Financial Flows & Supply Chain Efficiency

Executive Summary
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Visa International Commercial Solutions, as a payment industry leader, is focused on identifying opportunities for organizations to reduce management expenses and optimize benefits from their back-office solutions.

Current economic conditions are forcing companies to improve expense management practices. As a result, a growing number of firms are seeking innovations to increase efficiencies for all areas of their organization.

Visa International commissioned Warren Hausman, a supply chain management expert and Professor in the Department of Management Science & Engineering, at Stanford University, to identify, analyze and communicate the impact that a corporation’s financial flows have on overall supply chain efficiency.

As part of this effort, several multinational companies across multiple industries within Latin America were interviewed to identify:

- How leading companies are currently managing financial flows and how they can achieve more savings with the implementation of advanced payment information management systems
- Activities that constitute best-in-class payment systems and supply chain management automation to obtain greater savings levels
- How tying together supply chain and financial flow key performance indicators brings greater efficiency

We hope you find this report useful in understanding how your company can use advanced payment solutions to reap optimal financial flow and supply chain management benefits. We are confident that the findings will help your organization make prescriptive changes that result in quantifiable bottom-line savings.

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Great opportunities and challenges lie ahead in managing financial flows in supply chains. In the past thirty years, tremendous strides have been made regarding supply chain efficiencies—sharply reduced lead times, lower inventories, more responsiveness, increased variety, more collaboration on planning and forecasting, and improved customer service. In most respects, financial flows are still performing as they did in the 1970’s—with significant delays in processing and reconciling invoices, long Days Sales Outstanding (DSO) for accounts receivable (A/R), and significant funds held in Working Capital to deal with uncertainties in inflows and outflows.

Now the financial supply chain is in a critical phase of evolution. New automation solutions show high potential for reducing processing costs significantly. They also offer enhanced visibility, which means less uncertainty in accounts receivable (A/R) and accounts payable (A/P), hence a significant reduction in Working Capital needs. Furthermore, they also accelerate the process of procuring goods, which in turn, accelerates payment and invoice reconciliation, and they reduce DSO.

This Visa Commercial Solutions Industry Briefing offers a closer look at invoice, payment, and information flows in today’s supply chain. The Industry Briefing presents the many opportunities that exist for improving financial flows, as well as an analysis of their impact on financial flow Key Performance Indicators (KPIs).

**Key Findings**

- Financial flows in supply chains have not kept pace with supply chain management improvements. New innovative payment solutions are poised to make major improvements, making financial flows faster, more reliable, more predictable, and less costly.

- Despite the fact that companies have made a large number of significant supply chain management improvements over the past decade, there are still some unique supply chain management challenges affecting operational efficiencies and service. On the financial flow management side of the supply chain, there are several challenges that—when viewed collectively—require higher Working Capital than necessary. If, however, these challenges were removed, the money saved could be shifted to more valuable uses.

- Today, more and more visionary companies are adopting innovative technologies and payment solutions that enable greater, faster, and more cost efficient supply chains. The latest trends and best practices in supply chain and financial flow management—particularly in the area of automated payment solutions—have demonstrated tremendous strides in improved supply chain performance.

- Using industry-wide supply chain metrics, it can be shown that Key Performance Indicators (KPIs) for financial flow management have a correlation to product supply chain performance, and can directly impact metrics such as fill rate, product availability on the shelf, on-time delivery, inventory value, the inventory-service trade off curve, and the cash-to-cash cycle.

- Adopting new automation solutions to financial flows such as Purchasing Cards (P-Cards), Distribution Cards, and Electronic Invoice Presentment and Payment (EIPP) systems creates significant improvement opportunities in many areas including higher speed, cost savings, lower Days Sales Outstanding (DSO), and more reliable and predictable financial flows.
Great opportunities and challenges lie ahead in managing financial flows in supply chains. In the past thirty years, tremendous strides have been made regarding supply chain efficiencies—sharply reduced lead times, lower inventories, more responsiveness, increased variety, more collaboration on planning and forecasting, and improved customer service. But in most respects, financial flows are still performing as they did in the 1970’s—with significant delays in processing and reconciling invoices, long Days Sales Outstanding (DSO) for accounts receivable (A/R), and significant funds held in Working Capital to deal with uncertainties in inflows and outflows.

As the adoption of new automation solutions for financial flows becomes more widespread, the Superior efficiencies gained from electronic payment technologies are becoming more measurable and substantial.

**Supply Chain Flows**

A supply chain is a network of partners that produces raw materials, subassemblies, and finished products, then distributes them via various sales channels to customers.

**Along this chain, there are three major flows:** material, information, and financial.

**Flows in the Supply Chains**

**Downstream:** Material, Information & Financial

Supplier ➔ Manufacturer ➔ Distributor ➔ Customers

**Upstream:** Material, Information & Financial

**Financial Flows in the Supply Chain**

**Invoices and Payments**

The financial flow in a typical supply chain includes thousands of invoices and payments in a given year. The scale of this problem is challenging corporations to find ways of streamlining their processing. There are also considerable savings to be obtained in other categories besides processing improvements.

Any single organization in the supply chain has both Accounts Payable (A/P) and Accounts Receivable (A/R) activities. Each invoice is an A/P from the downstream buyer’s perspective and an A/R from the upstream seller’s viewpoint. Multiple invoices, however, are often paid by a single payment. This requires information as to which specific invoices are covered by a remittance. Also, when invoices are reconciled prior to payment, the three-way match of purchase order (P.O.), shipping receipt, and invoice may fail if all documents are not precisely consistent. Both of these potential failures can often be dealt with by innovative payment solutions with pre-established tolerances for automated processing.
Information Transfer

Financial flows also include information transfer via Electronic Invoice Presentment (EIP) and electronic payments. This combination constitutes the Electronic Invoice Presentment and Payment (EIPP), an advanced payment application that automates specific financial tasks, as well as provides the opportunity to collect, aggregate, and share valuable information across the supply chain.

Until recently, information and financial flows were treated separately. However, innovative payment solutions can now include detailed transaction information such as date and time of receipt, supplier name, quantity received, P.O. number, etc. Having both financial and detailed product information available electronically can minimize human errors, reduce reconciliation time, and create a more tightly integrated supply chain. Importantly, banks can aid customers in ensuring that reconciliation and posting to General Ledger (GL) is integrated automatically.¹

Supply Chain Management Challenges

Despite the fact that companies have made a large number of significant supply chain management improvements over the past decade, there are still some unique challenges affecting operational efficiencies and service. The challenges listed here are those most closely related to what is commonly known as the “bullwhip effect,” a term that refers to amplifications of end-consumer demand as one moves up the supply chain. How a company mitigates the bullwhip effect depends on the cause.

**CHALLENGE:** Information Distortion

**SOLUTION:** Ensure rapid information exchange along the chain

One cause of the Bullwhip Effect deals with information distortion. If consumer sales increase by 5 percent in a given week, a retailer could end up ordering 7 percent more product in response to the increase and a feeling that demand will continue. The next link in the chain, observing what appears to be a 7 percent increase in demand, then orders a larger increase on his supplier. Eventually the factory may observe an inflated 20 percent increase in orders.

Delays in transmitting changes regarding demand or supply can amplify problems. A good way to deal with this situation is to share point-of-sales (POS) information with all partners in the chain. Emerging electronic payment (e.g. card-based solutions) and information management tools provide a new way of sharing information.

**SOLUTION:** Vendor-Managed Inventory (VMI)

Another way to deal with information distortion involves giving the supplier “decision rights” regarding the timing and quantity of replenishments. While many buyers may have concerns about turning these decisions over to suppliers, there have been numerous successful pilots and full-scale applications of this concept, called Vendor-Managed Inventory (VMI).

Financial Flow Management Challenges

Most companies require significant amounts of Working Capital to deal with variable and somewhat unpredictable financial inflows and outflows. When viewed collectively, the financial flow management challenges such as slow processing, unreliable and unpredictable cash flows, costly processes, high Days Sales Outstanding (DSO), and suboptimal credit decisions require higher Working Capital than necessary. If these challenges were removed, the money saved could be shifted to more valuable uses. In order to strategically address and minimize financial flow challenges and take appropriate action, one must first identify and evaluate the common causes.
Manual Processes
Manual processes tend to be slow, unreliable, unpredictable, and in the final analysis, often more costly than automated solutions.

Lack of Timely Information
In many situations, financial flows do not contain sufficient detailed information for either manual or automated systems to accomplish their jobs. As a result, additional time and effort is required to obtain missing information (e.g., invoice-level detailed information such as SKU numbers, item quantities, and P.O. numbers).

Lack of Employee Empowerment and Spend Policy Compliance
If purchasing by individuals isn’t carefully monitored and controlled, inappropriate spending may occur, undermining the company’s initiatives to control expenses and improve strategic sourcing. Strategic sourcing requires companies to know how much they are purchasing from various suppliers for different categories of product. Performing periodic analyses to create reports to help monitor spending and negotiate strategic sourcing with key vendors may be time-consuming and costly if this data is not captured electronically.

Delays in Invoice Reconciliation
Delays in invoice reconciliation are a particular cause of additional Working Capital; they delay receipt of payments and increase Days Sales Outstanding (DSO) of receivables. When there is a three-way mismatch of invoice, P.O., and shipping receipt, there is an inevitable delay while the mismatch is investigated. These investigations typically take time, as well as add cost.

Processes for Setting Optimal Limits
Companies often maintain their own departments to set customer credit limits. However, the ability to set optimal credit limits may require sophisticated algorithms that are often inaccessible to non-financial companies.
**What’s Happening in Supply Chain Management**

Several trends and innovative best practices in supply chain management are now being observed in forward-looking companies. These include:

**Shared Services, Group Procurement**

Companies that formerly had independent purchasing and payment operations at multiple sites are moving to a “shared services” model that centralizes these functions. The major benefits of shared services include economies of scale and increased quantity discounts from suppliers.

**CASE IN POINT**

A major hotel in Latin America that operates several chains with numerous hotels per chain has moved to a Shared Services Center across all their hotel chains for procurement, A/P, and A/R. In the past, each individual hotel had its own separate business process for these functions. They have increased productivity and estimate $2.5 Million—$3.5 Million (USD) in annual benefits.

**Supplier Web Portals for Inventory Data**

Many companies are instituting Web portals where suppliers can view inventory levels at the customer’s site and POS or consumption data on materials. In order to implement Vendor-Managed Inventory (VMI), it is necessary that the supplier gain access to the customer’s inventory and consumption data. Such portals can also contain status information regarding the supplier’s invoices.

**Sophisticated Supply Chain Planning Systems**

Modern supply chains have multiple levels, and it is often inefficient to manage each level independently. Various companies have installed sophisticated supply chain planning systems to replace separate layers of independent decisions.

**Extended Performance Measures**

Progressive companies today work as part of an integrated supply chain and measure product availability on the store shelf for the end consumer. They may also measure their average response time to special orders, as well as their worst-case response time.

**CASE IN POINT**

A large Latin American subsidiary of a Global Consumer Packaged Goods (CPG) company with a high-market penetration and high volume has reached out to retailer shelves to monitor product availability and shelf out-of-stocks. Even though it doesn’t have direct control over inventories at retailers, it has a high self-interest in optimizing their inventory levels.

**Collaboration Along the Chain; VMI**

Leading companies are working closely with partners along their supply chain to try to implement VMI. The evidence speaks loud and clear that VMI generally lowers inventories across the supply chain, increases higher product availability, and improves revenues.

**Expanded Service Offerings**

Often, a company may be asked to perform a new service by one of its customers. Enlightened companies are studying such opportunities to determine if they will lead to improved profitability. If so, they may decide to offer the expanded service to all of their customers, thereby increasing profitability and also providing a closer attachment with current customers.

**What’s Happening in Financial Flow Management**

Several trends and best practices are emerging for financial flows that will help to streamline and create end-to-end electronic payments. These include:

**Purchasing Cards and Distribution Cards**

More and more companies are installing Purchasing Cards (P-Cards) as a way of making purchasing more efficient and cost-effective. P-Card systems also enable companies to aggregate spend data quickly and frequently, and to maintain compliance with company spend policies.
They also increase financial transparency and help companies adhere to regulations.

The Distribution Card is designed to re-engineer Distributors’ and wholesalers’ accounts receivable (A/R) process through the replacement of cash, customer credit and promissory notes. By shifting the manual-driven process and burden of invoicing and collections from the Distributor to the Bank, the Distribution Card transforms the collection process into a quick paperless electronic payment, reducing accounts receivable (A/R) costs substantially. Sales proceeds can be immediately transferred into working capital for faster turnover.

**EIPP (Electronic Invoice Presentment & Payment)**

Gradually, companies are moving toward Electronic Invoice Presentment (EIP) and Electronic Invoice Presentment and Payment (EIPP). In a recent survey, 78 percent of respondents said they were either “very likely” or “somewhat likely” to transition from paper checks to electronic payments for their B2B payments within the next three years. Today’s new EIPP tools provide an excellent opportunity to perform financial flow and information flow tasks at the same time. The ability to send detailed invoice-level information (SKU numbers, quantities, PO numbers, etc.) along with remittances enables the supply chain to transfer this information quickly and without errors often found in manual procedures.

**Invoice Imaging**

Some companies are creating soft copy images of paper invoices so that all payments can proceed along an electronic, paperless pathway. Others are creating data warehouses to maintain line item detail, with information from a P-Card solution or other sources.

**Supplier Web Portals for Invoice Inquiries**

Another significant trend is to develop Web-based automated inquiry systems for suppliers. Instead of accessing a call center to make a simple inquiry, suppliers can access a Web portal for their company and perform self-service inquiry regarding the status of their invoices (received, in payables queue, in reconciliation queue, scheduled to be paid as of a certain date, etc.).

**Web-based Financial Reporting**

To reduce costs, significantly improve spend management, and make more informed business decisions, many companies are finding that it’s critical to electronically capture financial transaction and invoice-level data and then review it through a Web-based reporting tool. This transaction and invoice-level data may be easily integrated with existing back office financial systems. Research indicates that this integration capability can save 1-4 days per month on manual data synthesis and reconciliation activities.

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**CASE IN POINT**

By creating a supplier Web portal and implementing EIPP, General Electric experienced the following benefits:

- 61 percent drop in paper invoices.
- 50 percent A/P staff resources reduction.
- Call center eliminated.
- Invoice defect rate reduced.
- Average rework queue for reconciliations dropped from 85,000 to 5,000.
- 90 percent of allowable discounts captured, worth over $100 million.

GE also improved its ability to forecast cash flow requirements.

In 1999 GE saved $1.8 billion from these initiatives, or 12 percent of their total accounts payable (A/P) that year ($14.8 billion).

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Key Performance Indicators for Supply Chains & Financial Flows

KPIs for Supply Chains
Product Supply Chain metrics have three key dimensions:

- **Customer service** is usually measured by percent Fill Rate or percent Complete Order Rate in a build-to-stock situation, or by percent On-time Delivery in a build-to-order case. Increasingly for build-to-stock situations, companies are also measuring Product Availability (percent time in stock) at retailers’ shelves as a metric for customer service.

- **Inventory (an Asset)** is measured by value, by time supply (Days of Inventory), or by Inventory Turns (Turns = Cost of Goods Sold (COGS)/Inventory Value). All three metrics are closely related. By knowing a firm’s annual COGS, one can derive any inventory metric from either of the others.

- **Speed** is often measured by the Cash-to-Cash (C2C) cycle (C2C = Inventory + A/R – A/P), all measured in days of supply.

KPIs for Financial Flows
Key Performance Indicators (KPIs) for financial flows include the following:

- **Days of Working Capital (DWC)** = 
  \[
  \frac{\text{Working Capital}}{\text{Annual Revenue}} \times 365
  \]

- **Days Sales Outstanding (DSO)** = 
  \[
  \frac{\text{Accounts Receivable}}{\text{Annual Revenue}} \times 365
  \]

- **Days of Inventory (DIO)** = 
  \[
  \frac{\text{Inventory Value}}{\text{COGS}} \times 365
  \]

- **Days Payables Outstanding (DPO)** = 
  \[
  \frac{\text{Accounts Payable}}{\text{Annual Revenue}} \times 365
  \]

Days of Working Capital can be easily converted into an equivalent metric, Working Capital as percent of Annual Sales. (For example, if a company’s DWC is 50 days, then Working Capital as a percent of Annual Sales = 50/365 = 13.7 percent.)

Other important characteristics of financial flows are:
- Reliability of payment methods
- Predictability of payment inflows and outflows; improving cash flow
- Information Management (invoice-level data with financial data)

A negative C2C cycle is attractive for growth. However, taking the entire supply chain perspective, one’s suppliers presumably become accustomed to delayed payment terms and find other ways to manage profitability. Furthermore, one company’s payables are another company’s receivables, and in the supply chain view, these “cancel out” with one another. However, the integration of automated payment solutions can lead to a significant reduction in the uncertainty of A/P and A/R flows, which can ultimately be quite valuable to the entire chain.

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How Supply Chain & Financial Flow KPIs Connect for Greater Efficiencies

In many cases, financial flow KPIs can have a direct, positive impact on supply chain management performance.

**Impact on C2C**
The financial flow KPIs of DIO, DSO, and DPO have a direct correlation to the C2C cycle supply chain metric. Improvements in supply chain design and operation may pay off in reduced inventory levels, thereby improving this metric. Additionally, modern payment systems such as EIPP may pay off in reductions in both A/R and A/P for companies along the supply chain. Here, the benefit would be in reduced Working Capital needs.

**Impact on Service**
Expedited financial flows support a smooth-running supply chain. Conversely, if a delay in financial flows causes delays in material receipt, then customer service (fill rates, availability, on-time delivery) can be unexpectedly degraded.

**Impact on Inventory**
Financial flow processes associated with A/R can also affect the supply chain. There may be instances where unexpected delays in cash receipts force a company to delay ordering of incoming materials, due to Working Capital constraints. This could result in reduced customer service later on, when the absence of the missing materials is felt; it could result in higher stockouts, lower on-time deliveries, and decreased revenues.

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CASE IN POINT

The Latin American subsidiary of a global supplier to the automotive industry sells to both the local OEM market and aftermarket and also exports products to other countries. The parent company selected a new customs broker to handle product imports from the USA. The new customs broker had lower costs, but did not have sufficient capacity to perform a required quantity count function on the U.S. side of the border in a timely manner. Delays at the border increased from three days to nearly 20 days, adversely affecting replenishment lead times and customer order fill rates.
Adopting new automation solutions to financial flows such as Purchasing Cards (P-Cards), Distribution Cards, and EIPP systems creates improvement opportunities and cost savings in several areas:

### Improvement Opportunities for Financial Flows

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Causes</th>
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<tbody>
<tr>
<td>Slow processing</td>
<td>Manual and stand-alone processes</td>
</tr>
<tr>
<td>Unreliable, unpredictable cash flows</td>
<td>Lack of timely information</td>
</tr>
<tr>
<td>Costly processes</td>
<td>Lack of employee empowerment and compliance</td>
</tr>
<tr>
<td>High Days Sales Outstanding (DSO)</td>
<td>Delays in invoice reconciliation</td>
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<tr>
<td>Suboptimal credit decisions</td>
<td>Manual processes for setting optimal limits</td>
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<table>
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<tr>
<th>Solutions</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Purchasing and distribution cards for payment and collections</td>
<td>• Better visibility, transparency and speed</td>
</tr>
<tr>
<td>• EIP + e-payment = EIPP</td>
<td>• Fewer errors and improved processes</td>
</tr>
<tr>
<td>• Reporting and data consolidation services; integration with back office systems</td>
<td>• Reduced costs and DSOs</td>
</tr>
<tr>
<td>• Outsourced credit and collection processes</td>
<td>• Decreased working capital needs</td>
</tr>
</tbody>
</table>

### More Efficient Purchase & Sales Processes

P-Card systems have provided significant reductions in purchasing processing costs. Studies show a 50 to 60 percent reduction in A/P invoice processing from electronic systems.6 Another advantage of P-Card systems is that they can be easily synchronized with company expenditure policies. Merchant Category Codes can be used to direct purchases to vendors on a company’s Approved Vendor List (AVL). There may be dollar spending limits set on any single purchase, which can vary by individual. To improve sales and collections processes a seller may receive settlement of funds as soon as the next day by accepting a P-Card and and/or a Distribution Card as a payment method.

**CASE IN POINT**

A European auto manufacturer installed a Purchasing Card system for their indirect materials. Their processing costs per purchasing transaction dropped by 50 percent. Furthermore, their processing time per order was reduced by 75-80 percent; this reduction in response time enabled a more precise control of inventories, lowering inventory levels by 22 percent. They also estimated a 5-12 percent improvement in purchasing prices due to the strategic sourcing information provided by the P-Card system.

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Faster Reconciliation through Electronic Invoice Presentment (EIP) and Payment (EIPP)  

Electronic Reconciliation – A/P  
Matching shipping receipts, invoices, and corresponding purchase orders has been a manual process for A/P in many companies. It is not uncommon to have mismatch rates between 10 percent and 25 percent of all invoices received. The buyer typically informs the seller about the mismatch and may not make any partial payment on the invoice until the discrepancy is resolved. It may seem that the buyer is gaining “float” or the use of Working Capital until resolution occurs, but since the cause is a document mismatch, there is no way the buyer can plan on that float systematically. Furthermore, from a supply chain viewpoint, the uncertainty associated with the delay in invoice payment until resolution may create difficulties for the seller.

Electronic means of improving the three-way matching process are emerging. Companies that have moved in this direction will typically perform the three-way match much earlier in the process. It is no longer necessary to wait until the invoice is due; the match can be performed immediately after the material has been received and a count performed. (Quality checks can be done in parallel.) If a discrepancy is found, then there is ample time to correct it without delaying payment beyond normal terms, since the reconciliation has been initiated much earlier in the process. Furthermore, modern EIPP systems can provide sufficient invoice-level detail so that many mismatches can be quickly diagnosed with the information provided electronically. This speeds up the reconciliation process significantly and accomplishes it at much lower cost.

CASE IN POINT  
A large Latin American subsidiary of a global Consumer Packaged Goods Company is developing a Purchase to Payment e-System. They anticipate reduced A/P processing costs as well as faster resolution of mismatches.

Electronich Reconciliation – A/R  
The same three-way match discussed above is also present on the A/R side. Companies can easily have three-way match discrepancies on the A/R side of between 10 percent and 40 percent of invoices sent. It may take up to 40 days to resolve the discrepancies. The company may receive only a partial payment on their invoice during this period, and sometimes no payment at all, until the discrepancy is resolved.

CASE IN POINT  
A Latin American subsidiary of a major global provider of express shipment services indicates that their A/R is their largest uncertainty in the timing of financial flows. They are exploring new ways to interact with their customers to reduce this uncertainty.

With automated systems, reconciliation can be accomplished earlier, more easily, and faster. Modern e-payment systems can include detailed information such as P.O. number, Invoice number, and sufficient invoice and P.O. line item details to resolve many mismatches without further manual effort. The result is significantly faster cash inflows (e.g., a better Cash-to-Cash cycle) and reduced Days Sales Outstanding (DSO). Furthermore, automated A/R processing can improve customer relationships.

Improved Flow of Information  
Data Integration  
Use of P-Cards allows companies to obtain detailed data that is very helpful in the reconciliation process and could also be useful in the product supply chain. While all card transactions contain “Level One” information (the minimum needed to clear and settle the financial transaction), modern systems allow for “Level Two” and “Level Three” data capture and transaction reporting. In particular, Level Three data may include invoice-level details such as discount amount, freight/ship amount, order date, account number, item commodity code, item description, quantity, unit of measure, and unit cost.
**Vendor Web Portals**

A vendor Web portal allows vendors electronic access to a company’s information records pertaining to their company, such as invoice status. Modern e-payment systems can contain sufficient detail to allow many vendor inquiries to be handled by a self-service vendor portal. This saves both buyer and seller time and expense; it reduces telephone calls to the buyer and provides a faster response to the seller.

**Outsourcing Credit and Collections**

**Credit Limit Optimization**

When setting appropriate credit limits for customers, a number of different factors come into play, including account profitability and credit risk. Monitoring credit limits dynamically is difficult for companies to accomplish by themselves. There are economic efficiencies in outsourcing the task of determining optimal credit limits and monitoring them dynamically. Not many companies can claim their core competence is optimizing credit limits. This business function is a natural candidate for outsourcing to a financial institution. Such institutions have specialized staff to deal with assessment of credit risk, as well as standardized collection procedures. Due to economies of scale, they may be able to provide this function in a more cost-effective manner.

**Receivables Financing**

If a company or an industry has traditionally had lengthy payment terms (e.g., 90 days or more), the suppliers will often want to have their receivables financed. This is another opportunity for banks to provide value.

**CASE IN POINT**

A major hotel operator in Latin America that operates several chains has a standard Days Payables Outstanding (DPO) policy of 120 days. They plan to transition soon to an e-payments system that will allow their suppliers to do factoring (selling receivables) online. This will enable their suppliers to obtain cash one week after delivery in a predictable and automated manner, thereby strengthening relationships with their suppliers.

**Collections**

Companies are also using Distribution Card solutions to streamline their collections and reconciliation tasks. Selling can be more effective when banks manage collections duties.

**Lower Working Capital Needs**

Improved financial flow processing can contribute to reduced Working Capital through better visibility. More effective financial processing can help remove uncertainties in financial flows and thereby contribute to a significant decrease in the Days of Working Capital (DWC).
It has been estimated that increased visibility into A/R can reduce Working Capital needs by as much as 20-25 percent. One way to estimate the impact of better visibility is to draw a parallel between managing Working Capital and managing inventories. Safety stock in inventory systems is proportional to the standard deviation of the demand forecast error. Improvements in supply chains can often lower the effective standard deviation of forecast error by 10-20 percent. Applying this logic to Working Capital, one would expect that improved visibility on both A/P and A/R could translate to reductions of 10-20 percent. One industry source forecasts that sophisticated cash-flow optimization tools will appear by 2006-07, adding significant enhancements to current innovative payment capabilities.

**CASE IN POINT**

The hotel operator described above had each individual hotel request funds from the company’s Treasury Department to pay for services. The company had no visibility into this stream of required payments until the requests were received. Under its new Shared Services Center, the company’s Treasury Department has full visibility into these future obligations and can plan its Working Capital needs more closely.

**Strengthened Partner Relationships**

**Closer, Responsive Customer Connection**

Automated systems to submit invoices and receive payments make it easier for customers to reconcile and pay invoices. The ability to send Advance Shipping Notices (ASNs) and to track customer orders (dynamic order status information) can further cement the relationship between a company and its customers.

**Differentiate by Adding Services (e.g., EIPP)**

When a company provides a product that is not easily differentiated (e.g., a commodity), it can use financial services to differentiate itself from competitors. If a company uses EIPP, it is much easier for customers to do business with that company because EIPP benefits accrue to both parties in the supply chain. If a buyer is considering two alternative sources of product, the company offering the EIPP benefits could be in a better position to win the business.

**CASE IN POINT**

The Latin American subsidiary of a major express shipments company had experienced increased demands from its customers; they wanted some of their “back-office” activities performed by the express shipments company. While the initial reaction to such demands may well be “this will cost us time and resources,” in the long run close IT linkages of this sort may make it difficult for the customer to switch suppliers.

**Improved Service Delivery**

**Remote Access to Customer Sites**

Access to customer sites is an increasingly important service for many companies. Using Web-based technology, employees can access a customer site quickly and easily. This allows employees to provide on-demand service and reduces travel costs and time.

**CASE IN POINT**

A company providing IT services to a large retail chain needed to access its customer sites to resolve technical issues. By providing remote access to the sites, the company was able to reduce travel time and costs while improving the speed and efficiency of service delivery. This enhanced customer satisfaction and resulted in increased business.

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Conclusions

The supply chain financial flow is at a critical threshold of evolution. Current trends in supply chain and financial flow management clearly favor the use of automated payment solutions. Continued expansion in this area offers high potential for:

- Reducing significantly purchasing processing costs
- Accelerating payment and invoice reconciliation
- Reducing collections costs significantly and minimizing the number Days Sales Outstanding (DSO)
- Creating greater processing efficiencies in the procurement of goods
- Enhancing visibility, which means less uncertainty in accounts receivable (A/R) and accounts payable (A/P) and a reduction in Working Capital needs

The various payment solutions presented in this document offer companies a powerful automated system that can eliminate financial flow challenges in today’s supply chain. Based on an analysis of available supply chain performance data and measures of impact (as defined in this Visa Commercial Solutions Industry Briefing), it is possible to draw some generalizations about the economic efficiencies and benefits that can be gained by improving financial flows with various innovative payment solutions. Quantitatively speaking, a company with $1 billion annual revenue could obtain an annual savings of nearly $10 million, or almost one percent of revenues. This projected savings represents more than 20 percent of typical annual profits for such a company. For a median Fortune 500 company, the annual savings could be as high as $81 million—eight times as much.

### Projected Annual Savings per $ Billion Annual Revenue

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<thead>
<tr>
<th>$ in Millions</th>
<th>Process Cost Savings</th>
<th>Working Capital Savings</th>
<th>Reduced DSO Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>$9.9</td>
<td></td>
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<tr>
<td>$8.3</td>
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<tr>
<td>$5.0</td>
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</tbody>
</table>

**Note**: Process improvements and cost savings for Accounts Payable (A/P) and Accounts Receivable (A/R) have created 30 to 70 percent reductions in these costs. Assuming these costs represent 0.5 percent of revenue, then the savings for a $1 billion company would be approximately $5 million annually.

A typical $1 billion company has $148 million invested in Working Capital: Working Capital ($1 billion Co.) = (54/365) * $1 billion = $148 million. Increased visibility to A/R and A/P flows could reduce uncertainty in financial flows and thereby reduce WC needs by 10 to 20 percent. A 15 percent reduction represents $22.2 million for a $1 billion company: 15% Working Capital Reduction = 0.15 * $148 million = $22.2 million. The annual savings is calculated by applying a company’s Weighted Average Cost of Capital to this value. Suppose a company’s WACC = 15 percent/year; then the annual savings from reduced WC would be $3.3 million: Annual Savings from Working Capital Reduction = 0.15 * $22.2 million = $3.3 million.

For a $1 billion company, the value of a four-day reduction in DSO is nearly $11 million (USD): Value of Reduced DSO = $1 billion x (4/365) = $10.96 million. If the company’s Weighted Average Cost of Capital (WACC) is 15 percent/year, then the annual savings is $1.6 million: Annual Savings of Reduced DSO = 0.15 ($10.96 million) = $1.6 million.

Total annual savings = $5.0 + $3.3 + $1.6 = $9.9 million.

**Note**: The median Fortune 500 Company’s annual revenue exceeds $8 billion. For such a company, the estimated total quantifiable annual savings would be $81 million. Total Quantifiable Annual Savings for Median Fortune 500 Company = $9.9 million * (8.19 / 1) = $81 million.
Key Questions for Management

Senior managers looking to streamline financial flows and improve product supply chains are encouraged to evaluate their company’s current processes to get a better idea of how automated payment solutions can help enhance operational performance and increase profitability. The following questions can help in establishing a strategic framework for moving forward:

- What is the current status of our company’s financial flow processes?
- What are the areas of most importance/potential for our company?
- What is our bottom-line profitability potential from improved financial flow processes?
- What resources are needed to adopt new automation solutions and ensure a smooth transformation?
- How can I lay out a roadmap for change?

Action Items

- Identify areas where financial flows can be integrated with supply chain management improvements.
- Employ Key Performance Indicators (KPIs) for financial flow management to analyze product supply chain performance.
- Adopt best practices from visionary companies which are adopting innovative technologies and payment solutions that enable greater, faster, and more cost efficient supply chains.
- Implement new automation solutions to support financial flows such as Purchasing Cards (P-Cards), Distribution Cards, and Electronic Invoice Presentment and Payment (EIPP) systems, making financial flows faster, more reliable, more predictable, and less costly.

For more information, contact a local Visa representative or your Visa financial institution.

A Special Thanks to...

- Tamara Romanek and Rafael de la Vega of Visa International for their collaboration efforts, valuable input, and project support.
- The companies interviewed by Dr. Hausman for sharing their insights and best practices.