

## Factors hindering the usage of internet banking service by consumers in Australian context

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### **Abstract**

*This paper illustrates key factors that are actually hindering the usage of internet banking service by Australian consumers. A survey with open-ended questions was used to acquire data from 220 consumers who were not using internet banking service. Qualitative data obtained was subjected to content analysis and common themes were identified resulting in eleven factors which were critical in inhibiting consumers from using internet banking. In order of frequency, the factors identified are: security, trust, privacy, risk, personal help, social influence, convenience of other banking methods, routine, technology discomfort, type of internet connectivity and banking transactions performed by spouse. The factors that emerged provide a comprehensive understanding of consumer resistance to use of the internet banking service delivery channel. Findings may help service providers formulate more effective channel design and marketing strategies in future.*

### Introduction

Traditionally, Australian banks delivered their products and services to consumers through a single distribution channel: physical bank branches. However, the advent of the internet, change in communications technology, financial liberalization and globalization are increasingly driving consumers and businesses to change their traditional modes of operation (Edey & Gray 1996; Thompson 1996; Gardener et al. 1999). As a result, the financial services industry became more competitive and the focus in competitive bank strategy on price factors became increasingly difficult. To increase revenue and market share, banks started relying on non-price factors as a means of differentiation and as an option to cost cutting (Zhu & Chen 2002). The largest expenses incurred by banks are maintenance of the branch network associated with human resources in the form of overhead costs. Banks started to recognise distribution as an alternative strategic focus for differentiation and further gaining competitive advantage (Gyptre & Dixon 2002). And the trend has been the proliferation of service delivery channels through which consumers can interact with the banks. Modern banks provide their consumers with increased channel choice, reaching out to consumers through many routes (Dabholkar & Bagozzi 2002). As such, ATMs, telephone, internet and wireless channels are now available to consumers to perform their banking transactions.

Usually, the majority of successful products or services in the market exhibit an adoption pattern (Gerard, Cunnigham & Devlin 2006). Financial institutions are no exception to this trend. Banks offering their financial services over the internet are keen to accelerate the adoption process, expecting that delivering a service over the internet is much less expensive than delivering the same service over-the-counter (Polatoglu & Ekin 2001). Internet banking has experienced a tremendous growth in many countries and is increasingly managed as an operational activity and as an important component of multi-channel strategy (Black et al. 2001). As the current market growth trends are uncertain, despite the considerable diffusion of internet banking in many countries, banks seek further market expansion. Recent research shows that banking consumers rank internet banking as less important compared to other electronic service delivery channels and are reluctant to use internet banking (Aladwani 2001; Suganthi et al. 2001).

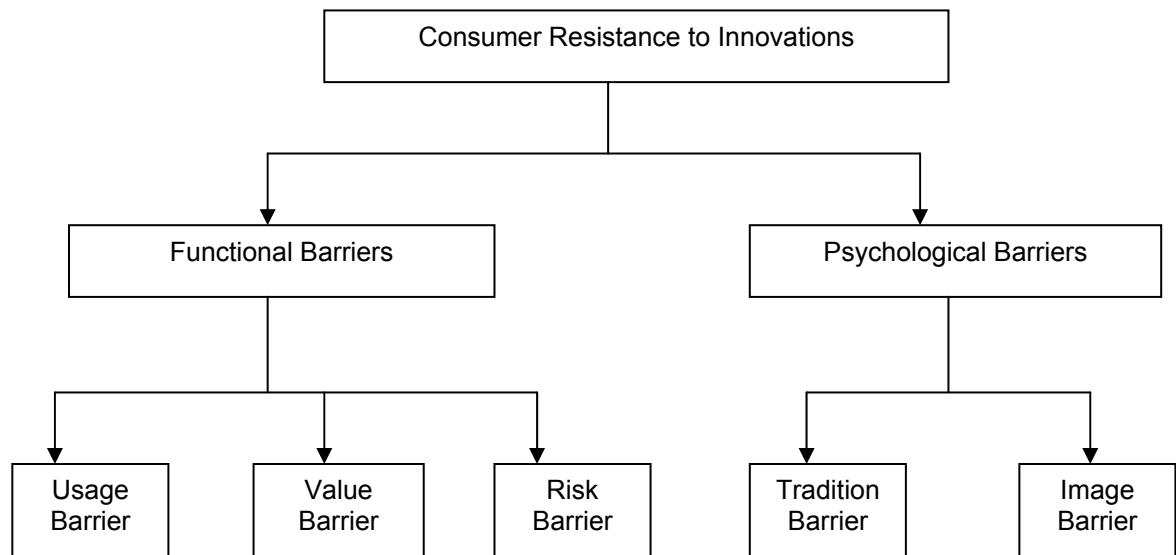
The Australian financial sector has been transformed from a relatively closed system in the 1950s and 1960s, based on traditional bank activities, to a more open, effective and competitive system which is able to offer a wide range of products and services (Edey & Gray 1996). There are four key electronic banking service delivery channels that

have affected the delivery of banking services profoundly in Australia. These are: Automated Teller Machines (ATMs), introduced in the late 70s; Electronic Funds Transfer at the Point of Sale (EFTPOS), introduced in the early 80s; telephone banking, commencing in the mid 90s; and internet banking, which emerged in the late 90s (McPhail & Fogarty 2004). Extant research shows that in Australia and other countries, there is an increase in the use of internet banking by customers from its time of introduction (ACNielsen 2007). A number of studies in the literature have elicited the benefits of internet banking and focused on the adoption of internet banking by consumers (Karjaluo et al. 2002).

In spite of the immense benefits offered by internet banking to consumers, there are a certain proportion of consumers who prefer to perform banking using traditional modes. It would seem that there are certain factors which hinder these consumers from using internet banking services. So far, the literature on technology adoption has largely concentrated on adoption of technological innovations and factors influencing the adoption process (Rogers 2003). There exists a gap in the existing literature in identifying the actual factors that hinder the uptake of internet banking by consumers in Australian context. This study addresses the abovementioned gap and provides bank marketers with a better understanding of the reasons why consumers are resistant to using internet banking.

## Innovation Resistance

'Innovation resistance' forms the theoretical backdrop to this study and is defined as resistance offered by consumers to an innovation, either because it poses potential changes from a satisfactory status quo or because it conflicts with the consumer's belief structure (Ram & Sheth 1989). Innovation resistance is also determined as 'a preference for existing, familiar products and behaviours over novel ones' and is often considered as a special form of resistance to change (Arnould et al. 2004:722). The adoption of an innovation in the literature has been explained through the identification of different barriers (Figure 1), specifically, functional and psychological barriers (Ram & Sheth 1989).



**Figure 1: Consumer Resistance to Innovations (Ram & Sheth 1989)**

Functional barriers refer to usage, value and risk barriers, whereas psychological barriers refer to tradition and image barriers (Ram & Sheth 1989). The usage barrier is related to the usability and required changes to behaviour of consumers arising from adoption (Chircu & Kauffman 2000). The value barrier is related to the monetary value component attached to an innovation. Risk barrier refers to the perceived risk associated with an innovation (Ram & Sheth 1989; Fain & Roberts 1997). Tradition barrier is associated with the consumer's social values and social norms. Image barrier originates from stereotyped thinking about an innovation (Ram & Sheth 1989).

## Literature Review

If the factors hindering the use of internet banking are strong enough, frequently cited benefits of internet banking do not seem to materialise as the value of the internet banking cannot be realised. In the adoption studies, convenience has been identified as an important adoption factor (Thornton and White 2001). Consumers who resisted internet banking believed that they did not need high levels of convenience (Chung & Paynter 2002). Also, lack of prior use of internet banking inhibited consumers from the actual use of the service (Chung & Paynter 2002). Many consumers were simply unaware of internet banking and its unique benefits (Sathye 1999). Non-users considered internet banking to be difficult, inconvenient, to have poor relative advantage and to be slow to use (Kuisma et al. 2007). If internet banking fails to offer any functions not previously available to the consumers, the degree of intention to use the service is relatively low (Fain & Roberts 1997). Lack of experience can inhibit consumer usage of internet banking services as it might result in improper banking transactions (Speece 2000).

Concerns associated with the private information and context confidentiality may hinder consumers use of internet banking (Pavlou 2003; Gerard, Cunnigham & Devlin 2006). Moreover, consumers do not necessarily identify a need to use a new channel and are reluctant to shift from their traditional banking practices; the relative advantage is not apparent to them (Gerard Cunnigham & Devlin 2006). Consumers may have a negative image of computers in general and internet service delivery channels in particular (Fain & Roberts 1997). Usage of internet banking could be restricted if there is a lack of consumer trust. Three reasons for which consumers do not trust internet technology relate to security of the system, distrust of service providers, and worries about the reliability of internet services (Min & Galle 1999; Lee & Turban 2001). Reputation is also considered to be important, as distrust of the service provider is a related factor (Jarvenpaa et al. 1999).

The risk associated with the service is also a frequently-cited reason for non-usage of internet banking (Gerard, Cunnigham & Devlin 2006). Risk is related to reliability and system failure (Walker et al. 2002). Risk usually arises from the uncertainty when consumers cannot foresee the consequences of their usage of certain product or service (Walker et al. 2002). Demographics may be relevant in understanding the usage patterns of internet banking. Recent studies confirm the difficulties of attracting mature age group consumers towards internet banking usage (Ilett 2005). Studies reported that gender also may be a relevant factor in influencing consumer resistance to using internet banking. Women regarded privacy protection and ethical standards more seriously than men (Shergill & Li 2005).

Most of the studies have identified the abovementioned factors in the context of developing countries. Therefore, the present study makes an attempt to elicit the key factors that are hindering consumers' usage of internet banking in the Australian context. Furthermore, available literature with a wide range of contributing theories in this area attracts for a strong foundational basis and a need to enhance service oriented knowledge (Romano & Fjermestad 2003; Zuboff & Maxmin 2003).

## Geographic Scope of the Study

Sydney was selected as the focus for this study. Sydney is the most populous city in Australia, with a metropolitan area population of approximately 4.28 million (ABS 2008). The largest productive economic sectors in Sydney include property and business services, retail and health and community services. Financial services is the fastest growing service industry in New South Wales recording an average growth rate of more than 9% between 1995-1996 and 2005-2006. Sydney is increasingly dominant in finance: its proportion of Australian financial services industry grew from 39% in 1995 to 42% in 2005. Banking is the dominant sector of the Australian financial services industry, accounting for 50% of total assets. The sector continues to grow with the recent establishment of four offshore banks in Sydney such as China Construction Bank, Bank of Baroda, Bank of Ireland and Australia's first foreign central bank The People's Bank of China.

The financial services industry includes banking and insurance, non-bank financial services such as building societies, the securities exchange and services to finance and insurance businesses. Growth in the industry has been driven by the globalisation of financial transactions, development of new and more sophisticated financial services and products, increased international activity and significant growth in the funds management industry. Sydney is the largest corporate and financial centre in Australia and is also an important financial centre in the Asia-Pacific region. Of the 55 authorised deposit-taking banks in Australia, 53 have operations in Sydney. Moreover, Sydney is the location of the Reserve Bank of Australia, The Australian Securities Exchange and the Australian Financial Markets Association and is the headquarters of 90 banks (ABS 2008).

## Method

The present study is a portion of a large doctoral study titled 'Antecedents to Customer Perceived Value and Continued Usage of Internet Banking in Australian Context'. A self-administered questionnaire was used to collect the required data. The survey questionnaire was distributed to the respondents either exiting or entering a busy shopping mall in Sydney. The survey questionnaires were distributed over a period of two months. Initially, a screening question was asked to identify whether respondents were internet banking users or non-users. Non-users were asked questions related to their demographics and internet usage. Further, non-users were asked to provide their responses to an open-ended question: 'Could you please tell us your reasons for not using internet banking to perform your banking transactions?' Open-ended comments provide a way to elaborate and contextualize statistical facts. Using a qualitative approach provides an opportunity to explore different viewpoints in the early stages of research, allowing the researcher to gain a better understanding of the problem and to identify phenomena, attitudes and influences (Maxwell 1996; Healy & Perry 2000). To identify the major factors hindering the usage of internet banking service in the Australian context qualitative data obtained through open-ended questions content analysis was used for paraphrasing the range of significant issues. Common themes were identified and passages and rewordings with the same or similar interpretations were summarized. 300 non-users were contacted and 235 completed questionnaires were obtained. Only 220 questionnaires were usable for further analysis with a response rate of 73.35 percent which is more than expected.

## Demographic profile of the respondents

60 percent of the respondents were male and the remaining 40 percent were female. About 57 percent of the respondents were within the age category of 31 to 40. 70 percent of the respondents had university-level education. The majority of the respondents had a personal gross annual income of \$50,001 to \$65,000. 40 percent of the respondents were of Anglo-Australian origin. Most of the respondents who were non-users of internet banking have a sales background. Most of the non-users preferred bank branch to internet banking rather than options such as telephone banking.

## Results and Discussion

Following the content analysis and common themes approach determined eleven critical factors that are actually hindering internet banking service usage among Australian consumers. The factors identified, in order of frequency, were labeled security, trust, privacy, risk, personal help, social influence, convenience of other banking methods, routine, technology, internet connectivity and banking transactions mainly performed by the spouse.

### *Security*

Security is the major factor hindering the use of internet banking service among Australian consumers. Respondents expressed their views associated with the security measures followed by the banks and the reliability of internet connections and internet

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banking applications (Lichtenstein & Williamson 2006). Some of the respondents reported issues related to virus presence, problems with the system and loss of relevant data and information. Media reports related to the security aspects of the financial transactions have a profound influence on consumers' reluctance to use internet banking service.

Security is the major concern. Though Australia is a developed country, it does not mean that financial transactions could be secure enough (Respondent # 202).

I prefer to use bank branch and I am reluctant to use internet banking as it is not secure enough for financial transactions (Respondent # 81).

Security issues need to be managed strategically by educating and providing consumer's information regarding bank security measures. Banks should develop a strong focus in avoiding issues related to fraud. As mass communications and word-of-mouth play a critical role in influencing consumer decision making process, banks should frequently advertise about the security measures implemented by them which could reduce the fear among consumers.

### *Trust*

Trust has long been regarded as a catalyst in consumer-marketer relationships as it provides expectations of successful transactions. Trust has always been an important element in influencing consumer behaviour and has been shown of high significance in uncertain environments, such as internet based contexts. Respondents concerns related to the trust factor were largely couched in terms of banks distributing personal information to marketing companies.

I do not trust the internet for doing banking transactions (Respondent # 119).

I don't really trust internet and internet banking and I often ensure that I am safe with the branch bank transactions (Respondent # 25).

Banks could take necessary steps in avoiding disclosure of consumer personal information to marketing companies. Banks should streamline to set up procedures to provide consumer reassurance and information. By developing information security measures banks could attract non-users to use internet banking service.

### *Privacy*

Privacy is related to the loss of private and confidential information. The majority of the non-users associated using internet service for their monetary transactions could make their personal information available to non-banks.

I am concerned with the privacy issues and I do not want more information accessible to bank parties about my monetary issues (Respondent # 57).

My personal information could be given to other companies and in a nutshell it is a big nuisance (Respondent # 193).

Banks should assure consumers that their private information will be well protected and will not be disclosed to others without the consent of the consumer. Protection of the private information would motivate non-users to use internet banking service.

### *Risk*

Some of the respondents perceived that there were risks associated with the use of internet banking. And respondents reported that they seriously take into consideration internet-channel risks in making a choice of the channel before performing their banking transactions. There is a general fear among the consumers that internet connection, if lost, may cause major risks to their banking actions (Black et al. 2001; Kuisma et al. 2007). There are concerns among some consumers that they could not get a proper proof of transactions made through the internet service delivery channel (Speece 2000). One of the non-users cited his friend who incurred a financial loss by

way of providing personal information to the dummy sites and how it influenced his decision to not use internet banking.

My banking transactions normally involve a great amount of money and any fraud through one click might result in huge losses. Basically I do not want to take any risk (Respondent # 17).

I am concerned with the risk associated with dummy sites that procure your account and password. This happened to my friend once and he had a financial loss of \$1500, which is not a small amount you know (Respondent # 101).

The perceived risk associated with the internet banking among the consumers could be manageable by making the consumers aware of the safe internet banking practices and effective risk management procedures. Banks should take effective steps to identify the dummy sites with their web presence and thus help the consumers to avoid financial losses.

### *Personal Help*

About 12 percent of the respondents commented that lack of personal help in online environment is the major barrier for them to use internet banking. Majority of the non-users expressed their concerns towards the personalized assistance they require when things go wrong. Customer service and assistance provided online is not immediate is the common notion that non-users carry with them.

I am comfortable with the bank branch staff as they offer immediate personal assistance if required. However the case with banking over the internet is not that easy and getting personal help is not possible if something is wrong (Respondent # 78).

If any mistakes are performed, branch tellers are of great help to rectify them. There is no such benefit with internet banking (Respondent # 211).

Banks need to consider introducing personalized help in online environment and make the consumers comfortable. Banks could often send personalized messages to the consumers highlighting the special features associated with the internet banking service. Banks may even consider contacting consumers over the telephone and get their feedback regarding internet banking use. Introduction of voice prompts may make the consumers feel more comfortable in an online environment. Personal help measures if implemented properly by the banks may attract increased number of consumers to perform internet banking thus increasing the relationship of the consumers with the service provider.

### *Social Influence*

Ethnicity of the respondents seems to correlate with the social influence factor. Majority of the Australian respondents with Asian ethnic origin have reported that social influence is the major factor hindering them to use internet banking service. Usually banking transactions are considered to be performed in private and there is little scope to discuss about one's banking actions with others. However, results obtained indicate that consumers with Asian ethnicity are influenced by friends and colleagues in the use of banking services.

None of my friends use internet banking and I never tried to explore that option as ATM and telephone banking is easy to use (Respondent # 5).

Neither my friends nor my colleagues at work use internet banking. I am comfortable and happy with branch bank services (Respondent # 33).

Perhaps the impact of social influence factor could be attributed to the cultural differences that persist between Western and Asian cultures. In order to motivate these non-users to use internet banking service, banks should provide information related to the secure transactions in an environment outside their host country. Banks could further target these consumers by offering special discounts when they introduce a friend to use internet banking service.

### *Convenience in other banking methods*

Many respondents indicated that they did perceive the need to use internet banking service. A large majority indicated that they were happy to use banking service delivery channels such as ATM and telephone banking as the range of services offered by these channels is more. Depending on the range of services, consumers reported that they are not motivated enough to use internet banking and change their traditional mode of banking.

Telephone banking is more convenient for me (Respondent # 123).

ATM is relatively easy to use. You know, internet banking requires lots of effort in setting up an account and creating password (Respondent # 48).

There are no internet kiosks like ATMs located in the shopping malls and other convenient locations. Banking through ATMs is very convenient (Respondent # 96).

Banks could overcome this factor by providing accurate information to consumers regarding the range of services available via internet. Banks should also consider educating consumers about the flexibility options associated with the internet banking option. Banks should further think of installing internet kiosks like ATMS at convenient locations for easy access by the consumers would further attract the non-users towards internet banking usage.

### *Routine*

Routinized behaviour and general inertia has been identified as one of the factor impeding consumers to use internet banking service. Results indicate that this factor is also related to ethnicity of some non-users. Certain non-users irrespective of their age, income and occupation but with certain ethnic backgrounds are reluctant to use internet banking service just because they are used to perform in a routine manner in their home country.

I have been too lazy to set up internet banking and have been intending to set it up but never get around to it. I am used to the routine of going to the bank to perform my banking transactions (Respondent # 148).

I came to Australia from South America 10 years ago and now I am Australian citizen. In our country it is a habit to go to bank branch and perform transactions. Though I stayed in Australia for 10 years, I am used to go to bank branch and I am reluctant to change my habit (Respondent # 64).

Inertia or laziness was found to be reasonable significant in explaining non-usage. These respondents are not sufficiently motivated to explore the internet banking offerings though they have the necessary skills to perform online. Therefore bank marketers should approach these consumers by sufficient sales promotion techniques, by offering certain incentives to switch some of their banking activities to online mode.

### *Technology*

Technology as a factor hindering the use of internet banking service is associated with the mature consumers and is related to the age of the consumer. About 6 percent of the non-users reported technology as a major barrier to internet banking usage. Most of these consumers are retired people and are above 61 years of age. Consumers reported lack of expertise dealing with computers and technology.

I am too old to perform internet banking. I lack the knowledge of working with computers (Respondent # 152).

Recent advances in technology are of major concern to me. Entire world is becoming so much involved with the technology that at this age it is difficult for me to learn new technologies. I prefer going to bank branch and talk to the branch teller while doing any banking transactions, so that I am safe (Respondent # 135).

Banks could target these consumers by providing a free training in using computers and educating the mature group with the benefits associated with the use of internet

banking service. Banks should basically look at reducing the technology discomfort associated with this mature group. Reports indicate that the proportion of the Australian population aged 50 years and over will increase from 30% in 2006 to between 46%-50% in 2051 (ABS 2008). Therefore banks need to tap the potential to attract mature age group consumers to further expand their services.

### *Internet Connectivity*

About 3 percent of the respondents related their non-usage of internet banking to the type of internet connectivity. Based on the demographic profile, these respondents have comparatively low income. They expressed concerns related to the type of internet connectivity as the major hindering factor and reported that possession of broadband connection in Australia is expensive. Most of these consumers have dial-up connection and have associated their difficulties with regard to the involvement of time to perform online financial transactions.

I do not have broadband connection and dial up is too slow to perform any banking transactions. I feel possessing broadband connection is really expensive in Australia (Respondent # 8).

I have dial up connection at home and it is slow that the required site opens after a long time. I think it is of no help to perform internet banking (Respondent # 184).

To overcome this barrier, banks may consider partnerships with the internet service provider and offer the service to the consumers on a less expensive basis. Partnerships could be beneficial to both the parties and consumers may adopt the internet banking service. Provision of differentiated service increases the value of the consumer thus enhancing the relationship of the consumer with the service provider.

### *Performed by Spouse*

Only 2 percent of the respondents have mentioned that usually banking transactions are performed by their spouse or partner. And the identified factor 'performed by spouse' is closely associated with the gender. Non-users influenced by this factor are all females and reported that they consider ATMs to be much more convenient and easy to use. Some of the respondents expressed that there is no need for them to worry about the financial transactions at all, as their spouse takes care of all the essential banking transactions.

My spouse does most of the banking activities and I do not bother to use internet for my banking transactions. I just use ATM and it is so convenient for me (Respondent # 15).

My partner takes care of all the essential banking transactions (Respondent # 170).

Banks could make an attempt to approach these female consumers and motivate them to use internet banking service by provide special offers tailor-made for them. Banks could think of offering special gender oriented incentives to attract these consumers to use internet banking and increase their market base.

### **Conclusions and Limitations**

The study has identified the various factors which explain why certain consumers are reluctant to use internet banking service. Most frequently mentioned factors relate to the risk barrier associated with security, trust, privacy and risk perceptions. Other factors identified relate to usage barrier such as technology discomfort and convenience in using other banking channels. Less frequently cited factors relate to personalized help, routine transaction nature, transactions performed by spouse and social influence. The study supported some of the existing research findings and has also uncovered some new insights.

Main limitation of this study arises through the sampling procedure used. Random sample selection would be more accurate, but such a list consisting of non-internet



banking users' names and addresses does not exist. Though generalizability of the results has certain concerns, yet findings are indicative in identifying a set of factors hindering the usage of internet banking service in Australian context. Theoretically the study adds significantly to the innovation resistance theory by synthesis of the previous literature and by relating the findings obtained to the earlier literature. Practically the findings help the bank marketers in identifying the measures to implement strategically and enhance consumer's adoption of internet banking service. Banks could further expand their market base by targeting different segments in a more appropriate manner. The study is also of relevance to other service industries associated with the internet banking services in their market expansion.

The findings obtained from this study are representative to the Australian sample. Further studies should look at different countries and try to explore whether any cross-cultural similarities or differences exists. The study targeted only consumers, however in future financial institutions and corporate consumers could be targeted for differential results. In future studies, scale items need to be developed for each factor and tested in quantitative manner as this would assist in establishing the extent to which each factor impacts decision of the consumers in non-usage of internet banking service.

## References

- ACNielsen 2007, ACNielsen Consult Online Banking Research, Retrieved from [www.consult.com.au](http://www.consult.com.au)
- Aladwani, A. 2001, 'Online banking: A field study of drivers, development challenges and expectations', *International Journal of Information Management*, vol.21, no.3, pp.213-225.
- Arnould, E., Price, L. & Zinkhan, G. 2004, *Consumers*, 2nd edn, McGraw-Hill/Irwin, New York.
- Australian Bureau of Statistics 2008, *Population projections – Australia*, Catalogue No. 3222.0, ABS, Canberra, 36.
- Black, N.J., Lockett, A., Winklhofer, H. & Ennew, C. 2001, 'The adoption of internet financial services: A qualitative study', *International Journal of Retail and Distribution Management*, vol.20, no.8, pp.390-398.
- Chircu, A.M. & Kauffman, R.J. 2000, 'Limits to value in electronic commerce-related IT investments', *Journal of Management Information Systems*, vol.17, no.2, pp.59-80.
- Chung, W. & Paynter, J. 2002, 'An evaluation of internet banking in New Zealand', *Proceedings of 35th Hawaii Conference in System Sciences (HICSS 2002)*, IEEE Society Press.
- Dabholkar, P. & Bagozzi, R. 2002, 'An attitudinal model of technology-based self-service: Moderation effects of consumers traits and situational factors', *Journal of Academy of Marketing Science*, vol.30, no.3, pp.184-201.
- Edey, M. & Gray, B. 1996, *The Evolving Structure of the Australian Financial System*. Reserve Bank of Australia, Retrieved July 2008, Retrieved from [www.rba.gov.au/PublicationsAndResearch/Conferences](http://www.rba.gov.au/PublicationsAndResearch/Conferences)
- Fain, D. & Roberts, M.L. 1997, 'Technology vs consumer behaviour: The battle for the financial services customer', *Journal of Direct Marketing*, vol.11, no.1, pp.44-54.
- Gardener, E. Howcroft, B. & Williams, J. 1999, 'The new retail banking revolution', *The Service Industries Journal*, vol.19, no.2, pp.83-100.
- Gerard, P., Cunningham, J.B. & Devlin, J.F. 2006, 'Why consumers are not using internet banking', *Journal of Services Marketing*, vol.20, no.3, pp.16-28.
- Gypra, P. & Dixon, P. 2002, *Future of Banking-Expectation*, Global Change. Retrieved 10 June 2008. Retrieved from [www.globalchange.com/futurebank.htm](http://www.globalchange.com/futurebank.htm)
- Healy, M. & Perry, C. 2000, 'Comprehensive criteria to judge validity and reliability of qualitative research within the realism paradigm', *Qualitative Market Research: An International Journal*, vol.3. no. 3, pp.118-126.
- Ilett, D. 2005, *Online bankers to double by 2010*. Retrieved from [www.silicon.com/financialservices](http://www.silicon.com/financialservices)
- Jarvenpaa, S.L., Tractinsky, N. & Saarinen, L. 1999, 'Consumer trust in an internet store: A cross-cultural validation', *Journal of Computer-Mediated Communication*, vol.5, no. 2.
- Karjaluoto, H., Mattila, M. & Pentto, T. 2002, 'Electronic banking in Finland: Consumer beliefs and reactions to a new delivery channel', *Journal of Financial Services Marketing*, vol.6, no.4, pp.346-361.
- Kuisma, T., Laukkanen, T. & Hiltunen, M. 2007, 'Mapping the reasons for resistance to internet banking: A means-end approach', *International Journal of Information Management*, vol.27, no.2, pp.75-85.
- Lee, M.K.O. & Turban, E. 2001, 'A trust model for consumer internet shopping', *International Journal of Electronic Commerce*, vol.6, no.1, pp.75-91.

- Lichtenstein, S. & Williamson, K. 2006, Understanding consumer adoption of internet banking: An interpretive study in the Australian banking context', *Journal of Electronic Commerce Research*, vol.7, no.2, pp.50-66.
- Maxwell, J.A. 1996, *Qualitative Research Design: An Integrative Approach*, Sage, Beverly Hills, CA.
- McPhail, J. & Fogarty, G. 2004, 'Mature Australian consumers' adoption and consumption of self-service banking technologies', *Journal of Financial Services Marketing*, vol.8, no.4, pp.302-313.
- Min, H. & Galle, W.P. 1999, 'Electronic commerce usage in business-to-business purchasing', *International Journal of Operations and Production Management*, vol.19, no.9, pp.909-921.
- Pavlou, P.A. 2003, 'Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model', *International Journal of Electronic Commerce*, vol.7, no.3, pp.101-134.
- Polatoglu, V.N. & Ekin, S. 2001, 'An empirical investigation of the Turkish consumers' acceptance of internet banking services', *International Journal of Bank Marketing*, vol.19, no.4, pp.156-165.
- Ram, S. & Sheth, J.N. 1989, 'Consumer resistance to innovations: The marketing problem and its solutions', *The Journal of Consumer Marketing*, vol.6, no.2, pp.5-14.
- Rogers, E. 2003, *Diffusion of Innovations*, 5th edn, Free Press, New York.
- Romano, N.C. & Fjermestad, J. 2003, 'Electronic commerce customer relationship management: A research agenda', *Information Technology and Management*, vol.4, pp.233-258.
- Sathye, M. 1999, 'Adoption of internet banking by Australian consumers: An empirical investigation', *International Journal of Bank Marketing*, vol.17, no.7, pp.324-334.
- Shergill, G.S. & Li, B. 2005, 'Internet banking: An empirical investigation of customers' behaviour for online banking in New Zealand', *Journal of E-Business*, vol.5, no.1, pp.1-16.
- Speece, M. 2000, 'Information technology for sales competitiveness: Perception on sales reps in Singapore', *Proceedings of the 2000 Asian Forum for Business Education Conference: Reform and Accountability*, Chiang Rai, Thailand.
- Suganthi, R. Balachander, K.G. & Balachandran, V. 2001, 'Internet banking patronage: An empirical investigation of Malaysia', *Journal of Internet Banking and Commerce*, vol.6, no.1.
- Thompson, G. 1996, *Retail Banking, Technology and Prudential Supervision*. Reserve Bank of Australia Bulletin. Retrieved July 2008 from [www.rba.gov.au/PublicationsAndResearch/Bulletin](http://www.rba.gov.au/PublicationsAndResearch/Bulletin)
- Thornton, J. & White, L. 2001. 'Customer orientations and usage of financial distribution channels', *Journal of Services Marketing*, vol.15, no.3, pp.168-185.
- Walker, R. H., Craig-Lees, M., Hecker, R. & Francis, H. 2002, 'Technology enabled service delivery: An investigation of reasons affecting customer adoption and rejection' *International Journal of Service Industry Management*, vol.13, no.1, pp.91-106. Retrieved from [www.silicon.com/financialservices](http://www.silicon.com/financialservices)
- Zhu, F. & Chen, I. 2002, 'IT-based services and service quality in consumer banking', *International Journal of Service Industry Management*, vol.13, no.1, pp.69-90.
- Zuboff, S. & Maxmin, J. 2003, *The Support Economy*, Viking.