the same time, Lenovo’s treasury team was highly conscious of the fact that extending their payment terms could put already cash-strapped suppliers into a financial tailspin.

Working with a number of banking partners, Lenovo’s treasury team developed a program targeting the company’s top 20 suppliers in China and Taiwan. The suppliers were free to pick and choose which invoices they wanted to submit for earlier payment. Despite the small sampling of supplier participants and the low-pressure model, Lenovo’s DPO improved to 83 days within one fiscal year, Chen reported.

“SCF programs can not only mitigate financial exposures, but improve the overall operation of their supply chains.”

Lenovo is now working to expand the program to a larger subset of suppliers. “At this point, it isn’t just about DPO extension, but establishing stronger relationships with our small and medium size suppliers,” Chen said. “Many of our small and medium-size suppliers have limited resources, some are paying over eight percent for financing. That is a crazy rate. If we want to improve our supply chain, we need to make sure our suppliers have the liquidity they need to operate most effectively.”

Chen acknowledged that driving SCF into the lower tiers of the supply chain is significantly more challenging, particularly with vendors operating in China, where is generally difficult for commercial banks to get the credit information they need from smaller enterprises. “For many SMEs and emerging market suppliers, the data is incomplete and sometimes even inaccurate.”

The Future

Understanding that these SMEs are the ones that need SCF support most desperately, Chen reported that Lenovo is working on the development of a [blockchain-based SCF tool](https://www.scfbriefing.com/lenovo-looks-to-build-its-own-blockchain-platform-as-scf-gathers-pace-in-asia/) (<https://www.scfbriefing.com/lenovo-looks-to-build-its-own-blockchain-platform-as-scf-gathers-pace-in-asia/>) that will pull all its supplier financing together on one platform.

“Our goal is to digitize all the aspects of our trade, but to do this we need to be able to build trust with all of the stakeholders. That was why we believe blockchain will be a more practical solution,” Chen noted.

Aite Group’s Camerinelli agrees that the future of SCF lies with blockchain technology. “When you want funding, you need to prove that you are who you say you are. Generally, this requires a lot of manual operation and paperwork processing, with blockchain all those operations are automated and digitized,” he said.

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In addition, Camerinelli explained that blockchain technology could function like a special database that stores all the information – both financial and performance-related – that must be considered by a funding institution in order to assess the risk profile of a company. “The quality of supply chain relationships and trust are prerequisites for SCF excellence,” Camerinelli said. “By making the necessary information on a company’s end-to-end supply chain performance, such as on-time deliveries, quality, compliance, correct shipping

documentation, on-time payments, etc. readily accessible, it is easier to build the story of how a company is performing. Then the problem of assessing the risk profile of a company would be reduced because all the necessary information would be there.”

Distributed ledger technology (DLT), aka blockchain, could, in fact, reduce trade finance operating costs by 50 to 80 percent and improve execution times three to four-fold, according to a Bain and Company [report](http://www2.bain.com/Images/BAIN_BRIEF_-_Wolf_in_Sheeps_Clothing_Disruption_in_Transaction_Banking.pdf) (http://www2.bain.com/Images/BAIN_BRIEF_-_Wolf_in_Sheeps_Clothing_Disruption_in_Transaction_Banking.pdf). Though digitization and advanced technologies like blockchain are rapidly removing many of the barriers to implementing SCF, companies cannot expect to shift long-established modes of transacting business among trading partners overnight, said Lenovo’s Chen.

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“In general, we still see a fair amount of misconceptions about SCF amid the smaller supplier community. They think it will be too complicated or they are afraid they will lose control over their payments. So, we need to continue to educate the market,” said Chen, who noted that each successful implementation serves as a stepping stone for additional program growth. “Whenever we get a new supplier on board, other suppliers notice the difference and they become curious.” It’s slow going, but worth it, he concluded. “By improving this aspect of our supply chain, we can respond more quickly to changing market conditions.”

Related Resources:

- [Report](https://strategictreasurer.com/2018-supply-chain-finance-analyst-report/) (https://strategictreasurer.com/2018-supply-chain-finance-analyst-report/): 2018 Strategic Treasury Supply Chain Finance Analyst Report
- [Report](https://www.pwc.com/gx/en/working-capital-management-services/assets/pwc-working-capital-survey-2018-2019.pdf) (https://www.pwc.com/gx/en/working-capital-management-services/assets/pwc-working-capital-survey-2018-2019.pdf): PwC 2018/2019 Working Capital Study
- [Report](https://www.bsr.org/en/our-insights/blog-view/the-660-billion-sustainable-supply-chain-finance-opportunity) (https://www.bsr.org/en/our-insights/blog-view/the-660-billion-sustainable-supply-chain-finance-opportunity): BSR- The Sustainable Supply Chain Finance Opportunity
- [Corporate Program](https://www.thecorporatetreasurer.com/article/how-lenovo-set-up-a-cross-border-supplier-finance-programme/429951) (https://www.thecorporatetreasurer.com/article/how-lenovo-set-up-a-cross-border-supplier-finance-programme/429951): Lenovo Supplier Financing Program
- [Corporate Program](https://www.siemens.com/content/dam/webassetpool/mam/tag-siemens-com/smdb/financing/brochures/unitedstates/supplychainfinance-orientation-session-2018.pdf) (https://www.siemens.com/content/dam/webassetpool/mam/tag-siemens-com/smdb/financing/brochures/unitedstates/supplychainfinance-orientation-session-2018.pdf): Siemens Supply Chain Finance Orientation 2018
- [eBook](https://bcrapub.com/publications/world-supply-chain-finance-report-2018) (https://bcrapub.com/publications/world-supply-chain-finance-report-2018): 2018 World Supply Chain Finance Report
- [Video](https://youtu.be/G-GZyFWytVw) (https://youtu.be/G-GZyFWytVw): Boeing Center SCF video

