

E-Commerce Demands a Dynamic Settlement Process

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Abstract

E-commerce enterprises are quietly automating their settlement processing. In the business-to-consumer world, credit cards are proving to be the preferred method of payment. In the business-to-business environment, credit cards, usually in the form of purchasing cards (p-cards), are an acceptable payment medium for only a small portion of the marketplace. In most B2B transactions, open terms such as net 30 days are the norm, and business customers are loath to relinquish the benefits derived from trade credit. At issue is not so much fees and interest rates, but that business customers do not want to give up control. With open terms you can take deductions to redress product and service deficiencies, and even hold up payment entirely without any real short-term threat of a penalty. In addition, business customers use open terms to facilitate internal audit controls between the purchase of goods and services and their subsequent payment.

The challenge for B2B companies has been to cost effectively automate their settlement processing. In order to thoroughly understand the dynamics involved in moving from manual cash applications to automated processes, it is essential that the different types of costs involved in remittance processing, no matter what the technology, be first understood.

The Cost Structure of Applying Cash

Cash application costs fall into three areas: document transmission, document handling and document recording. Transmission costs (see chart #1) comprise only five to ten percent of the total cost of posting cash, and so automation's impact is minimal. Even so, mailing costs are significantly more than those involved in transmitting remittance data via the Internet. The costs of using a dedicated phone line to transmit data fall in between these two extremes.

More significant are handling costs (see chart #2), which for a manual process range from ten to thirty percent of the total cost of posting cash depending on industry characteristics. Even though scanning involves automation, it is more costly than the manual keying of paper documents. This added cost, however, is usually recaptured thanks to the lower retrieval costs associated with post application tasks. After paper and scanning, costs decrease. In descending order, OCR (optical character recognition) technologies, spreadsheet applications for exchanging remittance data,

EDI (electronic data interchange), and even newer technologies such as XML (extensible mark-up language) each incur ever lower costs.

Chart 1

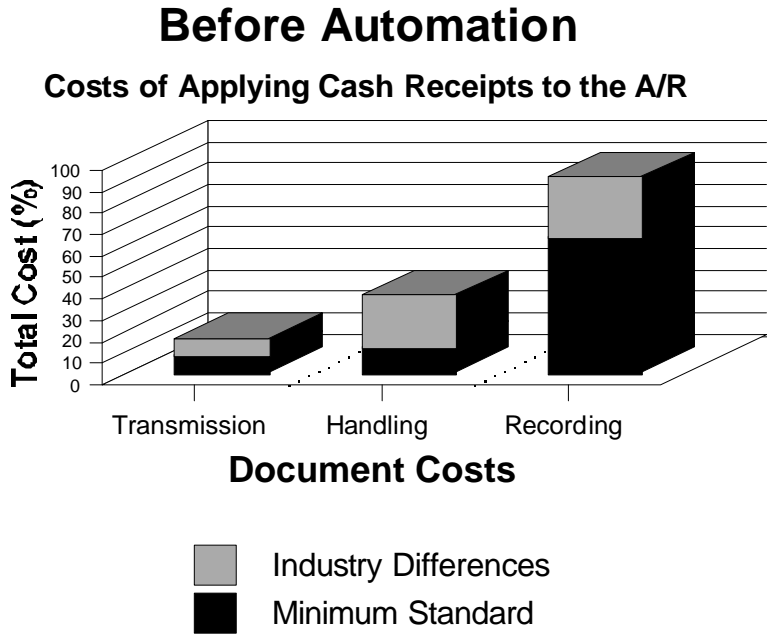


Chart 2

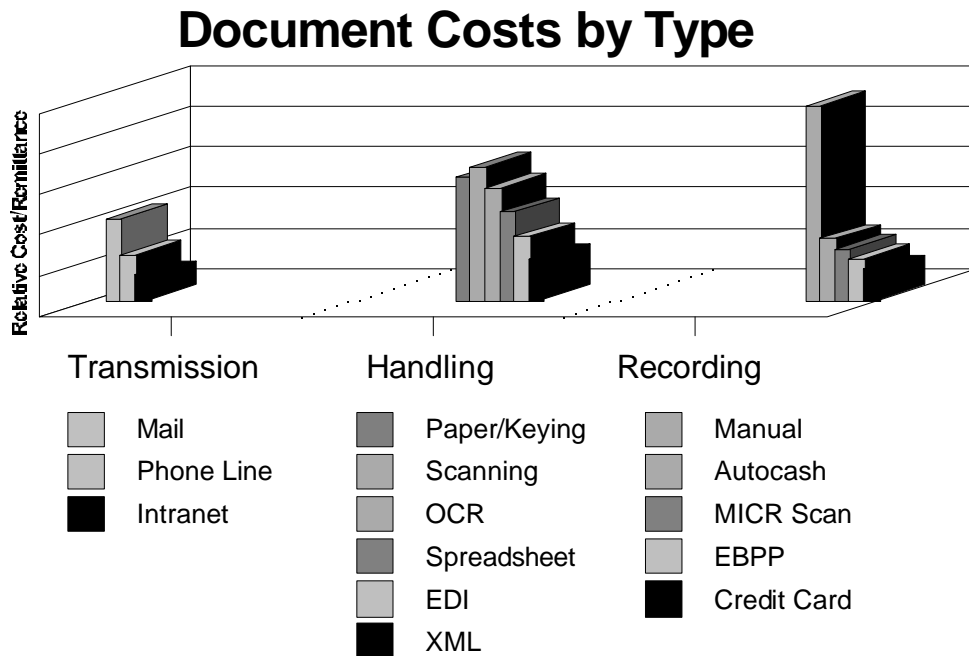
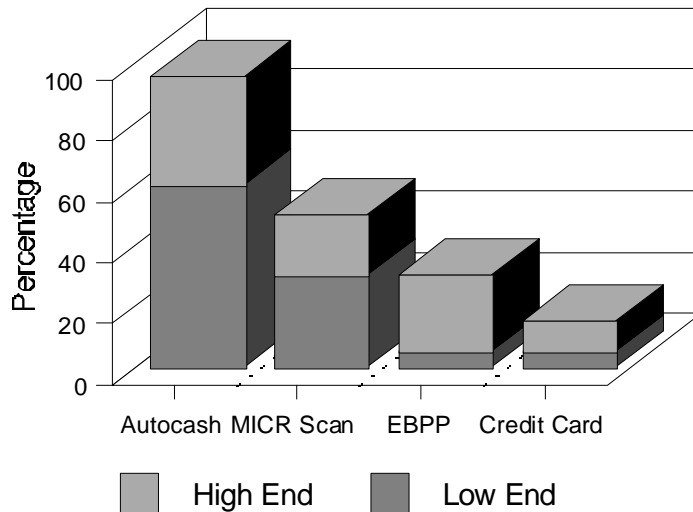


Chart 3

Automation Potential



The majority of the costs (60 to 85 percent) of posting cash are incurred as a result of capturing and recording document data. Of course, manually applying cash receipts is much more costly than automating this process. Of the automated technologies (see charts #2 and #3), autocash is slightly more costly, in descending order, than MICR scan (magnetic ink character recognition), EBPP (electronic bill presentment and payment) and credit cards. However, in a B2B environment, only autocash and EBPP provide all of the data needed for applying customer cash receipts without manual intervention. And, of these complementary technologies, only autocash will provide a cash application solution for most cash receipts, since EBPP will appeal to a much smaller range of customers. Furthermore, MICR scan and credit card data are usually used in conjunction with an autocash system. MICR data will identify the customer who is paying, but not the items being paid. Credit card data typically identifies a document number which must be translated into an invoice number for payment to be posted. As a result, companies that employ credit cards, MICR scan and EBPP will still need to also utilize autocash in order to ensure the highest possible match rate of their customer's remittance detail with unpaid open items and thereby minimize processing costs.

EBPP Is New But Has Limited Use

During the last few years, the only new method available for the remittance processing of B2B settlement transactions is EBPP. Simply stated, EBPP is the online presentation of invoice data along with an electronic settlement mechanism. Its biggest advocates are a number of large corporations along with the commercial banking industry. Their hope is that as e-commerce becomes a cultural norm, business customers will routinely turn to EBPP web-sites to pay their bills. That should provide tangible benefits to the vendors, not to mention the financial institutions processing the payments. Most appealing to the vendors is a greater assuredness of being paid and more knowledge regarding when payments will be executed. Better information, specifically in the form of payment commitments being made early on, should facilitate more

focused and hence less frequent collection efforts. EBPP will also provide consistent and detailed payment information, which is crucial when payment deductions have been taken. Moreover, there are the savings the vendors will realize via the automatic, electronic distribution of invoice data.

The advantages of using EBPP are less clear for business customers than for consumers, and a big hurdle for both to overcome may be cultural. People are very comfortable using paper checks, and therefore not inclined to try less familiar methods of payment that may be perceived as raising the potential for unexpected difficulties. This may be why only two percent of the consumers with the opportunity to pay their bills online currently do so. The transition to EBPP is unlikely to be any more rapid for businesses. It is difficult to imagine buyers spontaneously logging onto multiple vendor EBPP sites to access their bills. Independent consolidators or national clearinghouses may evolve to address this issue, but in all likelihood, a buyer will still have more than one EBPP site from which to retrieve bills and that undoubtedly is counterproductive.

Business-to-business e-commerce tends to push transaction-processing duties that are currently performed by the vendor onto the buyer. That holds true with EBPP since the responsibility for acquiring invoice details rests with the buyer. EBPP sites are unlikely to be used by larger companies with more sophisticated payables processes. When invoice approval involves just one person - for example a small company bookkeeper - EBPP intrinsically provides some level of convenience. However, once multiple people are involved in the payment approval process, EBPP must become much more complex in order to facilitate ease of use. Mechanisms must be created so that not only do bills get presented, but that they, along with supplemental information and documents maintained by the buyer, are automatically forwarded to the person who ultimately approves payment as well as any intermediate signatories along the way. In addition, the larger a corporation the more likely they are to aggressively manage disbursements. Flexibility in terms of payment timing is a critical issue to these firms and they are unlikely to initiate a future debit. Data generated by the EBPP process must also be downloaded into the buyer's financial software. All this added "complexity" is by nature juxtaposed against any "ease of use" objective. In short, EBPP will create more work as well as increase processing time for some buyers.

As a consequence, vendors should anticipate only 5 to 30 percent of their customers, depending upon their industry and their customer's characteristics, being willing to sign onto an EBPP mechanism. Most of these customers will be small businesses that pay their bills from "checkbook accounts" even if they are using some sort of low-end financial software package. Such accounts typically have only one person involved in the payables process, and that person is authorized to approve most everything. So, while EBPP services should appeal to consumers, the SOHO (small office/home office) marketplace, and possibly other small business market segments, it is probably not going to be attractive to mid-sized and large companies.

The Uneven Impact of EBPP

To the Seller	Benefits: Lower invoice delivery and data input costs Reduced collection costs More predictable cash flow Standardized, easily understood remittance details Drawbacks: Do not know for certain if the customer has accessed invoice details until payment has been scheduled
To the Buyer	Benefits: Small companies with “checkbook accounts” may find EBPP convenient to use Drawbacks: Having to go to multiple sites is inconvenient Sophisticated A/P systems may not interface well with the EBPP site Using EBPP may not be a value added proposition for larger firms Higher data acquisition and input costs

The Unfulfilled Promise of EDI

In contrast, EDI has established itself as a workable solution for large trading partners. But the promise of EDI, that it would facilitate the seamless exchange of data between companies of all sizes, has not been realized. Large companies have been willing to embrace EDI, especially with their large trading partners, because of the economies of scale they can realize. Smaller concerns are not so readily able to justify the implementation of EDI, and generally only do so when forced to by an important customer or vendor.

The problem with EDI is that it is costly to implement, maintain and use. Implementing EDI requires an investment in an expensive translator as well as a subscription to a VAN (value added network), which of late have shown a tendency to raise prices. Moreover, each new trading partner, and each new type of transaction with each trading partner that you set-up for EDI requires considerable MIS involvement. This is because there are no identifying tags that travel with EDI data. While EDI standards provide a uniform format for the flow of information, there are frequently variations in how each company uses the different EDI formats. For instance, a long invoice or purchase order number may have to be truncated to fit the EDI specifications. This is why a translator is needed, and why MIS is then needed to map the EDI data into the corporation’s financial software systems.

The Promise of XML

The limitations of EBPP and EDI create a huge pool of enterprises that would benefit from some other process for transmitting and recording remittance data. These companies have fairly sophisticated payables systems and are often processing multiple invoices from an individual

vendor. What they require then is flexibility centered around some common denominator. That common denominator may well be an offspring of the Internet known as XML.

The rise of the Internet has created a storehouse of knowledge, which did not exist just a few short years ago, about the ways data can be exchanged. XML was created out of this growing wealth of understanding to meet the need for moving data around the Internet. The feature that makes it so useful is the tags describing the individual data elements within the XML file. EDI does not have any tags, hence its reliance on standards. Because of its tags, XML transcends any need for additional standards.

The potential advantage of XML is that an XML database obviates the need for an expensive translator. Because of the tags, the recipient of an XML file can understand what exactly has been sent. The receiver is therefore able to readily use XML data files to populate their API's (application program interfaces). Furthermore, Microsoft has said that their Excel spreadsheet program will be able to not only import data from an XML file, but output data in XML format as well. Excel will in effect be a commonly available translator. Virtually all small and medium sized company accounting systems that have been sold in the last 5 years will input or output an Excel file format (.xls file extension). We can also expect in the not too distant future that all the ERP systems will have the ability to map data into their systems from XML files as well as export data in an XML format. Having that capability, accounting software will transmit payment requests to a treasury workstation (which will initiate an ACH) and then create a XML file that will be sent to the vendor as an email attachment. With this type of a process, if you verify the accuracy of the data in your A/P system, you do not need to re-verify it prior to sending it to your vendor. That is where the savings are.

The stopper in the flow of internet or electronic data has been the small to mid-sized company, because these are the guys that could not afford the EDI translator. Now that translation abilities are almost ubiquitous, the only programming task is transferring the data from one software platform to another, a more easily accomplished job. Moreover, by using XML files as the vehicle for exchanging data within the settlement process, it is possible to take advantage of the uniform formats developed for EDI, as well as mapping XML data into EDI formats and vice versa.

The Key Role of Autocash

At this juncture, no new technology is needed in order to fabricate a remittance processing system that takes advantage of data transmitted in XML format. But despite these advances, the most complex part of the settlement process remains matching cash receipt remittance detail to a company's unpaid open items, and any corrections to a customer's remittance detail must be done before posting it to the financial software. Data transfer technologies have essentially no impact on the problems that crop up in the remittance advice to cash posting process, except possibly to reduce re-keying errors. Whether a company receives truncated invoice numbers, purchase order numbers instead of invoice numbers, unspecified payment deductions, and so forth, all these issues need to be resolved before cash can be posted. A good autocash solution will contain complex algorithms to automatically identify an invoice from a partial invoice number or a P.O. number. Moreover, these algorithms can usually identify unspecified

deductions for tax, freight charges, or prompt payment discounts, thus eliminating much research otherwise performed by a remittance clerk.

Other data sources can be used during the settlement process to resolve discrepancies and identify deduction types automatically. For example, many common carriers and courier services now provide delivery information electronically, thereby making it accessible to an autocash system. Another major issue for the food and consumer goods industries is promotional discounts. Information collected by a vendor's trade promotion software is another source for data that might help the autocash software identify remittance discrepancies. In fact, the more complex the remittance process and the more sources of data, the more incentive there is to implement an autocash application. The more data you can provide it, the higher the potential match rates achieved by autocash software.

Adjusting to These New Processes

While the technology for seamlessly moving data from buyer to seller during the settlement process is for the most part available, there remain social constraints blocking ready acceptance. People will have to get used to money flowing through separate channels from remittance data. The fact of the matter is that people are comfortable with paper, especially checks, and so they are naturally hesitant to send everything electronically, much less separate the payment component from the remittance advice. Though ACH transfers have been with us for several decades, and are a cost effective alternative to paper checks (it costs about 10 cents to process an ACH, which is significantly less than for a paper check), corporate treasurers remain reticent about wholeheartedly embracing this well known and proven technology.

The key issue is not the development of new technologies, but the acceptance of already proven technologies. This then speaks to issues involving a generational type change over the next several years. Though the environment is changing very rapidly as far as the way data is going to flow, in regard to the settlement process the only thing that is new are the EBPP systems. Full acceptance of ACH and autocash technologies may therefore have to wait for the generation that is comfortable with EBPP and XML. In all likelihood these new technologies will prevail, but without a catalyst acceptance is likely to be gradual. The good news is, that in addition to obtaining the benefits of automatically (not manually) correcting your customer's cash receipts, those companies implementing autocash solutions will find themselves positioned to accept EBPP and XML based remittance processes when they are available.

Skip Kaiser Biography