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CITIBANK'S E-BUSINESS STRATEGY FOR GLOBAL CORPORATE BANKING (2008)

In 2000, in response to intense competition and the dotcom boom, Citibank made a serious push to deliver integrated solutions that enabled its corporate customers to conduct business online. Citibank's e-business strategy ("connect, transform and extend") was to web-enable its core services, develop integrated solutions and reach new markets. Citibank aimed to build a single web-enabled platform for all customers with similar needs. Following the success of CitiDirect, a corporate banking platform which was developed in 2000 and strengthened in 2003, Citibank started to develop TreasuryVision as a replacement to suit the changing marketplace.

When developing its e-business, Citibank faced constant challenges in serving corporate customers with diverse needs. Sophisticated clients, such as multinational companies ("MNCs"), required custom-built host-to-host product interfaces. Other customers, such as small- and medium-sized enterprises ("SMEs"), were more conservative and were not ready for web-based solutions. Meanwhile, Citibank was under increasing pressure to cut costs and improve efficiency. Especially following the outcry over subprime mortgages in October 2007, Citibank had to face a very tough business environment.

How could Citibank build a flexible and agile e-business product that could capture its clients' total cash-management and trade-service needs? Meanwhile, how could Citibank use its e-business strategy to lower costs and improve efficiency? Given Citibank's enormous global reach, how could it integrate internet initiatives into its overall strategy and create sustainable competitive advantages?

Global Corporate Banking at Citibank

Citibank was incorporated in 1812 as City Bank of New York. The bank experienced several mergers after its inception. The name Citibank N.A. was adopted in 1976. Following its merger with Travellers Group in 1998, the holding company changed its name to Citigroup

Dr Minyi Huang prepared this updated version of the case with the same title published in 2001 under the supervision of Professor Julie H. Yu and Professor Ali Farhoomand for class discussion. This case is not intended to show effective or ineffective handling of decision or business processes.

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Inc (“Citigroup”). In 2006, Citigroup employed 325,000 staff serving 200 million customers in over 100 countries and had an information technology (“IT”) expenditure of US\$3,762 million.

Starting in the 1990s, Citibank’s corporate banking activities evolved from a highly decentralised set of operations to becoming more centralised, with much attention focused on 1,400 large global corporations and institutional investors.¹ Starting in the mid-1990s, Citibank transformed from a geography-based organisation into a multi-dimensional one with the geography factor significantly de-emphasised. Customer needs became its first priority, while product types were given second priority.²

By most measures, Citibank was the most global US bank. In 1997, Citibank became one of the most profitable banks in the US, with the annual profit of US\$3.59 billion, of which global corporate banking accounted for US\$2.56 billion. Citibank’s global corporate banking business continued its healthy growth. The bank’s Cash and Trade service was a core product offered to corporate customers. By 2000, Citibank’s Cash and Trade division had already exceeded US\$1 trillion in financial transactions for customers and counterparts around the world daily. These included foreign exchange transactions, equities, deposits, settlement of trade transactions and payment of insurance policies. In 2006, the income from its global corporate and investment banking activities reached US\$7.127 billion, a 3% increase from US\$6.895 billion in 2005.³

Citibank developed a strategy for its corporate banking operations, and its target corporate client base included MNCs, financial institutions, government sectors, local corporations and SMEs. Citibank differentiated itself from other banks through customer service by offering telephone hotlines, relationship managers who understood clients’ needs and product consultants who provided service expertise. Most importantly, Citibank made continuous investment in technology to support both the front-end and back-end electronic banking systems.

For corporate customers, Citibank provided a full range of financial services, except for investment banking services in the US. The core products were broadly grouped into three categories:⁴

- Transaction services, such as cash management, trade and custody services
- Corporate finance services, such as working-capital finance, trade finance and asset-based financing
- Treasury market services, such as hedging and foreign exchange.

Citibank aimed to make the organisation accessible to its corporate customers by using its unified platform and group-wide expertise. It used a team coverage approach, which allowed Citigroup to work closely with each function in a client’s organisation.

Cash Management⁵

The main focus of cash management was to find ways to move money around in the most efficient manner possible in order to meet customers’ requirements. Two crucial aspects of a

¹ Baron, D. and Besanko, D. (2001) “Strategy, Organization and Incentives: Global Corporate Banking at Citibank”, *Industrial and Corporate Change*, 10(1), pp. 12–14.

² Ibid.

³ Citigroup (2006) “Annual Report”.

⁴ Baron, D. and Besanko, D. (2001) “Strategy, Organization and Incentives: Global Corporate Banking at Citibank”, *Industrial and Corporate Change*, 10(1), pp. 12–14.

⁵ This section adapted from: Citigroup (2008) “Global Transaction Services: Cash Management”, www.transactionservices.citigroup.com/transactionservices/homepage/cash/cash_mgmt.htm (accessed 18 February 2008).

corporate treasurer's needs were accounts payable and accounts receivable. In 2000, Citibank focused on developing solutions to address three process areas: accounts receivable process management, accounts payable process management and liquidity management [see **Exhibit 1**]. In 2007, after continuous developments, Citibank's cash management products included web-enabled payment and receivables solutions, vendor financing, commercial card solutions, and liquidity products designed to help customers to reduce financing costs and achieve greater returns on assets.

To help customers make payments, WorldLink Payment Services had been Citibank's cross-border banking solution for over 20 years. Using WorldLink Payment Services, payments could be made in over 135 currencies through a range of payment options including cash, cross-border Automated Clearing House (ACH)⁶, cheques and electronic funds transfers. There was no need for multiple foreign currency accounts, and transactions were protected by sophisticated encryption technologies, access restrictions and authentication procedures. Citi's QuikRemit Service, a newer service, offered a robust software platform and global distribution network to process funds transfers effortlessly across borders. QuikRemit allowed corporate customers to offer both in-branch and web-based money transfers to their own customers.

In terms of receiving payments, Citibank's Customer Initiated Payments offered an integrated solution enabling corporate customers to offer web and telephone payment capabilities to their clients. Corporate customers were able to develop a tailor-made internet payment application hosted on the Citibank Customer Initiated Payments system that provided one-time or automated recurring payment initiation. This solution also included a touch-tone telephone payment application for one-time payment initiation as well as a customer service console to enable payment initiation by an operator.

With the help of advanced IT to ensure the security and integrity of data and transactions, Citibank's commercial cards offered an array of web-based programme management tools designed to streamline payment, reporting, spend analysis, global data consolidation and other critical day-to-day processes. In Asia, commercial cards enabled corporate customers to receive consolidated spend data for all countries within Asia which could be easily leveraged during supplier negotiations. Corporate customers could also work with a single Citi sales manager who was responsible for programme implementation across all participating Asian countries. Therefore, clients could benefit from consistency in products, delivery and services. By the end of 2007, Citibank remained the only bankcard issuer in the financial industry that was able to deliver local-currency and local-language programmes to clients worldwide by using its own proprietary systems and customer service operations.

Citibank also offered an array of integrated investment options through multiple channels, including automatic orders, branch services and online services. Through its network of Liquidity Desks, Citibank provided a central point of contact to facilitate investment transactions in every major region. Citibank's Online Investments was a global, secure, web-based system allowing customers to access a variety of short-term investments using its award-winning, web-based electronic banking platform, CitiDirect Online Banking which was later replaced by TreasuryVision. This portal allowed customers to actively manage their short-term investment portfolios with the maximum amount of convenience and efficiency. Citibank was able to combine a superior cash-management system with its global investment network to provide a powerful yet convenient way for customers to invest.

⁶ Introduced in the 1970s as an alternative to traditional cheque payments, ACH is a secure network connecting banks to each other. Direct deposits, electronic payments, money transfers, debit-card payments, business-to-business payments, and even tax transactions may be processed through the ACH network.

Citibank also offered Target Balancing and Notional Pooling as integrated parts of its Global Liquidity and Investments product suite. Target Balancing was an automated process that concentrated end-of-day balances from a source account to a target account, while these services were maintained in-country, regionally and globally and encompassed structures operating within a single branch or multiple branches throughout the Citi network. Notional Pooling was ideal for corporations with decentralised operational structures that wanted to preserve the autonomy of their subsidiaries and accounts. Pool participant accounts in a single currency were aggregated for interest compensation purposes. Funds were not physically moved, but were instead notionally combined. Notional Pooling enabled corporate customers to minimise interest expenses by offsetting debit and credit positions while preserving autonomy, control and record-keeping. Customers were also able to benefit from offsetting without movement of funds, automating interest reallocation, reducing operating expenses and concentrating balances. Notional Pooling was used in conjunction with Target Balancing and Automated Investments to enable corporate customers to fully realise the benefits of a global liquidity structure.

Securities and Fund Services⁷

By 2008, Citibank had developed the financial industry's largest proprietary network, covering 49 markets with more than US\$12.5 trillion in assets under custody. Citibank offered international securities trading and investment services to intermediaries. Citibank's Agency and Trust could provide support to help issuers raise short-, medium- and long-term debts in all major markets. Additionally, Citibank's Depositary Receipts(DR) could provide a wide range of pre- and post-DR programme services.

Trade Services and Finance⁸

Back in 2000, Citibank already offered Trade Finance, Trade Services and Trade Support Services. These product offerings covered the banking service and financing needs of customers who conducted import or export trade transactions [see **Exhibit 2**].

In 2007, Citibank was able to offer efficient services to both importers and exporters. With the largest proprietary network in the world, Citibank offered exporters the global reach and local intelligence to trade securely and efficiently across borders. For importers, Citibank also provided an array of products to help conduct, monitor and control international commercial transactions as well as mitigate the associated risks.

Citibank's global electronic banking service was a comprehensive system for initiating transactions and managing financial data activities. Customers could access information and manage all their banking transactions, trade services, cash management and foreign exchange data from the multiple locations around the world where they conducted their business. They could control the entire trade process, including advising and confirming letters of credit, establishing direct export collections, initiating and tracking payments, retrieving timely status reports, communicating via an online customer service facility, retrieving real-time data worldwide, and customising reports using data from different systems.

Pricing and Customer Service

Citibank set a standard price for each service, but price discrimination was discretionary based on client volume and value. While some banks competed on price, Citibank emphasised customer service (eg, response time, technology and support), which gave customers full

⁷ This section adapted from: Citigroup (2008) "Global Transaction Services: Securities and Fund Services", <http://www.transactionservices.citigroup.com/transactionservices/homepage/securitiesfunds.htm> (accessed 18 February 2008).

⁸ This section adapted from: Citigroup (2008) "Global Transaction Services: Trade Services and Finance", <http://www.transactionservices.citigroup.com/transactionservices/homepage/trade/index.htm> (accessed 18 February 2008).

confidence in using Citibank. Citibank had moved beyond traditional boundaries of banking services by taking over some of the back-office functions of its customers. Customers could move away from the paper-based, labour-intensive payment and collection process, and instead focus resources on their core business of generating sales and revenue. The value to Citibank in offering outsourcing services was to lock in its corporate customers; when a customer outsourced all of its back-end processes to Citibank, Citibank not only secured all the businesses from the customer, but also gained a deeper relationship with the customer. Managing processes for a large number of customers also provided Citibank with economies of scale.

We have the economy of scale and it is viable for us to do all the back-end processes—because the more processes we do for more customers, the lower the unit cost. So our strategy is to get as many outsourcing customers as we can, and by providing the outsourcing, we get the total wallet of the client.

- Caroline Wong, head of e-Business Group (Cash & Trade), Citibank Hong Kong⁹

Citibank also used technology to provide customers with better services at lower costs.¹⁰ In 2006, for example, it invested in an electronic communications network that provided state-of-the-art technology for immediate access to liquidity.

A Changing Global Environment

Difficult Operational Environment

Banks were always under the pressure of revenue and earnings growth to intensify cost-reduction efforts. In an era of tough competition, banks could not simply use headcount reduction and belt-tightening efforts and needed to find ways of increasing operating efficiency while maintaining or even improving services to customers.¹¹

Banks needed to increase their profit margins. Net interest margins were falling and fee income growth did not increase as expected. For example, net interest margins fell from 2% in 2004 to about 1.8% in 2006 for the 70 largest European banks.¹² Meanwhile, competition kept charges for credit cards relatively low; bank customers did not embrace brokerage or life insurance services. Moreover, regulators had made an effort to cap fees or require greater transparency of bank charges in recent years.

Between 2005 and 2006, Citigroup's revenue grew 8%; however, its operational expenses grew by nearly 15%. Therefore, in April 2007, Citibank announced an overhaul of its IT operations and cut 17,000 positions in order to save the company more than US\$10 billion in three years' time. Charles Prince, then the company's chairman and chief executive, said that the goal was to identify and eliminate "organisational, technology and administrative costs that do not contribute to our ability to efficiently deliver products and services to our clients".¹³

⁹ Company interview in July 2001.

¹⁰ Citigroup (2006) "Annual Report".

¹¹ Deloitte (2007) "Global Banking Industry Outlook: Issues on the Horizon 2007", <http://www.deloitte.com/dtt/cda/doc/content/banking.pdf> (accessed 20 February 2008).

¹² Ibid.

¹³ Vijayan, J. (2007) "Citigroup to Lay Off 17,000, Overhaul IT Operations", *ComputerWorld*.

Moreover, as a result of the subprime mortgage crisis in the US, a credit crunch¹⁴ emerged in October 2007. The subprime market was focused on providing loans to those with limited or poor credit histories. During the US housing boom between 2000 and 2006, this market expanded significantly, but a series of interest rate rises between 2006 and 2007 meant many subprime borrowers could no longer afford their monthly payments, causing them to default on loans.

In November 2007, Prince had to resign after the full extent of Citigroup's subprime mortgage losses began to emerge. Vikram Pandit took up the top job in Citigroup in December 2007. Then, on 15 January 2008, Citigroup announced a US\$9.83 billion net loss for the last quarter of 2007. Pandit explained that this loss was due to a US\$18.1 billion exposure to bad mortgage debt and was "clearly unacceptable". The group announced that revenues during the fourth quarter had fallen 70% from a year earlier to US\$7.2 billion.

Smarter and Tougher Customers

Citibank had developed expertise and had specific coverage models to serve different market segments. However, as more of Citibank's clients expanded their businesses globally and became e-enabled, it became necessary for Citibank to shift to e-space. In particular, corporations that historically dealt largely through wholesale channels had found that the internet allowed them to sell directly to customers. Sophisticated corporate customers began to look for an additional range of services. They wanted to collect payment online and have access to more efficient web-enabled financial processes.¹⁵

Middle markets were also driving the growing need for internet banking capabilities. A study by Greenwich Associates in May–June 2001 showed that over half of the middle-market companies in the US and Canada were using their financial institutions' online banking facilities more often. Nearly 50% of respondents said online offerings represented an important component of their banking relationships and cash management had the steepest gain in usage among mid-size companies.¹⁶ Banks were therefore compelled to identify what companies were looking for and to keep up with the customers with whom they were supposed to develop consultative relationships.

The Business-to-Business (B2B) Market

Sophisticated clients were looking for ways to streamline and improve their traditional payment processes. They demanded electronic invoicing, automatic application of payments to accounts receivable, online payment guarantees and non-repudiation of transactions that could be enabled by digital receipts stored in archives. On the payment side of transactions, businesses required multi-currency payment management and payment aggregation by invoice and currency. Most companies were interested in technological solutions that allowed them to avoid paper disputes, which meant that the information flowing with a payment was deemed to be as important as the payment itself.¹⁷

¹⁴ A credit crunch was "a state in which there is a short supply of cash to lend to businesses and consumers and interest rates are high". Princeton University (2008) "Credit Crunch", wordnet.princeton.edu/perl/webwn (accessed 20 February 2008).

¹⁵ Cockerill, C. (January 2001) "Cash Management Takes to the Internet", *Euromoney*, 381, p. 105.

¹⁶ Greenwich Associates was an international research and consulting firm specialising in financial services. Greenwich Associates interviewed 500 corporate treasurers and other executives at middle-market companies in the US and Canada in May–June 2001. See also: Rountree, D. (2 November 2001) "Importance of On-Line Banking", *Bank Technology News*, 14(11), p. 86.

¹⁷ For example, if a company shipped a buyer 100 products at US\$10 per piece, but five of the products were defective, the company might simply remit US\$950 electronically without any information about the defective products. In such a case, there would be greater possibility of costly payment processes because of back-and-forth inquiries. The solution would be to send a paper explanation; however, this could translate to additional billing inquiries and disputes.

TowerGroup, a research and consulting firm, predicted that payment activities would migrate to the internet and that there would be US\$4 trillion in B2B e-payment activities by 2010. TowerGroup also reported that in 2000, more than 90% of all B2B payments were made by cheque, with 7% occurring over the automated clearinghouse (“ACH”) network, a non-internet system designed to handle large payments, and the rest using financial Electronic Data Interchange (EDI) services such as Fedwire.¹⁸ The majority of small businesses used traditional payments such as cheques; large companies that used ACH did not have the complete data that were necessary for a B2B payment. In addition to cheques, various payment methods were available, with clearance time varying according to the method:

- Notes and coins: Notes and coins paid into an account did not require clearing; they had no particular attraction for banks, especially in large volumes, because they were a non-interest-bearing item.
- Banker's draft: This was a cheque drawn on a bank. Payment by banker's draft was guaranteed.
- Credit cards: Made by voucher or electronically, voucher payments were processed in a way similar to cheques.
- Special presentation of cheques: This payment method was taken only in cases of extreme doubt about a customer. For example, a payee company could ask its bank to make a special presentation of the cheque by posting the cheque to the paying customer's bank.
- Transfers: Funds were transferred from one bank account to another on receipt of instructions (through telephone, subsequently confirmed by writing, on paper, sent by cable, telex or an electronic processing centre) by the paying bank to make the payment.

Bank-to-corporate connectivity was proven to be the biggest hurdle in enabling straight-through processing in treasury- and cash-management across organisational borders.¹⁹ In 1999, corporate customers could access SWIFTNet²⁰ to exchange confirmations with their banks through a programme called Treasury Counterparties. In 2002, access was enhanced by the Member Administrated Closed User Group, where a company could join SWIFTNet if a member bank sponsored it. Though there were no limits on the messages that the corporate customer could exchange with the sponsoring bank, the communication was limited to the sponsoring bank and it was expensive and troublesome for corporate customers to reach an agreement with the banks.

Since the beginning of 2007, most large corporate customers had begun using a new legal model for accessing SWIFTNet: Standardised CORporate Environment (“SCORE”). Using the SCORE model, a corporate customer could access all participating banks with only one agreement in place. SCORE also laid down rules for the messages that could be sent within the SCORE framework. The only exception was for FileAct messages, where the body of a FileAct message could contain any type of messages, such as an EDIFACT²¹ or ISO 2002²² format message. The introduction of SCORE was intended to make it easier, cheaper and less risky for corporate customers to switch between banks because no technical or format changes needed for corporate customers in switching banks.²³

Many banks openly admitted that formats and connectivity was no longer a competitive space but instead a place for co-operation, using standards to reduce costs for their customers as

¹⁸ To use the ACH network, a company was required to have between US\$10 million and US\$50 million in annual revenues.

¹⁹ Jensen, J. (16 August 2007) “Bank-to-Corporate Connectivity: The Next Stage”, www.gtnews.com/article/6878.cfm (accessed 13 February 2008).

²⁰ SWIFTNet is a general purpose, industry-standard solution for the financial industry. It provides an application-independent, single window interface to all the financial institutions around the globe.

²¹ EDIFACT is the international EDI standard developed by the United Nations.

²² ISO is a worldwide federation of National Standards Body. ISO20022 (UNiversal Financial Industry message scheme (UNIFI) provides the financial industry with a common platform for the development of messages in a standardised XML syntax.

²³ Ibid.

well as themselves. The competition would be in the value-added services that banks sold to customers.²⁴

Competition

Some MNCs could not wait for banks to develop web-enabled financial products, so they started building their own systems and looking for ways to disintermediate banks. Other corporations approached the banks and announced their interest in participating in future developments. New technology, however, required major investments in people, risk and technological services that some banks were not ready to make. The banking industry's trend towards consolidation meant that fewer banks were competing in the global transaction services marketplace. Deutsche Bank and Citibank were two leading banks that had invested hundreds of millions of dollars in the infrastructure required to move and monitor cash balances online. ABN AMRO was also making a serious push to develop its product range.

In early 2001, Deutsche Bank sought to outdo its competitors by building a global payment system capable of accommodating many currencies, languages and local business practices through its db-eBills service. More large banks sought partnerships to provide total, global business solutions. In international cash management ("ICM"), companies either partnered with a lead bank that put together a solution for them, or dealt directly with local banks. The majority of companies used a lead bank to provide a solution in four ways: using correspondent banks, acting as an overlay bank, becoming a member of a banking club or bringing together a network of standardised service providers [see **Exhibit 2**].

Most Fortune 500 companies preferred Citibank when making international e-payments.²⁵ Although Citibank established itself as a strong contender in the e-payment space, technology companies competed heavily by using their technological expertise and interests in providing new services.

Regulatory Scrutiny

Risk management and legal compliance were priorities for banks in 2008.²⁶ Regulators took an increasingly cross-platform view of risk and therefore expected banks to increasingly connect exposures across channels and payments, which put more pressure on bank architectures where risk management was usually buried at the platform level. For example, the implementation of Basel II²⁷ had increased the pressure on information systems functions and encouraged banks to develop integrated information systems strategies and consequently amend their existing IT infrastructures.²⁸

Regulators were also more cautious about privacy issues. They expected banks to be able to identify specific data breaches quickly in order to limit any damage as a result of fraud.

Additionally, with the growing number of non-bank processors in the marketplace who were generating numerous transactions within the banking systems, regulators were scrutinising these third-party arrangements much more closely to ensure that banks understood the

²⁴ Ibid.

²⁵ Clark, P. (25 June 2001) "No Longer Banking on Exchanges", *B to B*, 86(13), p. 13.

²⁶ DeZoysa, S. (16 August 2007) "A Strategy for Future Growth: Banking Challenges and Trends", <http://www.gtnews.com/feature/201.cfm> (accessed 12 February 2008).

²⁷ The Basel Accords are issued by the Basel Committee on Banking Supervision to make recommendations on banking laws and regulations. Basel II is the second of the Basel Accords, which is about how much capital banks need to put aside to prepare for the types of financial and operational risks banks face.

²⁸ Papanikolaou, A. (16 August 2007) "Impact of Basel II on Bank's IT Strategies", <http://www.gtnews.com/article/6875.cfm> (accessed 13 February 2008).

underlying commercial purpose and ensure that a bank's operations were not hijacked for fraudulent purposes.

Citibank's E-Business Strategy

We are here to serve our clients: whatever our clients want us to do we'll do it for them. We're into e-business not because we're into the dotcom business; we're here because our clients want us to continue performing the basic banking functions for them on the web.

- Caroline Wong, head of e-Business Group (Cash & Trade), Citibank Hong Kong²⁹

Citibank's vision was to become the world's leading e-business enabler. It aimed to empower local, regional and global customers and the business-to-business-to-consumer (B2B2C) marketplace and provide solutions to help them take advantage of the efficiencies and opportunities created by e-commerce. Citibank's e-business strategy to "connect, transform and extend" was a means to deliver on its vision.



Figure 1: Citibank's E-Business Strategy³⁰

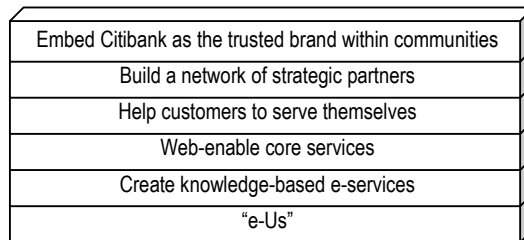


Figure 2: The Six Key Elements of Citibank's E-Business Strategy

Meanwhile, with technology investments in the global financial service industry growing at a rate of 4.2% per year, Citibank tried to manage the overall costs of IT investments. The plan announced in April 2007 to overhaul IT operations included: the consolidation of data centres; better use of existing technologies; optimisation of global voice and data networks; standardisation of its application-development processes; and vendor consolidation. As Citibank stated, "simplification and standardization of Citi's information technology platform will be critical to increase efficiency and drive lower costs as well as decrease time to market."³¹

Citibank's E-Business Structure

In March 2000, Citigroup chief executive Sanford Weill announced the formation of the Internet Operation Group, a high-level committee charged with spreading responsibility for internet activities more evenly between e-Citi, an incubator for internet initiatives, and the

²⁹ Company interview in July 2001.

³⁰ Asiamoney (May 2001) "CitiDirect Online Banking—A New Era in Business Banking", p. 84.

³¹ Vijayan, J. (11 April 2007) "Citigroup to Lay Off 17,000, Overhaul IT Operations", *Computerworld*.

bank's business units. In April 2000, the group announced the second phase of Citigroup's internet activity, which involved the creation of two units aimed at infusing the internet into all consumer and corporate banking activities: e-Consumer and e-Business. Both units were intended to complement e-Citi.³² In May 2000, two new business units, e-Capital Markets and e-Asset Management, were added.

Jorge Bermudez, executive vice-president and head of Global Cash Management and Trade Services, was appointed to lead the e-Business unit.³³ Bermudez's e-Business unit was responsible for developing internet software for corporate clients setting up B2B electronic commerce exchanges.

The new business units brought people from the business lines together with people from the internet side of operations, which combined resources and eliminated duplication and competition. The new strategy of forming high-level committees reversed the centralised approach that Citigroup had pursued under John Reed, the driving force behind the formation of e-Citi.³⁴ Citigroup's new structure involved traditional business units in formulating internet strategies and forming committees to co-ordinate and synthesise, an approach that mirrored that of other banks.³⁵ In the early days of the internet, banks had erroneously managed e-business as a separate project.

In 2002, Global Transaction Services was created as a division of Citi's Markets and Banking to integrate Cash, Trade and Treasury Services and Global Securities Services. It offered integrated cash management, fund services, securities services, trade services and finance to MNCs, financial institutions and the public sector around the world [see **Exhibit 5**]. The objective was to help corporate customers gain greater control over financial positions both locally and globally, increase efficiency, and reduce costs.

Within just one year, Global Transaction Services was already tapped by 95% of Fortune 500 companies and profits grew 38%. With a global reach and local presence, Global Transaction Services had assets and businesses in several countries and regions. Its internet-based cash management, electronic bill-payment and online statements, reporting and analytics, securities processing, and other capabilities enabled corporate customers to re-engineer processes, manage working capital more effectively and improve straight-through processing.

In 2006, Global Transaction Services already supported 65,000 clients, cleared an average of 752,000 securities trades every week and processed more than US\$3 trillion in payments every day. On average, it held US\$189 billion in liability balances under administration and US\$10.4 trillion in assets under custody and trust, and had the world's largest commercial letter-of-credit portfolio, worth over US\$7 billion in 2006.

Citibank's Alliance Strategy

Before 2000, Citibank had tried to excel at all facets of e-business—a strategy that failed. The company invested millions of dollars and tried to specialise in each area, including software development, systems development and front-end services; however, clients and software technology were constantly changing and Citibank was struggling to keep pace with client needs. By 2000, Citibank's strategy focused on alliances and the use of its partners' strengths.

³² Robert Willumstad was head of e-Consumer while Edward Horowitz was head of e-Citi.

³³ Bermudez reported to Victor Menezes, chairman and chief executive of Citibank, and to the IOG.

³⁴ Reed resigned from his co-CEO post on 18 April 2000.

³⁵ For example, Wells Fargo & Co. and Chase Manhattan Corp. integrated their efforts on using internet more closely with their business units.

Specifically, Citibank partnered with companies that had complementary technology, infrastructure or access to markets.

*In the future, it won't be what your company can do, but what the network of companies you work with can provide.*³⁶

- Tom Edgerton, head of Alliances for Citibank e-Business

Citibank's key technology players included Oracle, Commerce One Inc, SAP AG, Wisdom Technologies and Bolero.net. In August 2000, four companies teamed up with Citibank to form FinancialSettlement Matrix.com, a company that connected buyers and sellers in e-marketplaces with payment processing, credit and other services through multiple participating banks and financial service companies.³⁷ Citibank's challenge was managing the vendors and suppliers and ensuring that they understood Citibank's strategy and would not exploit the bank's existing strengths in the banking industry. Edgerton said of companies that had approached Citibank to partner with it: "Citibank brings considerable value to potential alliance partners. They're interested in our brand, our financial services expertise, our global presence, our strong customer relationships and position as a trusted provider, as well as our knowledge of specific industries and international markets."³⁸

In 2004, Citibank acquired Lava Trading, a leader in electronic execution and sell-side order management systems. This acquisition enabled Citibank to offer institutional clients the benefits of the most sophisticated and robust electronic trading system in the market, with technology that complemented and enhanced their existing platforms and product ranges.

"Connect" in Citibank's e-Business Strategy

Customer convenience had been the thrust of the continuous evolution of Citibank's products and services. Key to this goal was providing clients with more channels to access Citibank, and the internet provided Citibank the flexibility to meet this demand.

A core part of our e-business strategy is Web-enabling our current services. With CitiDirect, we are building the infrastructure that will serve as the foundation for many of the value-added services we are developing on the Internet.

- Jorge Bermudez, Citibank executive vice-president and head of e-Business³⁹

CitiDirect was designed for corporate customers to do full transactions online anywhere around the world.⁴⁰ It was a browser-based delivery channel designed to deliver all of Citibank's cash management and trade products and services online, enabling customers to make inquiries about their account balances, request statements, provide transaction initiation details, and request statement transaction reports online and in real time. CitiDirect allowed customers to perform these functions at any location with internet access. This was particularly useful for global companies with operations spread out in many countries but wishing to maintain control at regional or global treasury centres.

³⁶ Citibank (November–December 2000) "Citi Seeks Alliances to Accelerate into the E-Space", *The Citibank Globe*, <http://www.citibank.com/e-business/> (accessed 3 December 2001).

³⁷ Citibank partner companies were: Enron Broadband Services (a delivery platform), i2 Technologies (an integrated open-architecture solution), S1 Corporation (a provider of internet-based payment processing), and Wells Fargo & Company (a provider of complementary services to the entire e-business market).

³⁸ Citibank (November–December 2000) "Citi Seeks Alliances to Accelerate into the E-Space", *The Citibank Globe*, <http://www.citibank.com/e-business/> (accessed 3 December 2001).

³⁹ Ibid.

⁴⁰ Citibank asked its customers what they wanted from e-commerce and the internet throughout the development of CitiDirect. Customers put a premium on security, stability, speed, accuracy and user-friendliness.

CitiDirect was piloted in October 2000. In Asia, it was piloted in Singapore, Hong Kong, Australia, Japan and Malaysia.⁴¹ In 2000, CitiDirect was operating in 36 countries and available in five languages and was expected to be operating in 80 countries and 20 languages—and doing a trillion dollars' worth of business per day—by 2002.⁴² In May 2001, CitiDirect was already serving 1,000 customers worldwide.

In 2003, Citibank upgraded CitiDirect Online Banking to offer complete payment, receivables, and trade capabilities in emerging markets. The service was made available in 90 countries and in 20 languages, and was awarded Best of the Web for 2003 by Forbes.com in the financial services category. In 2004 alone, this award-winning corporate banking platform processed more than 39 million transactions around the world. CitiDirect linked the back-office systems of 90 countries and allowed Citibank to replace its outdated and less-powerful systems and move training and customer services online.

In 2006, Citibank was developing a new global platform, TreasuryVision, which was similar to CitiDirect.

*We are putting a lot of energy behind it and TreasuryVision essentially meets the trends in the marketplace. It connects our clients not only to their internal systems, but it also connects to their enterprise resource planning systems. It connects to the way clients forecast their cash, whether by spreadsheet, fax or workstations [...] Additionally, it connects to every single financial supplier that these clients use—it doesn't have to be Citigroup.*⁴³

Paul Galant, head of Global Cash Management

TreasuryVision would be staffed by world-class operations staff with expert knowledge of financial data. Once the data were proved by these experts, they would be put into a knowledge warehouse and provided to clients (ie, corporate treasuries). Therefore, TreasuryVision would not only be an effective way of managing liquidity, but also be a useful channel for knowledge management.

“Transform” in Citibank's e-Business Strategy

Transaction processing, such as cash management, trade finance and derivatives, were back-office activities that were not at the forefront of customers' minds. Traditionally, transaction processing for a corporate customer (eg, the transactional work involved in loan processing) was a function of the bank–customer relationship. Citibank's global presence translated to a huge transactional business and required supporting more than 200 data centres, which did basic, repeatable processes. In 1998, Citibank realised that, similar to any other factory product, this could be commoditised. Starting in 1998, Citibank began the transformation.

Regionalisation

The transformation process involved consolidating all the data centres within each country and moving them to Singapore. Data were centralised and systems were developed to manage the automatic processing of transactions. By May 1999, the data centres were rationalised to 60. On the operations side, Citibank began with the regionalisation of cash and trade, which afforded Citibank a complete focus on the process. Approaches that Citibank had taken in

⁴¹ Asiamoney (May 2001) “CitiDirect Online Banking—A New Era in Business Banking”, p. 83.

⁴² Power, C. (1 December 2000) “Citi Deploys Its Web Troops into Business Lines”, *American Banker*, 165(230), p. 1.

⁴³ Peck, A. (2006) “Citi's Cash Boss Talk”, *FinanceAsia*, <http://www.financeasia.com/print.aspx?CIID=37890> (accessed 25 February 2008).

deciding the location for the regionalised centres were not mutually exclusive. It had considered the following in various combinations:

- Take the biggest infrastructure already existing (ie, Singapore) and build it up to replace all the smaller centres
- Ask where to get the best balance of all factors of production and start there from scratch (eg, Penang) - Greenfield Approach
- Rely on locally available people and skills (eg, Sydney)
- Consider the pure cost of labour for lower-skilled areas such as voucher processing.

Singapore, which had back-office operations of several of the bank's business units, was the first processing centre that was regionalised, followed by Penang.⁴⁴ Next to be regionalised was Sydney's foreign-exchange and derivatives centre. The centres were time-zone centric, such that decisions were based on the three continental time zones of Europe, Asia and the Americas. By 2001, the largest centres were in: Penang, Malaysia; Singapore; Mumbai, India; Dublin, Ireland; and Delaware and Buffalo in the US.

As a way to lower costs and improve efficiency, in 2006 Citibank reduced the number of data centres around the world by 20% and consolidated its call centres. In April 2007, as part of the effort to save the company more than US\$10 billion in three years' time, Citibank introduced a plan to overhaul its IT operations. It planned to further consolidate its existing data centres, better use its existing technologies, optimise its global voice and data networks, standardise its application development processes, and consolidate its vendor networks.

The regionalised and specialised processing centres provided Citibank scale and continual improvement opportunities. They reduced the cycle time for transactions, reduced error rates to nearly zero and yielded new efficiencies for Citibank and its customers.

We're now able to fragment the process and focus on the little pieces that make the difference, this also means that there's a lot of exchange of information and standardisation of processes.

- Venry Krishnakumar, Citibank vice-president and regional director, Operation and Technology, Asia-Pacific and Japan⁴⁵

Internalising the Web

Within Citibank, there was a programme to promote the e-workplace. The processing centres in particular had taken off through integrating the web into their business processes. The transformations in the processing cycle were taken further to focus on transforming workflow automation; employees now had access to information without the need to make phone calls, check paper files or send faxes. Processing centres had previously required millions of cheques and huge reconciliation departments, which were paper-based and labour-intensive. The centralised and specialised location of processing made it easier for Citibank to integrate secure databases into the processing of a transaction. For example, signature-verification and digital-imaging systems were linked with the funds-transfer system.⁴⁶

⁴⁴ In Singapore, front-end securities processing was also regionalised; however, due to local settlement issues, the back-end processing of securities transactions still needed to be done in individual countries.

⁴⁵ Finance Asia (May 2001) "Processing Comes to the Fore", p. 83.

⁴⁶ A system similar to SWIFT and forex systems.

Straight-Through Automation

Citibank was continuously pushing the limits of straight-through automation by constantly deploying various initiatives. For example, Citibank had conducted some artificial intelligence projects such as pre-populating forms with historical data, which dramatically reduced error rates. It could select rejected transactions and take a look at a customer's history with similar transactions and try to predict what the customer would try to do.⁴⁷ The effective implementation of such projects was attributable to the qualified and experienced staff at Citibank.

The benefits of efficiency and cost-savings also trickled down to Citibank's customers. In traditional transactions, customers deposited cheques into ATMs or opened Letter of Credits by submitting the paperwork to banks, but they did not know when the banks would actually perform the task. With Citibank's straight-through processing, customers' expectations and need to know were matched because the processes took place online and in real time.

Achievements

Proof that Citibank was at the top of its league was the awards it received [see **Exhibit 3**]. Citibank was the first in the financial services industry to receive a quality award for its cash-processing centre or regional cash-process management unit ("RCPMU").⁴⁸ Customers seemed to value Citibank's efforts, as customer surveys showed that Citibank's RCPMU was rated higher than those of its competitors in the areas of accuracy, timeliness, accessibility and responsiveness several years in a row. Processing was fast becoming one of Citibank's unique selling propositions. Citibank's commitment to excellence in its processing business translated to greater transparency of the process for customers, allowing them full access to information about the status of their transactions.

"Extend" in Citibank's e-Business Strategy

CitiDirect's roll-out was evidence of Citibank's vision of delivering transaction services online anywhere in the world at any time. Building a new global infrastructure gave Citibank the opportunity to deliver e-products at scale more quickly and more efficiently to customers, and any capability improvements in one region would be seamlessly deployed worldwide. Citibank expected CitiDirect to evolve constantly, which would give Citibank the flexibility to continuously enhance the system according to the changing needs of its customers. Other European banks focused mainly on providing pan-European solutions; very few banks wanted to deliver global services.

Citibank's priority was to move all its corporate customers onto CitiDirect because its main goal was to retire the legacy systems of electronic banking. Citibank had to contend, however, with difficulties in migrating customers from using traditional means to using the new products and services. Citibank's corporate clients included top-tier MNCs as well as SMEs. Previously, Citibank had not focused on SMEs; it was in 1997 that it started to consider the SME segment and introduced CitiBusiness.⁴⁹ While MNCs dealing in e-business knew what they wanted, SMEs that wanted an e-business presence were unsure how to move forward. Some were not even e-enabled and were still tied up with the legacy systems of the 1970s,

⁴⁷ Finance Asia (May 2001) "Processing Comes to the Fore", p. 83.

⁴⁸ The centre processed up to US\$20 billion worth of transactions daily.

⁴⁹ CitiBusiness was a one-stop financing solution offered to SME entrepreneurs. Products and services included: CitiBusiness Direct (internet banking); Cash Management; Trade Services and Trade Finance (trade products); CitiCorp Commercial Finance (asset-based finance); treasury products such as Spot and Forward Foreign Exchange, Interest Rate Hedging, and Yield Enhancement Investment Products; and a customer centre. The customer centre provided CitiService (an integrated customer inquiry line for after-sales services), Document Collection (an express collection service), CitiFax (a convenient way to update account information) and CitiBusiness Direct (providing online access to account information and transaction initiation).

1980s and 1990s. The greatest concern among most customers was security. Some resisted making the transition because they were sceptical about security, and such old behaviour was entrenched. In part, these concerns about security hindered Citibank's roll-out of web-based applications, despite Citibank's readiness. CitiDirect had already developed sophisticated security procedures using the latest encryption techniques. Its multi-layered security architecture included public and private access keys, single-use passwords, and multiple authorisation controls.

In 2001, Citibank was still providing services using legacy systems for conservative SME customers, while at the same time serving global customers such as MNCs that demanded to transact through the internet. Citibank was aware that building customers' trust in the web entailed a long education process. To encourage conservative customers to embrace CitiDirect, Citibank's plan was to build a strategy that included a pricing incentive scheme.

The Citibank Advantage

Global Reach

As part of a global financial institution that employed over 268,000 employees in 100 countries, Citibank was uniquely positioned to serve its customers' global needs. In emerging markets, where 86% of the world's population lived and which accounted for 43% of the world's purchasing power, Citibank had implemented an "embedded bank" strategy. Through this strategy, Citibank established roots in a country as deep as those of any local indigenous bank would build a broad customer base, offer diverse products, actively participate in the community, and recruit staff and senior management from the local population. This local commitment and history, together with Citibank's global reach and expertise, was a powerful combination that set Citibank apart from its competition. In 2002, Citibank celebrated its 100th year of operations in China, Hong Kong, India, Japan, the Philippines and Singapore.

Strong Brand

Citibank had developed strong brand recognition. Customers regarded Citibank as an innovative, global bank offering excellent customer service.

Continuous Investment in Technology

Citibank was committed to upholding its position as a premier supplier of cash-management and transactional banking services and invested heavily in technology to improve its services. The main goal was to provide corporate customers the most cost-effective, cutting-edge, reliable and secure solutions. A Citibank senior executive outlined one of the bank's competitive advantages:⁵⁰

We continuously invest in technology and it's one of our competitive advantages. We've been around a long time, we have been able to invest year after year and we have seen compounded value from that. A new entrant would have a difficult time investing all at once, but by spending money on infrastructure—not on salespeople or front ends—I think that's how you stay in the position we're in. If there's any trick at all that's it. I think this is an incredibly relevant issue for the Internet in general. It's not about building the new front end, although we're doing that too, it's about what you're doing to connect to it.

⁵⁰ Finance Asia (May 2001) "Processing Comes to the Fore", p. 83.

Technology was used as a means to achieve a strategic objective for Citibank. With the need to lower costs and improve efficiency, its investment in IT provided better client services at a lower cost.

One of our goals is to have more common systems and standards across Citigroup so clients can transact with us more easily, no matter what business is serving them or where they're conducting business.

- Chuck Prince, former chief executive of Citigroup⁵¹

Conclusion

The internet had affected many areas in banking and changed how institutions made strategic decisions. At the same time, technology had changed customers' expectations and needs. It was a challenge for Citibank to translate its traditional strengths to the internet in a way that would add value for its customers. Citibank responded to this challenge by:

- Web-enabling access points to allow customers to connect seamlessly to Citibank
- Building a new global infrastructure to deliver products and services online
- Integrating products in new ways.

In a business environment where change was inevitable and competition was tough, Citibank needed a distinctive strategic direction that would create competitive advantages that would not be easily replicated by its competitors. Citibank also needed to make transformations on a global scale to deliver its e-business strategy and create a business culture that would embrace the e-banking concept, a key element of a highly integrated e-business, within a reasonable budget.

⁵¹ Citigroup (2005) "Annual Report".

EXHIBIT 1: CITIBANK'S TREASURY AND CASH-MANAGEMENT OBJECTIVES

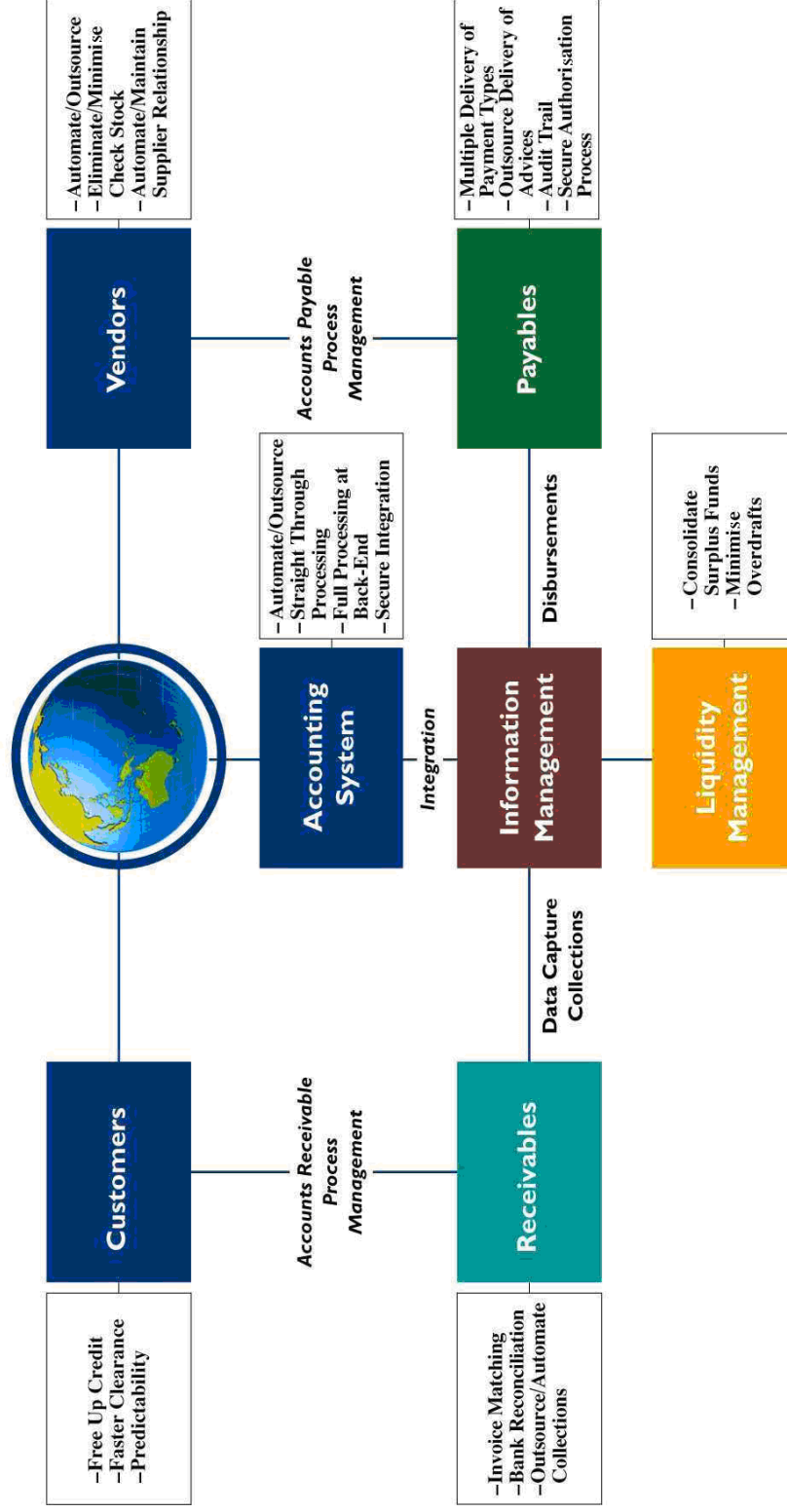


EXHIBIT 2: CITIBANK'S TRADE SERVICE PRODUCTS

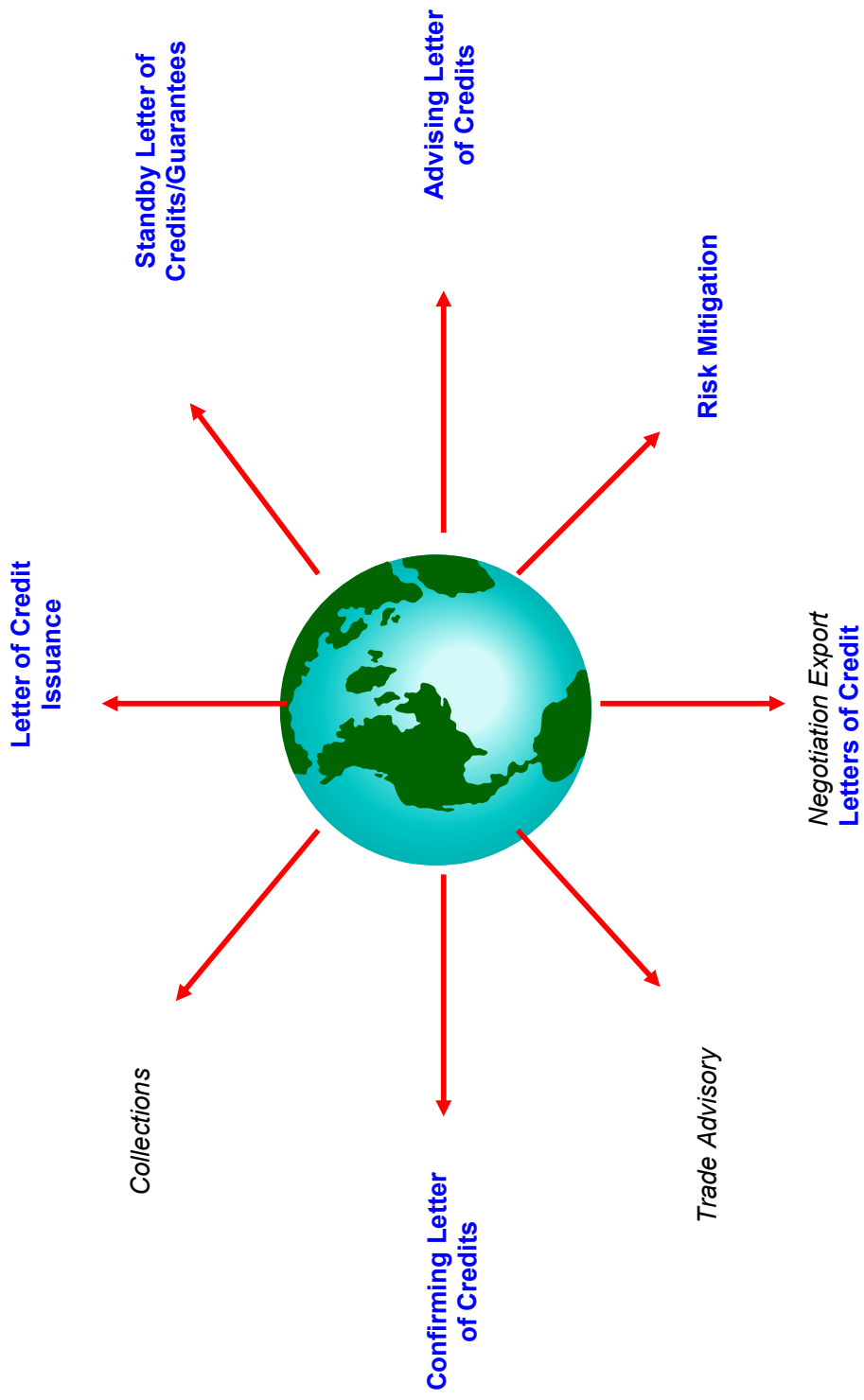


EXHIBIT 3: THE MAIN TRENDS IN ICM IN 2000 AND 2008

Trends in 2000

- The centralisation of cash management and the introduction of shared service centres continued in large companies and were spreading to medium-sized and small companies.
- There was a growing acceptance of the need to outsource ICM operations.
- Companies were realising that the company–bank relationship was more important than whether or not a bank could offer internet-based or e-commerce services.
- Companies increasingly wanted to understand and be comfortable with a bank's e-commerce strategy before they would be prepared to award them business.
- The use of cross-border zero-balance accounts grew much faster than notional pooling because many companies had sophisticated in-house cash- and treasury-management systems to manage them.
- There was a growing realisation among some of the major banks that a network of standardised service-provider banks was not always enough; it was also important to have a local branch or branches in countries around the world.
- Banks were walking away from the ICM business when it had ceased to be profitable, producing a growing understanding and acceptance among large companies that banks needed to make reasonable returns; otherwise the standard and quality of services would inevitably suffer.
- As banks' ICM products and memberships of local clearings became similar, the key differentiator in the business became delivery.

Source: Large, J. (September 2001) "Moving into the Business Solution Management Area," *Corporate Finance*, pp. 4–14.

Trends in 2008

- Banks and corporate treasurers were driving the move towards electronic payments in order to better integrate money and information flows.
- Corporate treasury was pushing to integrate the physical and financial supply chains, and there was a parallel convergence in international trade towards open-account, electronic financial supply chains.
- Corporate treasury was focusing on standardising processes and strengthening internal controls in order to create transparency across a range of business activities to manage risk and ensure financial reporting integrity in compliance with Sarbanes-Oxley⁵².

Source: Wilder, S. (2008) "The Latest Trends in North American Cash Management", JPMorgan Chase & Co.

⁵² The Sarbanes-Oxley Act of 2002 is a United States federal law enacted in response to a number of major corporate and accounting scandals, which establishes new or enhanced standards for all U.S. public company boards, management, and public accounting firms.

EXHIBIT 4: CITIBANK'S GLOBAL TRANSACTION SERVICES AWARDS IN ASIA, 2007

- Best Custodian in Asia; Best Fund Administrator in Asia (*Asia Asset Management*, 2007)
- Best Overall Cash Management Bank across all categories as voted by corporations; Best Electronic Banking Platform; Best at Understanding Business Strategies; Objectives and Requirements as voted by financial institutions (*Asiamoney*, 2007)
- Best Transaction Bank in Asia; Best Cash Management Bank in Asia, Best Corporate Specialist in Asia (*The Asset*, 2007)
- Best Cash Management Bank; Best Cash Management Solutions (*FinanceAsia*, 2007)
- Asia's Best Investment Management Services; Best Corporate/Institutional Internet Bank in Asia (*Global Finance*, 2007)

EXHIBIT 5: CITIGROUP ORGANISATIONAL STRUCTURE