Paradigm Shifts

and

Other Consultant-Speak

Six Lessons for Payment Services Providers
in the Internet Age

by
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Introduction

Whoever first observed "the more things change, the more they remain the same" must have had treasury management and the U.S. payment system in mind. True, the treasury management business has grown enormously in the last quarter century, generating revenues last year exceeding $8 billion; and revenue associated with payment system operations has likewise grown, approaching $150 billion in 2000. Also true, technology has engendered radical changes in treasury and payment system services, most of which have been for the better. We now have more computing power on our desktops than existed in the entire economy twenty-five years ago. We can store and analyze billions of characters of information to improve our understanding of the past and better predict the future.

Six Lessons

Successful Internet, e-commerce and B2B delivery requires rational costing and pricing

Successful Internet, e-commerce and B2B delivery requires intimate knowledge about competitors and their strategies

Successful Internet, e-commerce and B2B delivery requires comprehensive management information for planning, execution and performance measurement

Successful Internet, e-commerce and B2B delivery requires substantial Improvement in US and global payment system infrastructures

Successful Internet, e-commerce and B2B delivery requires adequate and appropriate human resources

Successful Internet, e-commerce and B2B delivery requires management skills appropriate to the delivery environment

One expert recently observed that anyone with the right equipment and a desire to do so can download the Encyclopedia Britannica in about a minute, a task the best technology available in 1975 would have required eight days, had it been possible at all.

The Internet and e-commerce, say our gurus, have brought us to the brink of "changing the way business gets done" around the world. Paradigms have shifted and killer apps occupy trillion dollar "spaces" we used to call "markets." We have allies, not vendors, associates, not employees and partners, not clients. We have even conspired to make "legacy" a dirty' word.

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The fact remains, however, we write 40 billion more checks a year than we did in the 1970's when an earlier generation of gurus predicted another paradigm shift, the imminent arrival of a "checkless society." Eighty percent of transaction growth since 1965 has been paper-based and massive technology investments notwithstanding, our payment system retains many of the inefficiencies and risks that plagued it forty years ago. The payments business, including what we know as treasury management, likewise retains many of the problems that haunted its formative years. Failure to deal with these inefficiencies, risks and problems compromises our ability to "change the way business gets done," however compelling the underlying technology.

We face the real possibility our B2B boom will morph into a B2B bust because of lessons unlearned or long forgotten. This paper examines six of these lessons. None are intrinsic to the Internet or e-commerce, though most have implications specific to our new technology environment in treasury and payment system services and to our "new economy." All have potential consequences far greater than anyone could have imagined a generation ago.

Rational Pricing

End user pricing in treasury management and payment system services has never been very rational. Before the mid-197Os, pricing *per se* did not even exist. Banks worked, notionally, for free, and clients compensated them with large sums deposited in non-interest bearing accounts. Bankers determined the adequacy of deposits by guestimating their marginal costs and imputing transaction prices based on guestimated cost assumptions.

There was a certain logic in their method, but it had several flaws. Marginal costing never contemplated the expenses that surfaced when services evolved into lines of business requiring separate management and infrastructure. Marginal costing also stopped working the minute providers, commercial banks for the most part, upgraded computers, purchased additional sorters, or added shifts to their work schedules to keep up with client demand. Worst of all, pricing based on marginal costs made treasury management and payment system services appear more profitable than they really were, in the short term at least. Bank senior managers used rosy projections to justify increased spending in an effort to expand revenues and market share. Corporate clients got a similar message, assumed certain banks were making more money than they deserved, and shopped aggressively for providers willing to accept lower margins.

Neither bankers nor their customers understood what it really cost to provide or purchase services. Bankers lacked information to accurately measure the profitability of products and client relationships, a situation that hardly endeared them to CEOs who had invested in their ideas. Corporate clients came to think the only reasonable prices were ones that were less than they had been yesterday, and that banks hoarded profits from cost-reducing technology investments. These forces

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combined in the eighties to deal the payment system a body blow from which it has never, and may never, fully recover.

Responding to pressure from all sides, providers riveted on cost controls and short-term earnings growth rather than on innovation. They back-bumered promising technologies like image processing because it was cheaper to rev up the throughput on check sorters. They put checks on airplanes rather than invest in secure, high-speed telecommunications, the technology for which existed before 1985. In short, they perpetuated a payment system wed to paper-based transactions, batch processing and non-integrated communication. All because they blundered in assessing costs and setting prices ten or fifteen years earlier.

What has this to do with the Internet, e-commerce, and B2B services? After all, they are the antitheses of paper-based, batch oriented, non-integrated processes. It is not about technology; it's about those early costing and pricing errors and about how providers are repeating the same mistakes they made a generation ago.

Many providers have adopted a "build it and they will come" mentality about everything involving the Internet, e-commerce and B2B services. They assume their multimillion dollar investments will pay off, given sufficient time and a sufficient number of clients, but their idea of "sufficient" is vague. They talk about "thin client" products reducing costs without considering the added expense of network servers, high-speed communication links and the people to maintain them. They believe "teaser" pricing will lure new clients, and they pray future product embellishments will generate investment returns. Just like in the seventies, they are creating products at breakneck speed without knowing what things really cost or how they should be priced. Just like in the seventies, they are creating unrealistic visions of the future for senior management. Moreover, just like in the eighties, they may be setting the stage for retrenchment and draconian cost controls.

Stakes are higher than they were twenty-five years ago. Market entry was cheap in 1975 because it was based on using excess operational capacity, at least at the outset. And since providers were offering treasury and payment system services for the first time, no one worried about their impact on existing revenue streams. Neither is true today.

Software that delivers treasury management and payment services over the Internet comes with seven figure licensing fees, and successful service delivery usually involves multi-provider relationships requiring different, and more expensive, management than was appropriate in a less sophisticated age. These costs have to be factored into pricing formulas, something few providers have thusfar grasped.

Also, "new economy" services will undoubtedly have an impact on "old economy" products like lock box. The same banks that have invested in yet-to-become profitable wholesale lock box imaging systems face the probability their B2B solutions will replace checks with electronic payments generating less than half the per-transaction revenue. Arguably, success with B2B may even create a Catch-22 scenario for some. Consider the possibility that B2B services so negatively impact paper-based transaction volumes that traditional lock boxes, because of their high fixed costs, *cannot* operate profitably. This will certainly happen if wholesale check volume falls by 25-30%. Banks could be stuck with a money losing service from which exit is nearly impossible *(wholesale lock* box is *too important a component of bank-corporate relationships and oulsourcing alternatives are virtually non-existent)*, and where losses balloon even as B2B succeeds.

Competitive Markets

We treated banks like endangered species in the sixties and seventies. Laws and regulations protected their geographic franchises. They had exclusive access to the Fed for settlement, and because, as Willy Sutton observed, “banks are where the money is” they enjoyed a near monopoly on business lending. Cheap retail deposits subsidized commercial activities, a factor in shaping faulty perceptions about costs and prices discussed earlier. Life was good for banks, but it proved a bit too comfortable.

Geographic franchises crumbled early, when some banks found ways to circumvent restrictive regs. For many, workarounds began with treasury management and payment services, later expanding into loan production offices and other areas. As long as they played the game, Chicago banks learned they could compete as effectively in Los Angeles as they could in their own backyards.

Depository and lending franchises crumbled next. Aided by soaring interest rates, money market mutual funds disintermediated nearly $300 billion from commercial banks by 1980. Banks hardly noticed until the damage was done. Then, instead of countering with innovative products like sweep accounts, they fretted over the loss of “free” deposits.

The commercial paper market enjoyed similar growth, depriving banks of lucrative short-term business credits. Foreign institutions did further damage. They flooded the U.S. with cheap loans, and suddenly, U.S. banks were no longer “where the money is.” By 1995, they held only 43% of the domestic commercial credit market. Adding insult to injury, non-bank providers like American Express, Merrill Lynch, and General Electric Credit Corporation (GECC) successfully entered the fray. Some, GECC for instance, focused on specialty markets like leasing and floor planning. They used technology and expertise to outperform banks. Others, like American Express and Merrill Lynch, targeted segments ignored by banks, especially small and low-end mid-market businesses. Using outsourcers, they offered a full range of treasury and banking services. They used mutual funds to pay interest on client “deposits.” They extended credit where traditional providers feared to tread, and they

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offered advice on matters like accounting practices, taxes, and retirement planning. Perhaps most important, they were clear about valuing clients in these segments and wanting their business.

Commercial banks are not entirely to blame for their loss of competitive position, but neither are they quite the innocent victims of the "unlevel playing fields" their CEO's so enjoy complaining about at press conferences and Congressional hearings. True, they are hamstrung, or have been hamstrung in the past, by regulations that increased costs and limited opportunities. They also made some major blunders that they are in danger of repeating with their Internet, e-commerce, and B2B strategies.

Commercial banks do a good job of monitoring their peers, but they can be myopic about incipient competitors, as they were with money funds in the seventies. They consequently lose business, despite having formidable natural advantages. They stand to lose again by underestimating the current generation of challengers. These include, among others, technology companies, community' banks, investment banks, and non-bank financial servicers like those mentioned earlier.

Technology companies want control of financial information and care little about "bank stuff" like lending and Fed net settlement. They can deliver most of what banks provide with no worries about integrating "legacy" processes, and they are unregulated. They are well positioned to cherry pick whatever components of Internet services they find appealing, leaving low value dregs for the banks. Banks either ignore them, assuming there is irreplaceable value in client relationships and having access to the Fed, or they form alliances with technology firms that are, thusfar, unproven. A cynic may recollect the tale about a farmer hiring a fox to guard his chicken coop.

Community and super-community banks will soon have access to the same solutions provided by larger institutions via application support processing (".asp" in web jargon). They may be unable to make billion dollar loans, but their market does not include companies requiring mega-credits. Targeting small and low-end mid-market businesses with high-touch, personalized customer service, community banks are successfully penetrating these highly profitable and long ignored market segments. With Internet, e-commerce, and B2B solutions in their portfolios, they further strengthen their hands. One needs only look at the growing number of *de novo* bank charters in the last five years to see this particular piece of handwriting on the wall.

Investment banks, on their own or in league with others, are a major competitive threat, and not only with respect to Internet initiatives. They, too, are "where the money is," but they enjoy a subtle advantage over commercial banking cousins. Their corporate relationships are typically with Chief Financial Officers, not treasury staffers. Corporate power has been accreting toward CFOs and away from treasury for years, but commercial banks, the largest among them excepted, have done little to re-focus their marketing efforts. Should they

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choose to do so, and some argue Merrill Lynch, with its Working Capital Management and Liquidity Relationship products has already made that choice, investment banks could use their leverage with CFOs to penetrate service areas traditionally "owned" by commercial banks.

The point is this: banks have a history of protection. They consequently have a history of defining "competition" narrowly, and they have a history of being slow in responding to environmental change. There are predators today that did not exist twenty-five years ago. They are well financed, they have little or no "legacy" baggage, they are technology-savvy, and they are accustomed to working in "Internet time," which means moving quickly to get what they want. Commercial banks have been slow to recognize these predators, and they need to be as aware of the newcomers as they are of traditional adversaries. They need to focus more attention on competitive intelligence gathering and analysis if they are to avoid repeating earlier mistakes and succeed in the "new economy." They need to watch the horizon as well as their own backyards.

Management Information

Early developers of treasury management and payment system services put little emphasis on management information. They were more concerned about getting new products "out the door." They lacked adequate technology to gather and manipulate massive amounts of data, and disciplines like market segmentation had not yet penetrated the financial community. When MIS became feasible, there was little money for its development on the commercial side of banks, at least. They spent millions creating data warehouses and super-computer software applications to track and segment retail customers, but few invested in MIS aimed at growing their commercial business bases. Had they done something as simple as analyze outbound wire transfers and ACH transactions, banks would have seen the growth of money funds and may well have avoided massive commercial deposit disintermediation in the late seventies. And had they carefully examined client buying behavior, they may have competed more effectively against foreign lenders.

Sadly, many continue ignoring the benefits of business-oriented MIS as they implement Internet, e-commerce, and B2B services. The reason most frequently offered is that investment dollars are limited and needed elsewhere. With the lynchpins of many B2B strategies being improved cross-selling, more cost-effective client acquisition and better client retention, it seems foolhardy to ignore the need for more and better information, much of which already resides in provider databases. Improved MIS is not an option; it is an absolute requirement in the new economy.

The need for internal MIS is equally evident given prior problems with costing and pricing. The situation in these areas has improved over the years. In an era of rapid change, however, yesterday's truth becomes tomorrow's deception, especially when new revenue

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streams cannibalize older sources. Human resource and management costs are particularly sensitive because there will be a lot of experimentation as providers determine how best to staff and manage their Internet, e-commerce and B2B processes. Financial and non-financial performance measurement is another sensitive are. A prominent Internet guru recently observed, sardonically we hope, that successful providers in the new "space" have to spend "half their time executing strategies, half their time planning next steps and half their time measuring what they've done (sic)."

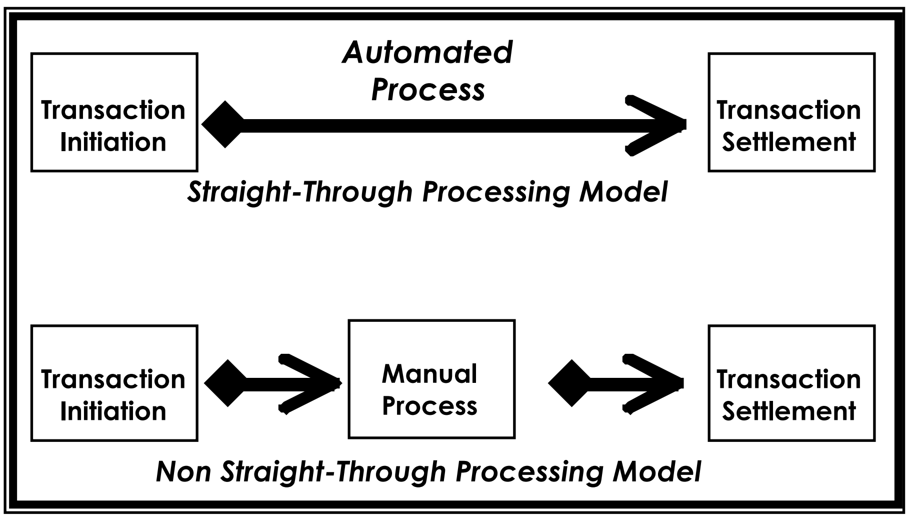
Infrastructure

Treasury management and payment services providers have a lot to say these days about "straight-through-processing," or STP. The concept underlying STP is simple; i.e. payment transactions should be executed without interruption or manual intervention from initiation to settlement. STP has gotten more attention in Europe since the introduction of the euro than it has in other parts of the world, but it is no less a factor in "changing the way business gets done" in the Americas and Asia.

American providers of treasury management and payment system services face two STP problems if they are to lead the Internet, e-commerce, and B2B revolution. One is the absence of a global mechanism for high volume, low value payments; the other is historical inefficiency and lack of innovation in the U.S. payment system itself.

Credit cards offer near universal support for payment making, but they are expensive, have limited facilities for communicating information, and in many parts of the world are subject to country-specific settlement rules. High value mechanisms, especially when participating banks assess lifting charges, are likewise expensive and inappropriate for many transactions. While there are several national ACH systems, transaction formats are irremediably incompatible, limiting their utility in global e-commerce. There are many initiatives underway aimed at developing a global ACH, the National Association of Automated Clearinghouse's "WATCH" project among them. They are all early stage initiatives, however, and are years away from being fully operational.

As the planet's largest marketplace, the U.S. has most to gain from supporting development of a global low-value payment system. It is incumbent upon U.S. service providers to support rapid creation of a system that works for everyone. In doing so, U.S. service providers should recollect the pain of our country's decades long and largely unsuccessful struggle to implement financial electronic data interchange (FEDI). That effort failed for three reasons. Fewer than 1,000 U.S. banks invested in the technology needed to implement FEDI, making access less than universal. There was endless squabbling over security issues and data formats that encouraged enthusiasts to focus on non-financial applications rather than on payments. Moreover, end-user implementation costs were significant compared to end-user benefits, and providers did little to mitigate these costs. A successful low-value payment system must be universally accessible. Its rules and formats must be stable and acceptable to all participants, even if the result does not meet every need under every circumstance, and implementation must not require extensive retrofitting of existing applications.



Service providers must also address historical inefficiencies and the lack of innovation in the U.S. payment system itself. America's love affair with paper checks remains a daunting challenge to STP and, consequently, to successful future operation of Internet, e-commerce and B2B services. In 2000, Americans wrote about 65 billion checks, 35 billion by consumers and the remainder by businesses and governments. Consumer originated check volume is growing by about 3% a year, and there is no credible evidence consumer behavior will change in the near future. Business and government check volume has been stable for the last few years but not because of significant payment electronification. Businesses have been centralizing their accounts payable operations as part of broader re-engineering efforts. More invoices are being paid with each check than in the past, and volume growth, consequently, has slowed. If Internet, e-commerce and B2B services really catch on as the gurus predict, business and government check volume may decline by 9 -10 billion transactions, but there will still be 20 billion business checks written and processed each year, each at a substantially higher cost than is currently the case.

Check processing, by its nature, fails the STP test. The process is interrupted every time an item goes into the mail. It is interrupted again when receipts are manually processed in bank lock boxes, when they are couriered from depository banks to drawee banks and again when they are posted to the writer's account. At every point of interruption, delay, error, and fraud are possible. Paper checks are and will remain, however, a force with which payment services providers must reckon, and providers should be thinking about several things.

They should be thinking about a processing environment that cost effectively supports new and old economy infrastructures. That means higher costs for providers and customers and possibly lower returns on new economy investments than CEOs or stock analysts anticipate. Someone should be managing the expectations of people who pay the bills and set stock prices before there are unpleasant surprises and another era of ill-considered cost controls.

They should be thinking about improving the efficiency of check processing and making checks less susceptible to fraud. Truncation at the bank of first deposit combined with electronic presentment/clearing will save billions a year; Converting checks to electronic debits at point-of-sale will reduce costs for banks *and* depositing customers. Both will reduce fraud by accelerating the clearing process. Even Alan Greenspan in his keynote address at this year's NACHA conference suggested converting lock box receipts to ACH debits for processing and clearing. E-check initiatives, using digital signatures, should also be encouraged.

Management and HR

Managing development and delivery of treasury and payment system services was relatively simple in years past. It all happened inside a bank. Someone had responsibility for operations and delivery, and someone had responsibility for everything else. Customer service was a "wild card," at times reporting on the operations side and at times on the "everything else" side. Banks controlled the supply chain. They were developers, manufacturers, and distributors of treasury and payment system services. They also provided post-sales support. They "owned" their client relationships exclusively.

Things changed when profits were squeezed in the early eighties. Outsourcing became popular as a means of controlling costs. Small banks outsourced all their operations; larger ones outsourced selectively. Except where they totally abandoned a product or service, as some did with retail lock box, banks outsourced components, not products. If they no longer controlled the entire supply chain, they retained responsibility for "final assembly" as well as for development, distribution, and post-sales support. They still "owned" their client relationships.

Product management emerged as a separate discipline, fitting between "operations and delivery"' and "everything else" about the same time. Arguably, it was banking's most important and innovative organizational change of the decade. Bank CEOs recognized treasury and payment system services had become real lines of business fundamentally different from the organizations that spawned them, and they needed a different kind of management. The Monetary Control Act of 1980 had gotten the de-regulation ball rolling, people talked about how personal computers would revolutionize banking, and industry' earnings tanked over high interest rates, bad third world loans and rapidly escalating operating expenses.

Product managers, many recruited from other industries, helped rationalize costs and prices for the first time. They introduced new marketing concepts and brought structure to product development. Their work laid a solid foundation for revenue and profit growth in the subsequent decade. The success of product management offers three powerful lessons for providers moving into the Internet, e-commerce and B2B age: new circumstances may require new management techniques, the success of old techniques notwithstanding; new techniques may require skills not present in the current organization; and, you have to spend money to make money. The industry's investment in product management was large, and it drove up compensation expenses, generally, but it paid off handsomely.

The Internet and e-commerce are challenging current management models, just as the Monetary Control Act, third world lending errors, and poor cost controls challenged earlier ones. This is particularly true in sophisticated arenas like exchanges and auctions. No one has yet articulated what the replacement model will look like, but it is clear banks will participate in the supply chain differently than they have in the past. They are more likely to be integrators of others' work than they are to be "full-line" or even "final assembly" manufacturers, their role more comparable to that of an orchestra conductor than to a violin maker. They are more likely to share distribution responsibility with others, providing clients with access and services ancillary to the auction or exchange. They will probably share distribution, as well as post-sales support, with *many* others, depending on the breadth of their e-commerce offering. They will consequently share ownership of client relationships with supply chain partners. What they will not share is responsibility for client satisfaction. They will retain that exclusively for clients they bring into the e-commerce space, because clients will demand that of them.

That means banks must manage something over which they have little direct control and where success depends, among other things, on complex interactions among largely autonomous supply chain elements. Banks with strong product management functions will have an easier time with this than others, but evolving "product managers" into "alliance managers will challenge even strong banks. The function will require more technical strength than in the past, and negotiating skills will be at a premium. The important thing is that banks recognize the need for adapting to the new environment and begin doing something about it.

It is also important banks acknowledge they may no longer have the skills necessary for transformation inside their own organizations. Industry consolidation hastened a massive "brain drain" in the nineties, with many talented, experienced people "taking a package" rather than remaining in high pressure jobs subject to constant "right sizing" and peer competition with every' merger.

Transformation requires both the right human resources and the *right number* of human resources. With the industry employing several hundred thousand fewer people than it did ten years ago, "right" resources are hard to find, internally at least, and getting the right head count is even harder. "Do more with less" is banking's

HR mantra for the millennium. While that may appeal to security analysts as they calculate efficiency ratios, it does little for product managers with overloaded to-do lists and nothing in the personnel budget. CEOs acted with courage when they first invested in product management, and the investment, even if it put a drain on short-term earnings, paid off handsomely. The lesson needs to be remembered in the Internet, e-commerce and B2B era.

The six lessons are speculations about things that may happen in the future, but they are reality-based. Real people doing real business got into real trouble because they were not rational about costing and pricing their services. They paid insufficient attention to competitors, had little time or money for MIS, failed to consider infrastructure issues, and misjudged human resources needs.

The history of treasury management and payment system services is littered with examples, but two are particularly relevant. One involved attempts to electronify payments with FEDI, or Financial Electronic Data Interchange. These efforts were discussed earlier. The other involved an entire industry's attempt to capitalize on personal computer technology with what it called "treasury workstation software."

IBM opened the floodgates with its 1981 introduction of a 16 bit, 4Mgh desktop computer everyone called the PC. When the Association of Financial Professionals (then, the National Corporate Cash Management Association, or NCCMA) held its annual conference two years later, sixty-three different vendors were on the exhibit hall floor hawking "treasury workstations." Everyone described their product as "innovative" and "unique," but they were all pretty much the same. They telephoned banks and downloaded balance information; they had interfaces to popular spreadsheet programs like Lotus 1-2-3™; they created simple "export" files that fed other applications and for some inexplicable reason, almost all included a word processor or text editor. The more elaborate included "debt and investment" modules that were glorified spreadsheet templates.

Most of these products (and most non-bank providers) vanished over the next two years. When Treasury Strategies published its study of the workstation market in 1985, its primary conclusion was that developers, banks and others, had plowed over $100 million into creating products the potential market for which was about half that amount. There was little evidence to challenge that finding until workstations successfully re-surfaced in the nineties with sophisticated functionality and price tags reflecting what it really costs to sell and service clients.

Early workstation developers never bothered with marketing research. They assumed they knew what customers wanted. They also assumed customers would pay up to $2,000 a month for access to their products, never considering their work could be replicated with less than $1,000 worth of off-the-shelf software and a modem. They left customers on their own to deal with infrastructure problems, which had mostly to do with linking work-

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stations to applications like general ledger and accounts receivable. Worst of all, they grossly underestimated client requirements for on-going support What started as a "shrink-wrapped" software business turned into a massive resource drain as product developers and product managers became customer service reps forced by circumstance and "relationship issues" to deal with every glitch encountered on every customer PC. The only lesson not writ large in the treasury workstation fiasco was the one about MIS, be-cause no one ever sold enough software to warrant its development.

Philosopher George Santayana once said that people who failed to learn from history were doomed to repeat it. Will that be the case with Internet, e-commerce, and B2B services? Are we about to "change the way business gets done" around the world or is B2B just FEDI for the millennium? What do you think?

About the Author

Dick Poje recently formed his own firm, R. J. Poje and Company to provide consulting services in the areas of strategy development and technology integration. Previously, he had been a Partner and Director of Treasury Strategies, Inc. since 1985. Dick has been active as an entrepreneur and management consultant in the treasury and payment communities for more than 30 years.

A co-founder of Phoenix-Hecht and its Chief Executive Officer for many years, Mr. Poje brings a unique, entrepreneurial perspective to client engagements. He advises senior managers of client organizations on strategic matters related to cash and treasury management and the payments system. He assists financial services firms in the formation of strategic alliances in various product areas, advises the Federal Reserve on its continuing role in the payment system and works with a number of private and public sector clients in re-engineering treasury and related operations.

Mr. Poje is a frequent contributor to industry publications and a respected commentator on developments in treasury management and the payment system. His article, "Avoiding the Pitfalls of Electronic Commerce," appeared in the January 1998 issue of the TMA Journal. In 1997 he co-authored "Electronic Commerce and Financial EDI: An Examination of Innovation in the Electronic Payments Arena". His article, "A Blueprint for Leadership: the Federal Reserve in the U.S. Payment System" was published last year in the American Banker.

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