INTERNET BANKING:
DISRUPTIVE OR SUSTAINING TECHNOLOGY?

FIELD PROJECT REPORT

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7 May 2001

INTRODUCTION

> ***"It took Citibank 25 years to establish a global presence and Unofirst would do this in a fraction of the time."***[1]

The rise of the Internet has fueled the question across many industries of whether it is a disruptive technology or just another distribution channel. With the rise of Internet banking, the local, regional and global banking industries now face this question, too.

The Internet does seem to have some characteristics of a disruptive technology in the banking industry; it has the ability to "create major new growth in the industry [it] penetrate[s], by allowing less-skilled and less affluent people to do things done only by expensive specialists in centralized, inconvenient locations,"and it offers consumers products that are "cheaper, better, and more convenient than ever before."[2] However, other people see the Internet as just another sustaining technology in banking, providing a new, more convenient distribution channel, like ATM did when first introduced.

First, this paper will try to shed light on the concept of Internet Banking. It will then analyze the rise of the Internet banking in Latin America. Next, it will offer and analysis of global Internet banking. Finally it will arrive (hopefully) at a answer to this critical question facing today's banking industry.

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[1] Gerhard Huber, CEO of Unofirst Group, quoted in " Internet Banking – Unofirst Launch Targets Internet Customers", *The Banker Financial Times Business Limited*, 1 April 2000.
[2] Christensen Clay, *The Innovator's Dilemma*, HBS Publishing, 1997.

INTERNET BANKING: DEFINITION, SEGMENTATION, ADVANTAGES AND RISKS

Definition

The terms " PC banking", "online banking", "Internet banking", and "mobile banking" refer to a number of ways in which customers can access their banks without having to be physically present at a bank branch.[3] "PC Banking" relates to every banking business transacted from a customer's PC. This can be done through "online banking," in which bank transactions are conducted within a closed network, or via "Internet banking," which permits the customer to perform transactions from any terminal with access to the Internet. "'Mobile banking' is the implementation of banking and trading transactions using an Internet-enabled wireless device" (mobile phones, PDAs, handheld computers, etc.).[4] Thus mobile banking (m-banking) is a subset of Internet banking (I-banking).

Segmentation

Internet banking is thus a remote delivery channel for banking services. These services can be as simple as opening a deposit account or transferring funds, but can also include more complex transactions like electronic bill presentments and payments, and the sale of financial products, like insurance and brokerage.

The extent of services offered by an Internet bank depends largely on its size. A 1999 study of Internet banks by the U.S Office of the Comptroller of the Currency showed that

[3] "Electronic banking from a prudential supervisory perspective", Deutsche Bundesbank Monthly report December 2000.
[4] Equity research: E-Banking/M-Banking Openheim Research, January 2001 available at www.openheim.de

while most Internet banks allowed services like balance inquiries, fund transfers between accounts and bill payments, larger banks are much more likely to have online brokerage, fiduciary and insurance services business lines.[5] All Internet banks, small and large, were roughly equally likely to offer cash management services. (See Exhibit 1.)

<u>Exhibit 1 Key services offered by Internet National Banks[6]</u>

	All Internet Banks	< $100 million in assets	$.1 to $1 billion in assets	$ 1 billion to < $ 10 billion	$ 10 billion and over
Balance inquiry and fund transfer	88.8%	74.1%	90.2%	94.5%	100.0%
Bill payment	78.2%	60.0%	77.4%	90.4%	100.0%
Credit applications	60.0%	51.8%	51.7%	75.3%	80.5%
New Account set-up	36.6%	29.8%	43.9%	45.2%	43.9%
Brokerage	21.6%	10.6%	14.7%	41. 1%	53.7%
Cash management	15.7%	14.1%	16.2%	15.1%	17.1%
Fiduciary	11.9%	3.5%	9.8%	12.3%	41.5%
Bill presentment	10.6%	7.1%	7.9%	16.4%	24.4%
Insurance	5.4%	2.4%	2.3%	6.8%	29.3%
Basic	77.6%	56.5%	77.4%	90.4%	100.0%
Premium	23.9%	14.1%	17.0%	41.1%	58.5%

Source: Office of the Comptroller of the Currency.[7]

[5] Karen Frust, William Lang, and Nolle Daniel. "Internet Banking: Development and Prospects" Office of the Comptroller of the Currency, Economic and Policy Analysis, Working Paper 2000-9, September 2000.
[6] Karen Frust, William Lang, and Nolle Daniel. "Internet Banking: Development and Prospects" Office of the Comptroller of the Currency, Economic and Policy Analysis, Working Paper 2000-9, September 2000.

The Internet banking industry is segmented in two types of banks, multi-channel banks and pure Internet banks. While multi-channel banks have both offline and online presences, pure Internet banks “rely on their website for client interaction.”[8]

The following sections will more deeply analyze the U.S. Internet banking industry. One should be mindful of the fact that, according to a SalmonSmithBarney report, “the U.S. market offers an interesting perspective on what the future might bring for Latin America”.[9] Hence, Internet banking in the U.S. provides a reasonable benchmark to compare emerging market Internet banking development.

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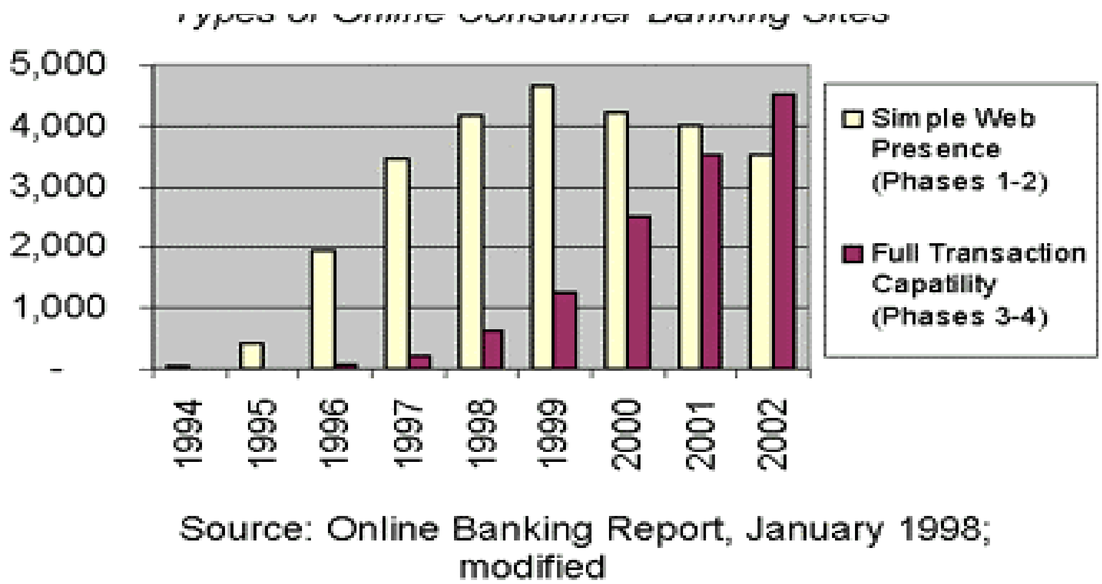
[7] Karen Frust, William Lang, and Nolle Daniel. “Internet Banking: Development and Prospects” Office of the Comptroller of the Currency, Economic and Policy Analysis, Working Paper 2000-9, September 2000.
[8] Jupiter Communications “Online Bankers: Differences Between Multi-channel Bankers and Internet-Only Bankers”, *Vision Report*, Volume/3, 5 February 2001. Available at www.jup.com.
[9] SalmonSmithBarney, *E-Banking in Latin America*, March 20, 2000.

Exhibit 2: Types of Internet banking sites in the USA

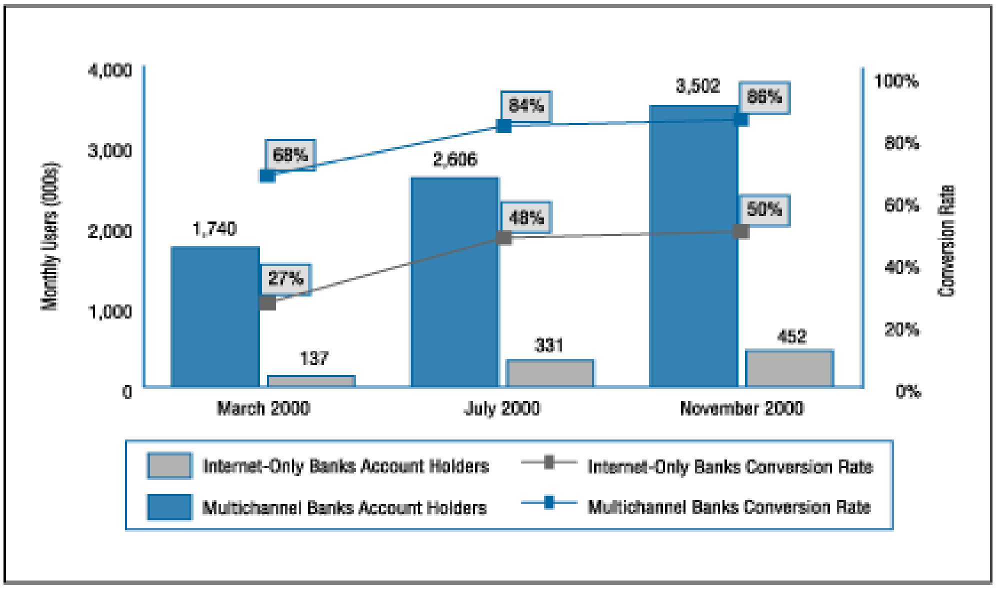


A Jupiter Communication's report, *Online Bankers Difference Between Multi-Channel Bankers And Internet-Only Bankers*,[10] compared website visits between March and November 2000 of multi-channel banks Citibank and Wells Fargo, and pure Internet banks CompuBank and NetBank. The most important findings were:

- First
  - Multi-channel banks dominated but pure Internet banking were increasing dramatically;
  - The multi-channel bankers increased by 101 percent in this period compared to an increase of 230 percent for the pure Internet bankers;
  - Multi-channel banks continued to draw the highest traffic due to 'their off-line channels, brand awareness, and existing customer base," and had higher customer conversion rates.

Exhibit 3 Account Holders and Conversion Rates, March-November 2000[11]

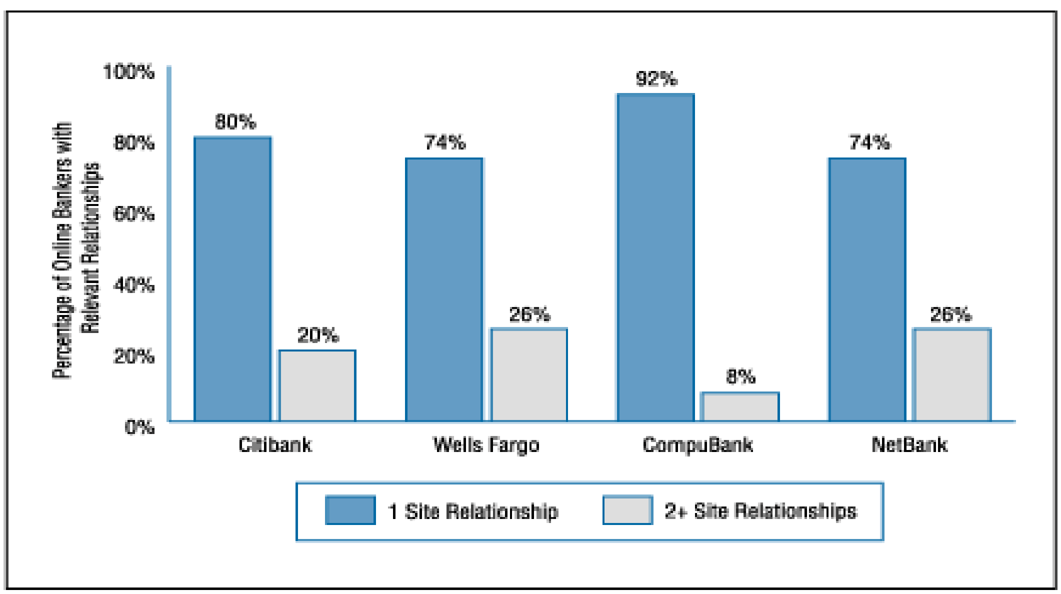
[10] Jupiter Communications "Online Bankers: Differences Between Multi-channel Bankers and Internet-Only Bankers", *Vision Report*, Volume/3, 5 February 2001. Available at www.jup.com.
[11] Jupiter Communications "Online Bankers: Differences Between Multi-channel Bankers and Internet-Only Bankers", *Vision Report*, Volume/3, 5 February 2001. Available at www.jup.com.



Source: Media Metrix, © 2001 Jupiter Media Metrix Inc.

- Second
  - Pure Internet bankers showed slightly higher loyalty rates than their multi-channel counterparts. While 84 percent of Internet bankers had only one banking relationship, only 79 percent of multi-channel bankers had one relationship.

Exhibit 4 Account Holders and Conversion Rates, March-November 2000



Source: Media Metrix, © 2001 Jupiter Media Metrix Inc

- Third
    - There was high cross visitation among pure Internet banks. Thus, their online acquisition strategy, is posing a concern for the multi-channel banks.
    - In November 2000 nearly one out of five Citibank account holders "comparison window shopped" at CompuBank.

Exhibit 5: Percentage of Each Bank's Traffic to Each Other, November 2000

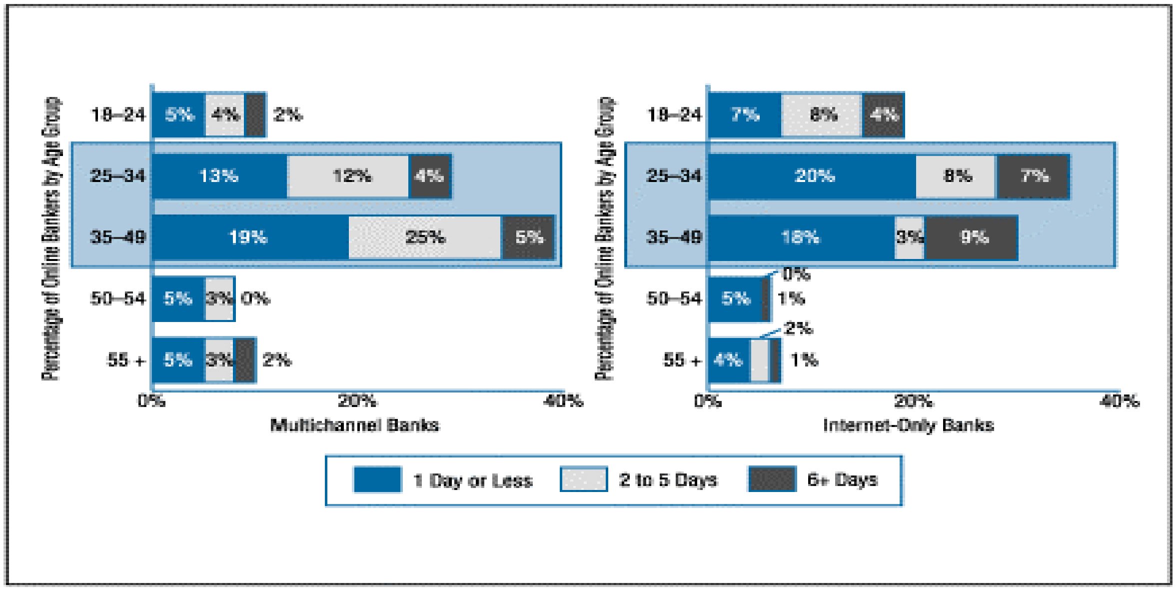
Secure—Secure Visitation	Citibank	Wells Fargo	CompuBank	NetBank
Citibank	n/a	4%	6%	7%
Wells Fargo	7%	n/a	0%	4%
CompuBank	3%	0%	n/a	20%
NetBank	2%	1%	8%	n/a

Secure—Non-Secure Visitation	Citibank	Wells Fargo	CompuBank	NetBank
Citibank	n/a	5%	22%	12%
Wells Fargo	7%	n/a	2%	5%
CompuBank	6%	1%	n/a	34%
NetBank	2%	1%	23%	n/a

Source: Media Metrix, © 2001 Jupiter Media Metrix Inc

- Fourth
    - Pure Internet only bankers are more youthful than the multi-channel bankers.
    - Forty-four percent of pure Internet bankers were 35 and younger, compared to 30% of the multi-channel bankers.

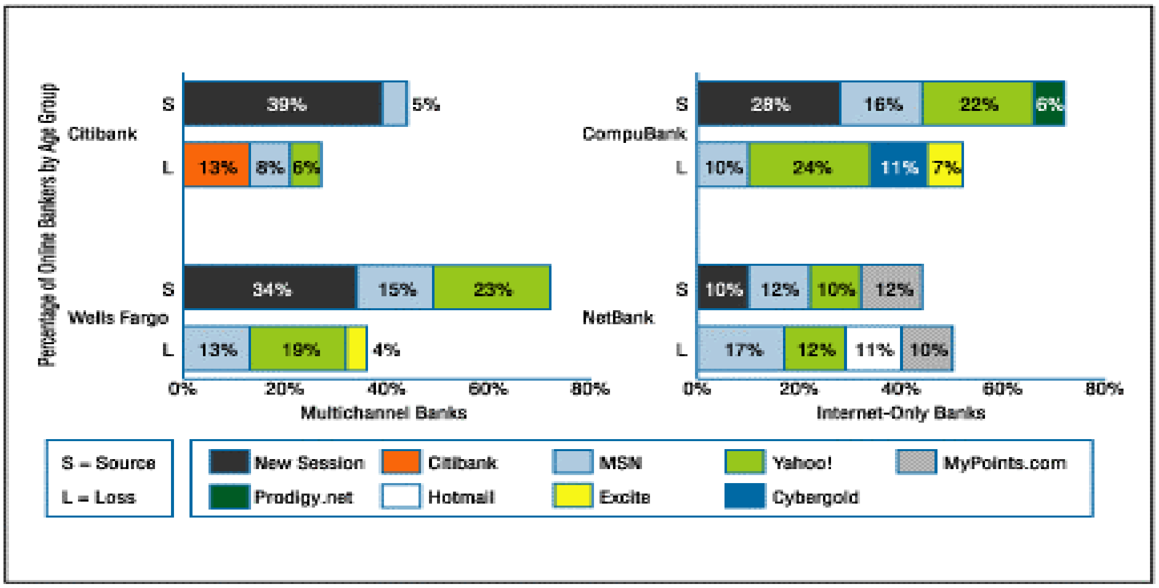
Exhibit 6: Online Bankers by Age Across Jx Frequency Band, November 2000



Source: Media Metrix, © 2001 Jupiter Media Metrix Inc

- Fifth
  - Yahoo! and MSN dominated the origin and destination of online bankers.
  - Quite often, online bankers start their online activities at a major portal, thus begging the question, "Will the portals become banks?"

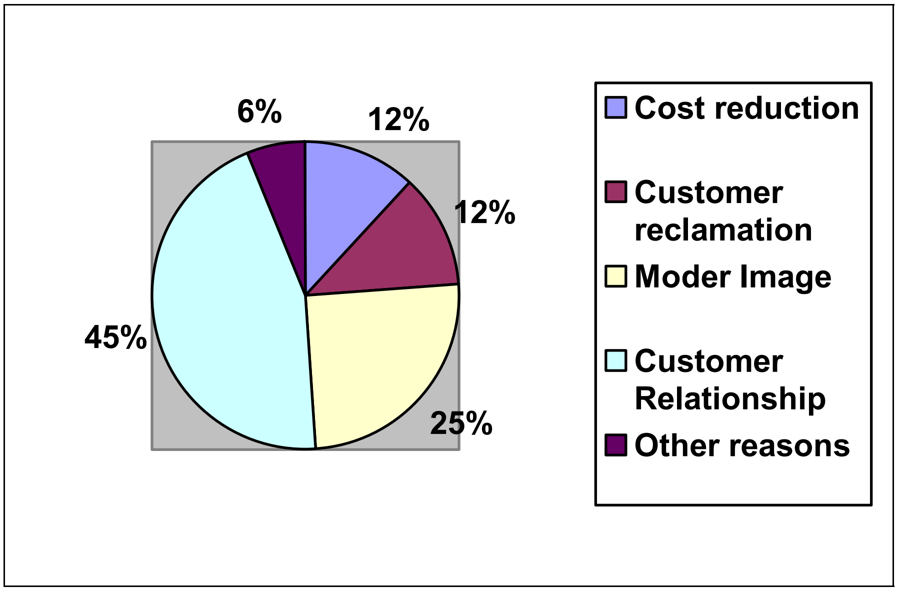
Exhibit 7: Source Loss of Total Monthly Users of Online Banks, November 2000



Source: Media Metrix, © 2001 Jupiter Media Metrix Inc

Business consideration behind Internet Banking

Exhibit 8: Why do you have an e-banking strategy?



Source: Forrester Research

Internet banking can open a "Pandora's box" of opportunity for financial institutions. As soon as one bank begins Internet banking, other banks face the following quandary, "You are either on the Web, or you are risking being on the Way."[12] Business considerations in Internet banking can be divided into three important factors: Client focus, cost reduction and market expansion

Client focus

Increase Customer Satisfaction

Internet banking allows customers to access banking services 24 hours a day, 7 days a week. Like ATMs, Internet banking empowers customers to choose when and where

[12] Edwin P. Morrow, "Are You Using Your Website?" Financial Services Online.

they conduct their banking. A Dynamic net report came to the conclusion that, " the more delivery channels a bank offers and the more functions available on an Internet site, the more convenient it becomes for customers to conduct business—and the higher the rate of customer acquisition that a bank is likely to experience."[13]

Increase Customer Retention

One of the important advantages of Internet banking is its ability to increase customer retention. "Online branches have been shown to dramatically reduce the loss of customers due to relocation needs."[14]

Cost reduction

A study by Booz Allen & Hamilton, analyzed the transaction cost reductions that U.S. Internet banks gain. According to this study, the cost per bank transaction for the customer varies from $1.07 for full service branch transactions, to $0.54 for telephone transactions, and $0.01 for transaction via the Internet. Lowered transaction costs are primarily due to two factors: widespread Internet access and its low cost in the U.S., which minimizes transaction processing costs, and the reduction of the number of brick and mortars branches required to service an equivalent number of customers, which dramatically lowers overhead costs.

[13] Dynamic Net, Transforming Consumer Banking Through Internet Technology, available at http://www.dynamicnet.net/news/white_papers/internetbanking.htm
[14] Dynamic Net, Transforming Consumer Banking Through Internet Technology, available at http://www.dynamicnet.net/news/white_papers/internetbanking.htm

Exhibit 9 Bank Transaction Costs

Banking Transaction Costs

	Average Cost / Transaction
Full Service Branch	$ 1.07
Telephone	$ 0.54
ATM	$ 0.27
PC Banking	$ 0.02
Internet	$ 0.01

[Source: Booz Allen & Hamilton Banking Survery; July , 1996]

Market expansion

Internet banking will allow credit institutions to make further "inroads into new fields."[15] Indeed by cooperating for example with IPS, telecom or software, Internet banks can take advantages of cross-selling effects,[16] to offer personalized services to their customers and potentially win new customers. In this context, the "financial supermarket concept" has arisen, by which Internet banks, have horizontally integrated with other financial services to provide their services on its platform and sometimes expanded horizontally to include non-financial services such as online shopping as it is the case with first-e.com

Risks

"E-banking is causing a shift in the weighting of existing categories toward those risks arising from the increase use of IT."[17]

[15] *Electronic Banking From A Prudential Supervisory Perspective*, Deutsche Bundesbank Monthly report December 2000
[16] *Electronic Banking From A Prudential Supervisory Perspective*, Deutsche Bundesbank Monthly report December 2000
[17] *Electronic Banking From A Prudential Supervisory Perspective*, Deutsche Bundesbank Monthly report December 2000

According to the report, *Electronic Banking From A Prudential Supervisory Perspective,*[18] those risks can be categorized as strategic risks, operational risks, legal risks, reputational risks, and systematic risks.

Strategic risks

Strategic risk results occur when decisions are taken by a management who is not able to keep up with technology, and commits missteps in planning and implementing strategy. A specific strategic risk to multi-channel banks is market cannibalization

Operational risks

Operational risk "encompasses all risks originated directly in business operations,"[19] and they can include, security breach fraud, malfunctions, and human or IT problems. These risks can lead to the financial losses and disruptions of banking operations.

Legal risks

These risks are derived from the fact that e-commerce laws are not yet in place, or are just being newly enacted. Hence, jurisdiction varies from country to country and uniformity is missing. As an example, while to certain banking authorities, the solicitation of customers in their jurisdiction already constitutes a banking operation for

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[18] *Electronic Banking From A Prudential Supervisory Perspective*, Deutsche Bundesbank Monthly report December 2000

[19] *Electronic Banking From A Prudential Supervisory Perspective*, Deutsche Bundesbank Monthly report December 2000

which a license is required, for other banking authorities, a license is only required when the transaction of business is an operative action.[20]

Reputational risks

This risk is related to customer's fluctuations in confidence. It takes important trust from the customer side in his Internet bank to perform any banking transactions, but this trust can be quickly lost if the Internet bank cannot provide a secure, trouble free Internet banking experience.

Systemic risk

Systemic is defined here as the macroprudential implications of Internet banking. Indeed, there is no dispute that Internet banking has changed the risk structure of the banking sector, by increasing the operational risk.[21]

Rise of multi-channel and fall of pure Internet banking

Assessing Internet banking today, an article in *Express Online*[22] remarked that the decline of pure Internet banking was the main reason that there physical rivals have become wiser, and are "launching their own integrated 'clicks 'n bricks' strategies that offer customers electronic access as well as dark satanic branches." The article found that the decline of pure Internet banking is a global phenomenon. In the USA, Wingspan, an

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[20] *Electronic Banking From A Prudential Supervisory Perspective*, Deutsche Bundesbank Monthly report December 2000
[21] *Electronic Banking From A Prudential Supervisory Perspective*, Deutsche Bundesbank Monthly report December 2000
[22] The Hallow Promise of Internet Banking, *Express Online*, available at http://www.theexpress.com/express%20190/business/business_opinion.htm

American e-banking pioneer announced that it would share information technology with its parent Bank One, in order to save money. First-e, a Dublin based Internet bank, has laid off staff and cut advertising expenses. SEB, a Swedish bank, which tried to use the Internet to expand overseas, acquired German bank BfG because of its 170 physical branches. In October, AIB, Ireland's largest bank, dropped its plan to launch a pure Internet Bank. In Japan, Sanwa Bank is abandoning plans to set up a ¥15 billion ($140m) stand-alone Internet bank, having seen their poor performance elsewhere in the industry. (This leaves Japan with just one online banking option: Japan Net Bank.)

The main reason for this change in fortune for Internet bans, is the concretization of some of the risks outlined above. Operational risks, especially, often turned into operational problems, and caused frequent crashes and slow connections. Security issues, which made customers feel that traditional banks were more secure, was one manifestation of the aforementioned reputational risks. Although the report concluded, "Internet banking has failed to live up to its promise, both for traditional banks and for the upstarts that were supposed to wipe them out,"[23] it acknowledged that Internet banking was growing, but mainly via multi-channel banking models.

[23] The Hallow Promise of Internet Banking, the Express Online available at http://www.theexpress.com/express%20190/business/business_opinion.htm

INTERNET BANKING IN LATIN AMERICA

Internet banking has taken hold in Latin America. Multi-channel and pure Internet banks offer both private banking services and a variety of financial services and products. However, a poor regional average GDP per capita, low teledensity rates, and low computer penetration rates constrict Internet access to the top 10 – 15 percent of the population. Since growth indicators are positive, though, there is space for tremendous growth in online private banking and financial services. However, non-competitive local stock markets necessitate regional e-banks to expand investment options into world markets.

INTERNET USAGE IN LATIN AMERICA

Internet usage is still in its infancy in Latin America. Low regional GDP per capita makes Internet access prohibitively expensive for the majority of the population. The three largest regional markets, Brazil, Argentina, and Mexico have an average GDP per capita of only U.S. $5,674,[24] or just over 15 percent of the U.S. average. However, International Data Corporation (IDC) estimates that monthly Internet access fees in the three countries to be U.S. $53,[25] making yearly service U.S. $636, or roughly 11 percent of the average GDP per capita. (See Chart 1.) Accordingly, average Latin American Internet penetration is a low 27 percent. Brazil's penetration rate is 35 percent, Mexico's 23 percent, and Argentina's 19 percent.[26]

[24] Compiled from country snapshots in *The eLatin America Report* ™, Jan 2001. eMarketer ™.
[25] As cited in *The eLatin America Report* ™, Jan 2001. eMarketer ™.
[26] Lawrence Madsen, Bruno Pereira, and Jeffrey Dawson, "E-banking: Latin Amercian Banks Go Online," *Institutional Investor*, July 2000. Via Lexis-Nexis® Academic Universe.

Low GDP per capita rates also make computers prohibitively expensive. Argentina, with 10 percent, had the highest 2000 PC penetration rate. Peru had the lowest at 3 percent.[27]

Weak regional telecommunications infrastructures also inhibit Internet access and usage. Teledensity, the number of telephone lines per 100 people, is low. The regional teledensity rate for 2000 was a mere 13.4. Argentina had the highest rate, at 20.8, while Brazil's rate was 14.87 and Mexico's 11.22.[28] Network capacity is also low. There are only five routers in Latin America (the lowest amount of routers of and region outside of Africa) and the average response time (the time data takes to travel from its origin to its destination) was one third as fast as Europe, and one fourth as fast as the U.S..[29]

At present, those in the middle class represent best market Internet services and products.[30]

However, due to several factors, Internet usage in Latin America will grow and the Internet services and products market should be able to expand greatly. One such factor is the populace's age; 520 million Latin Americans are young (below 24 years old). In Brazil, this demographic is a striking 49 percent of the population, and in Mexico, a staggering 55 percent.[31] In addition, although regional GDP is low, middle class consumption habits are on par with US, and this population is likely to likely to have a

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[27] *The eLatin America Report* ™, Jan 2001. eMarketer ™.
[28] Morgan Stanley Dean Witter, 2000.
[29] Internet Traffic Report, 2000.
[30] Due to sharply skewed income distributions, this is the population in the top 10 – 15 percent GDP per capita bracket.
[31] *The eLatin America Report* ™, Jan 2001. eMarketer ™.

PC with Internet access at home, school, or office. Moreover, PC penetration is expected to increase nearly 50 percent between 2001 and 2004.[32] (See Chart 2.)

Access costs will also lessen due to the privatization of state-run telecommunications companies (70 percent of the Latin American countries have partial or fully privatized telecommunications companies) and sanctioned competition in the basic services market (allowed in 36 percent of Latin American markets). In addition, teledensity rates are expected to increase (see Chart 3) and universal access agreements will soften distribution skews away from urban areas.[33]

In addition, wireless technology usage should increase. According to the International Telecommunications Union (ITU) 25 percent of Latin America's phone-users use cellular phones. In Paraguay, Venezuela, and Mexico mobile phone users are in the majority. The pending sale of third generation (3G) licenses is projected to increase the use wireless Internet usage from 12.04 million persons to 101.48 million in 2004.[34] (See Chart 4.)

As a result of these factors, Internet user growth in Latin America should be highest compared to other regions, and demonstrate a 32 percent CAGR from 1997 to 2003.[35] By 2004, the projected number of Internet users in Latin America will be 40.8 million

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[32] Morgan Stanley Dean Witter, 2000.
[33] *The eLatin America Report* ™, Jan 2001. eMarketer ™.
[34] Dataquest, 2000.
[35] Lawrence Madsen, Bruno Pereira, and Jeffrey Dawson, "E-banking: Latin Amercian Banks Go Online," *Institutional Investor*, July 2000. Via Lexis-Nexis® Academic Universe.

persons, however the actual potential amount of users will be 59.2 million persons.[36] (See Chart 5.)

INTERNET BANKING IN LATIN AMERICA

Most of Latin American banking is still done "under the mattress." While high among the wealthy, bank penetration is at less than 20 percent of the general population. While 90 percent of regional banks have an online presence, only 40 percent have the technology required to offer online transactions, but increased domestic and international is necessitating technology usage to "build a more customer-focused marketing structure."[37] Studies project an 8.1% CAGR in technology spending by Latin American banks, though, with expenditures in 2002 reaching U.S. $8.3 billion.[38] Commensurate with the increased Internet usage posited above, online private banking services have room for tremendous growth.

Many banks in Latin America have already begun leveraging the Internet and are offering a variety of online services. As the bulk of bill payment in Latin America is done via long queues, because of public mistrust of postal system integrity,[39] banks offering online services to customers provide value via timesaving. For banks, the Internet's value comes from savings attributable to lower transaction costs, which are at least 90 percent

[36] U.S. Census Bureau, 2000., and eMarketer ™.
[37] "Banking and Technology in the Latin Market," *Latin Finance*, August 2000. Via Lexis-Nexis® Academic Universe.
[38] "Banking and Technology in the Latin Market," *Latin Finance*, August 2000. Via Lexis-Nexis® Academic Universe.
[39] *The eLatin America Report* ™, Jan 2001. eMarketer ™.

cheaper on the Internet.[40] One study lists the average banking service cost in Latin America as U.S. $.10 via Internet, U.S. $.60 via ATM, and a huge U.S. $1.53 via teller.[41] Analysts predict that larger banks with easy access to capital (deep pockets) will best be able to capitalize on offering Internet-based services and products, however, smaller banks can expand their customer bases via online banking services offerings.

Brazil's Banco Bradesco, Banco Itaú, and Unibanco are all offering online banking services. Some of the regions e-bankers believe that using free Internet access to induce customer retention and attract new customers is a viable strategy.[42] Banco Bradesco, the regions leading multi-channel e-bank, employed this strategy first, and rapidly increased its customer base 65 percent, while increasing its branches just 4 percent.[43]By June 2000, Bradesco had at least 750,000 online customers, and was adding more than 1000 per month.[44]

Bradesco further marked itself as the leader in multi-channel Latin American e-banking by being the first to offer m-banking in the region. Bradesco also offers personalizable security options to its online customers, such as which computers can be used to access

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[40] "Banco Bradesco: Online Leadership," *EIU Business Latin America*, 31 July 2000. Via Lexis-Nexis® Academic Universe.
[41] Lawrence Madsen, Bruno Pereira, and Jeffrey Dawson, "E-banking: Latin Amercian Banks Go Online," *Institutional Investor*, July 2000. Via Lexis-Nexis® Academic Universe.
[42], "The E-Bankers," *Latin Trade*, September 2000. Via Lexis-Nexis® Academic Universe.
[43] *The eLatin America Report* ™, Jan 2001. eMarketer ™.
[44] "Banking and Technology in the Latin Market," *Latin Finance*, August 2000. Via Lexis-Nexis® Academic Universe.

the account. Bradesco stated that its online banking contributed to a per customer profitability magnification of 120 percent.[45]

Patagon.com is the region's leading pure e-bank. Patagon, like many others, is following the "financial supermarket" model, and offers private banking services alongside financial product offerings ranging from numerous insurance products, to loans and mortgages, stock trading and options buying, equities trading, various U.S. bond, and mutual fund shares trading.[46] In June 1998, when a Chilean customer purchased shares in Argentine energy concern YPF, Patagon became the first in the region to provide online trading services across the regions the markets.[47]

Other dominant players in Latin American e-banking come from abroad. Citibank, which logs 20 million online transactions per month, has an 87 percent penetration rate amongst its corporate clientele.[48] Spainish banking giants Banco Bilbao Vizcaya Argentaria (BBVA) and Banco Santander Central Hispano (BSCH) have also entered the Latin American online banking market. BBVA is the chief financial backer of uno-e.com (detailed below) and BSCH has invested heavily in Patagon.

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[45] Bradesco developed a WAP application with Samsung. "Banco Bradesco: Online Leadership," *EIU Business Latin America*, 31 July 2000. Via Lexis-Nexis® Academic Universe.
[46] See www.patagon.com.
[47] Claire Poole Houston, "Stock Surfing: The online trading craze hits Lt Am," *Latin Trade*, August 1999. Via Lexis-Nexis® Academic Universe.
[48] *The eLatin America Report* ™, Jan 2001. eMarketer ™.

(For a complete listing of Latin American multi-channel banking services, see the attached excerpt, “ Who’s Doing What?,” from the Merrill Lynch *Internet Banking Survey: Latin American Banks*, March 2000.)

FORECAST

Internet banking is in its infancy in Latin America. Analyzing transactions split by channel, the Internet was used between 0 percent and just 6 percent of times.[49] In the near- to mid-term, the reliance on tradition transaction channels will continue to dominate. However, there is space for tremendous growth and penetration rates will increase rapidly. The outlook for multi-channel models and pure Internet bank models follow.

Multi-channel e-Banks

Multi-channel Internet banking in Latin America will increase cost efficiency in transaction costs, lead to market share gains against institutions that are timid or late adopters, increase the potential for cross-selling, and facilitate cheaper client base expansions.[50] However, profitability will also be pressured due to channel duplication costs (since most customers will bank online and via branch service), lowered entry barriers, and decreased volumes of some products because of commoditization via online competition.

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[49] Merrill Lynch, 2000.
[50] Salomon Smith Barney, “E-Banking in Latin America,” 20 March 2000.

Pure Internet Banks

Pure Internet bank's like uno-e.com and Patagon will have questionable staying power.[51] This is due to the operational and reputational risks outlined in the above section.

The supply of stocks in Latin American stocks have shrunk and most institutional and wealthy investors consider the region's markets unimportant. Additionally, between 1995 and 2000, participants in the American Depository Receipts program have more than doubled, from 141 to 316.[52] Thus, Internet banks, both pure and multi-channel, that provide financial services will need to offer access world markets to succeed.

Growth Opportunities

The growth in Internet-enabled wireless devices will provide an opportunity for leapfrogging over low PC penetration, and the development of more m-banking solutions. In expectation of this, banks have been aggressively building partnerships with wireless service providers and anticipate m-bill pay service development.[53] Encouragingly, Latin America is projected to have largest percentage increase of wireless financial services worldwide between 2000 - 2005.[54] (See Chart 6.)

The expanding Latin American e-commerce marketplace also presents a strategic growth opportunity.[55] Both B2B (see Chart 7) and B2C (see Chart 8) commerce will have

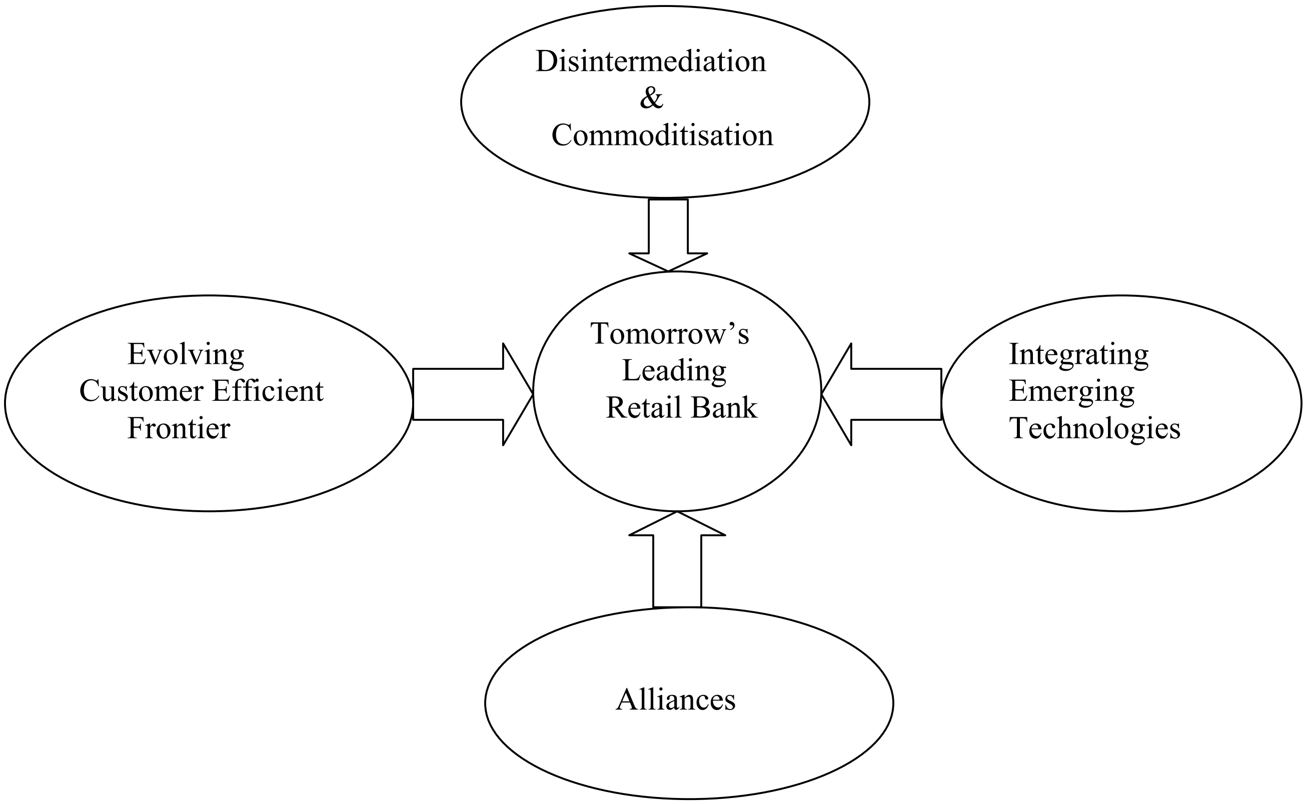
[51] Merrill Lynch, 2000.
[52] *The eLatin America Report* ™, Jan 2001. eMarketer ™.
[53] *The eLatin America Report* ™, Jan 2001. eMarketer ™.
[54] TowerGroup, 2000.
[55] Lawrence Madsen, Bruno Pereira, and Jeffrey Dawson, "E-banking: Latin Amercian Banks Go Online," *Institutional Investor*, July 2000. Via Lexis-Nexis® Academic Universe.

significant growth over the next few years.[56] By intermediating themselves in B2B and B2C transactions, both multi-channel and pure Internet banks will have the opportunity to reap fee based revenues.

[56] eMarketer ™, 2000.

FROM REGIONAL TO GLOBAL: GLOBAL ONLINE BANKING

Exhibit 10: Electronic Commerce: a New Business Model for Tomorrow's Leading Retail Bank[57]



Source: PRICEWATERHOUSECOOPERS

As the Banking industry is changing and Internet banking is evolving, a new kind of banking industry may be starting to blossom -- the Global Internet Banking. This newborn is the result of the factors illustrated in (Exhibit 10), and can be defined as trying to add the missing link to Internet banking. Indeed while Internet banking providing the possibility for its customers to have access to their account in every Internet connected corner of the world, diverse and conflicting national regulations are making it

[57] Burrowes, Kevin: Technology led Change in Banking and Finance

difficult for Internet banks to reach every customer in every corner of the world. Global Internet banking, as it is being pioneered today, is attempting to circumvent those regulatory obstacles, in order to reach customers across different borders. With regard to this, two important initiatives caught our attention during our analysis: (1) the failed merger between First-e.com and Uno-e, to create FirstUno, the first global Internet bank, and (2) the joint venture between HSBC and Merrill Lynch, which offers "Global Online Investment and Banking" services.

Below, we will first look at Unofirst's failed attempt, by analyzing First-e.com's Internet banking strategy. Then, we will present the successful example of the Merrill Lynch - HSBC joint venture.

FIRST-E AND UNOFIRST GROUP

First-e

In a March 2000 report, *Datamonitor* classified first-e as one of the ten most successful Internet banks in 2000.[58] Started by Gerhard Huber in Dublin in 1999, it now has more than 250,000 customers. Through a partnership with France's Bank d'Escompte, first-e has banking licenses that enabled it to operate in any country in the European union.[59] It first launched in Great Britain and then in Germany. First-e followed the "financial supermarket," strategy (described in Exhibit 11, below). While it succeeded in enhancing its Internet banking status by positioning itself as an intermediary for different financial

[58] Datamonitor Market analysis experts, "Frontrunners in Internet banking 2000", available by subscription at www.datamonitor.com
[59] Hoovers Online, Hoover's company profile, Enba available at www.hoovers.com

services, and expanding into new products offerings, such as its virtual shopping mall, it was faced with failure in its attempt to expand globally, and establish a global Internet bank due to its recently failed merger with Uno-e.

Unofirst Group

Enba plc, owner of First-e, and Uno-e bank, the Internet Bank promoted by Banco Bilbao Vizcaya Argentaria (BBVA) and Terra Networks announced the execution of a merger agreement to create Unofirst group, on 3 June 2000.

The deal was supposed to bring together the "strength of BBVA as the second largest Euro-zone bank by market capitalization and the leading banking operator in Latin America, Terra one of the biggest Internet operators in the world after its merger with Lycos and Enba as one of Europe's leading e-finance company."[60] BBVA would have owned 65 percent of capital, while another 32.5 percent would have gone to Enba shareholders

Later, the group announced, its plan to launch a range of financial services, including current accounts, a low cost brokerage, and an initial public offering dealing services.[61] Further, they planned to expand across Europe and into the U.S., Latin America and Asia, establishing the world's first global Internet bank, offering both private banking and financial services. However, because of the difficulties posed by national regulations in obtaining licenses in all markets, Unofirst decided to establish alliances and joint

[60] Unofirst Group, press release " Uno-e and First-e close final agreement to merge" available at www.unofirst.com
[61] Internet Banking- Unofirst Launch Targets Internet Customers, The Banker April1, 2000

ventures in order to shorten the time-to-market,[62] following a "three T" strategy, of talent, technology and traffic.

But great visions sometimes do not materialize; the merger broke up in April 2001. The primary reasons behind the failure was first crash of the dot.coms, which resulted in a 66 percent devaluation of first-e's market capitalization, and the inability of the group to proceed past Spanish regulations. Huber declared that he believes that the "regulations are not yet ready to handle cross-border Internet banking deals."[63]

MERRILL LYNCH HSBC JOINT VENTURE

Another example of global Internet banking is the 50/50 joint venture between Merrill Lynch and HSBC to create MLHSBC as a "Global Online Investment and Banking services" provider. In its first press release, the company declared that it will "serve individual customers across the world, except in the United States, providing the industry's most comprehensive and innovative range of online banking and brokerage services for consumers who prefer to make informed investment decisions for themselves."[64]

This new venture brings together the strong banking experience and global presence of HSBC and the leadership of Merrill Lynch in investment banking. Announcing the joint venture, Sir John Bond, HSBC Group Chairman and David Komansky, Chairman and

[62] Ibid
[63] "Deal collapse forces enba to decide on new strategy – Chief executive is optimistic despite loss of Spanish bank merger" Financial Times, may 4, 2001 available at www.ft.com
[64] "Merrill Lynch, HSBC to create new company forming the first global online banking & investment services" Canada NewsWire Ltd, April 18, 2000

Chief Executive of Merrill Lynch, declared that, "This revolutionary new online business combines the strength of our firms' financial expertise, innovative products and services, research content, technology platforms, geographic reach and strong brand to create the model for client service in the 21st century."[65] The headquarters of the company is in London, and it has already launched in the U.K., Canada and Australia, with plans to expand into Honk Kong, Japan, and other parts of the world

<u>How does it work?</u>

As soon as the customer enters the mlhsbc.com site, s/he has to choose his country of residence from those listed (presently only the UK, Canada and Australia). Residents of other countries cannot open an account. The residency requirement is one of the many banking regulations that industry regulators are extrapolating from common commerce and banking laws, and applying to e-commerce. As soon as the customer opens an account and is logged on, they may access their deposit account to invest in a wide range of products, such as stocks and mutual funds. They also have access to a wide range of market information. S/he can choose to do her/his investment in several world stock exchanges. For example, if s/he is a customer in Canada, s/he can choose to invest in the NASDAQ or in Honk Kong. On the private banking side, the customer also receives a high rate of return on their deposit, and can also open multi-currency accounts.

Although this global Internet banking experience seems idyllic, it will be interesting to see if it will end up competing with its parents, and most of all, if it will be able to

[65] HSBC Holdings PLC-Formation of new company, AFX The Regulatory News Service, April18, 2000

adroitly maneuver through the complex web of regulations in each of the individual markets it enters.

CONCLUSION

In the preceding section of this report, we analyzed the attempts of two kinds of Internet banks to "go global": the merger of the two pure Internet banks, first-e and Uno-e, and merger of two multi-channel Internet banks, HSBC and Merrill Lynch. Though it would be imprudent to draw absolute conclusions, from just these two examples, coupled with the information presented in sections I and II, it is possible to assert that multi-channel Internet banking models are more viable than their pure cousins. Furthermore, multi-channel banks, in general, have established reputations and global physical presences (which means they have already successfully managed the respective regulatory challenges), and thus have a competitive advantage over pure Internet banks.

Finally, in answer to our original question, we must conclude that Internet banking is not a disruptive technology. Rather, the use Internet in banking represents the leveraging of an incredibly efficient medium to provide a very cost and time efficient distribution channel. This is not to discount the large, nascent opportunity for growth in this industry. As B2B and B2C commerce continues to increase, and increasing amounts of people embrace wireless financial service products (see Charts 6, 7, and 8, respectively), there is fertile ground that can be reaped for great profits, by banks that maintain a presence on the Internet.

Exhibit 11: **First-e UK: May 2001**

Horizontal portal

Financial supermarket

- First Internet Bank to launch a banking platform across several boundaries at once from a single operations center.
- Presence in Great Britain, Germany and France
- 250 000 consumers

- First and only Bank in Europe to have an independent customer council
- Independent adjudication services
- Merged with Spanish Uno-e in order to launch a Global Online Banking (Merger broke up on April 2001)

Focused Distributors

Internet Banking Business Model	Marketplace Business Model	Other Financial services Business Model (Acting as Intermediary)	Global Expansion Business Model
Saving Account ISA Current Account Bill payment Money transfer Online application Mobile banking Pay securely on eBay	<u>Virtual Shopping Mall</u> Shopping zone Of over 200 Shops developed by mytaxi.com <u>Mobile phones</u> Talking Sense Marketing Ltd	<u>Car Insurance</u> Xelector plc <u>(Next few weeks)</u> - Credit card - Loans - Travel insurance - Utilities	<u>FirstUno Group</u> Merger with Uno-e to create first global online banking (Broke up) <u>First-e Asia</u> Joint venture With Singapore's Overseas Union bank to expand to Asia