



Internet Banking: Adoption among Bank Customers of Dakshina Kannada District, India

Pandey Priyanka¹, Mayya Sureshramana², Joshi H.G.¹ and K. Shivaprasad³

¹Department of Commerce, Manipal University, Manipal-576104, Karnataka, INDIA

²Department of Commerce, M.G.M. College, Udupi-576102, Karnataka, INDIA

³Project Manager, Manipal Digital Systems, Manipal-576104, Karnataka, INDIA

Available online at: www.isca.in, www.isca.me

Received 22nd September 2015, revised 28th September 2015, accepted 6th October 2015

Abstract

The objective of this paper is to find factors that affect adoption of internet banking in Dakshina Kannada District. This study was based on survey conducted through questionnaire. Data was gathered from bank customers of Dakshina Kannada District. The result of the study point out that, the perception, drivers and key barriers that bank customers of Dakshina Kannada District reflected and face to adopt internet banking are: lack of awareness, low trust, security risk, lack of access and exposure about internet banking. Whereas some respondents reflect that it is easy, cost and time saving, convenient service of bank available around the clock and across the geographies. The study proposes a number of measures which could be useful for banks. The findings may support banks to have a better understanding of customers' perception to adopt internet banking. This may help banks' to formulate enhanced strategies that could significantly affect internet banking services and its adoption.

Keywords: Technology, internet banking, adoption, bank customers, security.

Introduction

The unprecedented development and advancement of information technology in recent years changed the scenario of life. Information technology influences all industrial sector mainly service sector. Over the past few years with the development of information technology banking sector experiencing and adopting various technological development and changes. Banks introduced several facilities, products and services through innovative delivery channel like internet banking. Internet banking is an innovative service among several information system updated by banks in recent past. Banks facilitates customers to involve in various financial undertakings over virtual environment and space according to their convenience. Internet banking is useful for both customers and bank. Banks experiencing the benefits as it is time saving, cost saving, resource saving, reach to global customers, improved service quality and many more. Foley and Jayawardhena mentioned that internet banking provides novel values to customers like time saving, cost reducing to access and use various services of bank, flexibility to do bank activities any time anywhere 24X7¹. This is vital shift in the delivery channel of bank in the direction of self-service channel. Customers are moving from traditional ways of banking to internet banking because of its ease to use, flexibility, time and cost saving quality².

Despite of many benefits of internet banking the number of customers are not increasing as the number of internet users. Adoption of internet banking among customers is not in pace as banks are expecting. Internet banking in developing countries is

still in its nascent stage. Deyoung added that slow and low adoption of new technology and related product and services indicates threat for success of that technology³.

Literature review: Internet banking service allows customers to execute banking activities over virtual environment through internet connection on electronic device⁴. These activities include transactions, account statement, balance enquiry, bill payment, online shopping, e-tax, i-collect and many more. According to Pikkarainen and Karjaluohto internet banking is an internet portal provided by banks to customers to execute various banking services⁵. Rahmath and Hema mentioned that internet banking is one of the latest facility initiated by banks among the varieties of innovative banking services⁶. Internet banking developed as an alternative delivery channel for banks traditional services and products. Dube and Chitura mentioned about three types of internet banking that are informational, communicative and transactional. Informational type of internet banking provides various information on standalone server related to bank's services and products.

Communicative type of internet banking permits certain limited interaction between customers and banks. Whereas transactional type of banking provides facility to execute various financial activities and transactions like account access, payments of bill, investment and fund transfer⁸. Jayawardhena and Foley mentioned that the main benefits to the banks are saving of cost, targeting new segments, reaching customers at global level, enhancing banks performance and efficiency, providing better customers friendly service¹.

Sheshunoff indicated that competitive advantage is one of the vital fact for banks to sustain in market by adopting new technology like internet banking.

Internet banking proved to be flexible, accommodative and useful delivery channel provided by banks⁹. Driving force for customers to adopt internet banking are its usefulness, availability, cost and time saving, 24 hours and seven days service across the geographies, avoiding long queues in banks¹⁰. Internet banking users feels no need to travel to and from branch of bank. They conveniently use internet banking according to their choice and place with internet accessibility. Users can control and manage their banking activities whenever they want. Laukkanen stated in his study that in spite of various benefits of internet banking services still number of bank customers using traditional ways of banking. Customers don't prefer to adjust and adopt new technology especially for their banking activities. They rely and prefer their existing traditional service as they are used to of that. This initial resistance is one of the biggest barrier in the way of successful adoption of internet banking¹¹. Musiime recognized various factors which they determined that they act as barrier and affect choice of customer to adopt new technology. These factors comprise experience and skill to use internet, perceived security, exposure of market, demographic of user, reliability on service provider¹². Internet banking offers option for quicker delivery of bank services to varied segment of bank customers¹³. However, with the popularity of internet banking both legal as well as illegal practices increased¹³.

It is a system based on trust, because of illegal practices customers may compromise with their personal information and they may lose trust on bank and in internet banking system¹⁴. Fraud and its negative consequences can adversely affects customers views about internet banking adoption¹⁴. Therefore safety and security is identified as one of the major barrier to adopt internet banking¹⁵. Perception about risk and problems to use virtual banking is also one of the important cause that act as inhibitor to adopt internet banking¹⁵. Secure and insecure web environment and connection also influences customers views to adopt or not to adopt. Some researchers find out that young generation are early adopter of internet banking in comparison to older generation.

Researcher revealed that most of the adopter of internet banking comes under category like people ready to take and face risk, with the attitude to move towards new technology, high telecommunication user, high income and young people¹⁶. Furthermore customers understanding, experience and knowledge about internet and computer may also influence trust on internet banking. Past interaction and experience may positively or negatively affect attitude and decision of customers to adopt advance technology such as internet banking¹⁷⁻¹⁹. According to Jiang, Hsu, Klein, and Lin individual having more experience, exposure and usage of internet are more likely to adopt innovative internet based technologies²⁰.

Objective: Find out customers viewpoint and factors behind adoption of internet banking among bank customers of Dakshina Kannada District.

Methodology

The present study was carried out in urban area of Dakshina Kannada District. A structured questionnaire based on five point Likert scale was used (SD-strongly disagree, D-disagree, N-neutral, A-agree, SA-strongly agree) for collection of primary data. The survey was conducted by involving 850 respondents. Out of the 850 questionnaires distributed 700 were received. Respondents were bank customers from different age group, qualification and occupation. Secondary source of data obtained by journal, articles, website, magazines, newspapers etc. Data collected from survey were analyzed by using descriptive statistics a tool of SPSS (statistical package for social science).

Results and Discussion

The study was based on data collected from 700 bank customers of Dakshina Kannada District, Karnataka. Among 700 bank customers some were using internet banking some were not using. The percent of users and non-users of internet banking is depicted in table 1.

Table-1
User and Non-user of Internet Banking

	Frequency	Percent
Yes	290	41.4%
No	410	58.6%
Total	700	

Source: survey result, 2015.

Table-2 shows demographic profile of respondents. Gender involved in study were 53.3% male and 46.7% were female. Respondents from different age groups were as <20 years were 8.1%, 20-30 years were 44.0%, 31-40 years were 19.6%, 41-50 years were 15.0% and >50 years were 13.3%. From 700 respondents 53.7% were married whereas 46.3% were unmarried. Respondents education level were also different as 10.6% were high school passed, 41.3% were having bachelor's degree, 39.3% were from master's degree and 8.9% were having some other type of degree.

Young indicate that highly educated and wealthy customers usually accept modifications more willingly²¹. Education and trust inspire attitude of customers to use internet banking²².

Profession were also different of respondents like 29.0% were student, 2.6% were self-employed, 18.4% were in government job, 44.4% were in private job and 5.6% were in other type of job. 15.6% were respond that they have no monthly income, 19.6% were respond <10,000 monthly income, 13.1% were

respond 10,000-20,000 monthly income, 9.4% were respond 20,001-30,000 monthly income, 8.7% were respond 30,001-40,000 monthly income, 13.1% were respond 40,001-50,000 monthly income and 20.4% were respond >50,000 monthly income. Price Waterhouse Coopers mentioned that usually customers of internet banking belong from age group of 25-35 years, has average to high income and fond to take own decision related to financial activity²³.

Table-2
Demographic profile of the respondents

		Frequency	Percentage
Gender	Male	373	53.3%
	Female	327	46.7%
	Total	700	
Age	<20	57	8.1%
	20-30	308	44.0%
	31-40	137	19.6%
	41-50	105	15.0%
	>50	93	13.3%
Marital status	Married	376	53.7%
	Unmarried	324	46.3%
Education level	High school	74	10.6%
	Bachelor's	289	41.3%
	Master's	275	39.3%
	Other	62	8.9%
Profession	Student	203	29.0%
	Self-employed	18	2.6%
	Government job	129	18.4%
	Private job	311	44.4%
	Others	39	5.6%
Monthly income	No income	109	15.6%
	<10,000	137	19.6%
	10,000-20,000	92	13.1%
	20,001-30,000	66	9.4%
	30,001-40,000	61	8.7%
	40,001-50,000	92	13.1%
	>50,000	143	20.4%

Source: survey result, 2015.

The table-3 shows 9 variables related perception of bank customers about internet banking. Questions related to perception were filled by only user of internet banking. Out of 700 respondents only 290 (41.4%) were using internet banking and they respond on the basis of experience with internet banking.

The optional scales for perception measure were SD-strongly disagree, D-disagree, N-neutral, A-agree, SA-strongly agree. Gained frequency and percent of questions related to perception variables were mentioned in the table-3.

Percent shows that out of 41.4% internet banking users 21.7% were agree, 15.7% were strongly agree, 1.7% were neutral, 1.6% were disagree and .7% were strongly disagree that learning of internet banking is easy.

Familiarity of internet banking services gained percent as out of 41.4% respondents 25.1% were agree, 9.6% were strongly agree, 4.9% were neutral, 1.6% were disagree and .3% were strongly disagree.

Suganthi, Balachandher, and Balachandran, 2000 stated that awareness among customers is one of the most important driver to adopt or accept any innovation and related product or service²⁴.

25.7% respondents were agree, 10.4% were strongly agree, 3.9% were neutral, .9% were disagree and .9% were strongly disagree with the statement that internet banking is compatible with their banking needs.

Internet banking site is safe and trustworthy 13.3% respond neutral, 13.0% were agree, 39.0% were disagree, 3.4% were strongly agree and 2.7% were strongly disagree. Navigation of internet banking is simple, 24.9% were agree, 7.4% were strongly agree, 4.9% were neutral, 3.1% were disagree and 1.1% were strongly disagree.

Transactional activities are easy by using internet banking, 24.3% were agree, 12.6% were strongly agree, 3.1% were neutral, .9% were disagree and .6% were strongly disagree.

Services and products that banks offer through internet banking are suitable and satisfactory, 24.9% were agree, 7.7% were neutral, 6.3% were strongly agree, 1.9% were disagree, .7% were strongly disagree.

Want to continue with internet banking facilitated by my bank as I am satisfied, 25.4% were agree, 11.9% were strongly agree, 2.6% were neutral, .9% were disagree and .7% were strongly disagree. Family and friends are using internet banking, 22.3% were agree, 8.3% were neutral, 7.4% were strongly agree, 2.7% were disagree and .7% were strongly disagree.

**Table-3
 Perception**

Statement	Scale	Frequency	Percent
It is easy to learn and use internet banking (IB)	Not using IB	410	58.6%
	SD	5	.7%
	D	11	1.6%
	N	12	1.7%
	A	152	21.7%
	SA	110	15.7%
Facilities provided through internet banking are familiar	Not using IB	410	58.6%
	SD	2	.3%
	D	11	1.6%
	N	34	4.9%
	A	176	25.1%
	SA	67	9.6%
Internet banking is compatible with my banking needs	Not using IB	410	58.6%
	SD	6	.9%
	D	6	.9%
	N	25	3.9%
	A	180	25.7%
	SA	73	10.4%
Internet banking site is safe and trustworthy	Not using IB	410	58.6%
	SD	19	2.7%
	D	63	9.0%
	N	93	13.3%
	A	91	13.0%
	SA	24	3.4%
Internet banking navigation is simple	Not using IB	410	58.6%
	SD	8	1.1%

	D	22	3.1%
	N	34	4.9%
	A	174	24.9%
	SA	52	7.4%
Using internet banking site eased transactions	Not using IB	410	58.6%
	SD	4	.6%
	D	6	.9%
	N	22	3.1%
	A	170	24.3%
	SA	88	12.6%
Product and services offered through internet banking are suitable and satisfactory	Not using IB	410	58.6%
	SD	5	.7%
	D	13	1.9%
	N	54	7.7%
	A	174	24.9%
	SA	44	6.3%
I Wish to continue internet banking with bank as I am satisfied with it	Not using IB	410	58.6%
	SD	5	.7%
	D	6	.9%
	N	18	2.6%
	A	178	25.4%
	SA	83	11.9%
My friends and family members are using internet banking	Not using IB	410	58.6%
	SD	5	.7%
	D	19	2.7%
	N	58	8.3%
	A	156	22.3%
	SA	52	7.4%

Source: survey result, 2015.

**Table-4
 Drivers**

Statement	Scale	Frequency	Percent
To use internet banking resources are easily available	Not using IB	410	58.6%
	SD	4	.6%
	D	19	2.7%
	N	28	4.0%
	A	183	26.1%
	SA	56	8.0%
	Internet banking facilities can be used as per convenient timings	Not using IB	410
SD		4	.6%
D		6	.9%
N		22	3.1%
A		159	22.7%
SA		99	14.1%
Easy to maintain banking transaction activity through internet banking		Not using IB	410
	SD	3	.4%
	D	7	1.0%
	N	14	2.0%
	A	165	23.6%
	SA	101	14.4%
	For any internet banking problem easy to get proper response from the concerned bank	Not using IB	410
SD		10	1.4%
D		41	5.9%
N		95	13.6%
A		108	15.4%

	SA	36	5.1%
Internet banking is cheaper way to conduct banking	Not using IB	410	58.6%
	SD	4	.6%
	D	10	1.4%
	N	42	6.0%
	A	169	24.1%
	SA	65	9.3%
	Bank encourages usage of internet banking	Not using IB	410
SD		10	1.4%
D		33	4.7%
N		55	7.9%
A		136	19.4%
SA		56	8.0%
Internet banking makes conducting banking transactions easier		Not using IB	410
	SD	2	.3%
	D	8	1.1%
	N	16	2.3%
	A	192	27.4%
	SA	72	10.3%
	Happy with immediate receipt of alerts for each transaction through SMS	Not using IB	410
SD		3	.4%
D		7	1.0%
N		15	2.1%
A		166	23.7%
SA		99	14.1%

Source: survey result, 2015.

The table-4 shows 8 statements that may act as drivers for adoption and continuation to use internet banking. Out of 700 respondents only 290 (41.4%) were using internet banking and they respond on the basis of experience. The optional scales for driver measure were SD-strongly disagree, D-disagree, N-neutral, A-agree, SA-strongly agree. Gained frequency and percent of questions related to drivers of internet banking were mentioned in the above table. Questions related to drivers of internet banking were filled by only user of internet banking.

Resources to use internet banking are easily available, 26.1% were agree, 8.0% were strongly agree, 4.0% were neutral, 2.7% were disagree and .6% were strongly disagree. Facilities provided through internet banking can be used as per convenient timings, 22.7% were agree, 14.1% were strongly agree, 3.15% were neutral, .9% were disagree and .6% were strongly disagree. Internet banking eased to maintain banking transaction and related activities, 23.6% were agree, 14.4% were strongly agree, 2.0% were neutral, 1.0% were disagree and .4% were strongly disagree. Customers get quick and proper response for any problem of internet banking from the concerned bank, 15.4% were agree, 13.6% were neutral, 5.9% were disagree, 5.1% were strongly agree and 1.4% were strongly disagree.

Internet banking is cheaper way to conduct banking, 24.1% respondent were agree, 9.3% were strongly agree, 6.0% were neutral, 1.4% were disagree and .6% were strongly disagree. Bank encourages usage of internet banking, 19.4% were agree, 8.0% were strongly agree, 7.9% were neutral, 4.7% were disagree and 1.4% were strongly disagree. Internet banking makes banking transactions easier, 27.4% were agree 10.3% were strongly agree, 2.3% were neutral, 1.1% were disagree and .35 were strongly disagree. Immediate receipt of alerts for each transaction make me happy, 23.7% were agree, 14.1% were strongly agree, 2.1% were neutral, 1.0% were disagree and .4% were strongly disagree.

Table-5 represents inhibiting factors related to internet banking adoption. There are 10 statement in this part related to inhibitors. Questions were filled by both users and non-users of internet banking. Out of total 700 respondents 58.6% were not using internet banking wherever 41.4% were using internet banking. Both types of respondents answered for all statements as for the statement that "I do not know how to use internet banking", 33.0% were strongly disagree, 24.0% were disagree, 19.4% were agree 9.9% were strongly agree, 9.3% were neutral and 4.4% were not answered anything.

Prasad and Arumbaka mentioned that majority of the Indian customers do not know how to grow themselves as internet banking user. They have feeling of insecurity and dilemma to become internet banking user²⁵. Lichtenstein and Williamson told that non-users of internet banking don't have knowledge and thought to use internet banking in Australia²⁶. Al-Sukkar and Hasan mentioned that less awareness is one of the inhibitor towards less adoption rate of internet banking services in the

Middle East¹⁷. "I am concerned about security and privacy", 41.9% were agree, 20.0% were strongly agree, 16.1% were neutral, 11.4% were disagree 6.1% were strongly disagree and 4.4% were not answered anything. "I do not trust internet banking services", 27.4% were disagree, 26.4% were neutral, 18.3% were agree, 14.1% were strongly disagree, 9.3% were strongly agree and 4.4% were not answered anything. Al-Somali, Gholami, and Clegg stated that trust and education stimulate attitude of customer to become user of internet banking²⁸. "I prefer face to face banking", 28.0% were agree, 22.0% were disagree 19.4% were neutral, 16.1% were strongly agree, 10.0% were strongly disagree and 4.4% were not replied anything. "I do not have resources to use internet banking", 32.3% were disagree, 30.6% were strongly disagree, 15.6% were agree, 12.9% were neutral, 4.3% were strongly agree and 4.4% were not answered anything.

Customers feel that they require and invest more money and time to learn skills to access internet banking²⁹. "My bank does not offer training to use internet banking services", 28.6% were agree, 20.9% were neutral, 19.7% were disagree, 17.7% were strongly disagree, 8.7% were strongly agree and 4.4% were not replied anything. "Compatibility of internet banking with web browser ", 34.3% were neutral, 31.3% were agree, 13.3% were disagree, 9.3% were strongly disagree, 7.0% were strongly agree, 4.4% were not answer anything. Black, Lockett, Winklhofer and Ennew's exposed that compatibility of internet banking delivery channel with customers' skill, experience, opportunity to access and personality of individual is an important factor to adopt it³⁰. "Recovery problem related to internet banking", 41.0% were neutral, 29.0% were agree, 13.4% were disagree, 6.9% were strongly agree, 5.3% were strongly disagree and 4.4% were not answered anything. "Poor customer support", 34.6% were neutral, 23.9% were disagree, 20.1% were agree, 10.1% were strongly disagree, 6.9% were strongly agree and 4.4% were not answered. "Restriction on fund transfer", 35.1% were neutral, 25.9% were agree, 19.0% were disagree, 7.9% were strongly disagree, 7.7% were strongly agree and 4.4% were not replied anything.

Conclusion

Each individual customers perceive internet banking differently. There are many common and uncommon factors related to perception, drivers and inhibitors of internet banking that influence bank customers to adopt internet banking. The result of this study concluded that perception about internet banking is an important influencing factor to adopt. Customers using internet banking experiencing various ease as well as difficulty and build their perception according to that. Such customers on the basis of their personal experience may influence positively or negatively others to adopt or not to adopt internet banking. Other than that various benefits of internet banking act as drivers and attracts bank customers to adopt internet banking. Factors such as knowledge, experience, availability of resources to access internet banking, support from service provider,

benefits, secure browser, familiarity, trust, privacy and many more factors act as driver to adopt internet banking. Whereas low awareness, insecure browser, cyber fraud, low trust, fear to compromise with privacy, preference to use face to face banking, poor customer support, recovery problem, high concern about safety and privacy play an important role as inhibitor for adoption of internet banking.

**Table-5
 Inhibitors**

Statement	Scale	Frequency	Percent
I don't know how to use internet banking	Not answered	31	4.4%
	SD	231	33.0%
	D	168	24.0%
	N	65	9.3%
	A	136	19.4%
	SA	69	9.9%
I am concerned about security and privacy of internet banking services	Not answered	31	4.4%
	SD	43	6.1%
	D	80	11.4%
	N	113	16.1%
	A	293	41.9%
	SA	140	20.0%
I don't trust internet banking services	Not answered	31	4.4%
	SD	99	14.1%
	D	192	27.4%
	N	185	26.4%
	A	128	18.3%
	SA	65	9.3%
I prefer personal and face to face banking	Not answered	31	4.4%
	SD	70	10.0%
	D	154	22.0%
	N	136	19.4%
	A	196	28.0%
	SA	113	16.1%
I don't have resources to use internet banking	Not answered	31	4.4%
	SD	214	30.6%
	D	226	32.3%

	N	90	12.9%
	A	109	15.6%
	SA	30	4.3%
My bank does not offer training to use internet banking services	Not answered	31	4.4%
	SD	124	17.7%
	D	138	19.7%
	N	146	20.9%
	A	200	28.6%
	SA	61	8.7%
Compatibility of internet banking with web browsers	Not answered	31	4.4%
	SD	65	9.3%
	D	96	13.7%
	N	240	34.3%
	A	219	31.3%
	SA	49	7.0%
Recovery of problem related to internet banking	Not answered	31	4.4%
	SD	37	5.3%
	D	94	13.4%
	N	287	41.0%
	A	203	29.0%
	SA	48	6.9%
Poor customer support	Not answered	31	4.4%
	SD	71	10.1%
	D	167	23.9%
	N	242	34.6%
	A	141	20.1%
	SA	48	6.9%
Restrictions on fund transfer	Not answered	31	4.4%
	SD	55	7.9%
	D	133	19.0%
	N	246	35.1%
	A	181	25.9%
	SA	54	7.7%

Source: survey result, 2015.

References

1. Foley P. and Jayawardhena C., Changes in the banking sector-the case of Internet banking in the UK. Research: Electronic Networking Applications and Policy, **10(1)**, 19-30 (2000)
2. Qureshi T.M., Zafar M.K. and Khan M.B., Customer Acceptance of Online Banking in Developing Economies, *Journal of Internet Banking and Commerce*, **13(1)** (2008)
3. Deyoung R. and Duffy D., The Challenges Facing Community Banks: Straight from the Horses' Mouths, *Federal Reserve Bank of Chicago, Economics Perspectives* **26(4)**, 2-17 (2002)
4. Lloyd G.G., Internet banking adoption by Chinese American: an empirical study on Banks customers from Chinese and American, **79-102**, 134-155 (2007)
5. Pikkarainen K., Karjaluoto H. and Pahnla S., Consumer acceptance of online banking: An extension of the technology acceptance model, *Internet Research*, **14(3)**, 224-235 (2004)
6. Rahmath S. and Hema D., Internet Banking adoption in an emerging economy, *International Arab journal of e-Technology*, **2(1)**, 250-289 (2011)
7. Dube Chitura and Runyowa, Adoption and Use Internet Banking in Zimbabwe: An Exploratory Study, *Journal of International Commerce*, **14(1)** 143-167 (2009)
8. Sheshunoff A., Internet banking: An update from the frontlines, *ABA Banking Journal, American Bankers Association*, **92(1)**, 51-53 (2000)
9. Kerem K., Adoption of Internet banking, *I4d magazine (India)*, April, 10-12 (2008)
10. Laukkanen P., Sinkkonen S., Kivijärvi M. and Laukkanen T., Consumer Resistance and Intention to use Internet banking service, *Proceedings of the EBRF Conference, Jyväskylä, Finland, September 25-27* (2007)
11. Musiime A. and Ramadhan M., interment banking consumer adoption and customer satisfaction, *African Journal of marketing management*, **3(10)**, 261-269 (2011)
12. Oghenerukevbe E.A., Customers Perception of Security Indicators in Online Banking Sites in Nigeria, *Journal of Internet Banking and Commerce*, **13(3)** (2008)
13. Altintas M.H. and Gürsakal N., Phishing Attacks and Perceptions of Service Quality: A Content Analysis of Internet Banking in Turkey, *Journal of Internet Banking and Commerce*, **12(2)** (2007)
14. Mattila A. and Mattila M., How perceived security appears in the commercialization of Internet banking, *International Journal of Financial Services Management*, **1(1)** 89-101 (2005)
15. Chiemeke S.C., Ewwiekpaefe A.E. and Chete F.O., The adoption of Internet banking Nigeria: An empirical investigation, *Journal of Internet banking and Commerce*, **11(3)** 1-13 (2006)
16. Berger S.C. and Gensler S., Online banking customers: Insights from Germany, *Journal of Internet banking and commerce*, **12(1)** 1-6 (2007)
17. Cunningham J.B., The diffusion of Internet banking among Singapore consumers, *International Journal of Bank Management*, **21(1)** 16-28 (2003)
18. Agarwal R., Sambamurthy V. and Stair R.M., The Evolving Relationship Between General and Specific Computer Self- Efficacy-An Empirical Assessment, *Information Systems Research*, **11 (4)** 418-430 (2000)
19. Lichtenstein S. and Williamson K., Understanding Consumer Adoption of Internet Banking: An Interpretive Study in the Australian Banking Context, *Journal of Electronic Commerce Research*, **7(2)** 50-66 (2006)
20. Jiang J.J., Hsu M.K., Klein G. and Lin B., E-commerce user behaviour model: an empirical study, *Human Systems Management*, **19(4)** 265-276 (2000)
21. Young T., Online fraud losses increase 55 percent, 07 November, <http://www.computing.co.uk/computing/news/12168086/apacs-figures-show-rise-online>, (2006)
22. Al-Somali S.A., Gholami R. and Clegg B., Internet Banking Acceptance in the Context of Developing Countries: An Extension of the Technology Acceptance Model. Operations and Information Management Groups, Aston Business School, Birmingham B47ET, UK, (2008)
23. Price Waterhouse Coopers, La banca privada en internet, Cinco Días, Madrid, Análisis del Mercado, Libro 5, (2000)
24. Suganthi, Balachandher S. and Balachandran K.G., E-banking patronage: An empirical investigation of Malaysia, *Journal of International Banking and Commerce*, **6(1)** (2000)
25. Prasad C. and Arumbaka V.K., Consumer as co-creator of value: crossing the technology hurdle, National Seminar on "creating and delivering value for customers", School of Management Studies, Cochin University of Science and Technology, (2009)
26. Lichtenstein S. and Williamson K., Understanding Consumer Adoption of Internet Banking: An Interpretive Study in the Australian Banking Context. *Journal of Electronic Commerce Research*, **7(2)**, 50-66 (2006)
27. Al-sukkar A. and Hasan H., Internet banking in the Middle East: A Jordanian Study, Transforming business performance through knowledge management, *Proceeding of CISTM conference*. Alexandria, Egypt, (2004)
28. Al-Somali S. A., Gholami R. and Clegg, B., Internet Banking Acceptance in the Context of Developing

- Countries: An Extension of the Technology Acceptance Model, Operations and Information Management Groups, Aston Business School, Birmingham B47ET, UK, (2008)
29. Kim B.M., Widdows R. and Yilmazer T., The Determinants of Consumers' Adoption of Internet Banking, *Proceedings of the Consumer Behavior and Payment Choice 2005 Conference, Boston, MA, (2005)*
30. Black N.J., Lockett A., Winklhofer H. and McKechnie S., Modeling consumer choice of distribution channels: an illustration from financial services, *The International Journal of Bank Marketing*, 4, 161-173(2002)