eBanking on the internet – A preliminary research comparison of Australian and Indian experiences in the banking sector.

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Abstract

Today, eBanking is being leveraged as a strategic tool by the global banking sector, to remain competitive and retain customers. eBanking has become synonymous with Internet banking. All the countries across the globe have not accepted the Internet evenly. Legacy systems within the sector, infrastructure problems, socio-cultural reluctance to adapt, and lack of regulatory reforms – all of these have contributed to slowing down the pace of growth in Internet banking.

In this paper, we investigate the driving forces of electronic banking, with an emphasis on Internet based banking. We have synthesised the opportunities and challenges offered by electronic banking. Further, we take a closer look at the experiences of two disparate economies – Australia and India – to study the growth of electronic banking, from an evolutionary perspective. These findings are enriched by a cross-case analysis comparison of one instrumental case study from each country.

Our findings reveal interestingly different reasons for electronic banking growth in the two economies. The ongoing empirical study is expected to uncover further, revealing factors to this growing phenomenon, in many economies.

Key Words: Internet Banking, Australia, India, eBanking, electronic banking
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. Diniz (1998), for example, observes that financial institutions are using the Internet for information presentation, two-way communication, interaction with users, and 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 above all other financial service providers.

In this paper, we study the drivers for change in the evolution of the banking sector, which have become increasingly important in consequence of the widespread acceptance of the Internet by businesses and consumers alike. We then look at the opportunities and challenges offered by the growth of e-banking in general and the growth of online banking (eBanking) in two countries –Australia and India – specifically. Findings from these two very different countries are synthesised from a broad review of the banking industry movements and from two instrumental case studies in the sector – ANZ (Australia) and ICICI Bank (India) – with a particular focus on commercial banking and the consumer retail sector.
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 that are depicted as an emerging patchwork of relations between variables. Epistemologically, knowledge is derived from human sensory experience by means of experimental and comparative analysis. Concepts and generalisations are shorthand summaries of particular observations... (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 boosters for the rapid transition of the banking sector and uptake of Internet banking.

Document analysis ... is the systematic analysis of a particular topic, using documents such as newspapers, annual reports, employment records, published reports and articles (Neuman, 1997).

We took a ‘cross-case’ analysis approach (Yin, 1994) to the analysis of the documentary material, to trace and analyse the events in a descriptive manner, and to identify the major differences (if any), which are occurring in these two disparate economies. The objective, limited by the data provided in the document analysis, was enriched by the use of positivist case studies. Yin (1994) defines a case study as an empirical enquiry, which investigates a contemporary phenomenon within its real life context, especially when the boundaries between the phenomenon and context are not evident. Stake (1994) divided case studies into intrinsic and instrumental. An intrinsic case study illustrates a trait or problem while an instrumental case study plays a supportive role, attempting to provide an insight into the issue under consideration or to refine theory.
Case studies in this paper are instrumental, as they provide supporting evidence to the phenomenon under investigation – the uptake of Internet Banking in two countries driven by historical milestones and consumer responses - and the likelihood of success of this phenomenon from the banking sector’s viewpoint. In view of the need to examine ongoing trends in Internet banking, many of which have not yet been the subject of significant amounts of academic research, the literature review has perforce been fairly dependent on online news channels, industry reports, consultancy reports, ongoing academic working papers and white papers published by government, businesses and consultancies.

**Driving Forces in eBanking**

The business strategist Michael Porter identified five competitive forces which tend to drive down the profitability of any industry as comprising: barriers to entry, many small suppliers, many small buyers, few substitutes and few competitors (Hubbard, Pocknee & Taylor, 1996). Applying this version of Porter’s Five Forces Model (Porter, 1985) to the banking industry, Li (1997) observed that one of the critical factors – barriers to entry – no longer exists in banking. Foster, Gupta & Palmer (1999) observe 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, 1998) so government policies no longer form an entry barrier to banks’ competitors. Technological know-how in banking also provides little 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) observes, many non-bank, but identifiable, names such as Microsoft
are entering the banking arena, posing a major competitive threat.

**Figure 1: An application of Porter’s Five Forces model to the banking industry**

Griffin (1996) observes that 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, 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) observes, the Internet has levelled the playing field. By contrast, 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. Attitudes are also shifting from direct transactions to savings and investment, as the baby boomers reach their forties and fifties, and are preparing for retirement (Carew, 1998).
The application of Porter’s model to the banking industry shows clearly that this sector, which has now reached the mature stage of its lifecycle, is under threat. Dial (1995) points out 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 which 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). Large organisations introduced electronic banking initially, to simplify the management of their salary and payroll problems (Crede, 1995; Kalakota and Whinston, 1997; 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 and a wider installed PC base (Stemper, 1990; Carew, 1998; Wood and Fellenstein, 2000). Banks initially used dial-up services or provided software which was both expensive to customers and lacking in user-friendly features (Kalakota and Frei, 1998). Later, on-line services were set up from retail branches to provide subscriber-based online services, although these still lacked generic features and a user-friendly interface (Denny, 1998). With the evolution of the Internet and the World Wide Web, online banking become crucial to growth in the sector (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. They observe that mobility, independence of time and place, and flexibility have become key words in consumer banking. Stamoulis (2000) points out 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).

**Opportunities and Challenges from eBanking**

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 (1988) 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). Cronin (1998) notes that the
implementation of SET, the standard for secure electronic transactions on the Internet, and its wide spread adoption including security measures like encryption, digital authentication, and verification of on-line identity, increase consumer confidence. Stamoulis (2000) argues that the advances in Internet security and the advent of relevant protocols such as Integrion, OFX, SET, etc. put banks in perspective again as financial intermediaries and facilitators of complete commercial transactions via electronic networks and especially via the Internet. Consumers are increasingly looking for services they can access from a single entry point. As Denny (1998) notes, awareness of competition have 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 back bone 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) indicating that customers still wanted the comfort of a physical presence.

Regulatory barriers in many countries are on the decrease (Sathye 1999). 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 are at an advantage if they exploit their existing, eCommerce-ready infrastructure, by leveraging it on the Internet (Wood and Fellenstein, 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.

Australia and India – the online banking scenario

Patten (1998) observes that the world beyond the borders of the United States is taking advantage of the Internet. Different countries are responding in differing ways. The historical framework of banking in both Australia and India is set in more or less similar environments – colonisation by the British, post World War II constitutional reforms in financial regulation, financial sector de-regulation following committee reports in the 1980s/1990s and the advent of electronic banking. However, the timing and the events relating to these milestones are not synchronised. Consequently, consumer attitudes that shape financial systems (Parasuraman, Zeithamal, & Berry, 1994, Kotler, 1991 and changes to laws are also driven to a certain degree by some significant milestones in history. We have analysed these aspects more closely to understand the similarities and differences that historical events have created in these two countries.

The Australian Experience

As noted by many authors (Marwick, 1985; Lyell, Crane, Crowley & Fraser 1997; Carew 1998) commercial banking began in Australia in the 1800s with the formation of British banks by colonists. Marwick (1985) explains that the 1830s was a period of economic boom, with the discovery of gold and increasing levels of immigration, and banks began trading in the readily-available gold. However, in the 1890s following the real estate market slump and worldwide bank crashes the need for prudence was realised, resulting in the reconstruction of the banks. This process was characterised by central authority, network branches, and a conservative outlook. Following 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
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.

1979 and 1983 respectively were major years for the Australian banking system, with two major committees (the Campbell and Martin Committees) enquiring into the financial system, following rapid changes and a decrease in the influence of the RBA (Carew 1998). Following the reports of these two committees – and partly also as a result of global changes in the banking system more generally – the Australian financial sector was deregulated over a period of years. 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. In 1996, following the report of the Wallis Committee into the Australian Financial System, it was realised that the ideal regulatory scheme would be a balance between preventing market failure and allowing financial markets to perform efficiently (Everett and McCracken, 2000). The Final Systems Inquiry Final Report (1997) placed the emphasis on three regulatory agencies based on functional lines.

A study which examined the productivity of the retail banking sector during the period of 1986-1995 (Avkiran 1999a) showed an upsurge in productivity by Australian retail banking sector (Avkiran, 2000). The principal regulators of the Australian financial market are now the RBA, which regulates monetary policies; the Australian Prudential Regulation Authority (APRA), which oversees the banking and financial institutions; and the Australian Securities and Investments Commission (ASIC), which regulates share and futures trading. Other general regulatory bodies, such as the Australian Competition and Consumer Commission (ACCC) may have an impact on competitive behaviour (Carew 1998, Everett and McCracken 2000). As Marwick (1985) and Carew (1998) observe, present day banking in Australia is
characterised by 4 major banks which hold the lion’s share of the market 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 (most of which 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.

In addition to the financial institutions themselves, an important role is played by the Australian Bankers’ Association (ABA), which is the national organisation representing licensed banks in Australia. Any body corporate that has been duly authorised to carry out banking business in Australia, and does so, may become a member of the ABA (ABA, 2000). The Banking Ombudsman Scheme was set up in 1990 to help individual bank customers sort out their unresolved complaints with their banks (ABIO, 2000). In terms of wholesale (commercial) banking operations, Australia has been very active in electronic banking from its very earliest inception. The four major banks established their own automated electronic 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 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 network (the Society for Worldwide Interbank Financial Telecommunications) for international inter-bank payments and end-of-day netting.

Consumers in Australia were originally very accepting of credit unions and NBFIs, perhaps as a result of the personalised service and bonding developed by these smaller organisations (Carew, 1998). Banks have been rated as a service industry with no service offered to individual bankers (Aveling 1989, Berry, Bennet, Brown 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). Online systems have real benefits to inhabitants of a country as large and as geographically dispersed as Australia – ATMs and EFTPoS offer the consumer of financial services the opportunity to do their banking from their local area, rather than needing to reach a bank branch, which might well be several hundred kilometres away. The convenience these systems provide has resulted in more than 50% of banking transactions (such as withdrawals, account management, deposits) being conducted outside bank branches (Jesse, 1996), with consequent financial benefits to the banks themselves. Both these systems tend to be used by younger, high-income earners as older and less educated consumers are inclined to feel more at ease with personal service and are afraid of making errors with ATM use.

Another significant technology innovation has been BPAY. According to Beatty (1998) since 1997, this scheme, which allows customers to instruct their financial institution to pay nominated billers, has increased the number of phone banking and Internet based customers significantly. Swatman (2000) argues that BPAY is, perhaps, the single greatest influence on Internet banking in Australia. In a country where consumers do not have high levels of trust in their banks, the European/British experience of direct debits and standing orders to cover the payment of regular bills is not widely used. B-Pay allows bank customers to pay bills electronically, at a time to suit them, and with full control over where the money is to come from and the date on which the payment is to be made. As Swatman (2000) observes, B-Pay has been staggeringly successful in Australia and, with the imminent launch of E-Bill (essentially B-Pay Mark II an end-to-end electronic bill presentation and payment service), is likely to become still more popular and strategically important – and an even more important driver for consumer uptake of electronic banking services (BT, 2000). Internet banking has gained momentum as a result of the convenience it offers, combined with its low transaction costs and the power it gives individual consumers to undertake their banking activities in a manner to suit themselves. It has, of course, been encouraged by the banks themselves who see in Internet banking a
way of saving costs (both in terms of direct data entry by customers and in terms of lower staff costs) and of increasing their market reach.

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 from the “Current State of Play” report (NOIE, 2000a) 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 lag behind only the US and Finland in their uptake of online banking, despite the country’s slow start – and they seem to be willing adopters. Cultural barriers are not significant, except in the older age group. 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, for example, Castleman, Swatman & Swatman, 2000; Wilde, Castleman & Swatman, 2000).

Banks in Australia have responded to customer demand by providing interactive services. According to the “Banking on the Internet” report (NOIE, 1999) these include account-monitoring services, account management services and other value-added services such as Insurance Management, online securities trading, foreign currency transactions and electronic reminders. All banks offering Internet banking also provide 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. The government is also engaged in actively promoting Internet based banking (NOIE, 1999). 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. Statistics (NOIE, 2000a) reveal that 51% of the adult population in Australia had used
phone banking for transfer of funds, 67% used EFTPOS and 74% used ATM as at May 2000. As Batt (2001) comments, 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 net cost-effectiveness of the Internet may be shared by the banks and consumers, resulting in a win-win situation.

The Indian Experience

India’s banking system dates 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 (RBI) 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. By 1960, a merger of weak banks brought the number of banks down to 85. In 1969, most banks with higher deposits were nationalised (BanknetIndia, 2000a). Fuelled by a sentiment of patriotism and bonding following independence, most Indians preferred to use nationalised banks, rather than private banks. Rigid controls by the RBI on the banking sector and closed markets fuelled the growth of these banks, although their activities were limited by bureaucracy. 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).

However, 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.

Bhattacharya, Arunava & Sahay (1997) investigated the impact of liberalisation on commercial banks in the early years of deregulation, with particular emphasis on the period covering 1986-1991. The results indicated that publicly owned banks were more efficient. 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. The Narasimham Committee report in 1992 introduced new reforms, followed by the Banking Regulations Act in 1993, enabling new private banks to enter the arena. In 1996, full foreign investment was allowed. In 1997, the Tarapore Committee report on capital account convertibility, launched a new mandate to support the full convertibility of the rupee by the turn of 2000. 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 intermediary 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. Broadly, it consists of Commercial Banks and Co-operative banks which include scheduled and unscheduled banks (Banknet, 2000a). The Commercial banks are further divided into public sector (with major shareholders such as the Government of India or the RBI), private sector banks and foreign banks. The Fe-Bris Survey in 1999 revealed that India had approximately 100 banks in 1999 (Financial Express, 1999). 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. Most public sector banks with unions are members of the IBA, although membership is not compulsory. There is also a consumer protection authority that safeguards the interests of the individual user (Jeevan, 2000). The average Indian consumer was initially driven by national sentiment to use nationalised banks, an approach which also acted as a stability measure. But social and economic changes in India now mean there are an increasing number of better educated, better off and more financially sophisticated professionals who have no cultural problems with credit (Financial Times, 2001).

The uptake of ATM usage is fairly low (Mishra, 2001) and is concentrated in urban areas. Lack of skill in using an ATM, and inaccessibility have been identified as major causes for this slow uptake by the majority of banks. As Raj (1996) remarks, the average Indian citizen is yet to get comfortable with impersonal machines such as ATMs. Personal attention is still required before the critical mass of the literate population is reached. Multiple branches spread across the country and lack of national bandwidth are major constraints, especially for public sector banks (Varma, 2001). The restrictions imposed by the IBA still exist to some extent. As Raj (1996) points out, the IBA stipulates a certain deposit base and a particular number of vouchers, before a bank can install an ATM.
Jeevan (2000) observes that with rigid controls giving way to deregulation, banks are gearing up their communications infrastructure to obtain a competitive edge from eBanking. He argues that with the Internet emerging as a popular medium for transacting financial products, eBanking is becoming a reality in India earlier than envisaged Nair (1999) notes that Indian Internet banking is still nascent, although it is fast becoming a strategic necessity for most commercial banks, as competition increases from private banks and NBFIIs. 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. As Raj (1996) observed, one reason why Indian banks are lagging behind their counterparts in the west can be laid at the door of the government, since the infrastructure needed to speed the process remains lacking. However, as at 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 was providing massive support to the backbone of the Internet. Yet, considering its population is now over a billion, India still has a long way to go.

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). EFT is the safest and fastest way to transfer money, regardless of bank, branch, or city. ECS enables deposit of dividends into the shareholder’s account, if the bank account is given. 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 backbone for the national payment system, was equipped with a full transponder on the INSAT-3B satellite to carry out its operations. According to Nemzow (2000), around 50 banks are offering a variety of
Internet services. While 55% offer entry level services, 8% offer advanced transactions such as online transfer, the other 37% is still in the process of catching up with Internet banking itself, mainly labelled as Brochure ware sites, giving information.

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. As he observes, the private banks have had the benefit of being innovation leaders, supported by technology. The private banks have also been acquiring the older and weaker banks (Business Line, 2000), thus growing in size. In addition to this, the new generation of IT professionals demands innovative services, while supporting their growth. As Varma (2001) observes, the public sector banks are trying to catch up in this competitive environment, but they still have a long way to go.

It is clear that India, when compared to Australia, is still in the early stages of Internet banking growth and development. While it is plagued by infrastructure problems, slow uptake of Internet access and PCs, poor telecommunication network policies and slow paced regulatory initiatives, the rapidly growing software industry in India and ever increasing demand from the IT professionals have been promoting and supporting the online banking concept. The formerly ‘information poor’ nation is becoming a ‘high tech intellectual centre’ enabling banks to capitalise on the brainpower available in the country. Banking in the country is witnessing a sea change as the sector seeks new applications with the demand from and facilities provided by the growing info tech professional sector (Varma, 2001).
According to C.N Ram, who heads the IT division of the newly founded HDFC bank, 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 (DQ, 2001). By comparison, Australia has had high Internet penetration levels, a high technology infrastructure, customer readiness, and fast adoption of online banking. The barriers to growth were almost absent. However, the lack of demand from the domestic sector is seen as the cause of the slow pace of growth of online banking in Australia, compared to its counterparts such as US and Finland. 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.

**Case Studies**

This section focuses on two successful case studies from the banking industries of Australia and India, and provides a more in-depth view of eBanking activities in the two countries than was possible from the broad view presented above.

**Australia – ANZ Banking Group**

ANZ is one of the largest companies in Australia and a major international banking and financial group – and one of the “big four” Australian banks. The bank itself was formed in 1970 following a merger with the English, Scottish and Australian Bank Limited (ES&A), to form the Australia and New Zealand Banking Group Limited (ANZ, 2000a). The following years were marked by mergers and acquisitions and the group continued to grow, despite the purchase of the primarily Indian-based Grindlays Bank, which proved a less than perfect business fit and which the group divested itself of in 1999. At the end of 1999 ANZ had 16,088 employees and 807 branches within
Australia. It had joined the SWIFT network towards the end of the 1970s as one of the pioneer banks from Australia (ANZ, 2000b). Electronic banking services commenced with the launch of phone banking in 1997, although it was only in April 1999 that Internet banking was launched. Following this was a joint venture agreement with Telstra, ERG and ANZ to form a smart card alliance, followed by a further strategic alliance with E*Trade Australia to develop Australia’s leading online share trading service (ANZ, 2000c).

From the strategic viewpoint, it can be seen that ANZ has been taking a very proactive approach, with joint ventures, alliances, and ventures into online banking and trading to remain competitive. It has also integrated its services, to offer the consumer a ‘one stop’ environment, thus promoting. Customer Relationship Management (CRM) - the most touted competitive tool of banks today. Currently, ANZ is offering various services including, account management, credit cards management and payments, fund transfer, bill payments, share trading and investment management. The ‘pay anyone’ feature allows the customer to transfer funds to the account of any person banking with a participating financial institution. The bank was acting upon consumer demands to leverage Internet banking as is revealed from the monthly web based survey results posted at their website. The results are being used to develop new functionalities while improving on existing features and services. The bank seem to be adopting eBanking gradually, to help customers move from other forms of banking to a primarily Internet-based approach.

According to Batt (2001) ANZ has achieved the highest conversion rate among its customers, with about 8.6 percent transacting their business over the Internet. The bank seems to have achieved significant success in converting its phone, branch and ATM consumers to Internet banking gradually.
India – ICICI Bank

ICICI Bank was a commercial bank set up by a private group in India. The bank was registered as a banking entity in January 1994 and received its license to operate from the RBI. By end of 1999, it had 64 branches across India. It is characterised by state-of-the-art technology and systems, all networked through V-SAT (satellite) technology. The bank has been quick to join the SWIFT network, a year after its inception, and sign mergers with banks (Bank of Madura) and keeping its image up as an innovation leader (Businessline, 2000) In the period ending June 30th 2000, ICICI had more than 100 branches across the country, and installed over 200 ATMs spread across the country. ICICI Bank offers a wide spectrum of domestic and international banking services to facilitate trade, investment, cross-border business, treasury and foreign exchange services. This is in addition to a wide range of deposit services for individuals and corporates. The bank offered phone banking free of charge and was first to launch an Internet Banking service in the country, named Infinity (ICICI, 2000a). The Infinity offers account management services, funds transfer, bill payments, e-shopping payments online real-time, requests and intimations, communication with account manager, customised and personalised content. A demonstration online familiarises you with the channel (ICICI, 2000b).

Strategically, ICICI bank has had a first mover advantage, having started its operations when technological changes were picking up pace, deregulation was on the way, and it was blessed with ‘newness’ which older Indian banks lacked. It did not have to re-structure or re-vamp its image. Sinor - the CEO of the bank remarked that they liked to “catch them young and be with them through their careers”(Indian Express, 2000). According to Chithal (1999) ICICI has announced a tie-up with technology providers such as Compaq, software trainers such as NIIT, and the ISP Satyam Online, to widen its reach. All these alliances are with organisations which are growing at the rate of 50 percent or more per year. The growth of its own share prices is indicative of the organisation’s success. In July 2000, it launched Payseal, a payment gateway, which ensures safety and security of online transactions. Payseal interfaces between the Internet shopper, web merchant and banking systems in a secured environment to facilitate online payments (ICICI, 2000a).
ICICI Bank is a subsidiary of ICICI which was listed on the NYSE on Sept. 22, 1999. ICICI Bank is the first commercial bank from India and the second Asian commercial bank to list on the NYSE. From the time it was listed, the share prices have maintained a steady pace, only fluctuating with the overall effects of US elections. The gradual growth trend reflects good health. The bank seems to be focusing on the urban young professional, based on the underlying policy of “catching them young and growing with them”. The bank’s strategy is based on demand for services such as investment products, payment of utility bills, home loans, etc. by the young professionals concentrated in the metropolitan areas. ICICI bank seeks to branch out through a network of professional and supported mergers with other private sector banks (such as Bank of Madura), which will enable its growth into rural areas. The continuing momentum of Internet growth is expected to aid its expansion. Therefore, strategically, ICICI bank, despite regulatory and infrastructure issues have been able to capitalise on the technological growth momentum and joint ventures with major market share holders in significant growth sectors, to offer a wide range of online banking services, thus boosting its competitive advantage. As Mehta (1999) observes, ICICI’s strength has been its ability to attack problems by leveraging its innovation leader status on Internet.

Cross-Case Comparison

The table on the following page is a comparative analysis of the relative strengths, weaknesses, opportunities and threats of the two banks analysed using the popular SWOT model (Hubbard, Pocknee & Taylor, 1996).

In spite of the threats and difficulties faced by both these banks in terms of their own national contexts, they continue to persuade their customers, through various strategies, on to the Internet. The e-adaptation, integrating their value chains into Internet services, is perhaps helping them two fold – cutting down transaction costs, while elevating their image as innovative and pioneer banks. Inevitably, as financial analysts (Carew 1998, Kamath, 1999) claim, taking the first mover role in banking provides one’s competitors with the opportunity to follow, with a better-designed or more sophisticated service. There is growing demand for online banking services, as the experiences of these two pioneer organisations have shown.
<table>
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<th>Strengths</th>
<th>ANZ</th>
<th>ICICI</th>
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<tbody>
<tr>
<td></td>
<td>i) Established brand name</td>
<td>i) First mover advantage as innovation leader in Internet banking</td>
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<tr>
<td></td>
<td>ii) Developed Infrastructure</td>
<td>ii) Branded as technology leader</td>
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<td>iii) Responsiveness to consumer demand</td>
<td>iii) Consumer relationships built on demand</td>
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<td>iv) Increasing consumer conversion rate to Internet banking</td>
<td>iv) Online banking growth driven by consumer perceptions</td>
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<td>Weaknesses</td>
<td>ANZ</td>
<td>ICICI</td>
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<td></td>
<td>i) Slow adaptation to Internet banking</td>
<td>i) Slow moving regulatory reform in the banking sector especially with net-banking</td>
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<td>ii) Lack of demand due to saturation in the market</td>
<td>ii) Infrastructure issues at micro and macro levels</td>
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<td>Opportunities</td>
<td>ANZ</td>
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<td></td>
<td>i) Leverage the brand name</td>
<td>i) Leverage the first mover advantage</td>
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<td>ii) Capitalise on infrastructure</td>
<td>ii) Capitalise on innovation leader image</td>
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<tr>
<td>Threats</td>
<td>ANZ</td>
<td>ICICI</td>
</tr>
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<td></td>
<td>i) Market share loss to industry rivals as well as new players</td>
<td>i) Market share loss to industry rivals as well as new players</td>
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<td>ii) Threat of being acquired by a multinational bank or public sector corporation</td>
<td>ii) Threat of being acquired by a multinational bank or public sector corporation</td>
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*Table 1: SWOT analysis comparison between ANZ and ICICI Banks.*
Conclusion

The life cycle of banking industry has reached its maturity in its current form. Banks are being forced to change rapidly as a result of open-market forces such as threat of competition, customer demand, and technological innovations such as the growth and rapid acceptance of the Internet. If banks are to retain their competitiveness, they must focus on customer retention and relationship management, upgrade and offer integrated 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 leveraging the networking capabilities of Internet must become a major strategic weapon in a volatile and rapidly evolving marketplace.

Banking through the Internet is increasingly becoming a necessity, rather than an innovative tool, and with increasing consumer demand, banks have to upgrade and constantly think of new innovative customised packages and services to remain competitive. 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, Internet banking has shown slow uptake due to lack of demand in rural areas and population volume, preference for NBFIs over banks, and concentration of uptake in the young urban professional sector. Our analysis has shown that the possession of a strong technological infrastructure is not necessarily sufficient in terms of providing consumers with the tools and facilities they need.

Australia, despite its strong basis as an eBanking centre, 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. India, by comparison, is plagued by weak infrastructure, low PC penetration, secure protocols and consumer reluctance to accept the Internet banking concept. Although many major banks have started
offering Internet banking services, the concept is slow to spread. Unless the critical mass is achieved for PC, Internet connections and telephones, Internet banking will continue at a slow pace, in India. 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 ANZ bank in Australia has been a leader in the provision of Internet banking services. With strategic alliances (e*trade), a big portfolio, and an established brand image, the bank has an enthusiastic outlook to boosting its profitability. ICICI bank in India has positioned itself as an innovative bank, growing with the momentum of technological innovations, stabilising policies, infrastructure development and has launched the first Internet banking venture in India. Despite regulatory issues, infrastructure problems and cultural barriers, the bank is enthusiastic about boosting its profitability with Internet banking. It has also formed alliances with strategic partners in the market to integrate its services to offer consumers the one-stop-shop experience. Both the banks seem to have used customer demand, and responses to build the momentum of Internet banking. The two innovative organisations studied in this preliminary cross-case analysis of Internet banking have indicated that they expect to increase market shares by meeting customer expectations, while leading consumers into new ways of transacting banking business which at the same time, reduces their own transaction costs. It may be well said that Internet banking is a successful strategic weapon for banks to remain profitable in the 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

http://www.bankers.asn.au/  
Accessed on 7th January 2001

ABIO (2000) The Banking industry ombudsman scheme Available [online]  
http://www.abio.org.au/about.html  
Accessed on 7th January 2001

ANZ(2000a) Student Room , ANZ History, page 1 Available [online]  
http://www.anz.com/australia/aboutanz/default.asp  
Accessed on 1st February 2001

ANZ(2000b) Other Information, Available [online]  
Accessed on 1st February 2001

ANZ(2000c) Student Room, ANZ History page 2 Available [online]  
http://www.anz.com/australia/aboutanz/default.asp  
Accessed on 1st February 2001

[www.thestandard.com/article/display/0,1151,13309,00.html](http://www.thestandard.com/article/display/0,1151,13309,00.html)

Accessed on 7th January 2001


Banknetindia (2000a) Historical perspective, page 1 Available [online]

[WWW.banknetindia.com/banking/boverview.htm](http://WWW.banknetindia.com/banking/boverview.htm)


Banknetindia (2000b) Historical perspective, page 2, Available [online]

[WWW.banknetindia.com/banking/boverview.htm](http://WWW.banknetindia.com/banking/boverview.htm)


BanknetIndia(2000c) Cooperative Banks Available [online]


www.ecomlaw.com/articles/sep/ecomusa.htm


http://ideas.uqam.ca/ideas/data/Papers/fthindgan131.html


Available [online] from PROQUEST
http://proquest.umi.com/pqdweb?TS…Sid=3&Idx=86&Deli=1&RQT=309&Dtp=1

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http://proquest.umi.com/pqdweb?TS…Sid=3&Idx=86&Deli=1&RQT=309&Dtp=1


Chittal, Nitin (1999) ‘Retail push, easier said than done’, Financial Express, October 14th Available [online]
www.financialexpress.com/fe/daily/19991014/ffe12097.htm


http://www.arraydev.com/commerce/JIBC/articles.htm

Accessed on 7th January 2001


Financial Times (2001) Consumer credit – the new middle class mantra, a survey report.Available [online]

http://www.ft.com/ftsurveys/industry/scd3c2.htm


ICICI(2000a)http://www.icici.com/icicibank Available [online]
http://www.icici.com/icicibank/

ICICI(2000b) Internet Banking Available [online]

http://www.icici.com/icicibank/


India Infoline(2000) Electronic Fund Transfer and Clearing System, 29th November,
Available [online]
http://indiainfoline.com/pefi/bank/elec.html

Jeevan, M.T. (2000) Only Banks - No Bricks, Voice and Data, November 11th
Available [online]
http://www.voicendata.com/content/convergence/trends/100111102.asp

Workforce Planning Within Australian Financial Industry over the next decade,
Australian Institute of Banking and Finance, Melbourne.

Available [online]
http://www.financialexpress.com/fe/daily/2000072/fffe19093.html


Addison-Wesley, Massachusetts.


Li & Jianmang (1997) ‘The entry barrier is collapsing, what to do next?’ *Journal of Internet Banking and Commerce*, September, vol 2, no.4 Available [online]

http://www.arraydev.com/commerce/JIBC/articles.htm


http://www.newsbytes.com/news/00/154721.html


Mishra (2001) Internet Banking in India, *BanknetIndia* Available [online]

http://www.banknetindia.com/banking/ibkg.htm


http://www.asia.internet.com/asia-news/print/0,,161_648221,00.html


http://www.hindubusinessline.com/iw/2000/07/16/stories/0716g051.htm


NASSCOM(2000) Internet & E-Commerce Scenario in India, Available [online]

http://www.nasscom.org/


Nemzow, Clauz (2000) Internet Banking in India, PartII, Banknetindia Available [online]

http://www.banknetindia.com/banking/ibkg.htm


http://www.arraydev.com/commerce/JIBC/articles.htm

Accessed 7th January, 2001


NOIE (2000) Banking on Internet, Available [online]


NOIE (2000a) Intensity: business to consumer (B2C) e-commerce, Australia Available [online]


NYSE (2000) Available [online]

http://www.nyse.com/listed/listed.html

Patten, Sue (1998) The International Internet, Desai Systems Inc. Available [online]  
http://www.desai.com/default.asp  


http://www.dqindia.com/dq/nov1596/index.html  

http://www.securities.com/Public/Public98/RBI/Speech/speech000713-1.html  

WWW.britannicaindia.com/economy/spotlights/rodlegal/index.htm  
http://www.arraydev.com/commerce/JIBC/articles.htm

http://www.arraydev.com/commerce/JIBC/articles.htm


http://www.arraydev.com/commerce/JIBC/articles.htm


http://www.dqindia.com/content/top_stories/301012904.asp


www.jpmorgan.com/CorpInfo/Perspectives/Issuespersp.html


www.bankinfo.com


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