EBANKING ADAPTATION AND DOT.COM VIABILITY – A COMPARISON OF AUSTRALIAN AND INDIAN EXPERIENCES IN THE BANKING SECTOR

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ABSTRACT

With the advent of widely-accepted eBusiness activities, many banks have floated dot.com entities to create a presence on the Internet and take advantage of its power and reach. Like many other businesses, banks expected an increase in market capitalisation as a result of their dot.com floats, perceived broadly as a measure of growing profitability. Despite the negative publicity that the recent spate of dot.com crashes has generated, banks seem to continue floating online spin-offs. Our exploratory study investigates this phenomenon, studying the drivers for change in the evolution of the banking sector, and the move towards electronic banking. We focussed on two economies – Australia and India – to aggregate the major factors in this evolution from the perspective of two disparate economies.

The paper describes our qualitative, document-based investigation of the Australian and Indian banking sectors, and subsequent quantitative analysis of the impact of dot.com floats on market capitalisation within this market sector. We then describe the effect of applying both Transaction Cost Economics to our findings, which indicates that the cost of transacting business has been reduced overall by the creation of dot.com entities; and “catch-up, fall-behind, forge ahead” theory to gain an economic perspective. The paper provides both practical assistance for banks in making decisions regarding e-portfolios, as well as for policy makers in the economies reviewed; and has the potential to contribute to academic research into eBanking more generally.
1. INTRODUCTION

The advent of eBusiness, technological innovations and globalisation are increasingly driving businesses to change their traditional modes of operation. The Internet offers many opportunities to financial services providers in terms of modified value chains and disintermediation, which, in turn, are redefining the financial services marketplace. Dial (1995), for example, observes that financial institutions are using the Internet for information presentation, two-way communications and interaction with users, in addition to ‘traditional’ transaction banking.

Globally, the financial sector is metamorphosing under the impact of competitive, regulatory and technological forces (Jeevan, 2000). The banking sector is currently in a transition phase (Cronin, 1998) and the re-alignment of banking and financial services on the World Wide Web (the Web) is accelerating the pace of change. The famous quote by Bill Gates that banking is vital to a healthy economy, but banks themselves are not (Serwer 1995; Jeevan 2000; Varma 2001) highlights the crucial nature of the electronic forces that are affecting banks more than any other financial service provider group.

In this paper, we study the drivers for change in the evolution of the banking sector, which have become increasingly important as a result of the widespread acceptance of the Internet by businesses and consumers. We then look at the opportunities and challenges offered by the growth of eBanking in general and the growth of online banking (eBanking) in two countries –Australia and India. Findings from these two very different countries are synthesised from a broad review of the banking industry and from a quantitative analysis, which used market capitalisation as a measure of growing profitability for banks.

2. METHODOLOGY

This paper forms part of a longer-term, comparative study of Australian and Indian experiences in eBusiness, which seeks to identify the effectiveness of dot.coms as indicators of eBusiness uptake and success on a sector-by-sector basis. The study has taken a positivist approach where social realities are viewed as a complex of causal relations between events which are themselves depicted as an emerging patchwork of relations between variables (Blaikie, 1993).

A brief history and trend analysis of the banking industry in Australia and India, using document analysis, has revealed major barriers, impediments and drivers for the rapid transition of the banking sector and uptake of eBanking. Neuman (1997) attributed document analysis to the systematic analysis of a particular topic, using newspapers, annual reports, employment records, unpublished and published articles, industry and consultancy reports, ongoing academic working papers, government white papers reports and white papers. We took a ‘cross-analysis’ approach, to trace and analyse the events in a descriptive manner, and to aggregate insights from existing eBanking diffusion models.
The document analysis was augmented by a quantitative analysis, using the Least Squares method, of dot.com viability within and importance for the banking sector. Dot.coms are regarded as channels for increasing banks’ market capitalisation, which is a measure of growing profitability. To discover whether this was really true, we conducted an analysis using a sample selected from Australia and India and composed of three of the largest, most visible and most readily comparable banks in each of these countries. Subsequently, we applied both transaction cost theory and catch-up theory (Abramovitz, 1989) to the results of the analysis, to obtain valuable insights into this growing phenomenon. This combination of qualitative and quantitative research approaches has provided a richer understanding of the both the sector itself and the impact of eBusiness to banks in the economies studied.

3. DRIVING FORCES IN EBANKING

Porter’s often-quoted ‘five forces’ model of competition (Porter, 1985) has immediate relevance to the banking industry. Li (1997), for example, noted that one of the critical factors – barriers to entry – no longer exists in banking. Foster et al (1999) have also observed that competitors can come from any industry to "disintermediate" banks (i.e., eliminate banks as the interface between customers and suppliers). Product differentiation is very difficult for banks, since most of the products sold in retail banking are constrained by legal or industry regulations and, in any case, are readily imitated (Nemzow, 1999).

Many countries have de-regulated their banking sector (Lyell, 1997; Carew 1998; Lucia and Peters, 1998) so government policies no longer form an entry barrier to banks’ competitors. Technological know-how in banking also provides low protection to existing banks (Stemper, 1990). As Li (1997) argues, the only significant entry barrier is likely to be the brand name of the service providers in retail banking. However, as Morath (2000) points out, many non-banking, but identifiable, names such as Microsoft are entering the banking arena, posing a major competitive threat.

Since the 1980s banks have been merging to remain significant in terms of assets, and to ensure that there are a small number of significant players in the industry. Theoretically, the bargaining power of suppliers would be high in this industry, as there are a small number of fairly large players in the industry (Kotler and Armstrong, 1997). However, the tendency of banks to amalgamate, rationalising operational costs (Cronin, 1998) and thus diminishing the number of banking organisations in any country, is being offset by means of the development of online banks and financial intermediaries in areas such as home lending (Fellenstein and Ronwood, 2000).

As Mishra (2001) has noted, the Internet has levelled the playing field: the bargaining power of consumers is increasing, switching costs are becoming lower (with Internet banking gaining momentum), and consumer loyalties are harder to retain (Nemzow, 1999). The threat of substitutes to banking in terms of competition from the non-banking financial sector is increasing rapidly. As Viermetz (1998) observes, the major credit card issuer in the US is not a bank but rather Dean Witter of Discover Card fame. Huggins (2001) points to the fact that traditional boundaries in banking are disappearing. Using eBusiness methods, major retailers and telecom providers are starting to offer financial services to their clients. Extending the value chain and offering versatile services seem to be the key to retaining competitiveness in the
sector. Attitudes are also shifting from direct transactions to savings and investment, as the baby boomers reach their forties and fifties, and prepare for retirement (Carew, 1998).

Dial (1995) observes that banking demonstrates the typical attributes of an oligopoly – such as risk avoidance and relatively undifferentiated customer service – which have made it susceptible to encroachment by software giants such as Microsoft, who are attempting to replace banks as intermediaries (Kalakota and Frei, 1998). Some specific factors that have conspired to create the new competitive environment for banking include: changing consumer needs and perceptions, globalisation, technological innovations, and competition from non-banking entities (Aveling, 1989; Kalakota and Whinston, 1997; Morath, 2000).

Increasingly, consumers expect online services from their financial institutions (Constantine, 2000). The trend toward electronic delivery of products and services is particularly important to the financial services industry, where the shift is partly a result of consumer demand, but is also partly a result of the ruthlessly competitive environment (Geyer, 1997). Banking institutions are countering their competitors by leveraging eCommerce technologies and various service offerings online (Morath, 2000). This is a major shift from the early days of Electronic Funds Transfer (EFT), when large organisations introduced electronic banking to simplify the management of their salary and payroll problems (Crede, 1995; Carew 1998).

By contrast, home banking is a comparatively recent concept, which is essentially a ‘spin-off’ of the Web (Stamoulis, 2000). Though many banks offered ‘home banking services’ from a PC during the 1980s and 1990s, the concept was initially a failure due to the lack of a critical mass of PCs and computer literate customers, as well as to the somewhat limited user interfaces initially available (Lucia and Peters, 1998). Home banking, however, is gaining in popularity with increasingly literate consumers, a wider installed PC base (Stemper, 1990; Fellenstein and Wood, 2000) and more generic features together with the user-friendly interface the Web enables (Denny, 2000; Sathye, 1998).

Seitz and Stickel (1998) note that consumer behaviour in banking changed partly as a result of changes in the amount of spare time available to individuals. Mobility, independence of time and place, and flexibility have become key words in consumer banking. Stamoulis (2000) observes that the Internet is increasingly considered a strategic weapon by banks, which are leveraging it as a distribution channel to offer complex products at the same quality they can provide from their physical branches, at a lower cost, to more potential customers, without boundaries. Timmers (2000) supports this view, highlighting the key features of the Internet – such as 24 hour availability, almost immediate access, and the absence of physical borders. Indeed, the Internet has been one of the key drivers in promoting eCommerce in the banking sector (Jeevan, 2000).
4. EBANKING - OPPORTUNITIES AND CHALLENGES

According to the “eCommerce beyond 2000” report from Australia’s National Office of the Information Economy (NOIE), the banking and finance sector has been a rapid adopter of eCommerce because its products could easily be virtualised and the product had priority over place (NOIE, 2000). Internet banking has exploded onto the Web, with its consistent and friendly user interface, and the number of online banking services to customers continues to grow. Yerkes (1998) observes that banks can generate revenue through increased account access fees, and benefit from promotional opportunity to cross-sell products such as credit cards and loans. Jeevan (2000) suggests that the Internet enables banks to offer low-cost, high value-added financial services.

While Stamoulis (2000) observed that banks initially promoted their core capabilities, such as products, channels and advice, through the Internet, Yerkes (1998) argues that, due to the relative newness of this rapidly growing industry, banks as well as consumers had serious concerns about the security of Internet access to client accounts, which was the biggest challenge (Denny 2000). The advances in Internet security and the advent of relevant protocols such as Integrion, OFX, SET, etc. has put banks in perspective again as financial intermediaries and facilitators of complete commercial transactions via electronic networks and especially via the Internet (Stamoulis, 2000). Consumers are increasingly looking for services they can access from a single entry point. As Denny (2000) observes, awareness of competition has motivated banks to move aggressively in seeking alliances and establishing joint ventures to maintain their claim to this part of the eCommerce infrastructure.

The opportunities for banks in the Internet arena are varied (Stamoulis, 2000) as they can become technology providers by spinning off technology resources to start up new business streams, become content providers for information regarding products, indices etc, context providers for setting up e-market spaces, and enablers by providing backbone systems to support multiple payment system alternatives. Despite this plethora of opportunities, threats to the traditional banks (even those which have seized the eBanking alternatives) abound. One major threat to banks is the “Internet-only” virtual banks. With US$ 2 million, one can set up a fully-functional, Internet-only bank and provide payment services on the Internet. However, Security First Net Bank (SFNB) which was formed in 1996 in the US (Humphreys, 1998) and claims to be the first Internet-only bank, was acquired by the Royal Bank of Canada in 1998 (Pratt, 2000; Arora 2000), suggesting that customers may still want the comfort of a physical presence.

Regulatory barriers in many countries are on the wane (Sathye 1998). As the Internet gains momentum, governments are under pressure to reduce the barriers to competitive activity in the financial sector still further, to allow existing banks to remain competitive with their newer rivals (Carew, 1998). It is evident that banks can obtain an advantage by exploiting their existing, eCommerce-ready infrastructure, through leveraging it on the Internet (Fellenstein and Wood, 2000), but this opportunity must be seen in the context of a highly competitive, rapidly-moving market-place in which new rivals are emerging from many different directions.
5. EBANKING – AUSTRALIA AND INDIA

Consumer attitudes which shape financial systems (Parasuraman et al, 1994, Kotler, 1991) and laws are also driven to a certain degree by some significant milestones in a country’s history. Both Australia and India have seen the banking sector evolve through regulation, reforms, deregulation and technological innovations.

The Australian Perspective

Commercial banking began in Australia in the 1800s (Carew 1998) with the formation of British banks by colonists. Following the market slump of the 1890s, banking industry restructuring resulted in central authority, network branches and a conservative outlook. After Federation in 1901, the Commonwealth Bank was established as the first central bank and superimposed certain regulatory powers over the State-owned banks (Lyell et al 1997). In 1959, the Reserve Bank of Australia was formed as a separate entity and became the regulatory body for all Australian banks through the 1960s and up to the 1970s, dictating bank lending and funds management policies and setting interest rates. During this period, the non-bank financial intermediaries (NBFIs) began to create profitable niches, as consumer demand for such banking products as home mortgages and profitable deposit opportunities exceeded the bank-provided supply.

The Australian financial sector was deregulated in the 1980s. Major changes, such as the floating of the exchange rate in 1983 and the opening of the Australian banking system to foreign competitors in 1984, opened the way for further innovation by banks and NBFIs, while also providing significant levels of competition to existing banks (Everett and McCracken, 2000). A study examining the productivity of retail banking sector during the period 1986-1995 (Avkiran 1999a) showed an upsurge in productivity by the Australian retail banking sector at this time (Avkiran, 2000).

As Marwick (1985) observes, present-day banking in Australia is characterised by 4 major banks which hold the dominant market share as a result of a series of bank mergers; credit unions, which were founded by unions and co-operatives with a common bonding (RBA Bulletin, 1988); building societies, which were products of the baby boom period created by housing finance demand and which are now very few in number after the largest and most powerful reinvented themselves as banks (although most of these have now been taken over by one or other of the four major banks); and funds management institutions, created by the aging baby boomers’ interest in self funding retirement (superannuation and funds) etc. The Banking Ombudsman Scheme was set up in 1990 to help individual bank customers sort out their unresolved complaints with their banks (ABIO, 2000). The principal regulator of the system remains the RBA (Carew, 1998).

In terms of wholesale (commercial) banking operations, Australia has been very active in electronic banking from its earliest inception. The four major banks established their own automated electronic clearing system – BITS (Bank Interchange and Transfer System) – for immediate high value inter-bank transfers, following the dismantling of the earlier CEMTEX (Central Magnetic Tape Exchange) system in the 1980s. This system was primarily aimed at foreign exchange-related transmissions
with the increasing immigrant population and significant levels of foreign investment in Australia following the deregulation of the financial system. Carew (1998) also notes that the major Australian banks were among the first to be connected to the SWIFT inter-bank clearing network (the Society for Worldwide Interbank Financial Telecommunications) for international inter-bank payments and end-of-day netting.

Consumers in Australia were very comfortable with credit unions and NBFIs, perhaps as a result of the personalised service and bonding developed by these smaller organisations (Carew, 1998). By contrast, banks have been rated as a service industry offering effectively no service to individual bankers (Aveling 1989, Berry et al 1989). Electronic banking systems such as ATMs, EFTPoS (electronic funds transfer at point of sale) and B-Pay have, however, changed the perception of users to at least some extent – banks are once again perceived as the providers of the most convenient financial services, now that they are able to provide home banking and access to funds from a wide variety of locations (Lucia and Peters, 1998).

According to the “Banking on the Internet” report (NOIE, 2000), Australia has a strong platform for eBanking growth, with 37.7% of the population willing to engage in home Internet Banking. Statistics reveal that the largest increase for the period 1998-2000 was in the use of the Internet banking/bill payment category, which increased from 0.6% in May 1998 to 8% in May 2000 an increase of 810%. Australians seem to be willing adopters. However, the eBanking uptake seems to be concentrated in urban areas, probably due to the literate young working population with discretionary income. The low population volume and lack of demand in rural areas seems to be the cause of the slower uptake in these areas (Carew, 1998), although there is a growing body of research indicating that eBanking is not an unalloyed blessing to the remote, rural and regional areas of Australia (see, Castleman, Swatman & Swatman, 2000).

Banks in Australia have responded to customer demand by providing interactive services (NOIE, 2000) through account-monitoring and management services, other value-added services such as Insurance Management, online securities trading, foreign currency transactions and electronic reminders. All banks offering eBanking also offer security for transactions using firewalls, virus protection, 128 bit (or higher) encryption, verification by means of digital certificate and state limits to customer liability for unauthorised use of access codes.

However, Batt (2001) argues that Internet banking is yet to reach a scale that offers material cost savings to banks. Compared with overall Internet usage estimated at 4.4 million in Australia, the major banks together have attracted only 1.2 million to online banking. The challenge for the banks is to provide multiple access points to meet customer needs, while increasingly converting users to the Internet. Kalakota and Robinson (2001) comments that Internet is a medium that reduces transaction costs of the seller, and subsequently, the saving could be passed on to the consumer.
The Indian Perspective

The Indian banking systems date back to 1870 when the Bank of Hindustan was set up. Following British colonisation, three banks were set up under the Presidency’s act of 1876, and these later amalgamated in 1921 to form the Imperial Bank of India. Most of the erstwhile princely states also had private banks (Mishra, 2001). Following World War II and Independence from British rule in 1947, the Reserve Bank of India was established as an Apex bank under government control. In 1955, the RBI acquired control of the Imperial Bank of India, which was re-christened the State Bank of India, and took control over the state run private banks. In 1969, most banks with higher deposits were nationalised (BanknetIndia, 2000a). Rigid controls by the RBI on the banking sector and closed markets fuelled the growth of these banks, although bureaucracy limited their activities. Private institutions and money lenders were not encouraged by the average Indian consumer, as the national sentiment was strongly inclined towards democratic socialism (BanknetIndia, 2000b).

This sentiment also gave birth to the concept of co-operative banks, run essentially by various unions with common objectives, for example the milk producers union and agricultural unions. They were organised along the lines of co-operative management, with a no profit, no loss basis (BanknetIndia, 2000c) The early 1980s set the pace for computerisation and mechanisation, following the formation of the Rangarajan Committee, (Mishra, 2001) which had a mandate to develop a phased plan over 1985-89 to automate banking processes and was supported by the growth of branch banking and the easy availability of PCs. The second Rangarajan Committee which was formed in 1988, drew up a comprehensive plan to computerise the banks and for an extension of automation to other areas like funds transfer, SWIFT, ATMs etc.(Mishra, 2001). Towards the end of the 1980s, the deregulation process was gaining momentum with the growing high tech sector in India. As Baumik and Sarkar (1996) suggest, deregulation has become an important mechanism for generating competition in the banking system in many developing countries.

An investigation by Bhattacharya et al (1997) on liberalisation in the sector indicated that publicly owned banks were more efficient, in the period from 1986-1991. However, towards the end of the study period, foreign banks appeared to catch up, perhaps due to their branching into metropolitan areas and better adaptation to the competitive environment (Avkiran, 2000). There were changes taking place within India itself, such as the impact of global trends, technological innovations, and a growing generation of technically skilled youth who were driven by rational views, moving away from the older generation with their nationalist attitudes, making further modification of attitudes and actions inevitable (Jeevan 2000).

The 1990s were a period of rapid development in the technology-based industries, and de-regulation of the market following the removal of protection by the government, leading to the growth of entrepreneurial activity on the part of many banks. Banking Regulations Act in 1993 brought in new private banks to enter the arena. In 1996, full foreign investment was allowed. These developments were supported by the growing levels of expertise in information technology, venture capitalism and increasing amounts of foreign investment (Reddy, 2000).In the current banking system of India, the major participants in the financial system are the commercial banks, the financial institutions (FI), non-bank financial companies (NBFCs) and other market
intermediaries such as stockbrokers and money lenders. The banking segment in India functions under the umbrella of the Reserve Bank of India – the regulatory, central bank. To a certain extent, the IBA (the Indian Banking Association) regulates the bulk of the Indian commercial banks, with certain stipulations such as minimum deposit bases to open ATMs.

The earlier average sentiment driven Indian consumer, who used nationalised banks and never supported credit, is on the vane. Social and economic changes brought in by the IT revolution now mean there are an increasing number of financially sophisticated professionals who have no cultural problems with credit (Financial Times, 2001). On August 31st 2000, there were 4.6 million Internet connections and 1.8 million adult users of the Internet (NASSCOM, 2000). The flourishing software industry is providing massive support to the backbone of the Internet. As Mishra (2001) observes, the uptake of ATM usage is concentrated in urban areas, with inaccessibility and lack of skill identified as major causes deterring slow growth in inner areas. The older citizens are not willing adopters of impersonal machines (Raj, 1996). Multiple branches spread across the country and lack of national bandwidth are major constraints, especially for public sector banks (Varma, 2001).

Jeevan (2000) notes that with rigid controls giving way to deregulation, banks are gearing up their communications infrastructure to obtain a competitive edge from eBanking, which is fast becoming a reality in India. Nair (1999) points out that eBanking is fast becoming a strategic necessity for most commercial banks, as competition increases from private banks and NBFIs. Though de-regulation may have had an impact on the banking industry in general, the Indian infrastructure itself is plagued by a lack of PC penetration (there is an estimated 2 million units for a population close to 1 billion according to Gupta and Storey, 1999) and low telephone penetration (19.1 million in 1999). This is compounded by a poor telecommunications network, long delays in establishing connections, and extended power cuts.

Ryder (2000) suggests that the legal challenges of Internet banking in India include information security and regulatory compliance. The IBA recently launched EFT (electronic funds transfer) and ECS (electronic clearing system) as major electronic banking products (India Infoline, 2000). The geographical spread lacking in EFT has led to the increasing popularity of ECS. In September 2000, the Institute of Development and Research in Banking Technology (IDBRT) implemented its long-awaited EFT and real-time gross settlement (RTGS) system, with services available throughout India (Mahabharat, 2000). The Indian Financial Network (Infinet), a VSAT-based communication back-bone for the national payment system, was equipped with a full transponder on the INSAT-3B satellite to carry out its operations.

As Varma (2001) reflects, the public sector banks which constitute about 65% of the sector, are still plagued by union issues, inertia in the lower ranks and a general apathy towards technological innovations, especially the Internet. Foreign banks have a wider variety of eBanking services with their existing high technology linkages and infrastructure. However, the newly formed private banks seem to be pulling ahead of the foreign and public sector banks, especially in the eBanking sector. To start with, they did not have the issue of legacy systems and processes (Varma 2001) that plagued the public sector banks and therefore, did not have to restructure. Further, they had the benefit of being innovation leaders, supported by technology and the
support of demanding new generation professionals. They also are acquiring the older and weaker banks (Business Line, 2000), and growing in size. The new generation of professionals with growing pressure on their time, would like something as mundane as their utility bills paid without standing in a queue. The private banks have been quick to capitalise on this attitude, by forming alliances with utility service providers (mainly Credit cards, mobile operators and phone services), and offering services on the Internet. (In summary, while India is plagued by slow reforms, infrastructure issues, lack of PC/Internet access, Australia has had high Internet penetration levels, a high technology infrastructure, customer readiness, and fast adoption of online banking. However, the lack of demand from the domestic sector is seen as the cause of the slow pace of growth of eBanking in Australia. Clearly, infrastructure – while important in enabling the development of online banking – is by no means the only (or even the most important) criterion for growth in this area.

6. DOT.COM VIABILITY – AN ANALYSIS

The qualitative, content-based view of the Australian and Indian banking sectors provides a sound foundation for research into the impact of eBanking – but lacks any generalisability. To understand whether the dot.com floats had any effect on the growth of market capitalisation, for Australian and Indian banks, we conducted a statistical analysis, using the least squares method. Three significant banks from each economy were selected for this analysis, also based on their comparability, size and visibility in the economy.

The model estimated was:

\[
\text{SIZE}_{it} = \beta_{i0} + \text{DA} \beta_{i1} + \beta_{i2} \text{Trend} + \beta_{i3} \text{DA Trend} + \varepsilon_{it} \tag{4.1}
\]

where, \( \text{SIZE}_{it} \) is the market capitalisation of the bank \( i \) in period \( t \); \( \text{Trend} \) is a linear time period (increments each period); \( \text{DA} \) is a dummy variable which takes the value of 0 before the organization floated a dot.com and 1 after the organization floated a dot.com; \( \beta_{i0}, \beta_{i1}, \beta_{i2}, \beta_{i3} \) are unknown organization specific parameters to be estimated; and \( \varepsilon_{it} \) is assumed to be \( N(0, \sigma^2) \).

The results of the analysis are reported in table 1. The selected organisations within each economy are shown in the first column and the table reports: least squares parameter estimates; \( P \) values (in parenthesis); and the last column provides adjusted \( R^2 \). As the table shows, \( \beta_{i1} \) reports the immediate change in market capitalisation following the dot.com floats, \( \beta_{i2} \) reports the trend growth in market capitalisation before the dot.com floats and \( \beta_{i3} \) reports the trend growth after the dot.com floats.
### Table 1  
Least-squares analysis of dot.com floats

<table>
<thead>
<tr>
<th>Company</th>
<th>$\beta_{2i}$</th>
<th>$\beta_{i}$</th>
<th>$\beta_{3i}$</th>
<th>$R^2_{\text{Adj}}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAB/Australia</td>
<td>0.406 (0.000)</td>
<td>10.137 (0.000)</td>
<td>-0.384 (0.001)</td>
<td>0.656</td>
</tr>
<tr>
<td>ANZ/Australia</td>
<td>0.180 (0.000)</td>
<td>2.725 (0.008)</td>
<td>-0.151 (0.001)</td>
<td>0.516</td>
</tr>
<tr>
<td>COM/Australia</td>
<td>0.443 (0.000)</td>
<td>3.591 (0.057)</td>
<td>-0.138 (0.091)</td>
<td>0.910</td>
</tr>
<tr>
<td>SBI/India</td>
<td>765.710 (0.170)</td>
<td>-66786.52 (0.002)</td>
<td>469.421 (0.548)</td>
<td>0.452</td>
</tr>
<tr>
<td>HDFC/India</td>
<td>444.182 (0.013)</td>
<td>-41219.88 (0.000)</td>
<td>1122.521 (0.000)</td>
<td>0.713</td>
</tr>
<tr>
<td>ICICI/India</td>
<td>919.785 (0.054)</td>
<td>-98601.18 (0.000)</td>
<td>2599.383 (0.000)</td>
<td>0.597</td>
</tr>
</tbody>
</table>

The magnitude of the impact varies for banks from Australia and India. The $\beta_1$ value indicates a slight increase immediately following the dot.com float for Australian banks between the range of 3.591 to 10.137, although these were rendered insignificant by the $p$ values. The $\beta_3$ values in the range $-0.138$ to $-0.384$ were also offset by insignificant $p$ values which indicated long-term incremental change in market capitalisation as insignificant or negative. The $\beta_1$ value shows values ranging from $-41219.88$ to $-98601.18$, indicating an immediate decline in market capitalisation growth after the dot.com floats. However, this was offset by $\beta_3$ values of 469.421 to 2599.383, indicating a significantly positive long-term market capitalisation growth rate, post dot.com.

The table therefore suggests, overall, that the dot.com floats had a positive effect on the market capitalisation of Indian banks, but little effect (or even a negative effect) on the market capitalisation growth of Australian banks. Such a result suggests that in a possibly more sophisticated market-place such as that of Australia, the launch of dot.coms by banks has little or no effect on perception. The Indian experience, by contrast, appears to indicate that the market was ready for signs that banks had taken up the challenge of the New Economy.

### 7. CONCLUSIONS

The banking industry is now a very mature one and banks are being forced to change rapidly as a result of open-market forces such as the threat of competition, customer demand, and technological innovations such as the growth of the Internet. If banks are to retain their competitiveness, they must focus on customer retention and relationship management, upgrade, and offer integration and value added services, especially in the consumer-banking sector. In addition, if they are to remain cost-effective, forming strong alliances and joint ventures with other non-banking entities must become a
major strategic weapon in a volatile, and rapidly-evolving marketplace. With increasing consumer demands, banks have to constantly think of innovative customised services to remain competitive. EBanking is an innovative tool for banks, that is fast becoming a necessity.

The quantitative analysis provided rather inconclusive results for both economies. The results of dot.com floats indicate positive for Indian banks, as compared to Australian banks. However, this indication is not conclusive, when compared to the number of banks in India. Nevertheless, with apparent low impact on market capitalisation, banks seem to continue floating dot.coms in both economies. This may be explained through the theory of Transaction Cost Economics, which suggests that 4 types of transaction costs get reduced through web-based business. These are costs of manual processes, reach to consumers for promotional purposes, market research, and individual communication instead of collaborative, which is facilitated by the Internet. Banks seem to have realised that these costs can be cut down through the dot.com channel, thereby reducing their total transaction costs, in the long term.

Australia is a country with Internet-ready infrastructure as far as telecommunications, secure protocols, PC penetration, and consumer literacy is concerned. The four major banks have dictated the banking sector to a large extent, but the threat from non-banking entities is becoming apparent. However, despite its strong basis as an eBanking centre, it is at risk of “falling behind” its Asian neighbours in the rush to provide effective, appealing solutions for the X generation and the generations beyond them. “Catch-up, fall behind, forge ahead” theory suggest that developed economies find it harder to maintain their existing position and forge ahead, due to the migration required from already developed systems to newer ones.

India, by comparison, is plagued by weak infrastructure, low PC penetration, developing security protocols and consumer reluctance in rural sector. Although many major banks have started offering Internet banking services, the slow pace will continue until the critical mass is achieved for PC, Internet connections and telephones. However, the upsurge of IT professionals with growing demands is pressuring the government and bureaucracy in the country to support and develop new initiatives for a faster spread of Internet Banking. The economy is classically “the catch-up” one, trying to develop and catch up with leading economies.

eBanking is a successful strategic weapon for banks to remain profitable in a volatile, and competitive marketplace of today. Banks are in a position to lead consumer views, as well as to cater to existing demand. Clearly, despite the threats posed by non-bank financial intermediaries, there is enormous opportunity for far-sighted banks to reap the rewards available from eBanking.
REFERENCES


39. Lyell D., Crane R., Crowley M., Fraser I., 1997, Financial Institutions and Markets, LBC Information Services, NSW.

40. Mahabharath, 2000, “India- Banking Improvements finally a reality” (Internet/Web/online/service information), Newsbytes, Wiressonline, Business Asia, Sept 5th.


47. Neuman, William L., 1997, Social research methods : qualitative and quantitative approaches, Allyn and Bacon, Boston


49. Opportunities for New Payment Systems Using the Internet”, JCMC, Vol 1, no.3, December, USA