INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATION & MANAGEMENT



A Monthly Double-Blind Peer Reviewed (Refereed/Juried) Open Access International e-Journal - Included in the International Serial Directories

Indexed & Listed at:

Ulrich's Periodicals Directory ©, ProQuest, U.S.A., Cabell's Directories of Publishing Opportunities, U.S.A., Google Scholar,

Index Copernicus Publishers Panel, Poland with IC Value of 5.09 (2012) & number of libraries all around the world.

Circulated all over the world & Google has verified that scholars of more than 7144 Cities in 197 countries/territories are visiting our journal on regular basis.

Ground Floor, Building No. 1041-C-1, Devi Bhawan Bazar, JAGADHRI – 135 003, Yamunanagar, Haryana, INDIA

CONTENTS

Sr. No.	TITLE & NAME OF THE AUTHOR (S)							
1.	AN EMPIRICAL STUDY OF PROMOTIONAL STRATEGIES ADOPTED BY AUTOMOBILE COMPANIES OF UDAIPUR AANCHAL MENARIA & Dr. RAHUL KHANNA							
2.	ADOPTION BEHAVIOUR OF CUSTOMERS IN MOBILE BANKING SERVICES JYOTI SHARMA	5						
	REQUEST FOR FEEDBACK & DISCLAIMER	16						

FOUNDER PATRON

Late Sh. RAM BHAJAN AGGARWAL

Former State Minister for Home & Tourism, Government of Haryana Former Vice-President, Dadri Education Society, Charkhi Dadri Former President, Chinar Syntex Ltd. (Textile Mills), Bhiwani

CO-ORDINATOR

Dr. BHAVET

Former Faculty, Shree Ram Institute of Engineering & Technology, Urjani

ADVISOR

Prof. S. L. MAHANDRU

Principal (Retd.), Maharaja Agrasen College, Jagadhri

EDITOR.

Dr. PARVEEN KUMAR

Professor, Department of Computer Science, NIMS University, Jaipur

CO-EDITOR

Dr. A. SASI KUMAR

Professor, Vels Institute of Science, Technology & Advanced Studies (Deemed to be University), Pallavaram

EDITORIAL ADVISORY BOARD

Dr. CHRISTIAN EHIOBUCHE

Professor of Global Business/Management, Larry L Luing School of Business, Berkeley College, USA

Dr. SIKANDER KUMAR

Vice Chancellor, Himachal Pradesh University, Shimla, Himachal Pradesh

Dr. JOSÉ G. VARGAS-HERNÁNDEZ

Research Professor, University Center for Economic & Managerial Sciences, University of Guadalajara, Guadalajara, Mexico

Dr. RAJENDER GUPTA

Convener, Board of Studies in Economics, University of Jammu, Jammu

Dr. D. S. CHAUBEY

Professor & Dean (Research & Studies), Uttaranchal University, Dehradun

Dr. TEGUH WIDODO

Dean, Faculty of Applied Science, Telkom University, Bandung Technoplex, Jl. Telekomunikasi, Indonesia

Dr. S. P. TIWARI Head, Department of Economics & Rural Development, Dr. Ram Manohar Lohia Avadh University, Faizabad

Dr. BOYINA RUPINI

DI. BUTINA KUPINI

Director, School of ITS, Indira Gandhi National Open University, New Delhi

Dr. KAUP MOHAMED

Dean & Managing Director, London American City College/ICBEST, United Arab Emirates

Dr. MIKE AMUHAYA IRAVO

Principal, Jomo Kenyatta University of Agriculture & Tech., Westlands Campus, Nairobi-Kenya

Dr. M. S. SENAM RAJU

Professor, School of Management Studies, I.G.N.O.U., New Delhi

Dr. NEPOMUCENO TIU

Chief Librarian & Professor, Lyceum of the Philippines University, Laguna, Philippines

Dr. A SAJEEVAN RAO

Professor & Director, Accurate Institute of Advanced Management, Greater Noida

Dr. H. R. SHARMA

Director, Chhatarpati Shivaji Institute of Technology, Durg, C.G.

Dr. CLIFFORD OBIYO OFURUM

Professor of Accounting & Finance, Faculty of Management Sciences, University of Port Harcourt, Nigeria

Dr. SHIB SHANKAR ROY

Professor, Department of Marketing, University of Rajshahi, Rajshahi, Bangladesh

Dr. MANOHAR LAL

Director & Chairman, School of Information & Computer Sciences, I.G.N.O.U., New Delhi

Dr. SRINIVAS MADISHETTI

Professor, School of Business, Mzumbe University, Tanzania

Dr. VIRENDRA KUMAR SHRIVASTAVA

Director, Asia Pacific Institute of Information Technology, Panipat

Dr. VIJAYPAL SINGH DHAKA

Professor & Head, Department of Computer & Communication Engineering, Manipal University, Jaipur

Dr. NAWAB ALI KHAN

Professor & Dean, Faculty of Commerce, Aligarh Muslim University, Aligarh, U.P.

Dr. EGWAKHE A. JOHNSON

Professor & Director, Babcock Centre for Executive Development, Babcock University, Nigeria

Dr. ASHWANI KUSH

Head, Computer Science, University College, Kurukshetra University, Kurukshetra

Dr. ABHAY BANSAL

Head, Department of Information Technology, Amity School of Engg. & Tech., Amity University, Noida

Dr. BHARAT BHUSHAN

Head, Department of Computer Science & Applications, Guru Nanak Khalsa College, Yamunanagar

MUDENDA COLLINS

Head, Operations & Supply Chain, School of Business, The Copperbelt University, Zambia

Dr. JAYASHREE SHANTARAM PATIL (DAKE)

Faculty in Economics, KPB Hinduja College of Commerce, Mumbai

Dr. MURAT DARÇIN

Associate Dean, Gendarmerie and Coast Guard Academy, Ankara, Turkey

Dr. YOUNOS VAKIL ALROAIA

Head of International Center, DOS in Management, Semnan Branch, Islamic Azad University, Semnan, Iran

P. SARVAHARANA

Asst. Registrar, Indian Institute of Technology (IIT), Madras

SHASHI KHURANA

Associate Professor, S. M. S. Khalsa Lubana Girls College, Barara, Ambala

Dr. SEOW TA WEEA

Associate Professor, Universiti Tun Hussein Onn Malaysia, Parit Raja, Malaysia

Dr. OKAN VELI ŞAFAKLI

Professor & Dean, European University of Lefke, Lefke, Cyprus

Dr. MOHINDER CHAND

Associate Professor, Kurukshetra University, Kurukshetra

Dr. BORIS MILOVIC

Associate Professor, Faculty of Sport, Union Nikola Tesla University, Belgrade, Serbia

Dr. IQBAL THONSE HAWALDAR

Associate Professor, College of Business Administration, Kingdom University, Bahrain

Dr. MOHENDER KUMAR GUPTA

Associate Professor, Government College, Hodal

Dr. ALEXANDER MOSESOV

Associate Professor, Kazakh-British Technical University (KBTU), Almaty, Kazakhstan

Dr. MOHAMMAD TALHA

Associate Professor, Department of Accounting & MIS, College of Industrial Management, King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia

Dr. ASHOK KUMAR CHAUHAN

Reader, Department of Economics, Kurukshetra University, Kurukshetra

Dr. RAJESH MODI

Faculty, Yanbu Industrial College, Kingdom of Saudi Arabia

WILLIAM NKOMO

Asst. Head of the Department, Faculty of Computing, Botho University, Francistown, Botswana

YU-BING WANG

Faculty, department of Marketing, Feng Chia University, Taichung, Taiwan

Dr. SHIVAKUMAR DEENE

Faculty, Dept. of Commerce, School of Business Studies, Central University of Karnataka, Gulbarga

Dr. TITUS AMODU UMORU

Professor, Kwara State University, Kwara State, Nigeria

Dr. BHAVET

Faculty, Shree Ram Institute of Engineering & Technology, Urjani

Dr. THAMPOE MANAGALESWARAN

Faculty, Vavuniya Campus, University of Jaffna, Sri Lanka

Dr. ASHISH CHOPRA

Faculty, Department of Computer Applications, National Institute of Technology, Kurukshetra **SURAJ GAUDEL**

BBA Program Coordinator, LA GRANDEE International College, Simalchaur - 8, Pokhara, Nepal

Dr. SAMBHAVNA

Faculty, I.I.T.M., Delhi

Dr. LALIT KUMAR

Course Director, Faculty of Financial Management, Haryana Institute of Public Administration, Gurugram

FORMER TECHNICAL ADVISOR

AMITA

FINANCIAL ADVISOR

NEENA

Investment Consultant, Chambaghat, Solan, Himachal Pradesh

LEGAL ADVISORS

JITENDER S. CHAHAL

Advocate, Punjab & Haryana High Court, Chandigarh U.T.

CHANDER BHUSHAN SHARMA

Advocate & Consultant, District Courts, Yamunanagar at Jagadhri

SUPERINTENDENT

SURENDER KUMAR POONIA

1.

E-mail Address

Nationality

Alternate E-mail Address

CALL FOR MANUSCRIPTS

We invite unpublished novel, original, empirical and high quality research work pertaining to the recent developments & practices in the areas of Computer Science & Applications; Commerce; Business; Finance; Marketing; Human Resource Management; General Management; Banking; Economics; Tourism Administration & Management; Education; Law; Library & Information Science; Defence & Strategic Studies; Electronic Science; Corporate Governance; Industrial Relations; and emerging paradigms in allied subjects like Accounting; Accounting Information Systems; Accounting Theory & Practice; Auditing; Behavioral Accounting; Behavioral Economics; Corporate Finance; Cost Accounting; Econometrics; Economic Development; Economic History; Financial Institutions & Markets; Financial Services; Fiscal Policy; Government & Non Profit Accounting; Industrial Organization; International Economics & Trade; International Finance; Macro Economics; Micro Economics; Rural Economics; Co-operation; Dewelopment Planning; Development Studies; Applied Economics; Development Economics; Business Economics; Monetary Policy; Public Policy Economics; Real Estate; Regional Economics; Political Science; Continuing Education; Labour Welfare; Philosophy; Psychology; Sociology; Tax Accounting; Advertising & Promotion Management; Management Information Systems (MIS); Business Law; Public Responsibility & Ethics; Communication; Direct Marketing; E-Commerce; Global Business; Health Care Administration; Labour Relations & Human Resource Management; Marketing Research; Marketing Theory & Applications; Non-Profit Organizations; Office Administration/Management; Operations Research/Statistics; Organizational Behavior & Theory; Organizational Development; Production/Operations; International Relations; Human Rights & Duties; Public Administration; Population Studies; Purchasing/Materials Management; Retailing; Sales/Selling; Services; Small Business Entrepreneurship; Strategic Management Policy; Technology/Innovation; Tourism & Hospitality; Transportation Distribution; Algorithms; Artificial Intelligence; Compilers & Translation; Computer Aided Design (CAD); Computer Aided Manufacturing; Computer Graphics; Computer Organization & Architecture; Database Structures & Systems; Discrete Structures; Internet; Management Information Systems; Modeling & Simulation; Neural Systems/Neural Networks; Numerical Analysis/Scientific Computing; Object Oriented Programming; Operating Systems; Programming Languages; Robotics; Symbolic & Formal Logic; Web Design and emerging paradigms in allied subjects.

Anybody can submit the **soft copy** of unpublished novel; original; empirical and high quality **research work/manuscript anytime** in **M.S. Word format** after preparing the same as per our **GUIDELINES FOR SUBMISSION**; at our email address i.e. **infoijrcm@gmail.com** or online by clicking the link **online submission** as given on our website (**FOR ONLINE SUBMISSION, CLICK HERE**).

GUIDELINES FOR SUBMISSION OF MANUSCRIPT

COVERING LETTER FOR SUBMISSION:	DATED:
	DATED
THE EDITOR	
IJRCM	
Subject: SUBMISSION OF MANUSCRIPT IN THE AREA OF	
(e.g. Finance/Mkt./HRM/General Mgt./Engineering/Economics/Computer/	'IT/ Education/Psychology/Law/Math/other, <mark>please</mark>
<mark>specify</mark>)	
DEAR SIR/MADAM	
Please find my submission of manuscript titled '	
your journals.	
I hereby affirm that the contents of this manuscript are original. Furthermore	e, it has neither been published anywhere in any language
fully or partly, nor it is under review for publication elsewhere.	
I affirm that all the co-authors of this manuscript have seen the submitted v their names as co-authors.	ersion of the manuscript and have agreed to inclusion of
Also, if my/our manuscript is accepted, I agree to comply with the formalitie	es as given on the website of the journal. The Journal has
discretion to publish our contribution in any of its journals.	
NAME OF CORRESPONDING AUTHOR	:
Designation/Post*	:
Institution/College/University with full address & Pin Code	:
Residential address with Pin Code	:
Mobile Number (s) with country ISD code	:
Is WhatsApp or Viber active on your above noted Mobile Number (Yes/No)	:
Landline Number (s) with country ISD code	:

* i.e. Alumnus (Male Alumni), Alumna (Female Alumni), Student, Research Scholar (M. Phil), Research Scholar (Ph. D.), JRF, Research Assistant, Assistant Lecturer, Lecturer, Senior Lecturer, Junior Assistant Professor, Assistant Professor, Senior Assistant Professor, Co-ordinator, Reader, Associate Professor, Professor, Head, Vice-Principal, Dy. Director, Principal, Director, Dean, President, Vice Chancellor, Industry Designation etc. <u>The qualification of</u>

author is not acceptable for the purpose.

INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATION & MANAGEMENT

NOTES:

- a) The whole manuscript has to be in **ONE MS WORD FILE** only, which will start from the covering letter, inside the manuscript. <u>pdf.</u> <u>version</u> is liable to be rejected without any consideration.
- b) The sender is required to mention the following in the SUBJECT COLUMN of the mail:
 - **New Manuscript for Review in the area of** (e.g. Finance/Marketing/HRM/General Mgt./Engineering/Economics/Computer/IT/ Education/Psychology/Law/Math/other, please specify)
- c) There is no need to give any text in the body of the mail, except the cases where the author wishes to give any **specific message** w.r.t. to the manuscript.
- d) The total size of the file containing the manuscript is expected to be below 1000 KB.
- e) Only the **Abstract will not be considered for review** and the author is required to submit the **complete manuscript** in the first instance.
- f) The journal gives acknowledgement w.r.t. the receipt of every email within twenty-four hours and in case of non-receipt of acknowledgment from the journal, w.r.t. the submission of the manuscript, within two days of its submission, the corresponding author is required to demand for the same by sending a separate mail to the journal.
- g) The author (s) name or details should not appear anywhere on the body of the manuscript, except on the covering letter and the cover page of the manuscript, in the manner as mentioned in the guidelines.
- 2. MANUSCRIPT TITLE: The title of the paper should be typed in **bold letters**, **centered** and **fully capitalised**.
- 3. AUTHOR NAME (S) & AFFILIATIONS: Author (s) name, designation, affiliation (s), address, mobile/landline number (s), and email/alternate email address should be given underneath the title.
- 4. ACKNOWLEDGMENTS: Acknowledgements can be given to reviewers, guides, funding institutions, etc., if any.
- 5. **ABSTRACT**: Abstract should be in **fully Italic printing**, ranging between **150** to **300 words**. The abstract must be informative and elucidating the background, aims, methods, results & conclusion in a **SINGLE PARA**. **Abbreviations must be mentioned in full**.
- 6. **KEYWORDS:** Abstract must be followed by a list of keywords, subject to the maximum of **five**. These should be arranged in alphabetic order separated by commas and full stop at the end. All words of the keywords, including the first one should be in small letters, except special words e.g. name of the Countries, abbreviations etc.
- 7. **JEL CODE:** Provide the appropriate Journal of Economic Literature Classification System code (s). JEL codes are available at www.aea-web.org/econlit/jelCodes.php. However, mentioning of JEL Code is not mandatory.
- 8. **MANUSCRIPT**: Manuscript must be in <u>BRITISH ENGLISH</u> prepared on a standard A4 size <u>PORTRAIT SETTING PAPER</u>. It should be free from any errors i.e. grammatical, spelling or punctuation. It must be thoroughly edited at your end.
- 9. **HEADINGS**: All the headings must be bold-faced, aligned left and fully capitalised. Leave a blank line before each heading.
- 10. **SUB-HEADINGS**: All the sub-headings must be bold-faced, aligned left and fully capitalised.
- 11. MAIN TEXT:

THE MAIN TEXT SHOULD FOLLOW THE FOLLOWING SEQUENCE:

INTRODUCTION

REVIEW OF LITERATURE

NEED/IMPORTANCE OF THE STUDY

STATEMENT OF THE PROBLEM

OBJECTIVES

HYPOTHESIS (ES)

RESEARCH METHODOLOGY

RESULTS & DISCUSSION

FINDINGS

RECOMMENDATIONS/SUGGESTIONS

CONCLUSIONS

LIMITATIONS

SCOPE FOR FURTHER RESEARCH

REFERENCES

APPENDIX/ANNEXURE

The manuscript should preferably be in 2000 to 5000 WORDS, But the limits can vary depending on the nature of the manuscript

- 12. **FIGURES & TABLES:** These should be simple, crystal **CLEAR**, **centered**, **separately numbered** & self-explained, and the **titles must be above the table/figure**. **Sources of data should be mentioned below the table/figure**. *It should be ensured that the tables/figures are*referred to from the main text.
- 13. **EQUATIONS/FORMULAE:** These should be consecutively numbered in parenthesis, left aligned with equation/formulae number placed at the right. The equation editor provided with standard versions of Microsoft Word may be utilised. If any other equation editor is utilised, author must confirm that these equations may be viewed and edited in versions of Microsoft Office that does not have the editor.
- 14. **ACRONYMS**: These should not be used in the abstract. The use of acronyms is elsewhere is acceptable. Acronyms should be defined on its first use in each section e.g. Reserve Bank of India (RBI). Acronyms should be redefined on first use in subsequent sections.
- 15. **REFERENCES**: The list of all references should be alphabetically arranged. *The author (s) should mention only the actually utilised references in the preparation of manuscript* and they may follow Harvard Style of Referencing. Also check to ensure that everything that you are including in the reference section is duly cited in the paper. The author (s) are supposed to follow the references as per the following:
- All works cited in the text (including sources for tables and figures) should be listed alphabetically.
- Use (ed.) for one editor, and (ed.s) for multiple editors.
- When listing two or more works by one author, use --- (20xx), such as after Kohl (1997), use --- (2001), etc., in chronologically ascending order.
- Indicate (opening and closing) page numbers for articles in journals and for chapters in books.
- The title of books and journals should be in italic printing. Double quotation marks are used for titles of journal articles, book chapters, dissertations, reports, working papers, unpublished material, etc.
- For titles in a language other than English, provide an English translation in parenthesis.
- Headers, footers, endnotes and footnotes should not be used in the document. However, you can mention short notes to elucidate some specific point, which may be placed in number orders before the references.

PLEASE USE THE FOLLOWING FOR STYLE AND PUNCTUATION IN REFERENCES:

BOOKS

- Bowersox, Donald J., Closs, David J., (1996), "Logistical Management." Tata McGraw, Hill, New Delhi.
- Hunker, H.L. and A.J. Wright (1963), "Factors of Industrial Location in Ohio" Ohio State University, Nigeria.

CONTRIBUTIONS TO BOOKS

• Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

JOURNAL AND OTHER ARTICLES

• Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

CONFERENCE PAPERS

• Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–23

UNPUBLISHED DISSERTATIONS

• Kumar S. (2011): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, Kurukshetra University, Kurukshetra.

ONLINE RESOURCES

Always indicate the date that the source was accessed, as online resources are frequently updated or removed.

WEBSITES

• Garg, Bhavet (2011): Towards a New Gas Policy, Political Weekly, Viewed on January 01, 2012 http://epw.in/user/viewabstract.jsp

ADOPTION BEHAVIOUR OF CUSTOMERS IN MOBILE BANKING SERVICES

JYOTI SHARMA RESEARCH SCHOLAR DEPARTMENT OF COMMERCE HIMACHAL PRADESH UNIVERSITY SHIMLA

ABSTRACT

The present study has been undertaken to analyze the adoption behaviour of customers towards mobile banking services offered by various banks and to determine the awareness and satisfaction level among customers towards the services. Mobile Banking has emerged as a consequence of technology revolution. It has become a very important part of life as it saves time and is available 24*7 anywhere. A change is witnessed with the ongoing introduction of various channels in electronic form like ATM's, banking through mobile phones, internet banking, etc. The study investigates whether the attitude varies among M-BANKING users on the factors such as perceived risk, relative advantage of cost and time, perceived trust and ease of use or convenience due to difference in their degree of awareness on these factors. The research is descriptive research and the data is primary in nature collected through survey method i.e. questionnaire. The survey includes 100 respondents from Shimla only selected through non-probability sampling in order to analyze the opinion regarding mobile banking services. This has an effect on the generalization of the findings. Tools and techniques used to analyze the data include mean, standard deviation, skewness, kurtosis and factor analysis. The results stated that users using banking services through mobile phones are highly satisfied and with the advancement in technology adding new services to the banking industry is acting as a bonus for users. Various factors like perceived risk, relative advantage of cost and time, perceived trust and ease of use or convenience play important role for people to adopt mobile banking services. Rapid changes in banking industry are attracting more and more consumers thereby increasing the adoption rate of customers towards mobile banking services. Consumer awareness will help to attract a large number of consumers to use mobile banking. The convenience provided in doing banking business has made banking easy with the motive of anywhere anytime service.

KEYWORDS

mobile banking, banking technology, customer behaviour.

JEL CODES

M30, G21.

INTRODUCTION

obile Banking is service provided by banks through mobile phones or where customers interact with the banks via mobile phones and the banks provide customers services like short message service (SMS), fund transfers, account details, issue of cheque books, etc. Mobile Banking (m-Banking), the newest channel for the delivery of banking services, has almost transformed branch banking in to virtual one-stop-shop. This concept of mobile banking in India has gained importance in recent years. Traditional banking was standing in queue for long hours to get the work done but mobile banking being a modern method of banking has eliminated this limitation. In the year 2000, Mobile Banking was started in India by way of short message service (SMS) which was considered as a crude form which worked more or less as an enquiry system. Now it has become a new generation platform in India. Mobile banking helps customers in inquiring about their account balance through mobile phones. Application based banking has emerged with the arrival of smart phones and increased use of internet on mobile handsets. Almost all transactions of banks can now be completed with the help of computer, laptop or smart phone. Everything from checking account balance to paying credit card bills, utility bills and transfer of funds can be done online within no time. Mobile Banking is now being considered as the latest and fastest technology to conduct banking transactions. TRAI (Telecom Regulatory Authority of India) has issued various rules and regulation for mobile banking to ensure better and reliable communication to conduct banking business by mobile phones. Mobile Banking does not always require an internet connection but can be used by downloading the mobile banking app which provides services through WAP (Wireless Application Protocol). Banking sector's profitability depends on better customer relationship. People believe to make life easy without following traditional methods of banking which was standing in queues for hours to get the work done. So, to give the customers better services banks have introduced a new profitable technology which is called MOBILE BANKING. And many more options like internet banking, ATM, debit card, credit card etc. By harnessing the potential of mobile technology, large sections of the un-banked and under-banked society can be empowered to become inclusive through the use of electronic banking services. Even rural people have mobile phone which has allowed mobile banking to expand to remotest areas. Mobile banking is different from internet banking and ATMs anyways. The internet is not as commonly used as the mobile phones. Further, the internet requires particular devices such as a desktop or a laptop. Mobile banking can be said to consisting of three interrelated concepts i.e., Mobile accounting, Mobile brokerage and Mobile financial information.

HISTORY OF M-BANKING

A report of the Cellular Operators Authority of India (CAOI), regarding the entry of cell phones into India, depicts that it was in the year 1992 that telecommunication Sector in India liberalized to bridge the gap through Government spending and to provide additional resources for the nation's telecom target and the private sector was allowed to participate. In the year 1994 India was licensed to provide cellular mobile services granted by the government of India for the Metropolitan cities of Delhi, Mumbai, Kolkata and Chennai. Kolkata became the first metro city to have a cellular network in 1995. TRAI was set up in the year 1997 for the regulation of telecommunication sector in India. In March 1999 National Telecom Policy (NTP) was announced. In 2003 CDMA network was launched. In 2004 Broadband policy was announced. Mobile phone subscribers had reached 100 Million by 2006. In 2008, RBI issued operative guidelines for banks for mobile banking transactions in India. By the year 2009, wireless subscriber base crossed 400 million. At present wireless mobile phone subscribers are 867 Million. With the advancement in the operating systems of the mobile phones and mobile technology like 2G, 3G & 4G has brought a significant change in the way of working of mobile banking services providers. Since the introduction of 2G and the subsequently 3G, the demand for mobile phone has increased many folds. This can be interpreted by a rapid increase in the number of mobile phone subscribers. India is the second largest telecom market in the world and the industry is growing rapidly. Advancement of technology led countries to a conversion phase where each country is adopting new avenues to survive and gain advantage. In the initial phases, mobile banking was also not much developed. Earlier it was termed as M-banking or SMS banking. Use of SMS is the earliest example of mobile banking services which did not required an internet connection and worked more as an information system. It was in 1999, Deutsche Bank, a European bank, started the services called as Mobile Banking Services. Back then, smartphones were a new concept and many other devices did not support the services. Its success was not widespread in the initial period. Until 2010, SMS or mobileweb were the only methods of mobile internet banking. However, with the introduction of smartphones everything changed. Today, every bank is offering mobile banking solutions through apps and SMS banking. For example, SBI offers services through SMS Banking and Freedom app, Union Bank of India launched UMobile, and ICICI introduced iMobile, M-Pesa, and mRupee, HDFC mobile bank application, Bank of Baroda's M-Connect Plus application, etc. Motorola was the first company that introduced mobile phone in the year 1973, which was very costly and also weighed more (in Kgs) as compared to present mobile sets which are cheap, small in size and easy to handle. The development in mobile technology has moved from 1st generation to 4th & 5th generation.

CELL PHONE GENERATIONS COMPARED

TABLE 1

	TABLE 1							
	STANDARDS	TECHNOLOGY	SMS	VOICE SWITCHING	DATA SWITCHING	DATA RATES		
1G	AMPS, TACS	Analog	No	Circuit	Circuit	N/A		
2G	GSM, CDMA, EDGE, GPRS	Digital	Yes	Circuit	Circuit	236.8kbps		
3G	UTMS, CDMA2000, HSPDA, EVDO	Digital	Yes	Circuit	Packet	384 kbps		
4G	LTE Advanced, IEEE 802.16 (WiMax)	Digital	Yes	Packet	Packet	Upto 1 Gbps		

Source: cellphones.org.

The next upcoming generation is 5G which is scheduled to be launched in 2020 with more advanced technology, faster data rates, higher connection density, much lower latency and other varying features. The anticipated theoretical speed of 5G is 20Gbps per second.

MOBILE PHONE EVOLUTION TO EARLY SMARTPHONE



CHALLENGES FOR A MOBILE BANKING SOLUTION

- Handset accessibility
- Security

Three main types of cyber-attacks can occur which include:

Backdoor attacks, in which thieves exploit alternate methods of accessing a system that don't require the usual means of authentication. Some systems have backdoors by design; others result from error.

Denial-of-service attacks prevent the rightful user from accessing the system. For example, thieves might enter a wrong password enough times that the account is locked and the rightful owner cannot access the account.

Direct-access attack includes bugs and viruses, which gain access to a system and copy its information and/or modify it.

The malicious app was activated when users opened a banking app, overlaying it so it can steal banking credentials.

Scalability and reliability

Another challenge for the CIOs and CTOs (A CTO creates technology to sell to customers whereas a CIO focuses on managing infrastructure for the business operations) of the banks is to scale-up the mobile banking infrastructure to handle exponential growth of the customer base. With mobile banking, the customer may be sitting in any part of the world (true anytime, anywhere banking) and hence banks need to ensure that the systems are up and running in a true 24 x 7 fashion.

Application distribution

Due to the nature of the connectivity between bank and its customers, it would be impractical to expect customers to regularly visit banks or connect to a web site for regular upgrade of their mobile banking application. It will be expected that the mobile application itself check the upgrades and updates and download necessary patches (so called "Over the Air" updates).

Personalization

It would be expected from the mobile application to support personalization such as:

- Preferred Language
- Date / Time format
- Amount format
- Default transactions
- Standard Beneficiary list
- Alerts

Personalization will make it easy for customers to adjust with the app based on their preference and knowledge level. Despite many initiatives taken in the field of mobile banking there are only 12% (17 million) users out of 143.2 million mobile phone internet subscribers who are using banking services on their mobile phones. So, the main issue of research is to understand the factors which contribute to user's intention to use the mobile banking services in order to increase the customer base.

REVIEW OF LITERATURE

Review of literature helps in formulating the methodology of the study, finding out cause and effect relationship and exploring the existing research gap. In this study, various research papers and articles from various magazines, journals, websites, etc. were deliberately reviewed which had the following conclusions. Various researchers have researched in the context of mobile banking services so far. Jayawardhena & Foley (2000) stated that banks achieved cost and efficiency gains in their operational areas whereas others like Avinandan & Prithwiraj (2003) laid emphasis of perceived trust that customers expect in doing online banking transactions. Suoraanta & Mattila (2004) found that demographics and preferred communication mode strongly influences the mobile banking service adoption and its future usage. Xiaoyan & Sylvie (2005) revealed that m-banking users were mostly male and issue of security was important factor for adoption of m-banking. Barriers to m-banking included lack of awareness and understanding the benefits given by m-bankers. Suggestions were given to create awareness in order to increase the mobile bank user rate. Bhatti (1970) used various models which revealed that perceived ease of use, perceived usefulness, subjective norms, personal innovativeness and perceived behavioural control were strong determinants of the intention to adopt mobile banking services. Mallat (2007) revealed the advantages provided by mobile banking services which included time savings, independence of place, availability, possibilities for remote payments and queue

avoidance. According to Agarwal, Rastogi & Mehrotra (2009) the most frequently used mobile banking service is balance enquiry. Adoption behaviour of consumers is based on banks efficiency in providing best services with the best security. Perceived usefulness has direct impact on continued intention to use mobile banking services. Yang (2009) disclosed that mobile banking services helped in fulfilling personal banking needs, cost effectiveness and provided location free convenience which meant that banking services could be accessed from anytime and anywhere. Resistance factors that reduced the number of users of mobile banking included the concern regarding system configuration, security and fee for mobile banking web connection. Margaret, Craig, Susan & Heikki (2009) found that elicitation of technology and services could be a positive influence for adopters whilst it could be a negative influence for non-adopters. Chaipoopirutana, Combs, Chatchawanwan & Lin (2010) claimed that adoption of mobile banking is complex as it had negative relation with the intention to adopt mobile banking. In the paper they discussed various models and found that ease of use i.e., opposite of complexity had a great effect on attitude to adopt mobile banking services. In order to increase the number of adopters in mobile banking it must focus on reducing complexity. Advertising internet banking services by banks would help consumers to relate it to their values, beliefs and experience of adopters. Revels, Tojib & Tsarenko (2010) found that the main force that derived customers to use mobile banking services included satisfaction and ease of use. It found that perceived usefulness, perceived ease of use and perceived enjoyment positively affected satisfaction with m-banking services while perceived cost had a negative effect. Riquelme & Rios (2010) revealed that usefulness, social norms and social risk, are the factors that influence the intention to adopt mobile banking services. Salim, Khraim, Al Shoubaki & Khraim (2011) found that factors like self-efficacy, compatibility, complexity, risk and relative advantage affected Jordanian consumer's adoption of mobile banking service. Vanessa (2012) found that people's entrepreneurial inclination and learning tendency would determine how they responded to marketing and knowledge about m-banking. The practical implications were that financial institutions involved in e-finance could divert their marketing efforts to increase people's exposure to mobile banking. Shallone & Simon (2013) tells that perceived usefulness, perceived ease of use, relative advantages, personal innovativeness and social norms had significant effect on user's attitude thus influencing the intention toward mobile banking, whilst perceived risks and costs deterred the adoption of the service. Goel, Nayak & Nath (2014) studied various models like Technology Acceptance Model (TAM), Theory Planned Behaviour(TPB), Innovation Adoption Model(IAM), etc. Chandran (2014) revealed that for inclusive growth the benefits of mobile banking should reach to the common man at remotest locations in the country. Umrez, Jyothi & Haseena (2014) observed that the customers lacked awareness about the benefits of mobile banking and many of them who were aware felt that it was not secure. Irshad & Gupta (2015) found from the results that difference in the attitude of customers towards mobile depend on the difference in their degree of awareness based upon factors like perceived ease of use, perceived usefulness, perceived security & privacy and perceived risk. Verma & Nehra (2016) tried to determine the attitude behaviour gap by exploring the factors that affected mobile banking adoption behaviour. Mohanraj & Jaganathan (2017) found that banks should create certain programs for customers regarding the changes taking place in mobile banking process which will make the consumers satisfied with the services provided by the banks. Rajaram (2017) revealed that electronic mode of banking served as an opportunity as well as a threat, but still it was important to adopt it because of convenience it brought. Better fraud management and security aspect could boost electronic transactions. Pathak & Mishra (2019) conducted a descriptive research. The results of his research stated that factors like ease of use, usefulness and convenience made the people to use mobile banking facilities. Consumers' awareness also provides an intention among consumers to use mobile banking.

The crux is that mobile banking services has brought ease in doing banking business. It helps in saving time and is also cost effective. Security and trust are considered the most crucial factors which affect the satisfaction level among the consumers. Other factors that have considerable impact on user intention to use mobile banking services include self-efficacy, compatibility, complexity and relative advantage. Some of the problems faced by consumers are on part of the telecom operator, handset and software application support and the banks. Innovation in mobile banking services offered by the service provider is also one factor that leads to increase in the consumer usage rate. Results of some analysis also revealed that young generation with high education level and income are the highest adopters of mobile banking application. Lack of technology proficiency was seen among the consumers and as a result there was an urge or willingness to learn about the new technology. Also, awareness measures can help to increase the consumer usage rate towards mobile banking services.

RESEARCH METHODOLOGY

SAMPLE AND DATA COLLECTION

The research plan is a call for gathering primary data. Primary data are data gathered for specific research projects. The analysis of present study has been based on primary data. It is the data which is collected for the first time to address a specific problem in hand. It is first-hand information. More emphasis has been laid on primary data which has been collected directly from the respondents who have served to be a part of the study. However, secondary data has also been used in the form of literature review that is used to review work done earlier by researchers to get a brief view of the research conducted. Review of literature helps to develop a methodology for the research to be conducted. It guides the researcher to conduct further research in the same area and also provides an insight into the problem. Certain information has been collected through personal observations. There are some incomplete questionnaires, which give ambiguous information. Therefore, personal observation has been made to reveal the data and complete the incomplete information left by the respondents due to boredom, lack of interest, lack of knowledge, etc. As the study required primary data to be collected, help of questionnaire is taken. The developed questionnaire is pretested (pilot tested). Pilot testing is done with a few respondents to find out any error in the questionnaire before final drafting is done.

SAMPLING is a procedure that helps to draw a portion of unit, representative of the whole population and help to make a conclusion for the whole population. Snowball sampling is used to obtain the required information. It is a method to collect data in which a person from whom information is being collected gives reference of others whom in his opinion are also making use of the services. It offered an easy way to obtain the raw data for the further analysis and it saved time and cost since the respondents could be randomly selected. Multi-stage sampling has been used for seeking information from the respondents for the research purpose. Shimla city of Himachal Pradesh has been a part of the study to collect information as it covers people of the entire state which will be representative of the sample. Thus, the sample size for the present study consists of 100 respondents. self-administered questionnaires were distributed among the respondents to obtain information. The questionnaire for the study consisted of three sections, the first section consists of demographic details, the second section measured the usage pattern, and the third section includes statements, which study the awareness level of the consumer towards mobile banking. The research conducted to answer the objectives framed and study four factors that is consumer awareness, perceived usefulness, ease to use and convenience of using mobile banking services. It further examines the factors, which decide the awareness level between the consumer and their perception towards use of mobile banking facility. All the questions related to customers attitude towards M-BANKING were measured by using a 5-point Likert Scale ranging from 1= strongly disagree, 2= disagree, 3= undecided, 4= agree, 5= strongly agree.

OBJECTIVES OF THE STUDY

- 1. To analyze the awareness level of customers towards mobile banking services.
- 2. To analyze the factors influencing the decision of customers to use mobile banking.
- 3. To observe the overall customer satisfaction in mobile banking.

SCOPE OF THE STUDY

Scope of the study represents the area within which the research work is confined. In the present study the aim is to know the Adoption Behaviour of Customers towards Mobile Banking Services. The study is limited to the people of Shimla. A sample of 100 respondents was interviewed which included respondents from various municipality wards and questionnaires were distributed among them to obtain their responses by way of non-probability sampling method.

LIMITATIONS OF THE STUDY

1. The study is based on the primary data which has been collected by snowball sampling, therefore the result might have been affected by sampling error.

- The study on adoption behaviour of customers can be done on various aspects which requires in depth study, but in the present study keeping in view the time constraints, it has been decided to restrict this study to general awareness of people and their opinion regarding mobile banking services.
- 3. Major difficulty which was faced during research was passive attitude of most of the people which became a constraint in collection of data. A culture of silence was very much seen as a part of behaviour of the respondents, they did not feel to reveal information regarding family details, business, etc.

ANALYSIS & INTERPRETATION

The demographic profile of the respondents based on their gender, age, education qualification, background, occupation, etc, is presented here. It also presents a view of opinion of respondents towards adoption of mobile banking services. The following section is focusing on the demographic characteristics of the study area. Demographics are the quantifiable statistics of a given population. Demographic variables reveal ongoing trends, such as shift in age, gender and occupation that signal mobile banking services. The study is conducted on people of Shimla district of Himachal Pradesh. This part also deals with the analysis and interpretation of the factors contributing towards the awareness level of people regarding various mobile banking services. It is also concerned with the factors contributing towards the extent of usage of the services of mobile banking. It gives a clear view of the responses given by respondents as it is analysed using various descriptive measures like arithmetic mean, standard deviation, skewness and kurtosis. One of the non-parametric test used for analysis is the chi-square test. Factor analysis has also been a part of the study as it helps in reducing the large number of variables to a fewer manageable once having same characteristic giving a better picture of the collected data.

DEMOGRAPHIC PROFILE

CLASSIFICATION OF RESPONDENTS ON THE BASIS OF GENDER

TABLE 1.1

Gender	No. of respondents	Percentage					
Male	56	56					
Female	44	44					
Total	100	100					

Source: Data collected through questionnaire

For the purpose of this study 100 respondents were purposefully surveyed. Table 1.1 shows that respondents have been classified on the basis of gender into two categories. In this survey there are 56% male and 44% females. Gender plays an important role in the selection of various kind of services related to banking or any other field. Male were considered more powerful than women but now women have got equal place in each and every field. Female generation are also excelling in every aspect today.

CLASSIFICATION OF RESPONDENTS ON THE BASIS OF THEIR AGE GROUP

TABLE 1.2

TABLE 1.2							
Age (Years)	No. of Respondents	Percentage					
Below 25	54	54					
25-35	30	30					
35-45	10	10					
45-55	6	6					
Above 55	Nil	Nil					
Total	100	100					

Source: Data collected through questionnaire

It is observed from the table 1.2 that respondent are categorized into five categories on the basis of their age group. The first category comprises respondents having age below 25 and 54% respondents belong to this category. The second category comprises respondents having age between 25-35 and 30% respondents belong to this category. The third category comprises respondents having age between 35-45 and 10% respondents belong to this category. The fourth category comprises respondents having age between 45-55 and 6% respondents belong to this category. The last category above 55 years of age have nil respondents. Age has an impact on the adoption behaviour of customers. Older generation are resistant to change but the younger generation adopt changes easily at a faster pace.

CLASSIFICATION OF RESPONDENTS ON THE BASIS OF THEIR EDUCATION LEVEL

TABLE 1.3

Education Qualification	No. of Respondents	Percentage				
Primary	Nil	Nil				
Secondary	21	21				
Technical & Vocational	25	25				
University	54	54				
No Formal Education	Nil	Nil				
Total	100	100				

Source: Data collected through questionnaire

It is represented in table 1.3 that the total respondents are categorized in five categories on the basis of education level. According to education level none of the respondents are available from primary level. 21% respondents belonged to secondary level education. Another 25% of respondents are from technical & vocational level. 54% respondents belonged to university level of education and no respondent is from the last category i.e., no formal education. Education helps in better enhancement of skills and memory. A well educated person can distinguish between the right and wrong. He is well versed with any changes taking place in the society because of better understanding and proper education.

CLASSIFICATION OF RESPONDENTS ON THE BASIS OF BACKGROUND

TARIF 1.4

Background	No. of Respondent	Percentage					
Rural	61	61					
Urban	39	39					
Total	100	100					

Source: Data collected through questionnaire

The distribution of the respondents has been categorized into two categories on the basis of their background in table 1.4. Background wise distribution shows that the majority of the respondents belonged to rural area i.e. 61% and 39% of respondents belong to urban area. People living in rural areas adapt changes irrespective of the time at which such changes take place. They may be slow adopters but they will sooner or later adopt new lifestyles and technology. People living in urban areas adapt any change faster than people living in rural areas.

CLASSIFICATION OF RESPONDENTS ON THE BASIS OF OCCUPATION

TABLE 1.5

No of Respondents	Percentage
55	55
13	13
14	14
9	9
6	6
3	3
100	100
	55 13 14 9 6 3

Source: Data collected through questionnaire

The break-up of respondent on the basis of their occupation is done into six categories. There are 55% students out of the total respondents. 13% respondents are government employees. The third category is private employees which makes 14% of the total respondents. 9% respondents are businessman/professionals. 6% respondents are housewives whereas 3% respondents are included in others. Occupation also affects the adoption pattern of individuals towards mobile banking services. A housewife who has time to go and visit a bank branch would prefer this over any other service whereas a working women may prefer to transact through a smartphone in order to transfer funds to some another person because of shortage of time. Therefore, occupation plays an important role in selection of services.

CLASSIFICATION OF RESPONDENTS ON THE BASIS OF DURATION OF TRANSACTION WITH BANKS

TABLE 1.6

Time	No. of Respondents	Percentage		
Less than 2 years	40	40		
3 years	22	22		
More than 3 years	38	38		
Total	100	100		

Source: Data collected through questionnaire

From the table 1.6 it is clear that respondents have been doing banking transactions with the banks from less than two years, three years or more than three years. According to the data collected 40% respondents have been doing transactions with bank from less than 2 years. 22% respondents have been doing transactions from 3 years and the remaining 38% have been doing transactions with the banks from more than 3 years. Years of transactions with the banks shows the adoption pattern of consumers. Better the services provided by banks better will be the loyalty of consumers towards the service provider. It thereby, increases the number of years the consumers transacts with these service providers.

CLASSIFICATION OF RESPONDENTS ON THE BASIS OF FREQUENCY OF USING MOBILE BANKING SERVICES

TABLE 1.7

Time	No. of Respondents	Percentage
Daily	8.0	8.0
Once a Week	34.0	34.0
Once a Month	39.0	39.0
Many a Times	19.0	19.0
Total	100.0	100.0

Source: Data collected through questionnaire

On the basis of information it is clear that people who use mobile banking services daily account for only 8% of the collected data. 34% respondents belong to the category of using mobile banking services once a week whereas 39% account for respondents using the services once a month. The last category which uses mobile banking services many a times accounts for 19% of the respondents. To increase the frequency of using mobile banking services, the service provider should take measures to increase the awareness level among the population which will help to increase the market share. Customers will increase the frequency to use the mobile banking services if the service providers provide the services effectively and efficiently.

CLASSIFICATION OF RESPONDENTS ON THE BASIS OF MOST FREQUENTLY USED MOBILE BANKING SERVICE

TABLE 1.8

Services	No. of Respondents	Percentage
Transfer of funds	26	26
Check account balance	13	13
Pay bills	29	29
Check account information	32	32
Total	100	100

Source: Data collected through questionnaire

From this it is clear that the respondents make use of services like transfer of funds, check account balance, pay bills and check account information. The first service i.e., transfer funds is used to the extent of 26%. The second service being checking account balance is used to the extent of 13%. The third service of paying bills is used to the extent of 29%. Last but not the least service being checking account information is used to the highest extent of 32%. There are several banking services provided by different service providers and the extent to which these services are used is based on requirement of different individual. An individual who use checking account balance the most may not make use of transfer of funds through mobile banking. So, frequency of usage differs from individual to individual based on his requirements and preference.

AWARENESS LEVEL REGARDING MOBILE BANKING SERVICES

Table 1.9 presents the awareness level among people from different age groups, gender, occupation, etc. regarding various mobile banking services on a five point likert scale indicating very high, high, moderate, low and very low awareness level. In order to increase the customer usage rate it is necessary to create awareness among consumers of various options or services provided by different banks. Awareness is the key to expand the market share and enhance the customer usage rate.

	TABLE 1.9									
Sr. No.	Statements	N	Min	Max	Mean	Std. Deviation	Skewness	Kurtosis	Chi Square	P Value
1.	Check account balance	100	2	5	4.0500	.77035	357	494	42.16	.000
2.	Transfer of funds	100	1	5	3.7000	.84686	703	479	88.00	.000
3.	Check account information	100	2	5	3.9100	.80522	071	934	32.88	.000
4.	Alerts on account activity	100	2	5	3.8000	.89893	187	824	20.16	.000
5.	Monitoring term deposit	100	1	5	2.6700	.99549	.018	361	43.50	.000
6.	Access to loan statement	100	1	4	2.0200	.90988	.535	546	24.00	.000
7.	Branch Locator	100	1	5	2.5200	.99980	.037	787	35.30	.000
8.	Processing cheque details	100	1	5	2.2400	.95473	.422	377	45.40	.000
9.	View interest paid on various accounts	100	1	5	2.4400	.94623	.322	165	48.00	.000
10.	View of last 30 days transactions from history	100	1	5	3.5800	.94474	455	092	52.00	.000
11.	Make payment directly to vendors	100	1	5	3.5800	1.12079	643	212	32.40	.000
12.	Make payments for e-commerce transactions	100	1	5	3.6400	1.08730	729	.150	38.30	.000

USAGE OF MOBILE BANKING SERVICES

TABLE 1.10

	TABLE 1119										
S. No.	Statements	N	Min	Max	Mean	Std. Deviation	Skewness	Kurtosis	Chi Square	P Value	
1.	Check account balance	100	2	5	4.1000	.74536	463	168	50.16	.000	
2.	Transfer of funds	100	1	5	3.5900	1.00599	799	.467	57.40	.000	
3.	Check account information	100	1	5	3.9700	.84632	657	.546	69.70	.000	
4.	Alerts on account activity	100	1	5	3.7500	.93609	608	.257	55.30	.000	
5.	Monitoring term deposit	100	1	5	2.4900	1.04924	.402	100	39.00	.000	
6.	Access to loan statement	100	1	5	1.9700	.98939	.891	.385	55.30	.000	
7.	Branch Locator	100	1	5	2.4600	1.11392	.393	287	36.50	.000	
8.	Processing cheque details	100	1	5	2.1500	.99874	.685	.271	46.70	.000	
9.	View interest paid on various accounts	100	1	5	2.3200	1.00383	.540	008	42.10	.000	
10.	View of last 30 days transactions from history	100	1	5	3.5700	1.02745	591	044	43.30	.000	
11.	Make payment directly to vendors	100	1	5	3.4000	1.31041	451	874	10.70	.030	
12.	Make payments for e-commerce transactions	100	1	5	3.4700	1.34431	482	909	11.90	.018	

FACTORS CONTRIBUTING TOWARDS THE USAGE OF MOBILE BANKING SERVICES

To meet the main objective of the study, a scale has been developed, comprising of seventeen variables. These statements are measured in a five point Likert scale i.e., (1) Strongly disagree, (2) Disagree, (3) Undecided, (4) Agree, (5) Strongly Agree. On the basis of responses from the respondents related to mobile banking factor analysis has been done to extract the factors from observed variables which facilitate to measure the opinion regarding mobile banking services.

Table 1.11 explains, the descriptive statistics for the opinion of respondents regarding mobile banking services in the study area. The table shows the values of mean and standard deviation for seventeen variables. Further, the table depicts that the mean value is highest i.e., 4.27, 4.21 and 4.00 respectively for relative advantage of accessibility, relative advantage of quickness in work and perceived convenience as compared to other variables. Therefore, it can be said that these variables are the most important that has developed a strong opinion in the mind of respondents regarding mobile banking services.

TABLE 1.11

S. No.	Statements	N	Mean	Std. Deviation
1	Security concerns are good	100	3.9000	.89330
2	Mobile Banking is not risky	100	3.3900	.96290
3	No fear of use of personal information	100	3.3700	1.05078
4	No fear of losing money when making mobile banking transfer	100	3.4100	1.10184
5	No fear of access of account by others	100	3.4800	1.16758
6	Use of mobile banking services has enabled me to do my daily tasks quickly	100	4.2100	.83236
7	I can access the service anytime and anywhere i go	100	4.2700	.87450
8	It is the cheapest way of making banking transactions	100	3.9400	1.01325
9	I believe banks are trustworthy	100	3.7500	.95743
10	Ability of provider has influenced me to use mobile banking service	100	3.3800	.86199
11	My mobile banking service provider provides the service effectively	100	3.7000	.74536
12	Integrity of service provider influences in choosing mobile banking service	100	3.3500	.83333
13	Mobile banking service is convenient and easy to use	100	4.0000	.95346
14	Mobile banking service is not complex so it will take a little time to learn how to use	100	3.6000	.99494
15	Goodwill of service provider influences in choosing mobile banking service	100	3.4500	.85723
16	More options are available in mobile banking service	100	3.7800	.85965
17	Mobile banking service should be in one's preferred language	100	3.7100	.91337

Further, the calculated values of standard deviation expose high variation in the factors contributing to the opinion of respondents towards mobile banking services. Moreover, the mean scores for all variables have been found more than three which reveals more than moderate opinion of respondents towards mobile banking services.

KAISER-MEYER-OLKIN MEASURE OF SAMPLING ADEQUACY AND BARTLETT'S TEST OF SPHERICITY

Table 1.12 depicts the results of Kaiser-Meyer-Olkin measures of sampling adequacy and Bartlett's test of Sphericity. The Kaiser-Meyer-Olkin (KMO) measures the sampling adequacy which should be greater than 0.5 for a satisfactory factor analysis to proceed further. This measure assesses the overall significance of the correlation matrix with the Bartlett test, when taken overall the results are significant at 1 percent level which is.814. The Kaiser-Meyer-Olkin (KMO) should be more than 0.5 for satisfactory factor analysis.

TΔ	DI	1	1	2

Kaiser-Meyer-Olkin Measure o	of Sampling Adequacy	.814
Bartlett's Test of Sphericity	Approx. Chi-Square	815.081
	df	136
	Sig.	.000

Table 1.12 shows that Kaiser-Meyer-Olkin measure is 815.081, which implies that the sample is adequate and factor analysis is appropriate for the data. The Bartlett's test is another indication of the strength of the relationship among variables. This tests the null hypothesis that the correlation matrix is an identity matrix in which each variable correlates perfectly with itself but has no correlation with the other variables. Further, the table shows that the Bartlett's test of Sphericity is significant i.e., its associated probability is less than 0.05. In fact, it is actually 0.000 i.e., the significance level is small enough to reject null hypothesis. This means that correlation matrix is not an identity matrix. All the measures tested above, indicate that the reduced set of variables is appropriate for factor analysis.

TOTAL VARIANCE

Table 1.13 explains the total variance. Further, table shows all the factors extractable from the analysis along with their eigenvalues, the percent of variance attributable to each factor, the cumulative variance of the factor and the previous factors.

TABLE 1.13

TABLE 1.13										
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings			
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
1	6.052	35.603	35.603	6.052	35.603	35.603	3.491	20.536	20.536	
2	2.356	13.860	49.463	2.356	13.860	49.463	2.713	15.956	36.492	
3	1.330	7.822	57.285	1.330	7.822	57.285	2.391	14.062	50.554	
4	1.198	7.045	64.331	1.198	7.045	64.331	2.342	13.776	64.331	
5	.872	5.128	69.459							
6	.777	4.569	74.028							
7	.720	4.234	78.262							
8	.666	3.920	82.181							
9	.591	3.475	85.656							
10	.536	3.151	88.806							
11	.421	2.475	91.282							
12	.372	2.189	93.471							
13	.314	1.846	95.317							
14	.259	1.522	96.838							
15	.242	1.425	98.263							
16	.180	1.060	99.323							
17	.115	.677	100.000							

Extraction Method: Principal Component Analysis

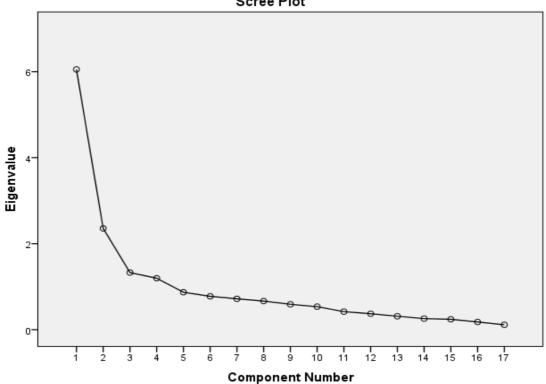
The table reveals that the first factor accounts for 35.603% of the variance, the second factor for 13.860%, the third factor for 7.822%, fourth factor 7.045% and the fifth factor for 5.128%. Since all the other factors which are remaining are below 5%. This means that the remaining factors are not significant.

SCREE PLOT

Figure 1.1 shows the scree plot, it is a graph of the eigenvalues against all the factors. The graph is useful for determining how many factors are to be retained.

FIGURE 1.1

Scree Plot



Further, the graph depicts that the curve begins to flatten between factors three and four. Therefore, only four factors have been retained which makes it clear that the remaining factors are insignificant.

COMPONENT MATRIX

Table 1.14 shows the component matrix results. Component matrix shows the seventeen variables extracted as a result of factor analysis. The four factor extracted includes perceived risk, relative advantage of cost and time, perceived trust and ease of use or convenience.

TABLE 1.14

	Component			
	1	2	3	4
No fear of access of account by others	.761	436	.014	077
I can access the service anytime and anywhere I go	.719	.271	055	373
No fear of misuse of personal information when using mobile banking services	.703	575	.206	012
Integrity of service provider influences in choosing mobile banking service	.686	.094	214	.386
Security concerns are good which help me check my account using mobile phones	.682	106	.009	.083
Use of mobile banking services has enabled me to do my daily tasks quickly	.657	.214	026	517
I believe banks are trustworthy	.643	053	346	068
Ability of provider has influenced me to use mobile banking service	.618	119	501	.342
No fear of losing money when making mobile banking transfer	.588	578	.114	.029
It is the cheapest way of making banking transactions	.561	.180	189	484
Goodwill of service provider influences in choosing mobile banking service	.552	.226	.163	.361
My mobile banking service provider provides the service effectively	.536	.410	.074	.304
Mobile banking service is convenient and easy to use	.473	.435	.298	065
Mobile banking is not risky	.507	637	.321	.008
More options are available in mobile banking service	.454	.489	.333	.208
Mobile banking service should be in one's preferred language	.385	.316	502	.046
Mobile banking service is not complex so it will take a little time to learn how to use	.463	.398	.481	014

Extraction Method: Principal Component Analysis

a. Four Components Extracted

The above table reveals the loadings of seventeen variables on the four factors extracted. The higher the absolute value of loading, the more the factor contributes to the variable. The four factor extracted includes perceived risk, relative advantage of cost and time, perceived trust and ease of use or convenience.

Rotated Component Matrix

Table 1.15 exhibit the results of rotated component matrix. Further, the table reports that four factors are extracted through factor analysis i.e., perceived risk, relative advantage of cost and time, perceived trust and ease of use or convenience. The rotation matrix reduces the number of factors on which the variables under investigation have high loadings.

TABLE 1.15

	Component			
	1	2	3	4
No fear of misuse of personal information when using mobile banking services	.904	.106	.158	.122
Mobile banking is not risky	.873	.050	.009	049
No fear of losing money when making mobile banking transfer	.813	.010	.087	.156
No fear of access of account by others	.772	.084	.313	.272
Security concerns are good which help me check my account using mobile phones	.478	.289	.230	.344
More options are available in mobile banking service	008	.759	.105	.110
Mobile banking service is not complex so it will take a little time to learn how to use	.105	.724	.238	110
My mobile banking service provider provides the service effectively	.026	.632	.098	.378
Mobile banking service is convenient and easy to use	.027	.629	.331	.008
Goodwill of service provider influences in choosing mobile banking service	.203	.601	005	.332
Use of mobile banking services has enabled me to do my daily tasks quickly	.194	.255	.796	.096
It is the cheapest way of making banking transactions	.117	.106	.747	.183
can access the service anytime and anywhere I go	.181	.347	.729	.220
Ability of provider has influenced me to use mobile banking service	.307	.040	.087	.812
Integrity of service provider influences in choosing mobile banking service	.271	.377	.080	.673
Mobile banking service should be in one's preferred language	166	.092	.329	.599
I believe banks are trustworthy	.307	.049	.419	.518

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalisation.

Further, table reports the loading of different statements on identified four factors i.e., perceived risk, relative advantage of cost and time, perceived trust and ease of use or convenience. Following variables are loaded on factor one i.e., no fear of misuse of personal information when using mobile banking services, mobile banking is not risky, no fear of losing money when making mobile banking transfer, no fear of access of account by others and security concerns are good which help me check my account using mobile phones. Factor two includes variables which include more options are available in mobile banking services, mobile banking service is not complex so it will take a little time to learn how to use, my mobile banking service provider provides the service effectively, mobile banking service is convenient and easy to use and goodwill of service provider influences in choosing mobile banking service. Variables loaded on factor three include use of mobile banking services has enabled me to do my daily tasks quickly, it is the cheapest way of making banking transactions and I can access the service anytime and anywhere I go. The last factor is loaded with variables which include ability of provider has influenced me to use mobile banking service, integrity of service provider influences in choosing mobile banking service, mobile banking service should be in one's preferred language and I believe banks are trustworthy.

CONSUMERS SATISFACTION TOWARDS MOBILE BANKING SERVICES

Mobile Banking Services has brought ease in doing banking business. It has been the fastest method to carry banking transactions anywhere and at any time. Consumer satisfaction towards mobile banking services has been analysed keeping in mind age and satisfaction level of respondents towards various mobile banking services provided by various banks.

т	Λ	RI	1	- 1	_

Age	Satisfaction	ing Services				
(in years)	Very Low	Low	Moderate	High	Very High	Total
Below 25	0	1	23	28	2	54
	(0.0)	(1.9)	(42.6)	(51.9)	(3.7)	(100)
25-35	0	1	6	18	5	30
	(0.0)	(3.3)	(20.0)	(60.0)	(16.7)	(100.0)
35-45	0	0	3	6	1	10
	(0.0)	(0.0)	(30.0)	(60.0)	(10.0)	(100.0)
45-55	0	0	2	3	1	6
	(0.0)	(0.0)	(33.3)	(50.0)	(16.7)	(100.0)

Chi Square = 7.894 **P Value** = .545

Note: Figure in parenthesis show percentage.

Source: Data collected through questionnaire.

It is clear from the table 1.16 that majority of the sample respondents irrespective of their age group have been found moderately to very high satisfied by the mobile banking services provided by various banks. However, few respondents have shown their disagreement with the mobile banking services provided by the banks. It may be on account of such reasons which do not come under the purview of bankers. On applying chi square test, its calculated value has been found significantly much lower and insignificant at 5 percent level of significance which accepts the null hypothesis and rejects the alternate hypothesis. Thus, it also supports the above analysis that age and satisfaction level are not associated with each other.

RESULT ANALYSIS

The extent of usage of different services provided by mobile banking service provider are analysed as well as the awareness level of respondents towards these services. The analysis of demographic variables revealed that percentage of male using mobile banking services was more as compared to women. Based on age the younger generation are more inclined towards using mobile banking services. Maximum respondents are well educated having university as education qualification, maximum of them belong to rural area and are students. Frequency of transactions with banks clearly reveals that now people are getting more and more inclined towards mobile banking services which help to increase the market share for banking industry as well as boost the economy as a whole. The most frequently used mobile banking service by the respondents is check account information. The awareness level of respondents towards mobile banking services depicts that among all the services offered by service providers check account information, check account balance, transfer of funds, alerts on account activity, view of last 30 days transaction from history and make payments directly to vendors are most known to the consumers. The usage level of mobile banking services reveal that all services towards which the consumers are aware including check account information, check account balance, transfer of funds, alerts on account activity, view of last 30 days transaction from history and make payments directly to vendors are used to a wide extent by the respondents. The association of demographic variable with the extent of usage reveals that age factor has no impact on selection of mobile banking services to some extent and it shows that services towards which the consumer are aware and make high use have responses concentrated at high level on five point likert scale.

The factors which contribute towards mobile banking services were analysed using factor analysis which revealed that mean for relative advantage of accessibility, relative advantage of quickness in work and perceived convenience is the highest. Kaiser-Meyer-Olkin measure of Sampling Adequacy and Bartlett's Test of Sphericity revealed that overall the results are significant at 1 percent level which shows that the sample is adequate and factor analysis is appropriate for the data. Total Variance states that all factors below 5% are not significant and factors above 5% are significant. Scree plot depicts that the graph begin to flatten between factors four and five which means only five factors have been retained and the others are insignificant. Component Matrix shows the seventeen variables extracted as a result of factor analysis. Rotated component matrix reduces the number of factors on which the variables under study have high loadings which included four factors. The four factors are perceived risk, relative advantage of cost and time, perceived trust and ease of use or convenience. The representation of age wise satisfaction level of respondents towards mobile banking services reveal that members are not equally distributed over five point scale and the responses are concentrated at high level. Impact of promotional activities and advertisement on encouragement to adopt mobile banking services reveal that respondents to a large extent are motivated to adopt these services. The source of motivation to use mobile banking services shows that friends and relatives are the most important source to encourage in using these services.

Mobile banking services help consumers to carry banking transactions easily without any hassle. The users who are using banking services on their mobiles are highly satisfied ones, because of several reasons:

The first reason is the availability of facilities of balance checking, transfer of funds, monitoring term deposit, branch locator, view of last 30 days transactions from history, view interest paid on various accounts, access to account and card statement, checking recent transactions, access to loan statement, processing cheque details, ordering of cheque books, blocking of lost cards, etc. In the earlier times customers used to stand in the long queue in banks for money transfer, money deposit, checking account information, checking account balance, transfer funds, etc. but now mobile banking is providing facilities of anytime and anywhere banking. Security in the mobile banking services is also enhanced by the introduction of OTP i.e. one time password service in their mobile phones. Before the completion of any transaction you need to enter the OTP that is generated by the bank on mobile phones on the registered number while the user is trying to initiate any mobile banking transaction and it is generated for one time use only and it expires after single use. A new transaction will issue a new OTP and the process goes on which helps to maintain security.

CONCLUSION

The analysis stated that majority of the consumer are aware about the mobile banking services provided by the bank. People are performing banking transaction from their mobile phone but still people of age group above 55 are not using the mobile banking apps. It is a age group, which really require this type of services. Mobile banking should be very easy to operate and understand which will attract rural and uneducated people too to use this facility. Consumers are getting awareness from advertisements. The banks are lacking behind in creating awareness among the people. Consumers in the age group of 18-35 years are the ones to adopt mobile banking. In all other groups there is less acceptance of mobile banking. The perception of consumers is influenced by ease to use, usefulness of mobile banking, awareness related to mobile banking, interest to use and also perceived trust. It will help to reach a wide range of consumer. More and more people are attracted towards mobile banking. Consumer can operate and perform the financial activities irrespective to time and place. Awareness of the consumer leads to the interest of the consumer to opt for the services. Banks should create awareness about the mobile banking services through Advertisements, Pamphlets, Demo Fares, Campaigning etc. so that the customer feel informed and it may create interest among them. Consumers are interested to use mobile banking services anytime but in some age group people have a fear of using mobile banking because of security or trust reasons. Trust is an important point of concern. Trust between the customers and the service provider is very important, without security and privacy users will not make use of mobile for financial transactions. Footfalls at ATM centres is likely to be very high, campaigns may be carried out at these locations to attract more customers towards these services. Banks should update the Authentic Security Programmes to guard system and account against Hackers, virus attacks and other malware. Technology has enabled the consumer to be in connection with the bank in just a click on button. It is acting as a tool for increasing the number of mobile users. Banks should create certain programs for the customers regarding the dynamic change in the mobile banking process, which will make the customer to be satisfied with the service of banks. Perceived cost is also an important factor. This study suggests that the creative promotional and pricing strategies, including cost reduction should be implemented to attract more price-conscious customers. The bank should provide the facility of feedback for their customers to know whether the customers are satisfied or dissatisfied with the services provided by the bank. For better mobile banking services proper mobile banking Legislation and adequate Complaints/Grievances Redressal Cell should be established to handle banking problems immediately.

The above review shows that to fulfil the expectations of the consumers and to increase the mobile banking users, mobile banking service provider needs to increase the awareness about mobile banking services. It will help to increase the extent of usage of mobile banking services. This will also help mobile banking service providers to expand to remotest location and to increase the market share. The findings of this research can be utilised by the banks for improving the service quality, which will make people attract towards mobile banking. The analysis of this study showed the importance to the factors like as ease to use, convenience, perceived usefulness of mobile banking, which will create the intention in the mind of the consumer to use the mobile banking facility. It will create a positive impact on the intention of using mobile banking in day-to-day activity. Providing better and enhanced services will attract more consumers and there will be great advancement in banking services. Banks and the mobile service providers need to come together to bring a revolution in the field of mobile banking.

REFERENCES

- 1. A. Palani & Yashodha, 'A Study on Customer Perception towards Mobile Banking in India Overseas Bank Chennai', International Journal of Marketing and Technology. Volume No.2 (2012). Issue No.4 (April). ISSN 2249-1058 pp 262-276.
- 2. A.S. Suresh & Trilok Singh, 'A Study of Changing Consumer Behaviour for Mobile Banking Services in India', International Journals of Arts, Management and Humanities, Volume No.6 (2017), Issue No.2 (September), ISSN 2319–5231, pp 72-75.
- 3. A.Sivarajan, P.R. Juby & A. Abymon, 'A study on Consumer Perception towards Mobile Banking Services of SBI With Special Reference to Kollam District', International Journal of Pure and Applied Mathematics, Volume No.119 (2018), Issue No.15 (January), ISSN 1483-1489, pp 148-154.
- 4. Ambily Jose, Dr. G.S. Gireesh Kumar, Dr. Roshna Varghese, 'Factors influencing Customer Adoption of Mobile Banking Services with Special Reference to Ernakulam District', Journal of Business and Management IOSR-JBM, Volume19 (2017), Issue No.11 (November), ISSN: 2319-7668, pp 41-47.
- 5. Amola Bhatt & Shahir Bhatt, 'Factors affecting Customers Adoption of Mobile Banking Services', Journal of Internet Banking and Commerce, Volume No.8 (2016), Issue No.12 (Feburary), ISSN 0976-2183, pp. 1-22.
- 6. Ankita Pathak & Sunil Mishra, 'Consumer Behaviour and Attitude towards Mobile Banking: An Empirical Analysis', International Journal of Innovative Technology and Exploring Engineering, Volume No.8 (2019), Issue No.6S (April), ISSN: 2278-3075.
- 7. Ann Shawing Yang, 'Exploring Adoption Difficulties in Mobile Banking Service', Canadian Journal of Administrative Sciences, Volume No. 26 (2009), Issue No.2 (April), pp 136-149.
- 8. Avinandan Mukherjee & Prithwiraj Nath, 'A Model of Trust in Online Relationship Banking', International Journal of Bank Marketing, Volume No.21 (2003), Issue No.1 (February), ISSN 0265-2323, pp 5-15.
- 9. Bhatti, T. (1970). Exploring factors influencing the adoption of mobile commerce. The Journal of Internet Banking and Commerce, 12(3), 1-13.
- 10. Chanaka Jayawardhena & Paul Foley, 'Changes in Banking Sector The Case of Internet Banking in UK', Volume No.10 (2000), Issue No.1 (March), ISSN 1066-2243, pp 19 -31.
- 11. Charles Makanyeza, 'Determinants of Consumers' intention to Adopt Mobile Banking Services in Zimbawe', International Journal of Bank Marketing, Volume No.35(2017), Issue No.6 (September), ISSN 0265-2323, pp 997-1017.
- 12. Cigdem Altin Gumussoy, 'Factors affecting users' decision to continue using Mobile Banking in Turkey', International Journal of Mobile Communications, Volume No.14 (2016), Issue No.4 (January), ISSN 3722-1056, pp 411-430.
- 13. Deepa Verma & Vazir Singh Nehra, 'Adoption Behaviour of Indian Customers towards M-Banking Services', International Journal of Research and Analytical Reviews, Volume No.3 (2016), Issue No.2 (June), ISSN 2348-1269.
- 14. Devadevan, 'Mobile Banking in India-Issues & Challenges', International Journal of Emerging Technology and Advanced Engineering, Volume No. 3 (2013), Issue No. 6 (June), ISSN 2250-2459.
- Dr. Geetha M Rajaram, 'Customer Perception of Mobile Banking Adoption in Bengaluru City', International Journal of Advanced Research in Management and Social Sciences, Volume No.6 (2017), Issue No.4 (April), ISSN 2278-6236.
- Dr. Krishnasamy, M. Maharaja & S. Vinayasree, 'Customers' Satisfaction towards Mobile Banking Service in Tuticorin district, Tamil Nadu', International Journal of Management, Technology and Engineering, Volume No.18 (2018), Issue No.12 (December), ISSN 2249-7455, pp 1039-1045.
- Dr. Lalita Balakrishnan & V.Sudha, 'Factors Affecting Mobile Banking Services An Empirical Study', Management Journal, Volume No.1 (2016), Issue No.2 (December), ISSN 2456-9062, pp 23-29.
- Dr. Shilpa & Dr. K. P. Veena, 'Customer Satisfaction on Adoption of Mobile Banking Services A Study with Special Reference to SBI', Journal of Business and Management, Volume No.20 (2018), Issue No.1 (January), ISSN 2319-7668, pp 44-50.
- 19. Felix Bankole & Irwin Thomas Joseph, 'Mobile Banking Adoption in Nigeria', Electronic Journal of Information System, Volume No. 47 (2011), Issue No.2 (July), ISSN 1681-4835, pp 1-23.
- 20. Hernan E. Riquelme & Rosa E. Rios, 'The Moderating Effect of Gender in the Adoption of Mobile Banking', International Journal of Bank Marketing, Volume No.28 (2010), Issue No.5 (July), ISSN 0265-2323, pp 328-341.
- 21. Irshad & K. Gupta, 'A study on Customer's Attitude towards Mobile Banking Adoption in India', International Journal of Marketing and Financial Management, Vol.3, No.11, December 2015, pp 49-70.
- 22. Irwin Brown, Zaheeda Cajee, Douglas Davis & Shaun Stroebel, 'Cell Phone Banking Predictors of Adoption in South Africa', International Journal of Information Managemen, Volume No. 23 (2003), Issue No.5 (October), ISSN 0268-4012, pp 381-394.
- 23. Janeaya Revels, Dewi Tojib & Yalena Tsarenko, 'Understanding Consumer Intention to use Mobile Banking Services', Australian Marketing Journal, Volume No.1 (2010), Isssue No.9 (May), ISSN 1441-3582, pp 74-80.
- 24. Khraim, H. S., Al Shoubaki, Y. E., & Khraim, A. S. (2011). Factors affecting Jordanian consumers' adoption of mobile banking services. International Journal of Business and Social Science, 2(20)."
- 25. M. Sadiq Sohail & Irahim M. Al. Jabri, 'Attitudes towards Mobile Banking: Are there any differences between users and non- users', Journal of Behaviour and Information Technology, Volume No.33 (2014), Issue No. 4 (April), pp 335-344.
- 26. M. Umrez, K. Jyothi & D. Hassena, 'An Empirical Study on the Customers Opinion Towards Mobile Banking', Volume No. 3 (2014), Issue No.3 (May), ISSN 2319-7285, pp 15-17.
- 27. Margaret Crabbe, Craig Standing, Susan Standing & Heikki, 'An Adoption Model for Mobile Banking in Ghana', Journal of Retailing and Consumer Service, Volume No.16 (2009), Issue No.5 (January), pp 340-351.
- 28. Mari Suoranta & Minna Mattila, 'Mobile Banking and Consumer Behaviour', Journal of Financial Services & Marketing, Volume No. 8 (2004), Issue No.4 (June), ISSN 4770-1320, pp 354-366.
- 29. Mohanraj & A.T. Jaganathan, 'A study on Customer Attitude towards Mobile Banking with special reference to Erode District', International Journal of Trend in Scientific Research and Development, Volume No.2 (2017), Issue No.1 (November), ISSN 2456-6470, pp 258-263.
- 30. Mohmmad Ali Alafeef & Ahmed Fawwaz Malkawi, 'An Investigation to Adoption of Mobile Banking Application in Jordan', Journal of Informatics and Mathematical Sciences, Volume No.8 (2016), Issue No.4 (April), ISSN 0975-5748, pp 287-294.
- 31. Nancy Goel, Nitin Nayak & Vikas Nath, 'A study of Adoption Behaviour of Mobile Banking Services by Indian Consumers', International Journal of Research in Engineering and Technology, Volume No.2 (2014), Issue No.3 (March), ISSN 2347-4599, pp 209-222.
- 32. Ninna Mallat, 'Exploring Consumer Adoption of Mobile Payments-A Qualitative Study', Journal of Strategic Information Systems, Volume No.16 (2007), Issue No.4 (December), ISSN 1535-6078, pp 413-432.

- 33. P. Kalaiyarasi & K.R. Mahalaxmi, "Customer Perception towards Mobile Banking Services", International Journal of Innovative Research in Technology, Volume No.2 (2016), Issue No.11 (April), ISSN 2349-6002.
- 34. Reeti Agarwal, Sanjay Rastogi & Ankit Mehrotra, 'Customer's Perspective regarding E-banking in an Emerging Economy', Journal of Retailing and Consumer Services, Volume No.16 (2009), Issue No.5 (September), ISSN 0969-6989, pp 340-351.
- 35. Renju Chandran, 'Pros and Cons of Mobile Banking', International Journal of Scientific and Research Publications, Volume No.4 (2014), Issue No.10 (October), ISSN 2250-3153, pp 1-5.
- 36. S.M. Sohel Ahmed, Shah Johir Rayhan, Md. Ariful Islam & Samina Mahjabin, 'Problems and Prospects of Mobile Banking in Bangladesh', Journal of Information Engineering and Application, Volume No.1 (2012), Issue No.6 (January), ISSN 2224-5758.
- 37. Sadia Samar Ali & R.K Bhardwaj, 'Factor Analysis Approach of Decision Making in Indian E-Banking: A Value Adding Consumer's Perspective', Volume.4 (2010), Issue No. 4, pp.273-288.
- 38. Shallone K Chitungo & Simon Munongo, 'Extending Technology Acceptance Model to Mobile Banking Adoption in Rural Zimbawe', Journal of Business Administration and Education, Volume No. 3 (2013), Issue No.1, ISSN 2201-2958, pp 51-79.
- 39. Sindhu Singh & R.K. Srivastav, 'Predicting the Intention to use Mobile Banking in India', International Journal of Bank Marketing, Volume No.3 (2018), Issue No. 10 (April), ISSN 0265-2323, pp 357-378.
- 40. Sirion Chaipoopirutana, Howard Combs, Yuttapong Chatchawanwan & Vikrant Vij, 'Diffusion of innovation in Asia: A study of Internet Banking in Thailand and India', Journal of Innovative Marketing, Volume No.5 (2010), Issue No.4 (January), pp 27-31.
- 41. Tao Zhou, 'An Empirical Examination of User's Post Adoption Behaviour of Mobile Services', Journal of Behaviour and Information Technology, Volume No.30 (2011), Issue No.2 (February), ISSN 1362-3001, pp 241-250.
- 42. Vanessa Ratten, 'Entrepreneurship, E-Finance and Mobile Banking', International Journal of Electronic Finance, Volume No.6 (2012), Issue No.1 (May), ISSN 1746-0069, pp 1-12.
- 43. Xiaoyan Li & Sylvie Laforet, 'Consumer's Attitude towards Online and Mobile Banking in China', International Journal of Bank Marketing, Volume No.23 (2005), Issue No.5 (August), ISSN 1758-5937, pp 362-380.

REQUEST FOR FEEDBACK

Dear Readers

At the very outset, International Journal of Research in Computer Application & Management (IJRCM) acknowledges & appreciates your efforts in showing interest in our present issue under your kind perusal.

I would like to request you to supply your critical comments and suggestions about the material published in this issue, as well as on the journal as a whole, on our e-mail **infoijrcm@gmail.com** for further improvements in the interest of research.

If you have any queries, please feel free to contact us on our e-mail infoijrcm@gmail.com.

I am sure that your feedback and deliberations would make future issues better – a result of our joint effort.

Looking forward to an appropriate consideration.

With sincere regards

Thanking you profoundly

Academically yours

Sd/-

Co-ordinator

DISCLAIMER

The information and opinions presented in the Journal reflect the views of the authors and not of the Journal or its Editorial Board or the Publishers/Editors. Publication does not constitute endorsement by the journal. Neither the Journal nor its publishers/Editors/Editorial Board nor anyone else involved in creating, producing or delivering the journal or the materials contained therein, assumes any liability or responsibility for the accuracy, completeness, or usefulness of any information provided in the journal, nor shall they be liable for any direct, incidental, special, consequential or punitive damages arising out of the use of information/material contained in the journal. The journal, neither its publishers/Editors/ Editorial Board, nor any other party involved in the preparation of material contained in the journal represents or warrants that the information contained herein is in every respect accurate or complete, and they are not responsible for any errors or omissions or for the results obtained from the use of such material. Readers are encouraged to confirm the information contained herein with other sources. The responsibility of the contents and the opinions expressed in this journal are exclusively of the author (s) concerned.

ABOUT THE JOURNAL

In this age of Commerce, Economics, Computer, I.T. & Management and cut throat competition, a group of intellectuals felt the need to have some platform, where young and budding managers and academicians could express their views and discuss the problems among their peers. This journal was conceived with this noble intention in view. This journal has been introduced to give an opportunity for expressing refined and innovative ideas in this field. It is our humble endeavour to provide a springboard to the upcoming specialists and give a chance to know about the latest in the sphere of research and knowledge. We have taken a small step and we hope that with the active cooperation of like-minded scholars, we shall be able to serve the society with our humble efforts.



