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Internet Banking Adoption: An Observation on public sector bank customers of urban area of Udupi district, Karnataka, India

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

Received 30th March 2015, revised 16th April 2015, accepted 4th May 2015

Abstract

Now-a-days banks are adopting new technology and acknowledged as innovative banking. Internet banking is one of among several innovative banking and significantly influence banking and financial undertakings. Banking become easier after arrival of various electronic gadgets and internet facilities. There are many benefits, products and services of internet banking. It is surprising that number of bank customers like to do banking through traditional way. Banks are experimenting various ways to acquire probable number of customer. Still it not works as per expectation and they are not able to retain customers. Adoption of any technology is very much influenced by the perception about that technology among its users and has vital role in the success of that. To find bank customers perception and criteria to discriminate difference between both traditional and internet banking is important. This paper explore perception of customers about adoption of internet banking in urban area of Udupi district. Data collection was done through questionnaire. Content of the survey was associated to demographic query of participants and questions related to perception of internet banking. Observation of this study reflects that maximum number of the respondents were worried about security and feel that it is not reliable. Though they perceive that internet banking is suitable, less time consuming, easy and useful. The learning from study is worthwhile to explore perceived facts related to adoption of internet banking. It might support banks in the direction of develop effective and informative internet baking strategies to gain faith of customers and to create interest among customers for adoption of internet banking.

Keywords: Adoption, perception, technology, internet banking, customers.

Introduction

Information technology and globalization influence banking sector tremendously. Banking activities become more easy and convenient. Information technology marks a transformation in banking operations and services. Recent arrival and one of good example is internet banking services. Move from traditional to electronic banking services like internet banking indicate vital revolution in banking field. Outlook of customers to adopt such innovative technological services is significant driver for success. Various factors are responsible for making customer's mind ready to accept internet banking. Customers have their own mind set and facts perceived by them about services of internet banking acceptance. Demographic profile, awareness and knowledge, accessibility of adequate resources, user friendliness, willingness, convenience, priority of privacy and security etc. are few factors that influence customers. Through internet banking banks are providing various services e.g. history of account, account statement, online shopping, payment of bill, tax and last not the least different types of bookings etc. Paperless banking is possible just because of technological service like internet banking with the ease and convenience. It is also available round to clock and across the world. Move from branches to online banking is not getting expected number of customers. It is revealed by some studies that users of internet are increasing day by day still users of internet banking are not increasing. People prefer to visit banks to do their banking activities simultaneously to some extent they or their younger generation use few service of internet banking. The fact comes in scenario that people like to use mixed delivery channel and don't want to dependent upon any specific delivery channel. Researchers pointed out that internet banking adoption percentage are varying country wise. Banks are dealing with many challenges still they offer various internet banking services and upgrading the services and products as per need and global competition. Gaining customers and to retain customers for internet banking are important problem that banks face. Privacy and security are another vital challenge for banks to gain faith of customers as mentioned in some studies. Few researchers said that phishing attacks progressing 50%, with about 5% users become victimized. Customers mind always having suspicion, fear and threat for phishing attack and frauds. They don't want to compromise. Assurance of internet banking service quality, security and privacy occupy as a question mark in the mind of customers. Researchers from various countries argued that there are some similar and some dissimilar factors that influence customers perception positively or negatively to use and not to use internet banking.

Literature review: Internet banking is a vital discovery for banking sector and their operational channel from recent past. It is an empowerment of any individual to do financial and banking activities efficiently as per their convenience¹. By the development of series of new technology and safe operational application, increasing number of banks across the world are mounting competencies of their services and products. Banks proposing automated, self-serviced, time saving, cost saving, convenient informational and operational channels in the form of internet banking to the customers. Finding out various factors involved in adoption of internet banking attracts researchers to study. A number of studies indicates that behavioral character and attitude influences customer's decision to choose or not to choose internet banking^{2,3}. Few studies discussed that to adopt internet banking demographics of customer also influence significantly³⁻⁵. Some studies mentioned that different variables influence customers distinctly to adopt internet banking⁶, which inspects internet banking adoption on older people. Computer knowledge and complicated process is one of vital factor for old people and hinders to adopt internet banking. In spite of many studies on internet banking there is no sufficient information that convince particular factors are responsible behinds adoption or rejection of internet banking whereas few common variables are discussed by many researchers that influence customers' tendency to adopt or not⁷. Read et. al. cited in his work that customers' emotional connection with paper and faith on that is one of the restrictive factor to adopt new innovative medium of banking⁸. Faith of individuals on internet banking technology and related advantages and disadvantages of facilitated services and products works as catalyst to accept internet banking. Disadvantage and advantage in the mind of customers may be effected and related by benefit, comfort, social status, economic condition, safety, privacy, cost and time saving concerns, efficacy with computer and technology, need to adopt and many more⁹⁻¹¹. Adoption of internet banking is complex procedure. Joined observation of customers' personal, social, psychological, behavioral and many more features are important. Introducing new technology and its effective execution is determined by recognition of individual customers' perception and social economic background. To be

successfully accepted and used service banks should communicate clear and proper information about internet banking products, services and benefits. As for example its compatibility with life style of customer, convenience, cost and time effectiveness, different related perceived problems and their easy solutions etc. The idea of outlook and motivation related to technology adoption is useful to gain customers^{12,13}. Moreover benefits are observed as vital factor but is not sufficient condition in the way to cognize adoption behavior of customers¹⁴. Internet banking adoption process is based on identification, learning, exploring, examining and judging various positive and negative aspects, profits, usefulness, threats, opportunities etc. and plays major role in adoption.

Objective: To study internet banking adoption awareness among public sector bank customers of urban area of Udupi district, Karnataka.

Methodology

This study is cross sectional investigation of public sector bank customers of urban area of Udupi district, Karnataka. Sampling method was convenience. Sample size was 265. Questionnaire in English was used as a tool for investigation. A five point Likert scale was used to measure their perceptions such as 1= strongly disagree, 2= disagree, 3= neither agree nor disagree, 4= agree, 5= strongly agree. Demographic profile and questions related to perception of internet banking was included in questionnaire. Statistical analysis was done through SPSS 16.0 package.

Results and Discussion

For survey 300 respondents were approached among them 265 useful returned questionnaire were used for study. 265 returned questionnaire reflects 52.45% customers do not use internet banking whereas 47.55% were using (figure-1).

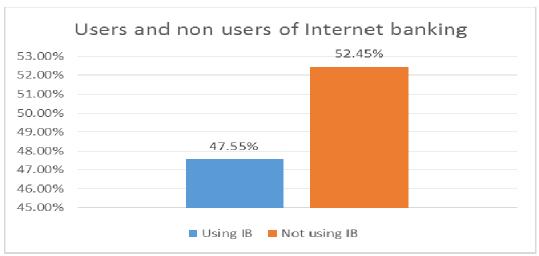
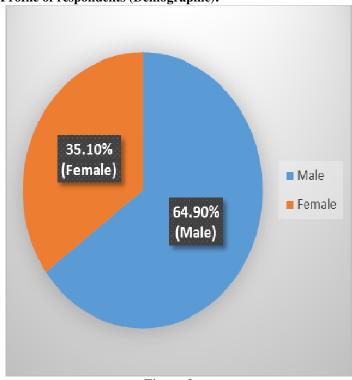


Figure-1 Internet banking (users and non-users)

Profile of respondents (Demographic):



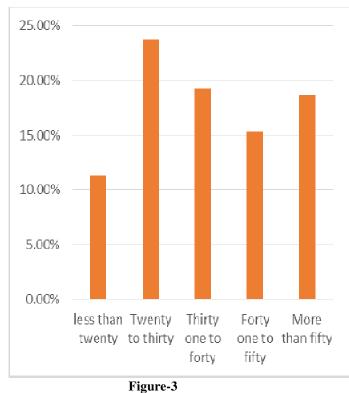
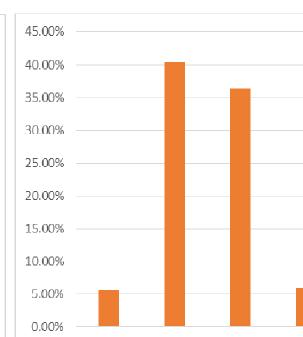


Figure-2 Gender



Age

70.00%

60.00%

50.00%

40.00%

20.00%

10.00%

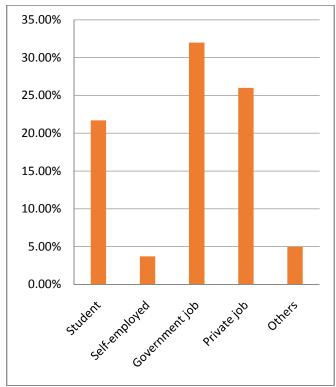
Married Unmarried

Figure-4 Marital status

Figure-5
Educational qualification

High school Bachelor's Master's

Others



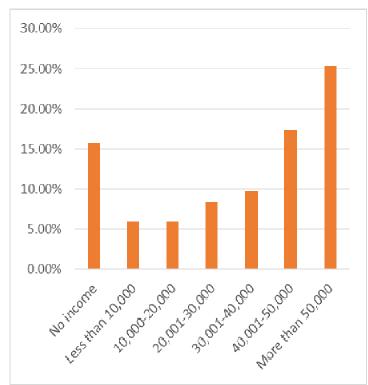
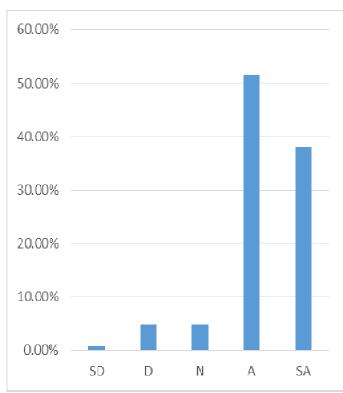
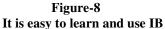


Figure-6 Profession

Figure-7 Monthly income





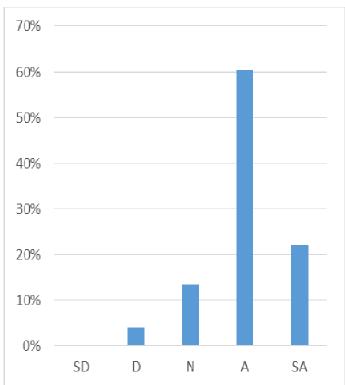
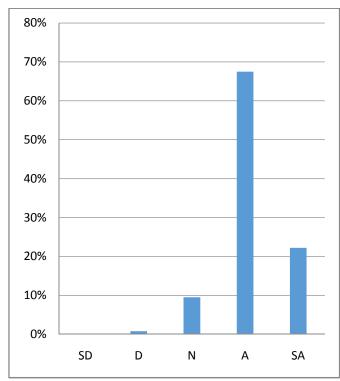


Figure-9 Facilities provided through IB are familiar

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50.00%

45.00%

40.00%

35.00%

25.00%

20.00%

10.00%

5.00%

SD D N A SA

Figure-10 IB is compatible with my banking need

Figure-11 IB site is safe and trustworthy

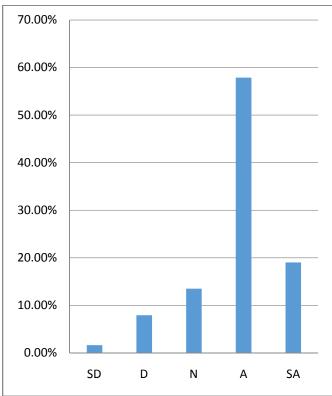
50%

45%

40%

35%

30%



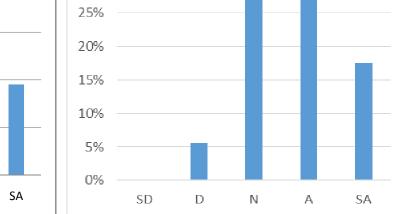
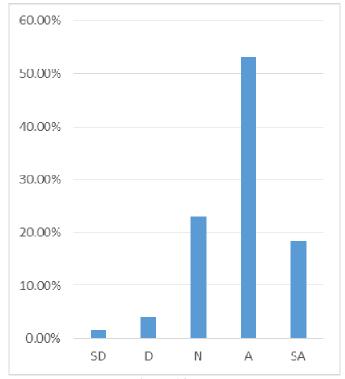


Figure-12 IB navigation is simple

Figure-13
IB keeps its promises and commitments



80.00%

70.00%

60.00%

50.00%

40.00%

20.00%

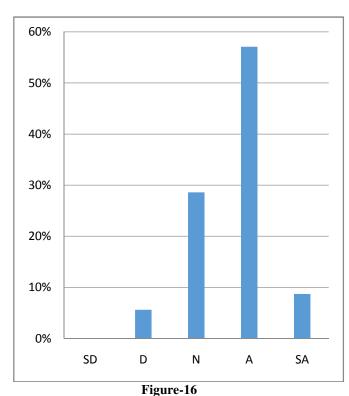
10.00%

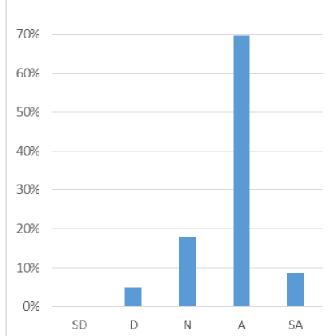
SD D N A SA

Figure-14
IB creates sense of individualization

Figure-15 Using IB eased my tranactions

80%





IB leaves impression of proficient

Figure-17
Product and services offered by IB are satisfactory

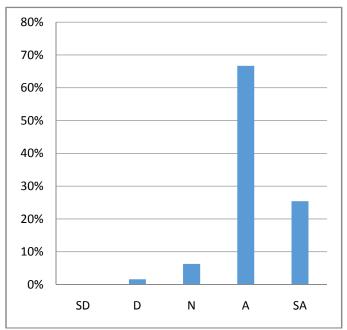


Figure-18 I feel to carry on IB services

Figure-1 shows that 52.45% respondents are not using internet banking whereas 47.55% are using. Figure-2 displays out of 265 participants from survey 35.10% were female and 64.90 % were male. Figure-3 represents age group from which respondents belong. Most of the respondents were from age 20-30 (23.7%) and rest were from 32-40 (19.3%), >50 (18.7%), 41-50 (15.3%) and <20 (11.3%). Figure-4 shows that most of the respondents were married (59.7%). Figure-5 represents educational qualification of respondents that reflects that graduated respondents were in majority (40.3%) and another category who have post graduate educational qualification were 36.3%, others type of qualified were (6%) and 5.7% were high school passed. Figure-6 focuses on profession of respondents that depicts 32% belongs from in government job, private job holder were 26%, 21.7% were from students category, 5% were doing other kind of job whereas 3.7% were self-employed.

Figure-7 shows monthly income of respondents. Monthly income of most of respondents come from >50, 000 (25.3%) and others from 40,001-50,000 (17.3%), 30,001-40,000 (9.7%), 20,001-30,000 (8.3%), 10,000-20,000 (6.0%), <10,000 (6.0%) and (15.7%) were come from no income group.

Twelve statements were asked by respondent through questionnaire associated to internet banking perception. Answer of users are as follows:

To learn and use internet banking is easy, 51.6% user respondents were agree with the statement and others were responded as 38.1% strongly agree, 4.8% disagree, 4.8% neither agree nor disagree and .8% strongly disagree (figure-8). The answer express that most of the users of internet banking

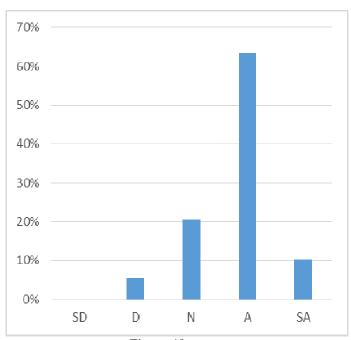


Figure-19
My friends and family members are using IB

perceive that there is an easy process to learn and use internet banking. Venkatesh, Alsajjan and Dennis recommends that there is straight and significant consequence of perceived ease of use on intention of customers to adopt technology in the early stage of learning ^{15, 16}.

Provided facilities of internet banking are familiar, 60.3% user respondents agree whereas others responded as 22.2% strongly agree, 13.5% neither agree nor disagree. Response for strongly agree was nil (figure-9). Familiarity and experience has a constructive effect on adoption of internet banking and one's own belief on ability to use ^{17, 18}.

Most of the respondents (67.5%) were agree about compatibility of banks regarding their banking needs. Rest respond as 22.2 % strongly agree, 9.5% neither agree nor disagree, .8% disagree, no one respond for strongly disagree (figure-10).

Safety and trustworthy were two important concerns of most of the user respondents. 42.9% disagree that it is safe and trustworthy. Others respond as neither agree nor disagree 32.0%, agree 13.5%, strongly disagree 12.7% and no one respond for strongly agree (figure-11). Subsorn, Lee et al. stated that bank should clearly provide internet banking security information on banks websites^{19, 20}. Reis argued how to improve an education system for practicing secure internet banking²¹. Increasing number of incidence related to online frauds and identity mugging become more sophisticated e.g. password sniffing, phishing, trojans, spyware, malware, etc. and big challenge for banks²².

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57.9% respondents were agree that internet banking navigation is simple followed by 19.0% strongly agree, 13.5% neither agree nor disagree, 7.9% disagree and 1.6%strongly disagree (figure-12). A user-friendly banks website with the feature of adequate required information, easy access, simple navigation, quick response is needed to acquire more adoption of internet banking ^{23, 24 and 25.}

Internet banking hold on its commitments and promises, 46.0% users agree and rest were answered as 31.0% neither agree nor disagree, 17.5% strongly agree, 5.6% disagree (figure-13).

Use of internet banking generate feeling of individualization, 53.2% users agree and rest react as 23% neither agree nor disagree, 18.3% strongly agree, 4.0% disagree and 1.6% strongly disagree (figure-14).

Transactional activities become easy because of use of internet banking, 71.4% users were agree with the statement and rest were as follows 19.0% strongly agree, 7.9% neither agree nor disagree, .8% disagree and .8% strongly disagree (figure-15). Convenience, speed and 24x7 possibilities of access eased the banking transactions ^{26, 27}.

User felt proficient by use of internet banking, 57.1% users agree and rest respond as 28.6% neither agree nor disagree, 8.7% strongly agree, 5.6% disagree (figure-16).

Internet banking offered product and services are satisfactory, 69.8% users agree with that whereas others were as 17.7% neither agree nor disagree, 8.7% strongly agree, 4.8% disagree (figure-17). Customers were happy by using internet banking products and services²⁸.

User wish to continue with present bank as they were satisfied, 66.7% user agree with that whereas rest answered as 25.4% strongly agree, 6.3 neither agree nor disagree, 1.6 disagree and no one respond for strongly disagree (figure-18). Customers' satisfaction is one of factor that influence decision to continue with present bank²⁸.

Family members and friends are using internet banking, 63.5% users agree with the statement others respond as 20.6% neither agree nor disagree, 10.3% strongly agree, 5.6 disagree (Figure-19). Social and personal surroundings and characteristics influence individuals to accept internet banking²⁹.

Conclusion

The result of the study disclose that non-users of internet banking are in majority. Finding indicates that user perceived that in spite of many benefits of internet banking there is threat of compromising privacy and safety and it's not as much trustworthy. Whereas some of them answered neither agree nor disagree that shows they must have suspicion and confusion regarding safety and privacy of internet banking use.

Moreover they respond positively about convenience of using services of internet banking. Most of the users' answer reflects that they were happy with banks facilities and they were familiarity with that. The study reflects that banks would give more attention towards safety and security concerns and its proper communication among customers to gain trust of customers. Banks should introduce website with transparent and clear information about security and privacy. Further studies are needed to investigate more issues observed in this study. Information discussed in this study would be valuable for banks to rethink and design worthwhile strategic plan to develop more secure and trustworthy internet banking system as customers desire and deserve. The study may help the researchers who want to investigate facts about internet banking adoption.

References

- 1. Makris M., Koumaras V., Koumaras H., Konstantopoulou A., Konidis S., Kostakis S., Quantifying factors influencing the adoption of Internet banking services in Greece, *Int. J. E-Adoption*, **1(1)**, 20–32 (**2009**)
- Puschel J., Mazzon J. and Hernandez J., Mobile banking: proposition of an integrated adoption intention framework, *International Journal of Bank Marketing*, 28(5), 389-409 (2010)
- 3. Black N., Lockett A., Winklhofer H. and Ennew C., The adoption of internet financial services: a qualitative study, *International Journal of Retail and Distribution Management*, 29(8), 390-8 (2001)
- **4.** Lassar W., Manolis C. and Lassar S., The relationship between consumer innovativeness, personal characteristics and online banking adoption, *International Journal of Bank Marketing*, **23(2)**, 176-99 (**2005**)
- 5. Zolait A.H.S., Ainin S. Incorporating the innovation attributes introduced by rogers' theory into theory of reasoned action: an examination of Internet banking adoption in Yemen, *Comput. Inf. Sci.*, 1(1), 36–51 (2008)
- **6.** Mattila M., Karjaluoto H. and Pento T., Internet banking adoption factors in Finland, *J. Bank. Com.*, **6(1)**, **(2011)** Available in: http://www.arraydev.com/commerce/jibc/MATTILA.HTM (accessed on 21.11.14)
- 7. Hernandez J. and Mazzon J., Adoption of internet banking: proposition and implementation of an integrated methodology approach, *International Journal of Bank Marketing*, **25(2)**, 72-88 (**2007**)
- **8.** Read W., McQuilken L. and Robertson N., A Novel Romance: Conceptualising emotional attachment as a barrier to adoption, Paper presented in the ANZMAC, Christchurch, *New Zealand* (2010)
- **9.** Tan M. and Teo T., Factors influencing the adoption of internet banking, *Journal of the AIS*, **1**(5), (2000)

10. Pikkarainen K., Pikkarainen T., Karjaluoto H. and Pahnila S., The measurement of end-user computing satisfaction of online banking services: empirical evidence from Finland, *Int. J. Bank Market*, **24**(3), 158–172 (**2006**)

- **11.** Herington C. and Weaven S., E-retailing by banks: eservice quality and its importance to customer satisfaction, *Eur. J. Market.*, **43(9/10)**, 1220–1231 **(2009)**
- **12.** Durkin M., Jennings D. and Mulholland G., Worthington S., Key influencers and inhibitors on adoption of the Internet for banking, *J. Retail. Consum. Serv.*, **15(5)**, 348–357 **(2008)**
- **13.** Machauer A. and Morgner S., Segmentation of bank customers by expected benefits and attitudes, *Int. J. Bank Market*, **19(1)**, 6–17 (**2001**)
- **14.** Lassar W., Manolis C. and Lassar S., The relationship between consumer innovativeness, personal characteristics and online banking adoption, *International Journal of Bank Marketing*, **23(2)**, 176-99 (**2005**)
- **15.** Venkatesh V., Morris M., Davis G. and Davis F., User acceptance of information technology: *Toward a unified view. MIS Quarterly*, **27(3)**, 425–478 (**2003**)
- **16.** Alsajjan B. and Dennis C., Internet banking acceptance model: Cross-market examination, *Journal of Business Research*, **63(9–10)**, 957–963 **(2010)**
- 17. Flavián C., Guinalíu M., and Gurrea R., The influence of familiarity and usability on loyalty to online journalistic services: The role of user experience, *Journal of Retailing and Consumer Services*, 13(5), 363-375 (2006)
- **18.** Polasik M. and Wisniewski T.P., Empirical analysis of internet banking adoption in Poland, *The International Journal of Bank Marketing*, **27**(1), 32-52 (**2009**)
- **19.** Subsorn P. and Limwiriyakul S., A comparative analysis of Internet banking security in Thailand: A Customer Perspective, *Procedia Engineering*, **32**, 260-272 (**2012**)
- **20.** Lee J.H., Lim W.G. and Lim J.I., A study of the security of Internet banking and financial private information in South Korea, *Mathematical and Computer Modelling*, **58(1-2)**, 117-131 (**2013**)

- **21.** Reis Z.A., Gülseçen S. and Bayrakdar B., To develop an education system for secure internet banking: GIBES, *Procedia Computer Science*, **3**, 1333-1340 (**2011**)
- 22. European Commission, A digital agenda for Europe. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, COM 245 final. 19.05.2010. Brussels, (2010)
- **23.** Nantel J. and Glaser E., The impact of language and culture on perceived website usability, Journal of *Engineering and Technology Management*, **25(1/2)**, 112-122 (**2008**)
- **24.** Al-Hawari M. and Ward T., The effect of automated service quality on Australian banks' financial performance and the mediating role of customer satisfaction, *Marketing Intelligence and Planning*, **24(2)**, 127-138 (**2006**)
- **25.** Jayawardhena C. and Foley P., Changes in the banking sector the case of internet banking in the UK, *Internet Research*, **10(1)**, 19-30 **(2000)**
- **26.** Centeno C., Adoption of Internet services in the Acceding and Candidate Countries, lessons from the Internet banking case, *Telematics and Informatics*, **21**, 293-315 (2004)
- **27.** Liao Z. and Cheung M.T., Internet based e-banking and consumer attitudes: an empirical study, *Information and Management*, **39**, 283-295 (**2002**)
- 28. Mannan Syed Abdul, Technology in Indian banks and customer perception: An empirical study in Maharashtra, International conference on Business and Information technology, (2010), available at http://www.kln.ac.lk/uokr/ICBI2010/30.pdf accessed on 2nd March.2012
- 29. Arfaeian A., Ghorbanifard B., Mousavi S. and Aziziha H., Investigating personal characteristics on e-banking adoption, *Management Science Letters*, 3(12), 2939-2944 (2013)